

**PRODUCTS' KNOWLEDGE AMONG ISLAMIC BANKS' STAFFS IN
ALOR SETAR, KEDAH**

By

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**Research Paper Submitted to the
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ABSTRACT

This research focuses on the level of knowledge among the Islamic bankers towards the Islamic banking products. It is intended to measure the factor that might affect the knowledge of Islamic bankers which include the understanding of underlying principles, religiosity factors, perceptions towards the Islamic banking and training gained in the workplace. This study examines the relationships between the knowledge with all the mentioned factors earlier. A proposed theoretical framework has been developed in this study in order to illustrate the whole research area. Hypothesized relationships are tested using survey responses from a sample of 150 respondents which consist of the Islamic banks' staff who worked in the Islamic banks. Results revealed a positive relationship between the understanding of underlying principles and training gained in the Islamic banks with the knowledge. Apart from that, the perception and religiosity have not given much influenced towards the knowledge. The results reported in this research are useful to both industry and academics by providing relevant exploratory data about the knowledge. The results should be able to recommend some suggestion on how to improve the knowledge among the Islamic bankers. The issue of the accessibility of well-trained and skilled employees must be spoken critically by the industry players, government as well as academicians in order to obtain sustainable growth and to realize Malaysia as Asia Islamic financial hub.

Keywords: Knowledge, Products and Services, Islamic bankers

ABSTRAK

Kajian ini memfokuskan kepada tahap pengetahuan pekerja-pekerja perbankan Islam terhadap produk-produk perbankan Islam. Ia bertujuan untuk mengukur faktor yang mungkin mempengaruhi pengetahuan para pekerja yang merangkumi pemahaman tentang prinsip-prinsip asas, faktor keagamaan, persepsi terhadap perbankan Islam, latihan yang diperolehi di tempat kerja serta kesedaran terhadap terma-terma asas dalam perbankan Islam. Kajian ini mengkaji hubungan antara pengetahuan dengan kesemua faktor yang telah dinyatakan. Rangka teori yang dicadangkan telah dibina untuk memberi gambaran bagi keseluruhan penyelidikan. Perhubungan yang dihipotesiskan diuji menggunakan maklumbalas kaji selidik daripada 150 responden yang terdiri daripada pekerja-pekerja perbankan Islam yang bekerja di bank-bank Islam. Analisis mendapati bahawa terdapat hubungan yang positif diantara pemahaman tentang prinsip-prinsip asas, faktor keagamaan dan latihan yang diperolehi di tempat kerja dengan pengetahuan. Selain daripada itu, persepsi dan kesedaran terhadap terma-terma asas tidak memberi banyak pengaruh terhadap pengetahuan. Hasil kajian yang dibentangkan adalah berguna untuk kegunaan industri serta akademik dengan menyediakan data yang berkaitan tentang pengetahuan. Hasil kajian juga mengutarakan beberapa cadangan tentang bagaimana untuk meningkatkan ilmu pengetahuan di kalangan para pekerja perbankan Islam. Isu penyediaan kakitangan yang terlatih dan berkemahiran hendaklah dititikberatkan oleh pihak industri, kerajaan serta ahli akademik untuk mencapai pertumbuhan yang seimbang dan merealisasikan Malaysia sebagai hab kewangan Islam Asia.

Kata kunci: Pengetahuan, Produk dan Servis, Pekerja perbankan Islam

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LIST OF ABBREVIATIONS

IDB	Islamic Development Bank
LUTH	Lembaga Urusan Tabung Haji
BIMB	Bank Islam Malaysia Berhad
BNM	Bank Negara Malaysia
IBA	Islamic Banking Act
AAOIFI	Accounting and Auditing Organization for Islamic Financial Institution
IFSB	Islamic Financial Service Board
IIFM	International Islamic Financial Market
IFI	Islamic Financial Institutions
IV	Independent Variable
DV	Dependent Variable
ANOVA	Analysis of Variance
VIF	Variance Inflation Factors
KMO	Kaiser-Meyer-Olkin
SPSS	Statistical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This research is about the products' knowledge among Islamic banks' staffs in Alor setar, Kedah. Firstly, this chapter discuss about the state of the global Islamic banking specifically in Malaysia. Then the problem statement on this research is stated, followed by the research questions, objectives of the study, significance of this study as well as the organization of the report.

1.2 Background of Study

The Islamic banking industry has appeared as one of the fastest growing sectors over the last several decades. This is due to the fact that the Islamic banking sector has extended to places all over the world and has gained acknowledgment by Muslims as well as non-Muslims. In normal point of view, Islamic banks basically perform similar functions as the conventional banks. However, these systems differ in terms of their operation.

Islamic banks carry out its transactions in line or in accordance with the Islamic principles (Arshad, Aslam, Razi, & Ali, 2011). However, in order to ensure that the Islamic banking sector has a more competitive advantage with the conventional sector,

the government should be concern towards the availability of the expertise specifically in the Islamic banking industry so that the delivery services would be smoothly implemented. In addition, well-trained Islamic bankers would give a positive impact and lead to a sustainable growth of Islamic banking in Malaysia (Zainol, Shaari, & Ali, 2008).

1.2.1 Global History of Islamic Banking

Khir, Gupta, & Shanmugam (2008) explained that “*Islamic banking was an abstract concept until the first half of the twentieth century*”. Nevertheless, in the new era Islamic banking has developed into a full-fledged system and discipline. It was said that Islamic banking was unheard of the previous thirty years. Islamic banking becomes authentic only in the early 1970s, after the launch of the First International Conference on Islamic Economics which was organized by the King Abdul Aziz University in Makkah, Saudi Arabia and the establishment of the first commercial Islamic bank known as Dubai Islamic Bank (DIB) in the United Arab Emirates (Iqbal & Molyneux, 2006).

Iqbal & Molyneux (2006) further explained that after the establishment of the Dubai Islamic Bank (DIB), an international Islamic Development Bank (IDB) has been launched in Jeddah, Saudi Arabia followed by many private Islamic commercial banks and later established in Egypt, Sudan, Kuwait and Bahrain. Since then, the Islamic banking industry is rapidly growing at a double-digit average annual rate of growth. The Islamic banking is growing 50% faster than the banking sector as a whole. In addition,

Islamic banking assets are expected to grow beyond \$ 2 trillion by the achievements of 2014 and profit of Islamic banks is expected to increase by 25% in 2015 (Ernst & Young, 2012).

Table 1.1 below shows the important historical developments of Islamic banking. It reveals that Islamic banking operations are not fully implemented in the Middle East or Islamic countries, but are encompassed throughout the world. Below is the table of the developments of modern Islamic finance and economics:

Table 1.1

Development of Islamic banking worldwide

Year	Development
Pre- 1950s	<ul style="list-style-type: none"> Barclays Bank opens Branch Cairo in the 1980s to process financial transactions related to the construction of the Suez Canal. Scholars challenged the bank's operations, as transactions involving interest. The majority of scholars declared that interest in all transactions were prohibited elements designed for riba.
1950s – 1960s	<ul style="list-style-type: none"> Initial theoretical work in Islamic economics begins where it offers “<i>the first transaction of interest-free bank based on two-tier Mudharabah and Wakalah</i>”. In 1963, Hajj funds in Malaysia and Mit Ghamr Bank of Egypt have been embodied.
1970s	<ul style="list-style-type: none"> Islamic Bank (first commercial bank) established in 1974. Islamic Development Bank embodied in 1975.
1980s	<ul style="list-style-type: none"> In 1981, Training Institute Islamic Research (IRTI) was established by the IDB. Bank Islam Malaysia Berhad has been embodied in 1983.
1990s	<ul style="list-style-type: none"> In 1994, the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) was established. Islamic insurance (Takaful) is introduced. The Islamic Equity Fund has been established. Dow Jones Islamic Index and FTSE Shariah stock index matching have awoken.

2000- present	<ul style="list-style-type: none"> ▪ Islamic Financial Services Board (IFSB) has been developed. ▪ Sukuk (Islamic bonds) has been launched. ▪ The globalization of Islamic finance as a Shariah-compliant transactions initially operates in Europe, Asia and North America. ▪ The International Islamic Financial Market (IIFM) was established in 2002.
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Sources: Iqbal & Mirakhor (2011)

1.2.2 Islamic Banking in Malaysia

Malaysia is the first country in the world that has a dual banking and financial system. It has become one of the most dynamic and vibrant economy, which has contributed actively to the development of the national economy in the Southeast Asia region. The establishment of Islamic banking in Malaysia started with the development of *Lembaga Urusan Tabung Haji (LUTH)* or Pilgrimage Fund Board by the government after five years of independence in 1957 (Ahmad, 1997). LUTH was the first institution that practice Shariah principles in its fund management operations for Muslims going on pilgrimage. It pays dividends earned from its investments in equities and other securities. Before distributing the dividend, LUTH will pay a tithe which is the business *zakat* based on both the profit earned during the *zakat* year and the amount of capital at the end of the *zakat* financial year (Abdullah, 2011).

According to Ahmad (1997), the main reason for the establishment of Malaysia LUTH is dedicated to fulfil the desire of Muslims to ensure that the money spent for the Hajj should be clean and untainted from *riba*. Thus, the pilgrimage Saving Corporation

was developed in 1963 and subsequently operated under the LUTH in 1969. The main objectives of LUTH are as follows:

- i. To enable Muslims to save for the provision of their expenses for the pilgrimage.
- ii. To enable Muslims to get involved in investment, industry, plantation and real estate through their savings based on the Islamic principles.
- iii. Providing protection, security and welfare of the Muslims through services that provide by LUTH.

Based on Abdullah (2011), due to lack of financial innovation and incentives in its LUTH's schemes which were mainly focusing on savings, the first Islamic bank was established in Malaysia known as Bank Islam Malaysia Berhad (BIMB). BIMB was developed in 1983 and regulated by Bank Negara Malaysia (BNM) under the Islamic Banking Act (IBA) Act 1983. BIMB had introduced various interest-free products such as Qardhul Hassan, Mudharabah, Musyarakah and etc. According to Jamalluddin (2011), the bank has spiraled its growth and the business has unfolded through the years. In December 2010, shareholders' of Bank Islam had raised support up to RM 2.5 million along with the initial capital of RM80 million. In light of the Corporate Profile, BIMB consists of 131 offices and more than 1000 self-service terminals nationwide. In addition, BIMB offer approximately 70 innovative Islamic banking products and services throughout its branches.

According to Bank Negara Malaysia (2013), Malaysia now has sixteen Islamic banks consisting of seven international Islamic banks and nine local Islamic banks such as Affin Islamic Bank Berhad, Bank Muamalat Malaysia Berhad, Maybank Islamic Berhad, CIMB Islamic Bank Berhad, Kuwait Finance House (Malaysia) Berhad, RHB Islamic Bank Berhad and etc. Table 1.2 is the summary of the Malaysian history of Islamic banking:

Table 1.2

Development of Islamic banking in Malaysia

Year	Development
1960s	<i>Lembaga Urusan Tabung Haji</i> (LUTH) established in 1969.
1980s	The first Islamic bank has awoken identified as Bank Islam Malaysia Berhad (BIMB) in 1983 under the act of Islamic Bank 1983.
1993	Introduction of interest-free banking (SPTF) and Islamic Banking Window.
1997	Establishment BNM Shariah Advisory Council.
1999	The arrival of a new competitor, Bank Muamalat Malaysia Berhad (2nd full- fledge Islamic banks)
2004	Establishment of Islamic Banking Subsidiary for conventional banks.
2005	Ingress of Kuwait Finance House, Al-Rajhi & Asian finance (a consortium of Qatar Islamic Bank, RUSD Investment Bank Inc. & Global Investment House).
2008	The International Islamic Banking license has been issued to the Unicorn International Islamic Bank, First Islamic Investment Bank Bhd (owned by PT. Bank Muamalat Indonesia) and Deutsche Bank AG (2010) allow banks to provide accommodation for Islamic commercial and investment in foreign currency.
2010	The Mega Islamic Bank introduced in June 2010.

Source: Omar (2010)

1.2.3 Principles of Islamic Banking

According to Khir, Gupta, & Shanmugam (2008), an Islamic bank is a financial institution which is predicated on the Shariah principles such as the avoidance of *riba*, the preclusion of *gharar*, preoccupation on halal activities and promote justice as well as ethical and religious goals. Islamic banking operations are predicated on the prohibition of sharing and proscription of products and accommodations involving *riba*.

The first principle of Islamic banking is the proscription of interest. Iqbal & Mirakhor (2011) defined *riba* as “an excess” and interpreted as “*any unjustifiable increase in capital, whether in loans or sales*”. Keeping in mind that there is a concrete evidence from the Holy Quran which emphasize the prohibition of *riba*. Predicated on the Surah al-Baqarah verse 275, Allah S.W.T had mentioned that “*those who devour interest will not stand except as one who is being beaten by the devil into madness*”. This is because they verbally express that trade is kindred to interest. However, Allah has sanctioned trade and has illicit interest.

The second basic principle of Islamic banking is the principle of equity participation (profit and loss sharing). Since *riba* is not allowed in Islam, debt security is abolished from the system and the relationship between the contracting parties will become an investor and entrepreneur rather than a creditor and debtor. The concept of risk and reward sharing make Islamic banking different from conventional banking where all the risk will fall under the burden of borrowers who at the same time has to pay interest in

addition to the principle amount. Meanwhile, the creditor will enjoy the profit solely without taking into consideration the loss suffered by the borrower.

The third significant principle of Islamic banking is the avoidance of uncertainty or *gharar*. According to Ayub (2007) *gharar* refers to “*a circumstance where a contract in absolute risk or uncertainty about the ultimate result of the contract*”. It also involves lack of adequate information (*Jahl*) or inaccuracy of any vital information that can lead to exploitation among the contracting parties. Thus, the prohibition of *gharar* requires the Islamic banks not to engage in any speculative trading in stocks, short selling, discounting bills and securities or trading in goods that are not known. However, minor uncertainty is allowed when it is deemed necessary.

The fourth key principle of Islamic banking relates to the role of money as potential capital. Islam recognizes money as a medium of exchange. However, in a capitalist system, money is considered as a commodity of trade that can be bought, sold and freely speculated. From the Islamic perspectives, money is something that cannot be hoarded and cannot be wasted in large quantities (Ahmad & Hassan, 2004). Therefore, Islam recognizes the time value of money, but only in cases where it acts as potential capital.

The fifth principle of Islamic banking is the sanctity of contracts and the safeguarding of property rights. The contractual obligations and disclosure of information are an utmost vital obligation in Islam. In addition, the contracting parties cannot predetermine an assured profit in order to prevent the weak from any exploitation. In terms of

preservation of property rights, Islam placed great command towards this issue. It is intended to strike the balance between the right of individuals, society and the state. Islam sturdily proscribes taking others property without consent or erudition from the pristine owner of the property itself.

1.2.4 Islamic and Conventional Banking

An Islamic bank is a deposit-taking banking institution where the scope of activities includes all current banking activities omitting borrowing and lending based interest. On the other hand, conventional banking is involved in the lending transaction where it borrows from savors and then lend to enterprise or individuals. The conventional banks make profit from the margin between the borrowing and lending rates of interest. In contrast, Islamic banking will mobilize the fund from the depositors through investment in business activities which are permissible in Islam. The difference between Islamic and conventional banking system are listed in Table 1.3

Table 1.3

Differences between Islamic and Conventional Banking System

Characteristics	Islamic Banking	Conventional Banking
Business Framework	It's based on the Shariah law and the bank need to conform the transactions are in-line with the Shariah guidelines.	It is based on secular principles and not based on any religious laws or guidelines.
Prohibition in Dealing with Riba	It is based on the principle of buying and selling of assets whereby the selling price includes the profit margin and it is fixed from the beginning of the contract made.	It is interest-based and a fixed/floating interest is charged for the use of money.
Restrictions	It is restricted to participating in economic activities which are non-Shariah compliant.	There are no such restrictions.
Penalty of Default	Have no provision to charge any extra money from the defaulter. However, in some Muslim countries allow the imposition of penalty.	Normally charged additional money (compound rate of interest) in case of the defaulters.
Shariah Supervisory Board	Each bank should have its own SSB in order to ensure that all business activities are not against the Islamic law.	There is no such requirement needed.
Customer Relations	It is on the basis of partner / investor and entrepreneur relationship.	It is on the basis of creditor and debtor relationship.
Statutory Requirement	The banks need to comply with the statutory requirement of Bank Negara Malaysia as well as Shariah guidelines.	The banks need to comply with the statutory requirement of Bank Negara Malaysia only.

Source: Khir, Gupta, & Shanmugam (2008)

1.3 Problem Statement

In general, the Islamic finance and banking industry have been acknowledged as one of the fastest growing industries which have obtained recognition by the people across the world (Osman & Ali, 2008). This means, a well-developed and established Islamic finance and banking has encouraged and promote either Muslims or non-Muslims to use the Islamic products and services offered to them. However, in order to obtain higher growth in the future, there is a crucial element that needs to be taken into consideration by the industry players. According to Bley & Kuehn (2004), the success factor of Islamic banks depends on the impressive and better knowledge towards all elements that relate to Islamic banking.

In addition, a study by Zainol, Shaari and Ali (2008) assert that the growth and achievement of the Islamic banking sector are dependent on the level of expertise in the field and the efficiency of the management. The poor knowledge of Islamic finance and banking has been one area of concern for several years. In contrast, the conventional banking concepts are covered in the curricula of most business oriented universities and even high schools (Bley & Kuehn, 2004). Therefore, Islamic bankers need to have an in-depth knowledge of all the products and services offered by the bank to enable them to accurate information to the customers.

Moreover, nowadays customers are well-educated and have more knowledge regarding the Islamic financial sectors and they will demand for more innovative products and

services (Arshad, Aslam, Razi, & Ali, 2011). Due to this, the Islamic bankers need to improve and equip themselves with deep knowledge of their field in order to provide better services and give accurate information to their customers. Hence, this would attract more customers to use Islamic banking products and as well as ensuring the customers to stay loyal with the bank.

Another issue that might be relevant to this research relate to the education system in our country which provide a limited offering of Islamic finance and banking courses at tertiary level. It should be highlighted that Islamic banking courses are not taught in most universities in Malaysia. Table 1.4 below shows the list of universities which are available in Malaysia.

Table 1.4:

List of Educational Institutions

No.	Classification of Educational Institutions	No. of Institutions
1.	Public Higher Education Institutions (IPTA)	20
2.	Private Higher Education Institution (IPTS)	40
3.	University College	24
4.	University Campus Abroad	8
<i>TOTAL</i>		<i>92</i>

Source: Adapted from Department of Higher Education (2013)

Based on the Table 1.4 above, there are approximately 92 educational institutions available in Malaysia which consists of various types of classification that offers various

courses. However, according to Hamzah (2013) in his writing in the Thomson Reuters edition October 2013, it was estimated that there are 50 course providers and 18 universities which offer Islamic banking and finance degrees in Malaysia. In addition, Malaysia has published approximately 169 research papers on Islamic finance in the last three years. As compared to the list given above, from the total of 92, only 20 percent offered Islamic banking courses and most of them were from the public higher education institution such as MARA University of Technology (UiTM), Islamic Science University of Malaysia (USIM), Northern University of Malaysia (UUM), International Islamic University Malaysia (IIUM) and etc. Therefore, in order to make Malaysia as the global Islamic financial hub, a sufficient pool of expertise in Islamic banking and finance must be developed. Due to this, the Ministry of Education needs to add more Islamic finance and banking courses either in government or private education institutions in order to provide globally accepted knowledgeable expertise in Islamic banking and finance.

It should be noted that the overall level of knowledge among the Islamic banks' staffs are in moderate stage. This is supported by the research conducted by Zainol, Shaari and Ali (2008) which found that the understanding of theories and practices of Islamic banking among the banking players are still indefinite. Due to this reason, in order to avoid from any misconception, sufficient training must be given not just to the employees, but also to the clients of the banks as well as to the future researchers in order to realize the aspiration of the government to establish Malaysia as one of the excellent Islamic financial hub worldwide.

Based on the research gaps and facts, this study is conducted to identify the level of products' knowledge among the Islamic banks' staff. Therefore, there will be several research questions that are derived from the areas of concern followed by the objective of this study.

1.4 Research Questions

The key research questions to be addressed are as follows:

- a) Is there any difference between gender, age and educational level with the knowledge of Islamic banks' staff as well as factors that might affect the knowledge such as underlying principles, religiosity, perception and training?
- b) What is the correlation between the underlying principles, religiosity, perception and training with the knowledge of Islamic banks' staff?
- c) To what extent should the underlying principles, religiosity, perception and training influence the knowledge of Islamic banks' staff?

1.5 Research Objectives

The objectives for this study are as follows:

- a) To determine the differences of gender, age and educational level with the knowledge of Islamic banks' staff and factors that might affect the knowledge such as underlying principles, religiosity, perception and training.
- b) To investigate the correlation between underlying principles, religiosity, perception and training with the knowledge of Islamic banks' staff.
- c) To determine the variance of underlying principles, religiosity, perception and training on knowledge of Islamic banks' staff.

1.6 Scope of Research

The study will involve the respondents from the employees or the staffs of the banks located in the northern part of Malaysia which is Alor Setar, Kedah. Specifically the study focuses on the banks, which operate under the Islamic banking system, unlike the previous study, which make a comparison between the Islamic and conventional system. Therefore, to do it differently, the researcher intended to implement this study at those banks which operated based on the Islamic transactions only. This study is based on the quantitative research method utilizing a set of questionnaires that will be distributed

among the Islamic bankers to collect the data needed. This research is expected to take almost eight months in order to complete a full report.

1.7 Significance of Research

The study is important for several reasons. It will provide some information to the banks in order to know the products' knowledge among the staff towards the Islamic banking products and services. This research will directly or indirectly benefit several parties that are involved in this study. This study is significant too:

- a) *Bank Staffs* – This study will help the bank staffs to ascertain their level of knowledge towards the Islamic banking products and services offered by their institutions. Besides, it will create an awareness to improve and gain more knowledge regarding the Islamic terms and the underpinning philosophy of the Islamic banking system.
- b) *Person in Charge* – This study is also important to the person in charge of the bank. Specifically, the banks' management can identify how far their staffs can meet with the customers' satisfaction in terms of delivering accurate information. It is crucial that the bank provides a better explanation regarding its products and services to create a sense of trustworthiness between its customer and the bank.

- c) *Community* – This study will give valuable to the community which is essentially the customers of the bank. In particular, the customer can evaluate the efficiency of the banks' staff and provide some constructive advice in order to improve their performance. It is important for the banks' staff to acknowledge that customers is an important entity to the bank which provide growth to the banks. That is how the community can get benefit from this study.

- d) *Academician* – This study will also help academic institutions such as universities to provide much literature regarding the issue. In addition, it can help the university in providing adequate information to its students so that the students can conduct further research to come out with better solutions regarding the above issue.

1.8 Organization of the Dissertation

This thesis is organized into five (5) chapters. Chapter 1 provides the background of the study, problem statement, research questions, research objectives, research significance and the organization of the remaining chapters. Meanwhile, Chapter 2 contains the literature review and previous research related to this study. The review accessible in this chapter includes a discussion of the bankers' knowledge towards the Islamic banking products. This chapter also discusses all the factors that might affect the level of knowledge of the Islamic bankers such as underlying principles, religiosity, perception and training.

Chapter 3 describes the methodology employed in the study, which includes research design, sample and data collection, research instrument; operational definition and measurement of the variables, method of data analysis are also discussed in this chapter. This chapter also discusses the selected independent variables and presented the research framework and hypotheses. In the meantime, Chapter 4 is devoted to the findings of the study. The respondents' profile, descriptive analysis, validity and reliability analysis of the variables and the results of hypotheses are presented. At the end of this chapter, a summary of results is presented.

Last but not least, Chapter 5 recapitulates the study findings followed by the discussion. Implication and limitations of the present study are also discussed. It then goes on to recommend areas for future research and conclusion. It can be conclude that, this chapter give the overall scenario regarding to the background of the research concern. Therefore, the literature review regarding to the previous research which relates to this current study will be discussed in the next chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter includes a review of relevant articles or journals related to knowledge, religion, perception, awareness and training of Islamic bankers towards Islamic banking products offered by the banks. In addition, this chapter will also include a review of articles related to those demographic factors that have influenced the knowledge of Islamic bankers towards Islamic banking products. Finally, this section will summarize the article review in a table.

2.2 Review of Literature

2.2.1 Knowledge of Islamic banking products

The Islamic banking industry has emerged as one of the fastest growing sectors over the past decade. It has extended to all places around the world and has gained extensive identification by Muslims and non-Muslims (Arshad, Aslam, Razi, & Ali, 2011). Knowledge can be described as a practice-based experience of a rarity such as cognition and perception of the external and internal as well as practical activities (Jian, 2005). It gives a significant meaning where it contributes to a full understanding specifically with regards to Islamic banking industry that help to strengthen the integration of job content and the employees' experience with the Islamic banking industry.

Osman & Ali (2008) conducted a study of Muslim entrepreneurs' knowledge and usage of Islamic finance. Their study focused on the level of knowledge among entrepreneurs towards Islamic financing to the SMEs. Their findings reveal that Muslim entrepreneurs understanding towards Islamic SME's financing are considerably well and the respondents understand the importance of practicing and applying Islamic financing in their business.

In a study of Islamic banking and financial services knowledge in Pakistan, Khan & Asghar (2012) found that there is a greater opportunity in this country for the development and growth of the Islamic financial system since the Muslim community are looking forward to taking a financial product and is willing to spend their lives in accordance with Shariah. The study found that more than 50 percent of respondents agreed that Muslims in Pakistan have proper knowledge in Islamic banking and financial services.

However, another study on the comparative analysis of Islamic bank's perception by Arshad Aslam, Razi, & Ali (2011) found that the bankers themselves admit that they have a limited knowledge of Islamic banking products and services. Both studies had created a gap towards the issue of knowledge among bankers and customers since both were implemented in the same country which is Pakistan.

Another study by Bley & Kuehn (2004) focused on students' knowledge and perceptions of conventional and Islamic finance in the United Arab Emirates (UAE). The study,

which examines the elements of financial knowledge, religion and language found that Muslim students are more interested and knowledgeable in Islamic banking compared with non-Muslims. Likewise, a study by Ahmad & Haron (2002) on the Malaysian corporate customers stated that providers of Islamic banking products have not done enough in educating customers and marketing their products.

In general, Islamic banks have become one of the most important players in the banking industry. Indeed, it appears as one of the fastest growing industry all over the globe. Therefore, the knowledge of the bankers themselves need to be improved since customers are more educated and able to make a good decision whether to choose an Islamic or conventional banking products (Zainol, Shaari, & Ali, 2008). Thus, based on the previous studies, the researcher intended to absorb the element of among the Islamic bankers.

Therefore, in a general point of view, it is important to determine the level of knowledge among the Islamic banks' staff in order to see how much knowledge that they possessed to cope with the well-educated customers which come from various races. This is because, the customers have a right to speak out their opinion regarding the Islamic banking issues or anything related to the Islamic banking industry since this industry had expanded throughout the world. The customers can identify the difference between the conventional and Islamic banking system and therefore they can argue if there is a similarity or misconception between these systems. Due to this, the Islamic banks' staff needs to be well-equipped with relevant knowledge and information regarding Islamic

banking so that they are able to clarify any misunderstanding arising from the customers' point of views.

2.2.2 Underlying principles of Islamic banking

The achievement and the rapid growth of Islamic finance today is the reflect of transformation and perfection of Islam as a religion and a way of life. It covers various aspects of human living, economic activities, political behavior and educational development (Dusuki, 2012). Each of these aspects of human living cannot be treated in isolation from each other. For instance, the matter of worships such as prayer, fasting, alms-giving and pilgrimage as well as the matter of human affairs known as *muamalah* which relates to the economic, social and political issues.

According to Dusuki (2012), the conventional financial system was built based on the philosophy of capitalism, which stressed on the doctrine of self-interest and was not concerned about the moral values. However, the Islamic banking system is based on the Shariah which covers all aspects of human life. The rules are derived based on the Quran and Sunnah through a process of exploration and discerning (Iqbal & Mirakhor, 2011).

According to Ayub (2007), Islamic law does not recognize any transaction that has been proven unlawful. Due to this factor, the Shariah has recognized some elements that need to be avoided in any transactions involving *riba*, *gharar* and *maisir*. The prohibition of

riba can be found clearly in the Quran from various verses. For example, in Surah al-Rum verse 39:

“That which you give as Riba to increase the people’s wealth increases not with God; but that you give in charity, seeking the goodwill of God, multiplies manifold,”

According to Kahf (2002), *riba* is prohibited due to the presence of certainty while real life is not certain. In the business transaction, the payment should be certain and indisputable. Kahf (2002) further explained that a contract that engaged with *riba* would contain *gharar* elements where it may lead to the tendency of gambling. In addition, according to Ahmad & Hassan (n.d.), the absolute prohibition of *riba* in the Qur'an is the command in order to develop an economic system that is free from elements of exploitation, injustice to the financiers and entrepreneurs. Therefore, the rationale for this prohibition is to create equity balances among the parties involved in the transaction.

Another principle that underlies the Islamic banking system is the basic freedom to enter into any kind of business or transaction which is *halal* or permissible in Islam. Ayub (2007) identifies that exchange is permitted when it involves permissible commodities and follow the guidelines laid down by the Shariah. Thus, Islam allows transactions like *Bai*, *Ijarah* and services. Furthermore, Islam also encourages Muslims to engage in a transaction that is based on profit and loss sharing (PLS). Ajija, Annisa, & Hudaifah (2012) argued that applying PLS is one of the ways to eliminate usurious systems and

comply with three main goals which are; halal spending, halal earning and equitable distribution of wealth.

Besides the above principles, another aspect that need to be carefully scrutinized is the requirement of *aqad* (contract) and legal documentation. An *aqad* is a basis in Islamic banking transaction where it distinguishes between Islamic and conventional banking in terms of the sanctity of the transaction. This is because, the conventional banking does not provide a clear transaction where it can lead to doubtful and dispute between the contracting parties (Rahman, 2006). A valid contract must consist of several elements which are offer and acceptance, contracting parties and subject matter. While the offer can be done through spoken words, writing or conduct. The acceptance should conform to the offer in all its detail. In addition, the contracting parties must have the capacity to execute or perform the transaction. Lastly, the subject matter must be lawful, exist at the time of contract and can be delivered in the stipulated time (Ayub, 2007).

The role of the Shariah board is an important component in the Islamic banking industry because it has a fiduciary duty to all stakeholders of Islamic financial institutions (IFIs). Furthermore, it plays a fundamental role in ensuring the credibility of IFIs by having the authority to issue fatwas regarding Islamic finance and banking through collective *ijtihad* (Dusuki, 2012). Iqbal & Mirakhor (2011) argue that the role of Shariah boards in Shariah governance is quite critical, especially in ensuring the consistency of application in all financial transactions. In addition, Ayub (2007) asserts that the uprightness of the IFIs totally depends on the status of Shariah compliance, the impact of a product

launched, the competence of the professional as well as the attitude to conform with the Shariah norms.

Therefore, it is important that the Islamic banking players have a deep understanding of Islamic banking industry so that it will have a competitive advantage over the conventional system. As it may concern, the Islamic banking industry consider as infant specifically in Malaysia compared with conventional banking that has long been in operation around the globe. In this regard, the authorities are suggested to provide more infrastructure and provisions to provide Islamic banking employees with sufficient knowledge to enable them to perform their duties in accordance with the Shariah principles. Islamic banks' staffs should acquire greater knowledge of Islamic banking as fast as they can. This is because, correct understanding of the concept and basis of Islamic banking will enable them to distinguish between Islamic banking operations with conventional banking. Therefore, it is important for the Islamic banking employees to understand the basic principles of Islamic banking before entering into this field.

2.2.3 Religiosity factors among Islamic bankers

Due to the benefits gained from the system, Naser & Moutinho (1997) identify that the concept of Islamic banking is not confined to the Muslim customers only, but should be able to entice non-Muslims customers as well. In addition, Muslim have the viewpoint to put their money or investment in an Islamic bank since it complies with their religious beliefs. According to Kishada & Wahab (2013), non-Muslim customers generally have

equal chances to put their investment either in Islamic banks or in conventional banks without consideration of the religious factors.

According to Alam, Janor, Zanariah, Wel, and Ahsan (2012) religion is one of the most universal and famous social institution which may influence attitudes, values and behavior of individuals and communities in the rankings. Likewise, Conroy & Emerson (2004) defined religiosity as something that can influence people's ethical beliefs and can reflect human daily conduct and commitment.

Islam is not only about religion but also stressed on the way of life which is Ad-Din (Alam, Janor, Zanariah, Wel, & Ahsan, 2012). This means that Islam guides and teaches Muslims in all aspects of life and not just focusing on specific performance of worship. For example, engaging in *haram* or forbidden activities such as consuming alcoholic drink and gambling are clearly mentioned in the Holy Quran. Even on trading transactions such as what to trade, how to trade, how to interact with others are clearly directed within this religion.

Based on the writer's reading, research that engaged between religion and knowledge is limited. Most of the research focuses on the customer selection decision towards Islamic banking. For instance, Alam, Janor, Zanariah, Wel, & Ahsan (2012) implemented a survey regarding the effect of religiosity factor on the intention to undertake Islamic home financing in Malaysia. They found that religiosity had significant influence on the intention to undertake Islamic home financing among Muslims in Klang Valley. This

indicates the possibility that the strong influence of religiosity among Muslim would lead to greater knowledge in Islamic banking. An important question that may arise is whether the Islamic bankers demonstrates strong religiosity factors in their way of life.

Another study conducted by Ahmad, Rahman, Ali, & Seman (2008) on the relationship of religion and banking selection criteria among the Malays revealed that there were significant differences between the Muslims' level of religiosity and Islamic banking as their preferred bank. This suggests that the lack of formal religious background in Islamic teachings can lead to lower religious beliefs which can lead to lack of awareness of Islamic banking products and services (Ahmed, Rahman, Ali, & Seman, 2008).

Similarly, Idris et al. (2011) conduct a survey to determine whether the religious values are the main influencing factor to patronize Islamic banks. The study found that religion seems to be the most important factors that influence customers to patronize Islamic banks. In addition, another study conducted by Haron, Ahmad, & Planisek (1994) showed that 40 percent of Muslims believe that religion is a major factor which explaining why people continue to maintain accounts with Islamic banks.

Most of the research focuses on the selection criterion among the customers in choosing Islamic banks. Since the research combining knowledge and religion, specifically among the Islamic bankers is limited, therefore, the writer intends to determine whether the religiosity factor can influence the knowledge of Islamic bankers. It is hoped the

analysis among Islamic bankers can give valuable input since the bankers themselves need to have a strong religious factor. Hence, the customer would uplift their confidence to deal with them and engaging themselves in Islamic banking rather than dealing with conventional banks which are clearly practicing interest-based system.

2.2.4 Perceptions of Islamic banking products among the Islamic bankers

Perception is the act of discerning, realizing and becoming aware of something through the senses (Rustam, Bibi, Zaman, Rustam, & ul-Haq, 2011). Basically, perception is often identified by the level of satisfaction with certain products or services. Previous studies serve as an indicator to determine the perceptions of the bankers towards Islamic banking products. For example, Zainol, Shaari, & Ali (2008) studied the perception of Islamic bankers. Their study examined a number of important dimensions, including the perception on training and experience, the perception of the potential for Islamic banking and etc. This study found a positive perception of all of the dimensions investigated. In addition, in terms of the level of knowledge among bankers in Islamic banks, the researchers suggest that the management of the banks themselves should take the initiative in providing their employees with adequate knowledge, particularly on the governance of Shariah and Islamic banks so that customers will have a positive perception towards Islamic banks.

Likewise Arshad Aslam, Razi, & Ali (2011) conducted a study on the perception of Islamic banking among Pakistanis bankers. The elements used for their study is similar

to previous studies mentioned above. From the results, bankers in the Islamic banks have a more positive perception of the issues set against the bankers in conventional banks. Their study also found that the employees' knowledge in respect of the fundamental aspects of Islamic banking is very limited. Most employees do not know the objective of establishing Islamic banks that emphasized religion as the main feature of the development. In contrast, the objective of conventional banking is to highlight the factors of profitability.

Abdullah, Sidek, & Adnan (2012) conducted a study on the perception of non-Muslims towards Islamic banking in Malaysia. It revealed that Islamic banking penetration gives an impact among non-Muslims in Kuala Lumpur. In line with this trend, more effort should be made to increase the level of understanding among non-Muslims about the Islamic banking concept. Thus, Islamic bankers need to equip themselves with the full knowledge of the concept of Islamic banking to be able to deal with the customer whether Muslims or non-Muslims who are more educated and more knowledgeable about this issue.

A study by Ahmad & Haron (2002) showed that there is a misconception among corporate customers about the objectives and philosophy of the establishment of Islamic banks. More than 50 percent of the respondents thought that Islamic banks must be profit-oriented in order to survive in the industry. This perception is the main objective of Islamic banks, which emphasizes a combination of moral and profitability motive.

One of the objectives in this study is to identify the association between the perception of Islamic banks' staff with their knowledge of Islamic banking products. In general, it is acceptable that each person would have a different perception towards anything that come around their mind. However, it is crucial that the perceptions must be integrated among the Islamic banks' staffs in order to avoid any misconception in delivering accurate information to the respective customers. There is a pressing need to promote education and awareness of the distinctive characteristics of Islamic banks among the staffs and how it may profitably meet the customer satisfactions in financial dealings. With the aim to transform Malaysia into a leading Islamic banking hub, Islamic banks' staffs need to be in line with the regulation laid down by the government. The authorities need to study Islamic banks' staff's perceptions in order to help them market their products effectively.

2.2.5 Training gained in the Islamic banks

According to McCombs (1984), training can be defined as active participation in the learning process and the implementation of appropriate learning strategies and skills. In the banking industry, training is much more important for the banking players in order to facilitate better decision making. Basically, bankers will serve clients at branch level since each client is treated as a separate associate in the business. Hence, a comprehensive understanding, detailed information and explanation are needed since the customers' today are well-educated and they would require detailed information towards the products.

According to the previous research by Zainol, Shaari, & Ali (2008), there was a small number of well-trained and skilled employees. Due to this, the educationists and government should stress more on providing and promoting the education in Islamic banking in order to achieve growth. Their comparative study showed that the Islamic banker had more knowledge than a conventional banker regarding the similar products offered by the bank.

Another study conducted by Arshad Aslam, Razi, & Ali (2011), indicate that there exist a large number of bankers that do not have extensive experience or relevant academic background prior to working with their banks. However, the bankers claimed that they have limited knowledge regarding Islamic banking since some of them do not possess a relevant academic background as well as exposure to Islamic banking. Therefore, it was suggested that the government, especially the authority related to the Islamic banking industry need to focus on the availability of well-trained and skilled employees in order to produce better services and outputs to the customers.

According to Schneider & Bowen (1985), employees can deliver and provide first-class customer services by fully utilizing the equipment, management structure as well as the hierarchical infrastructure. They further explained that bankers create an awareness of product's existence among the public through word of mouth which is valued by the customers. Based on the researchers point of view, it seems that the customers and bankers' knowledge of the concepts and practices of Islamic banking is still obscure. Both especially the bankers need more knowledge and the authority such as government

or banks' management should provide adequate training to the bankers' in order to able them to perform their job well.

In general, Malaysia is experiencing a problem faced by Islamic finance and banking industry around the world in terms of providing sufficient training and qualification based on the requirement needed by the employers. In reality, this industry is looking eagerly for an Islamic finance expert where Malaysia has to develop human capital for the Islamic financial industry. Due to this, it is necessary to establish the Islamic finance which is fully in line with the Shariah principles and prevent its products from being overshadowed or merely imitate the conventional financial instruments. Therefore, sufficient training must be given to the Islamic banks' staffs either before holding the post or during a working session so as to ensure that they will meet with the customer satisfaction and uplift their credibility as Islamic banks' employees.

2.2.6 Selected Demographic Factors

i) Age

A study conducted in Borneo by Amin (2007) found that there were not statistically significant differences between age and awareness among customers. This is because the Islamic bank managers may assume that consumers are homogeneous in terms of awareness and usage as collaborated by age, marital status and occupation. In his

study, it was found that gender, race, education and income has statistically significant differences between age and awareness.

Meanwhile, a study conducted by Haque, Osman, & Ismail (2009) found that age does not have a significant relationship with the overall perception of Islamic bank based on their result with 95 percent confidence. According to a study by Khan, Hassan, & Shahid (2008) the majority of customers Islamic banking in Bangladesh are in the age range of 25 to 35 years. The reason behind the high concentration in this age category may be due to the relatively short history of Islamic banking in Bangladesh which began in 1983.

Khattak & Rehman (2010) argued that there was a significant relationship between customer awareness of Islamic banking products with the age group. They further explained that the awareness of products might be varied among age group in terms of the current account system such as letter of credit. From their research, the majority of customers who aware about Islamic banking products are between the ages of 21 to 40 years.

Based on researcher point of view, it is important to evaluate the different level of ages with the knowledge as well as the factors that might affect the knowledge. This is because, each level would give a different interpretation regarding the mentioned issue. A society that was in the older age may have different opinions compared to a society that has a younger age. This is because, the older age has more experience than the youth. Back to the studied mentioned earlier, some researcher such as Khan, Hassan &

Shahid (2008) stated that the level of awareness is related to the existence of Islamic banking which, influenced by the background or history of Islamic banking that was newly developed in certain countries. In this regard, the Islamic banking is still considered new in certain country and therefore, the age differences would result in different levels of awareness among the various communities.

ii. Educational Level

A survey carried out by Khan, Hassan, & Shahid (2008) found that there were significant differences between the level of education among its customers in Bangladesh in the role in the use of various Islamic banking products customers. Most of the respondents have a high level of education, of which 29 percent have a bachelor's degree and 44 percent hold either a Master's or Doctoral degree. Meanwhile, only 17 percent of respondents have education below high school. The result shows that customers of Islamic banks in Bangladesh have formal higher education.

Meanwhile, a study conducted in Malaysia by Haque, Osman, & Ismail (2009) found no significant relationship between levels of education of Malaysian customers with the overall perception towards Islamic banks. The significant value of this category in this study is 0.613. These results indicate that the level of education among Malaysian customers do not have much differences in their perception towards the Islamic banks, particularly in terms of products.

According to a study executed in Sarawak by Run & Lip (n.d.), it was found that educational level gives a significant difference towards the level of understanding among the consumers regarding Islamic financing. However, the study also shows that there is no significant relationship between level of education and the overall perception among users of Islamic financing. It is only significant to certain demographics such as race and religion.

As the same with the age, the researcher come out with the same point of view where different levels of education would lead to the different level of knowledge related to the Islamic banking products. This is because, a person who possesses a higher education background would have greater knowledge regarding the Islamic banking, even though they do not hold an academic background in Islamic finance and banking. They would find their own alternative to obtain the knowledge in parallel with the current issues related to the industry. Unlike people who holds a lower educational level, they would normally accept whatever stated by others and would be less critical towards the mentioned issues. Those who are in this group prefer to accept what has been determined by the authorities without doing any further action on the related matter. Therefore, it is the intention of the researcher to determine whether level of education would give a significant different towards the mentioned issues.

2.3 Conclusion

This review of the related literature presented a discussion on the dependent variable that is knowledge towards the Islamic banking products. The review also discusses the major factors that can influence the level of knowledge towards the Islamic banking products. The literature reviewed work as a good basis for developing a model to measure the factors that affect the knowledge. Table 2.1 below show the summary of the selected literature review in this study.


Table 2.1:

Summary of the literature reviews

Author	A	B	C	D	E
Osman & Ali (2008)	+		n/a	n/a	n/a
Khan & Asghar (2012)	+/-		n/a	n/a	n/a
Arshad, Aslam, Razi & Ali (2011)	-		n/a	+	-
Bley & Kuehn (2004)	+		n/a	n/a	n/a
Admad & Haron (2002)	-		n/a	n/a	n/a
Alam et al. (2012)	n/a		+	n/a	n/a
Ahmad, Rahman, Ali & Seman (2008)	n/a		+	n/a	n/a
Idris et al. (2011)	n/a		+	n/a	n/a
Haron, Ahmad & Planisek (1994)	n/a		+/-	n/a	n/a
Zainol, Shaari & Ali (2008)	n/a		n/a	+	+
Abdullah, Sidek & Adnan (2012)	n/a		n/a	+/-	n/a
Ahmad & Haron (2002)	n/a		n/a	+/-	n/a
Schneider & Bowen (1985)	n/a		n/a	n/a	+/-
Gerrard & Cunningham (1997)	n/a		n/a	n/a	n/a
Thambiah, Ismail & Yeh (2011)	n/a		n/a	n/a	n/a
Faisal, Akhtar & Rehman (n.d)	n/a		n/a	n/a	n/a

Indicator:

A: Knowledge
B: Underlying Principles
C: Religiosity
D: Perception
E: Training

“+” : Positive results
“-” : Negative result
“+/-” : Equivocal result
“n/a” : Not applicable
 : New LR

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology of this study. Among other things, this chapter will elaborate on the theoretical framework, hypotheses development, research design, population and sample as well as data collection procedures. The chapter ends with a discussion of the statistical techniques used to analyze the data.

3.2 Proposed Theoretical Framework

The theoretical framework is the conceptual model of how one theorizes or logically plausible relationship between several factors or matters that have been identified as important for the study area (Sekaran, 2003). A theoretical framework enables the researcher to hypothesize or propose as well as to test the relationship between the variables involved in order to expand the understanding of the related research area of study.

The proposed framework used for this study is shown in Figure 3.1 below:

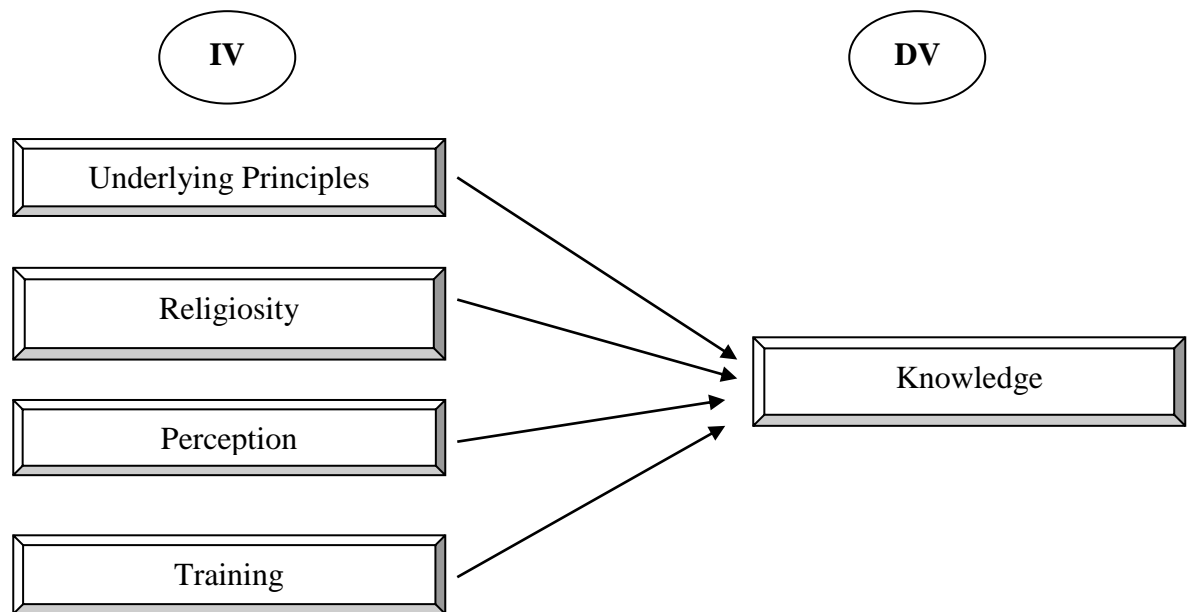


Figure 3.1: Theoretical Framework

In this study, the theoretical framework is needed in order to know the affiliation of one variable to other variables. Therefore, under the theoretical framework, there are two variables used which are dependent variable (DV) and independent variable (IV). Variables are anything that can take different or changing values. Meanwhile, the dependent variable is the variable of interest to researchers. The independent variable can affect the dependent variable either in a positive or negative manner (Sekaran, 2003). Thus, it can be concluded that, when there is a positive value or an increase in the independent variable, the dependent variable would also increase and give a positive value based on the result of the independent variable.

This research is expected to have five (5) variables which are knowledge, underlying principle, religiosity, perception and training. Knowledge of Islamic bankers towards the Islamic banking product would be the dependent variable which will become the main factor throughout this research. Meanwhile, the remaining variables which are underlying principle, religiosity, perception and training would act as the independent variables that can affect the knowledge.

Based on the literature review, most of the research was conducted among banks' customers instead of the bankers. Only few researches focused on the bankers such those as by Zainol, Shaari, & Ali (2008) and Arshad, Aslam, Razi, & Ali (2011). It was revealed that the bankers in Islamic banks have a positive perception towards Islamic banking. Although Islamic bankers are aware of the existence of Islamic banking, however, the depth of their knowledge would be something that needs to be explored.

Clear understanding of the underlying principles, religiosity, perception and training will help Islamic financial institutions specifically in the Islamic banking sector to improve their quality services and thus, create trustworthiness of customers towards the Islamic bankers. If Islamic bankers do not have the correct understanding about Islamic banking products, the customer will not take the initiative to adopt and dealing with Islamic banking products (Ling, Ling, Pey, & Hui, 2012).

3.3 Hypotheses Development

A hypothesis is a logical relation that estimated a relationship between two or more variables expressed in the form of statements that can be tested (Sekaran, 2003). In other words, after identifying the important variables in the research area and establishing the relationships among the variables through the development of a theoretical framework, the variables need to be tested whether there exist significant relationships. Therefore, there are several hypotheses that need to be tested in this study.

3.3.1 Selected Demographic Factors

In this study, the demographic profiles that have been chosen to be investigated are gender, age and educational level. The reason to investigate these demographic factors with the dependent and independent variables involved is to see the differences between each of them. The test that will be used to test gender is a t - test while for age and educational level one-way ANOVA will be used. In addition, these hypotheses are developed in order to answer the first research question and research objective in this study.

i) Gender

a. Gender and Knowledge

H_{o1a} : There is no significant difference between gender and knowledge.

H_{a1a} : There is a significant difference between gender and knowledge.

b. Gender and Underlying Principles

H_{o 1b}: There is no significant difference between gender and underlying principles.

H_{a 1b}: There is a significant difference between gender and underlying principles.

c. Gender and Religiosity

H_{o 1c}: There is no significant difference between gender and religiosity factors.

H_{a 1c}: There is a significant difference between gender and religiosity factors.

d. Gender and Perception

H_{o 1d}: There is no significant difference between gender and perception.

H_{a 1d}: There is a significant difference between gender and perception.

e. Gender and Training

H_{o 1e}: There is no significant difference between gender and training.

H_{a 1e}: There is a significant difference between gender and training.

ii) Age

a. Age and Knowledge

H_{o 2a}: There is no significant difference between age and knowledge.

H_{a 2a}: There is a significant difference between age and knowledge.

b. Age and Underlying Principles

H_{o 2b}: There is no significant difference between age and underlying principles.

H_{a 2b}: There is a significant difference between age and underlying principles.

c. Age and Religiosity

H_{o 2c}: There is no significant difference between age and religiosity.

H_{a 2c}: There is a significant difference between age and religiosity.

d. Age and Perception

H_{o 2d}: There is no significant difference between age and perception.

H_{a 2d}: There is a significant difference between age and perception.

e. Age and Training

H_{o 2e}: There is no significant difference between age and training.

H_{a 2e}: There is a significant difference between age and training.

iii. Education Level

a. Education level and Knowledge

H_{o 3a}: There is no significant difference between education level and knowledge.

H_{a 3a}: There is a significant difference between education level and knowledge.

b. Education level and Underlying Principles

H_{o 3b}: There is no significant difference between education level and underlying principles.

H_{a 3b}: There is a significant difference between education level and underlying principles.

c. Education level and Religiosity

$H_{0\ 3c}$: There is no significant difference between education level and religiosity.

$H_{a\ 3c}$: There is a significant difference between education level and religiosity.

d. Education level and Perception

$H_{0\ 3d}$: There is no significant difference between education level and perception.

$H_{a\ 3d}$: There is a significant difference between education level and perception.

e. Education level and Training

$H_{0\ 3e}$: There is no significant difference between education level and training.

$H_{a\ 3e}$: There is a significant difference between education level and training.

3.3.2 Correlation Between Dependent and Independent Variables

In this study, all the independent variables involved, namely underlying principles, religiosity, perception and training will be analyzed to see their correlation with the knowledge factor. The test that will be used to determine the correlation between them is

Pearson correlation. In addition, these hypotheses are developed in order to answer the second research question and research objective in this study.

i) Underlying Principles

H_{o 4a}: There is no significant correlation between knowledge of Islamic banks' staff and the underlying principles of Islamic banking.

H_{a 4a}: There is a significant correlation between knowledge of Islamic banks' staff and the underlying principles of Islamic banking.

ii) Religiosity

H_{o 5a}: There is no significant correlation between knowledge of Islamic banks' staff and the level of religiosity.

H_{a 5a}: There is a significant correlation between knowledge of Islamic banks' staff and the level of religiosity.

iii) Perception

$H_{o\ 6a}$: There is no significant correlation between knowledge of Islamic banks' staff and the perception towards Islamic banking.

$H_{a\ 6a}$: There is a significant correlation between knowledge of Islamic banks' staff and the perception towards Islamic banking.

iv) Training

$H_{o\ 7a}$: There is no significant correlation between knowledge of Islamic banks' staff and the training gained in the Islamic bank.

$H_{a\ 7a}$: There is a significant correlation between knowledge of Islamic banks' staff and the training gained in the Islamic bank.

3.3.3 The Influence of Independent Variables on Dependent Variable

In this study, the independent variables namely, underlying principles, religiosity, perception and training will be analyzed to identify how much variance of these IVs influence the knowledge. The test that will be used to determine the variance is multiple regressions. In addition, these hypotheses are developed in order to answer the third research question and research objective in this study.

H_{o 8a}: Underlying principles, religiosity, perception and training will not significantly explain the variance of knowledge among the Islamic banks' staff towards Islamic banking products.

H_{a 8a}: Underlying principles, religiosity, perception and training will significantly explain the variance of knowledge among the Islamic banks' staff towards the Islamic banking products.

3.4 Research Design

The research design is the overall plan structure used to conduct the entire study. Since the purpose of this study is to examine the knowledge of Islamic banks towards the Islamic banking products which involves several factors which are assumed to have a relationship with knowledge such as the underlying factors, religiosity factors, perception of Islamic bankers and training gained in the Islamic bank, a quantitative approach has been found most suitable for this study

The purpose of this study is hypothesis testing. Therefore, in this study, data were collected through a detailed questionnaire that emphasizes studying an Islamic banker's knowledge towards the Islamic banking products with several variables or factors that can affect their knowledge, such as understanding of underlying factors, religiosity factors, perceptions, training gained as well as awareness of the fundamental terms. For instance, if the Islamic bankers have a basic understanding of the principles of Islamic

banking, so they may have a higher knowledge of Islamic banking products. Therefore, this study seeks to explain the variance in the dependent variables and also to predict the outcome of a given situation.

3.5 Operational Definitions

According to Sekaran (2003) operational definition is used to define something in terms of a process which is done by looking at the behavior dimensions, aspect or property signified by the concept. There are many constructs used in this study such as knowledge, underlying principles, religiosity, perception and training.

3.5.1 Knowledge

The measure of knowledge proposed in this study is adapted from a combination of questions from various researches. In this study, knowledge is operationalized as the information or fact acquired by the Islamic bankers through education and experience in the Islamic banking industry. This definition is supported by Jian (2005) where knowledge is a practice-based experience of an individual, such as perception of the internal or external as well as practical activities.

3.5.2 Underlying Principles

In this study, the underlying principles are operationalised in one dimension where it is a fundamental source that becomes the foundation or guideline in the Islamic banking systems. This definition is supported by al-Jarbi (2004) where it is a set of ideas or theories that provide some guidelines related to certain issues.

3.5.3 Religiosity

Religiosity can be operationally defined as an ethical belief that reflect the daily conduct and commitment of the Islamic bankers. Alam, Janor, Zanariah, Wel and Ahsan (2012) comes out with the definition where it is a faith that gives a significant influence on people's attitudes, values and behaviors.

3.5.4 Perception

Perception is operationalised as the ability of the Islamic bankers to pick out something or giving opinion regarding the Islamic banking products through the various senses. This definition is supported by Rustam, Bibi, Zaman, Rustam and UL-Haq (2011) where the perception is the act of discerning, realizing and becoming aware of something through the senses.

3.5.5 Training

The measure for training proposed in this study is operationalised by the experience or learning process regarding the Islamic banking products that the Islamic bankers obtained while working in the Islamic banks. McCombs (1984) defined training as an active engagement in the learning process and the execution of the appropriate learning strategies and skills.

3.6 Operationalization of the Instrument

In this study, the researcher initially intends to use the existing instrument or construct used by the previous researchers. However, the problem arises when the researcher was unable to determine the validity of those instruments since the previous researcher do not mention the construct validity in their research. Therefore, the researcher needs to define the concept of the variables through implementing the face validity, content validity and also construct validity.

Knowledge is the main issue concerned in this study and it will be treated as a single factor in order to validate the instruments. Knowledge is operationalized as the information or fact acquired by the Islamic bankers through education and experience in the Islamic banking industry. Basically, the measure of knowledge proposed in this study is adapted from the combination of questions from various researches. From the literature, they are seven (7) items that seem to have relation to the knowledge. Item 1, 2

and 3 was adapted from Osman & Ali (2008). Meanwhile, 4, 5, 6 and 7 was adapted from Khan & Asghar (2012). Below is the list of questions that relate to the knowledge:

Table 3.2

List of questions for knowledge

List of Questions
<ol style="list-style-type: none"> 1) I know and understand the differences between Islamic and conventional banking products. 2) I know the concept applied to Islamic banking. 3) I know that Islamic banking products are offered to both Muslim and non-Muslim. 4) I believe that Islamic banking must be based on Shariah. 5) I understand that the system adopted by Islamic banks is really helping in promoting Islamic values among staffs, clients and the general public. 6) I agree that the rules and regulation given by Shariah experts must be in accordance to Quran and Sunnah. 7) I know that the products offered by Islamic banks are in accordance with customer needs and preferences.

On the other hand, the researcher also had compiled the questions that relate to the independent variable that seems to affect the knowledge of the Islamic banker. The process is just the same with the extraction of the knowledge where the questions are obtained from the previous researches. Below is the list of questions that involved in order to determine the independent variable:

Table 3.3

List of questions for IV

List of Questions
<ol style="list-style-type: none"> 1) I know that the Islamic banking cannot predetermine a guaranteed profit. 2) I know that the return of Islamic banking is based on the sale, lease and profit sharing rather than interest. 3) I believe that Islamic banking prohibits excessive uncertainty in all forms of transactions. 4) I understand that Islamic banking can only invest in businesses that are not prohibited by Islam. 5) I agree that every Islamic bank must have Shariah Supervisory Board to ensure that all business activities are in line with Shariah requirements. 6) There is very high potential of Islamic banking products in Malaysia. 7) The Islamic Bank seeks to compete with conventional banks. 8) Islamic banking products in Malaysia are not the same as conventional banking products. 9) Islamic banks can provide lower cost of products and services compared to conventional banks. 10) I regularly offer prayer five times a day. 11) I fast regularly during Ramadhan. 12) I regularly recite the Holy Quran. 13) I pay zakat every year if I meet the prescribes criteria. 14) I try to follow the Islamic conjunction in all matters of my life. 15) The Islamic banking system has been introduced since Muslims are prohibited from receiving or giving interest as practiced by the conventional banking system. 16) By associating themselves with the Islamic banks, people would be more ethical in their values. 17) Islamic banking is the unique quality of the products and services they provide and not about competing on price. 18) The Islamic banks' goal is not only limited to maximization of shareholders' wealth, but also includes enhancement of the standard of living and welfare of society. 19) The Islamic banking system must adhere to the principle of profit maximization. ® 20) My bank management shows commitment in marketing and promoting Islamic banking products and services. 21) Islamic and conventional banks market their Islamic products in an effective manner. 22) I have extensive knowledge of the products and services under my supervision. 23) I am encouraged to attend short courses, seminars and conferences related to Islamic banking. 24) I have an adequate training and exposure in Islamic banking. 25) I gained experience on Islamic banking products during my working session. 26) I have the capability to solve the problems related to Islamic banking. 27) I always attend an Islamic banking program organized by the banks. ** 28) The bank management had provided adequate sources regarding to Islamic banking. ** 29) My bank manager helps me understand the Islamic banking product in more detail. ** 30) My friends help me understand the Islamic banking product in more detail. ** 31) I know that there must be aqad in the Islamic banking transactions. **

Based on Table 3.3, there are at least 31 questions derived from various researches that seem to relate to the independent variable. Meanwhile, the star (**) symbols in the list refer to the additional questions that were developed by the researcher which deemed applicable to this study. In addition, the symbol of ® in the list refers to the reverse question. This means, during the analysis, the researcher need to rewrite the question into the positive sentence. The questions were derived from the following researchers are as follows:

Table 3.4

Extraction of questions from the previous researcher

No.	Authors	No. of Questions
1	Ling, Ling, Pey & Hui (2012)	1 – 9
2	Ahmad, Rahman, Ali & Seman (2008)	10 – 14
3	Akhbar, Shah & Kalmadi (2012)	15 – 18
4	Zainol, Shaari & Ali (2008)	19 – 26
5	Developed by researcher	27 – 31

After the compilation of questions, the researcher need to comply with the second type of validity which is content validity where the researcher need to discuss with the expert such as the research supervisor and some lecturers with the purpose of identifying the questions that can be used for this study and eliminate the questions that are not applicable for the study. Here, the expertises that the researcher referred to are Dr. Rosemaliza Ab. Rashid, Prof. Madya Dr. Abu Bakar Hamed and Dr. Mohamad Azmi

Bin Othman. Then, a simple questionnaire was developed in order to execute a pilot study.

3.6.1 Pilot Study

In this study, a pilot study has been executed after the development of questionnaires before a large-scale study is being carried out. The purpose of this pilot study was to pre-test the adequacy of the instrument and to assess whether respondents were able to understand the questions before the actual set of questionnaires were distributed. It will involve a group of respondents that have similar characteristic with the actual respondent. According to Sekaran (2003), the implementation of the pilot study is to correct any inadequacies in the instruments prior to data collection and also identify the difficulties in wording and translation in the questionnaires. In this research, the pilot study was implemented among the Islamic bankers who worked in the Islamic banks. Thirty (30) sets of questionnaires were distributed during that time.

3.6.2 Factor Analysis

After implementing the pilot study, the data collected from the study need to be analyzed through developing a factor analysis. This is to fulfill the requirement for the third validity which is construct validity. Here, the researcher needs to key-in the data collected into software known as SPSS. Basically, factor analysis is frequently used to develop a questionnaire. Therefore, to measure the ability trait, researchers need to

ensure that the questions listed are associated with the constructs that the researcher intend to measure.

In addition, this analysis is used to confirm the instrument. In this study, the factor analysis will be performed to all the variables involved in this research. This is because the past researcher did not mention the content validity of the variables. Furthermore, the instrument also includes additional questions created by the researcher. Therefore, due to these reasons, the factor analysis is required in this study.

Factor analysis is done through defining the common underlying cut-off point chosen to accommodate a significant factor is 0.30 as proposed by Hair, Anderson, Tatham & Black (1998). For instance, if the sample size is more than 350 respondents, a factor loading of 0.30 was deemed acceptable (Hair, Anderson, Tatham, & Black, 1998). Each item was analyzed and those items that loaded strongly or show a factor loading below 0.30 were removed. Furthermore, it is already mentioned above that factor analysis had been used in order to construct the validity. Therefore, the 95 percent confidence level is significant for this study.

In performing the factor analysis the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity is used to measure the degree of correlation between variables and to test for the presence of correlation between the variables (Hair, Anderson, Tatham, & Black, 1998). The KMO or the measure of sampling adequacy (MSA) can be interpreted with the following guidelines: MSA value exceeding 0.80 is meritorious; 0.70 above is

measurable; 0.60 above is mediocre; 0.50 or above is miserable and below 0.50 cannot be acceptable and should be excluded (Hair, Anderson, Tatham, & Black, 1998). As suggested by Hair, Anderson, Tatham, & Black (1998), the test of sphericity should be significant where the value is 0.05 or smaller.

In executing the appropriateness of factor analysis, Hair, Anderson, Tatham, & Black (1998) suggested that as a general guideline the minimum is to have no less than five times as many observations as there are many variables that will be dissected. Since, the present study is expected to have five variables, therefore, the minimum sample size needed was 30 or preferably 60 observations.

(a) Factor Analysis for Dependent Variable

In this study, the researcher had identified the dependent variable (DV) as knowledge of the Islamic bankers towards the Islamic banking products. The data used for this test is obtained from the pilot study involving the Islamic banking students. Based on the Table 3.2, there are seven (7) questions listed under the dependent variable. From the test, the correlation matrix showed that the determinant for this data is 0.012 greater than 0.00001. Therefore, multicollinearity does not exist in this data. Meanwhile, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for this data 0.799 which is considered as good and Bartlett tests was very significant which is $p < 0.001$. Thus, factor analysis of this data is appropriate.

In this study, the criteria used to identify the factors are that the eigenvalue must be greater than 1. Therefore, from the analysis, it showed that there exists one factor based on the Table 3.5 below.

Table 3.5

Factor loadings for Knowledge

Fac.	Eig.	Items Loading	Loading	Percentage of Variance
Knowledge	4.263	I know and understand the differences between Islamic and conventional banking products.	.733	60.899
		I know the concept applied to Islamic banking.	.802	
		I know that Islamic banking products are offered to both Muslim and non-Muslim.	.785	
		I believe that Islamic banking must be based on Shariah.	.796	
		I understand that the system adopted by Islamic banks is really helping in promoting Islamic values among staffs, clients and the general public.	.779	
		I agree that the rules and regulation given by Shariah experts must be in accordance to Quran and Sunnah.	.819	
		I know that the products offered by Islamic banks are in accordance with customer needs and preferences.	.745	

The criteria used in order to identify the factor are that the eigenvalue must be greater than 1. Based on Table 3.5 above, it showed that there is only one (1) factor exists from

this analysis. This means, this factor has explained 60.899 % of the variations in the items. According to Hair, Anderson, Tatham & Black (1998) the value of 60 percent of the total variance are considered as satisfactory in the social sciences criterion. In addition, in this study, the selected point of significant loading is 0.70 as proposed by Hair, Anderson, Tatham, & Black (1998) for a sample of 60. Therefore, it can be concluded that, the questions which were previously listed in the dependent variable are valid to be used for this study. All the questions consist of high factor loading and cannot be rotated since only one component is extracted.

(b) Factor Analysis for Independent Variables

In order to verify the data set, it is suitable to use factor analysis Kaiser-Meyer-Olkin (KMO) and Bartlett's test. KMO measure of sampling adequacy is used to determine the presence of a sufficient number of significant correlations between the items. Meanwhile, the significance level was tested using the Bartlett's test. Below is a table showing the KMO and Bartlett test for this analysis:

Table 3.6

KMO and Bartlett's Test

Kaiser-Meyer-Olkin (KMO)	0.899
Bartlett's Test of Sphericity	0.000

Based on Table 3.6 above, the value of KMO was 0.899 which is considered as a higher value since the value is close to 1.0. According to Hair, Anderson, Tatham, & Black (1998), the high value indicated that the factor analysis may be useful in this study and each variable perfectly expected without error expected by other variables. If the value is less than 0.50, the results of factor analysis may not be useful and it cannot be accepted. The Bartlett's test for this study was found to be significant where the significant value is at 0.000. The Bartlett's test will show whether the correlation matrix is the identity matrix which can lead to the conclusion that the variables are not related to each other.

In addition, the anti-image correlation matrix range from 0.70 to 0.95 where the value was greater than 0.50 showed that there were sufficient correlations among the items involved. Meanwhile, the communalities values are close to one where the range is between 0.50 to 0.80. This value indicates that the four factors instead of six factors explain most variation for the items involved. Furthermore, the determinant value of this data is 7.63E-011 which is 0.000763 greater than the necessary value of 0.0001. This value indicates that there is no multicollinearity for these data. According to Lewis-Beck (1994) multicollinearity is a condition in which one or more variables are closely related to each other. Therefore, in this study, the variables are not related to each other.

Table 3.7

Factor loadings of independent variables

Fac.	Eig.	Items	Factor Loadings	Percentage of Variance
1	11.647	My friends help me understand the Islamic banking product in more detail.	.852	22.889
		I always attend an Islamic banking program organized by the bank.	.849	
		The bank management had provided adequate sources regarding to Islamic banking.	.844	
		My bank manager helps me understand the Islamic banking product in more detail.	.835	
		I have an adequate training and exposure in Islamic banking.	.829	
		I am encouraged to attend short courses, seminars and conferences related to Islamic banking.	.807	
		I have the capability to solve the problems related to Islamic banking.	.783	
		I gained experience on Islamic banking products during my working session.	.768	
		I have extensive knowledge of the products and services under my supervision.	.710	

2	3.454	I understand that Islamic banking can only invest in businesses that are not prohibited by Islam.	.813	16.579
		I agree that each Islam bank must have Shariah Supervisory Board to ensure that all business activities are in line with Shariah requirements.	.784	
		The Islamic banking system has been introduced since Muslims are prohibited from receiving or giving interest as practiced by the conventional banking system.	.713	
		I know that there must be aqad in the Islamic banking transactions.	.702	
		I know that return on Islamic banking is based on the sale, lease and profit sharing rather than interest.	.686	
		I believe that Islamic banking prohibits excessive uncertainty in all forms of transaction.	.671	
		There is very high potential of Islamic banking products in Malaysia.	.582	
		Islamic banks are able to compete with conventional banks.	.497	
3	2.137	I regularly offer prayer five times a day.	.862	11.045
		I fast regularly during Ramadhan.	.822	
		I try to follow the Islamic conjunction in all matters of my life.	.785	
		I pay zakat every year if I meet the prescribes criteria.	.712	
		I regularly recite the Holy Quran.	.681	
4	1.609	Islamic and conventional banks to market their Islamic products in an effective manner.	.772	9.273
		By associating themselves with the Islamic bank people would be more ethical in their values.	.688	
		Islamic banking is the unique quality of the products and services they provide and not about competing on price.	.686	
		Islamic banks can provide lower cost of products and services compared to conventional banks.	.591	

5	1.307	Islamic banking products in Malaysia are not the same as conventional banking products.	.638	4.515
6	1.109	The Islamic banking system should adhere to the principle of profit maximization. I know that Islamic banking cannot predetermine a guaranteed profit.	.658 -.487	4.288

Based on the Table 3.7 above, there are six (6) factors which have the eigenvalues greater than 1. The eigenvalues greater than 1 is considered significant; on the other hand, the value less than 1 is considered insignificant and omitted. However, factor 5 and 6 are rejected and will not be included in this study since the items loading is less than one and negative items loaded on this factor. The elimination of these two factors would not give a big impact to the other factors since the percentage of variance is lower.

In this study, the cumulative percentage for these four factors is 59.787 percent. Factor 1 explains 37.570 percent of the total variance. It is noted that the first few factors would explain the relatively large amount of variance while the next factor would explain only a slight variance. From the table, the amount of variation is derived from the rotation sums of square loading. The rotation had given the result of augmenting the factor structure based on its importance. Before rotation, factor 1 accounted for substantially more variance than the remaining three which is 37.570 percent compared to 11.143 percent, 6.894 percent and 5.190 percent. However, after the rotation it accounts for only

22.889 percent of variance as compared to 16.579 percent, 11.046 percent and 9.273 percent respectively.

In this research, the point chosen for significant loading is 0.45 as suggested by Hair, Anderson, Tatham, & Black (1998) for a sample of 150. It uses an orthogonal rotation method which is varimax since the researcher believes that the factors are theoretically independent where it is unrelated to each other. Therefore, based on the factor loadings, the four factors that remained were named accordingly as training gained in the Islamic bank, understanding of underlying principles, religiosity factors and perception of Islamic bankers towards the Islamic banking products.

3.6.3 Reliability Test

Reliability test is used to measure the goodness of data including the consistency and stability of the items. This test is important for this study to ascertain the extent to which items measure the concepts which hang together as a set. In this study, the reliability will be tested using the internal consistency which identifies the correlation response to every question with another question in the questionnaire. The most widely used methods to examine the internal consistency are using Cronbach's Alpha. According to Gliner, Morgan, & Leech (2009) if the item on the test has multiple choices, for instance the questionnaires are based on the Likert Scale, then Cronbach's Alpha is the recognized method in order to determine the reliability of the instruments. According to Sekaran (2003), the closer the Cronbach's Alpha is to 1; it will give a higher reliability of internal consistency. Generally, the reliability less than 0.60 is considered to be poor, those in

range 0.70 is acceptable and those which over than 0.80 is considered as good. Table 3.8 shows the result of reliability test in this study.

Table 3.8

Results of the reliability test

Variable	No. of Items	Cronbach's Alpha
Knowledge	7	0.902
Underlying Principles	8	0.900
Religiosity Factors	5	0.850
Perception	4	0.784
Training	9	0.951

According to Hair, Anderson, Tatham & Black (1998), the lowest limit of the value of Cronbach's Alpha is 0.70. The appraisals of scale reliability for all variables were dependent on the correlations between the items. The range between 0 and 1 to indicate Cronbach Alpha coefficients of dependability of the data. Therefore, based on the above table, the value of Cronbach's Alpha is in the range between 0.78 to 0.95 where the value is closer to 1. This showed that this data has higher reliability of internal consistency (Sekaran, 2003). Training scored the highest reliability of 0.951 followed by the knowledge with the score of 0.902. Meanwhile, perception contributes the lowest reliability value of this data where the value is 0.784.

3.7 Data Collection Method

In this study, primary data were collected to address the research objectives. According to Zikmund (2002) primary data is the first-hand data communication and interaction with the representative sample of the population. In this research, the researcher had decided to use self-administered questionnaire as the main data collection method. Self-administered questionnaires refer to the situation where the respondents (Islamic bankers in this study) will take the responsibility for reading and answering the questions listed in the survey.

3.8 Sampling Design

3.8.1 Population of Study

The number of populations in Alor Setar for the year 2012 are 22 364. Meanwhile, the percentage of distribution of employed person by industry for the year 2012 specifically for financial and insurance sector in Kedah is 2.8 percent from the total of the percentage distribution of employed person by the state which is 6.1 percent for Kedah (Department of Statistics Malaysia, 2012). Thus, the population for this study consists of the Islamic bankers who worked in Islamic banks around Alor Setar. Therefore, the total population in this study is 200 based on the total amount of Islamic bankers worked in the banks investigated. The focus area of this study is in Alor Setar. The selection of banks is based on the bank's operation which is based on the Islamic banking system. The reason for choosing Alor Setar as the main place to study since it is the main city in

Kedah and consists of all banks that are required by the researcher especially the banks' main branches.

3.8.2 Sampling Frame

According to Gliner, Morgan, & Leech (2009), sampling is the process of selecting parts from a large group of people with the intent of generalizing from the sample which is the smaller group to the population (the large group). In this study, the sampling units consisted of 200 sets of questionnaires that were distributed to the Islamic bankers working with Islamic banks. The sampling location is within Kedah, which is the city of Alor Setar. Since the researcher cannot clearly identify the population for the bankers working with Islamic banks, the researcher approached the banks and ask the number of bank staffs' directly to determine the sample size for this study. Hence, the distribution of questionnaires is based on the total number of staffs from each department of the banks. Table 3.1 shows the lists of banks involved in this study.

Table 3.1

List of Islamic Banks involved in the study

No.	Type of Banks	No. of Branches	No. of Staffs
1.	Bank Islam Malaysia Berhad (BIMB)	3	85
2.	Bank Muamalat Malaysia Berhad (BMMB)	1	16
3.	Bank Kerjasama Rakyat Malaysia Berhad (BKRM)	1	30
4.	CIMB Islamic	1	20
5.	RHB Islamic	2	31
6.	Maybank Islamic	1	13
7.	Bank Simpanan Nasional (BSN) Islamic	1	5
Total		10	200

Source: Obtained from the investigated bank.

3.8.3 Sampling Elements

Sampling elements is the case in the population or unit of analysis. Since the problem statement in this research is to identify the knowledge of Islamic bankers towards Islamic banking products, the researcher is interested in Islamic bankers who worked in Islamic banks. In addition, this study is also aiming to determine which factors would affect their level of knowledge, such as understanding of underlying principles, religiosity factors, perception, training and awareness of fundamental term. Therefore, the unit of analysis in this study is the individual Islamic banks' staff. The researcher would observe the data collected from each individual and treat their response as a

source of individual data. Thus, in order to meet the objective of this study, the sample was selected based on the following criteria:

- i. Samples should be Muslims.
- ii. Samples should be a banks' staff who worked in Islamic banks in all levels. This is due to all the staff in the Islamic banks would deal with the customers and in this regards, all of them must have knowledge regarding to the Islamic banking products.

3.8.4 Sampling Technique

In this study, the questionnaires were randomly distributed among bankers in the Islamic banks. The researcher had approached the Islamic banks (refer Table 3.1) around the city and allocate the questionnaires based on the number of bankers working in the bank. The letter of application for data collection issued by the university was given to the banks' manager in order to get the permission to execute the study in the field. The respondents were given a week's time to fulfill the questionnaires appropriately. Then, the questionnaires will be collected after the stipulated due date. Therefore, the probability sampling technique used in this study is a random sampling since the target population was already known and each of them has equal chances of being chosen as a respondent for this study.

3.8.5 Sampling Size

Sample size indicates the number of elements to be included in the research. Since the number of the population of seven (7) various Islamic banks involved is 200, therefore, the appropriate sample size for this study is 132 (Sekaran, 2003). However, in this research, the researcher has personally distributed 200 sets of questionnaires to the respective respondents. According to Roscoe (1975) cited from the book written by Sekaran (2003), it is recommended that the sample size is greater than 30 and less than 500 are applicable to most studies. The response rate for this research is 75 percent, which is equivalent to 150 of the questionnaires collected in this study. Therefore, a total of 150 is sufficient for this research. In addition, the previous research by Zainol, Shaari, & Ali (2008) which almost the same with the current research conducted had obtained less than 100 questionnaires but still valid for conducting the analysis.

3.9 Questionnaire Design

In this research, questionnaire is use to collcec the data in order to achieve the objectives of this study. It is suggested that, questionnaire is the most applicable when dealing with a large number of respondents. More importantly, engaging with questionnaire would save time as well as less expensive compared to conducting interviews. It also enables the researcher to collect the complete responses from the respective respondents within a short period of time. In addition, the researcher can also elucidate any questions that the respondents might not understand during the survey distribution. The researcher also had

the opportunity to introduce the research field since most of the visited bank required detailed guidelines on how to fill in the survey instrument.

After the instrument has been validated through the several processes, the real questionnaire was developed in order to be executed in a real field of study. The questionnaire consists of a front page and its contents are divided into four sections. The questionnaire has been developed in dual languages, namely English and Malay. Therefore, this would give the respondents an option to read the statements either in Malay or English language based on their preference. The cover page contains the consent message together with some brief explanation regarding the aim of the research. Table 3.9 below show the details of each section in the questionnaire.

Table 3.9

Subdivision for the questionnaire

Section	Items	Question
A	Demographic Profile	1 - 5
B	Knowledge	6 - 12
C	Factors Affecting Knowledge	
	i) Underlying Principles	13 – 20
	ii) Religiosity	21 – 25
	iii) Perception	26 – 29
	iv) Training	30 - 38
D	Open Ended Question	

The detailed for the questionnaire design can be referred in Appendix A at the end of this research report. The measurement of the questionnaire is based on nominal and interval scale. Nominal scale refers to the categorization of the individuals into mutually exclusive which can be calculated using percentage or frequencies (Sekaran, 2003). For instance, Section A which consists of demographic profiles such as gender, age, education level and officers' department fall under the nominal scale which has no intrinsic values. Meanwhile, interval scale allows the performance of arithmetic operations and measure the distance between two points on the scale (Sekaran, 2003). For example, in this study, the Likert Scale was used as an indicator to determine the answer. It consists of five (5) values which give different views towards the answer. The indicators are as follows:

- 1 ----- Strongly Disagree
- 2 ----- Disagree
- 3 ----- Neither Disagree nor Agree
- 4 ----- Agree
- 5 ----- Strongly Disagree

The questionnaire also consists of open ended questions that allow respondents to answer in any way they like. The question is aiming to obtain any suggestion or recommendation to improve the knowledge among the Islamic bankers towards the Islamic banking products based on their own views.

3.10 Data Analysis

The raw data obtained from the questionnaires will be analyzed using several statistical tools. For quantitative data analysis, statistical tool and interpretation of the results of the analysis will be using SPSS version 20. This includes factoring and reliability analysis to test the goodness of the instrument, descriptive statistics to describe the characteristics of the respondent, and the distinction between the variables and demographic profiles. The data later were analyzed and the hypothesis is tested.

3.10.1 Normality Test

Hair, Anderson, Tatham, & Black (1998) suggest that normality of data is perceived as a fundamental concern. Normality can be determined through some extent by obtaining skewness and kurtosis values. The normal distribution is vital since it provides the underlying basis for many inferences by researcher who collect data using sampling. Therefore, in this study, the researcher has to run the normality test in order to ensure the normality of the distribution and checking for outliers.

For the purpose of this research, all the variables involved were tested through SPSS in order to ensure there is no violation of normality assumption using a certain procedure laid down under SPSS. Through the normality test, the outliers were removed from the analysis and after removing them, the results can be obtained by using the graphical analysis and statistical test of normality. The normal distribution will form a straight diagonal line and the plotted data values are parallel to the diagonal. From the normal Q-

Q plot of all the variables, almost all data distributions were plotted closely follows the diagonal (Appendix D). This can be concluded that the data used in this study did not interrupt the normality assumption for the inferential analysis.

3.10.2 Descriptive Statistics

Descriptive analysis is used to describe the main features of the quantitative data collection. It aims to formulate a set of data collected from the respondents respectively. By using SPSS, this study uses all data obtained from Section A, B and C of the questionnaire to analyze the descriptive statistics. Descriptive statistics are provided by frequencies, percentage values as well as the measure of central tendency and dispersion such as mean and standard deviation. The frequencies are used to describe the demographic factors of the respondents, such as gender, age, education level, educational background and department. In addition, descriptive statistics are also used to measure the level of all variables where the mean score for each variable were computed along with the standard deviation. Generally, the standard deviation could identify the level of each variable and also point out the distribution of the score of the mean. It can be concluded that, if the value of standard deviation is small, the responses in a sample distribution of number fall very closely to the mean (Hair, Money, Samouel, & Page, 2007).

3.10.3 Independent T-test

T-test is commonly used to test or to compare the difference between the two means of the two groups related to detect whether there is a statistically significant difference between the means. In this study, t-test is used to analyze the differences between gender (male / female) towards the knowledge with other independent variables involved. It will indicate if the perceived differences are significantly different between male and female. The level of measurement of t-test will be based on two different measurements. For instance, the independent variable should be nominal while the dependent variable should be an interval / ratio or a scale. Therefore, in this study, group like male and female (gender) is deemed to be nominal while knowledge is an interval.

According to Coakes and Steed (2007), before implementing the statistical test, there are several assumptions that must be taken into consideration. This is in to ensure the accuracy of test interpretation which depends on whether assumptions have been violated. The assumptions that must be undertaken in this test are scale of measurement, random sampling, normality, independence of groups and homogeneity of variance. Further explanation for each assumption is given below:

- i. Scale of measurement – the data should be at the interval or ratio level of measurement.
- ii. Random sampling – the score should be randomly sampled from the population of interest.
- iii. Normality – the scores should be normally distributed in the population.

- iv. Independence of groups – respondents should appear in only one group and it should not be related to each other.
- v. Homogeneity of variance – the groups should come from populations with equal variance. In this study, Levene's test for equality of variance is used to test this assumption.

3.10.4 One-way ANOVA

One-way analysis of variance (ANOVA) is part of the inferential analysis used to test the difference between at least three groups or more than two groups. This is because the test for two groups' case is dominated or covered by a t-test. According to Sekaran (2003), one-way ANOVA is appropriate to test the hypothesis which involved selecting a demographic profile since there are more than two groups (in this study: age and education level). According to Blaikie (2003), the one-way ANOVA need certain assumptions in order to use the value of F statistics to ascertain either the differences between the means are significant or not. To interpret the output, the researcher need to refer to the column labelled sig. If the F-value is below the significance level (assume the significance level is <0.05), there exist statistically significant differences between the groups involved.

Before conducting ANOVA, there are some necessary assumptions must be met. Generally, the assumptions of this test are similar to those for the independent t-test (Coakes & Steed, 2007). Below is the detail of the assumptions:

- i. The population normality – population from which the samples have been drawn should be normal.
- ii. Homogeneity of variance – the score for each group should be homogeneous variances. This is also similar to the independent t-test where it uses Levene's test in order to determine whether variances are equal or not.

3.10.5 Correlation

The Pearson correlation coefficient is used to examine the relationship between independent and dependent variables and also to show the strength of the relationship. According to Ling, Ling, Pey, & Hui (2012), when a researcher assumed that a correlation coefficient is significant from the test, therefore, a general rule of thumb is applied. According to Gliner, Morgan, & Leech (2009) it is noted that Pearson correlation can vary from -1.0 (perfect negative correlation) through 0.0 (no correlation at all) to +1.0 (perfect positive correlation).

However, the researcher need to realize that eventhough +1.0 and -1.0 are having equal or strong value, both would come out with different interpretations. For instance, *high positive correlation* between knowledge and perception would mean that the Islamic banker with a high perception tend to have a high level of knowledge towards Islamic banking products and vice versa. Meanwhile, if there is a *high negative correlation* between knowledge and perception, this means that the Islamic banker with a high perception tended have low levels of knowledge towards Islamic banking products. On

the other hand, if there *is zero correlation* between knowledge and perception, this mean that the Islamic banker with a high perception might have low, medium or high level of knowledge.

According to Coakes and Steed (2007), there are at least five assumptions underpinning the use of correlation. The assumptions are as follows:

- i. Scale of measurement - data should be interval or ratio in nature.
- ii. Normality – the score for each variable should be normally distributed.
- iii. Linearity – the relationship between the two variables must be linear.
- iv. Homoscedasticity – the variability in scores for one variable should be roughly the same at all values of the other variable.

3.10.6 Multiple Regressions

Gliner, Morgan, & Leech (2009) explained that multiple regression is frequently used in a data analysis to analyze data involving several independent variables with one dependent variable. In addition, multiple regression can help the researcher to understand how much of the variance in the dependent variable that are being affected by the independent variables. In multiple regression, a value of multiple R is computed. This value would give an interpretation of the strength of the relationship that exists between the independent variables and the dependent variable. It should be noted that even the value of multiple R is high, it does not mean that the independent variables might cause the change in the dependent variable.

Since all independent variables in this study are expected to have an equal importance as well as theoretically equal interest, standard regression has been used. The multiple regression analysis was used to test the hypothesis and it will determine the extent of the collaboration paraphernalia of the independent variables towards dependent variable. Before continuing with the regression analysis, elementary presumption of linearity which represent the extent of change in the dependent variable associated with the independent variables. In addition, the passage of normality of the error and homoscedasticity was initially examined.

Based on Coakes and Steed (2007), there are several assumptions underlying the multiple regression analysis. The assumptions underpin the use of regressions are as follows:

- i. Ratio of cases of independent variables – the number of cases needed depends on the type of regression model to be used. For standard regression, it was suggested that there should be twenty times more cases than predictors.
- ii. Outliers – extreme cases can give considerable impact on the regression and should be deleted or modified in order to reduce their influence. The decision to remove outliers must be made with care since its deletion might result in the generation of further outlying cases.
- iii. Normality, linearity, homoscedasticity and independence of residuals - it can be done through scatter plots. It is assumed that the differences between the obtained and predicted dependent variable are normally distributed.

- iv. Multicollinearity – it should be avoided since it can affect the interpretation of relationships between the predictors (IVs) and the dependent variable. Kothari (2004) explained that the multicollinearity exist where there is a high correlation between the independent variables involved. In the case of the existence of multicollinearity, the researcher need to utilize only one set of the independent variable in order to make the estimation. It can be detected through correlation matrix, squared multiple correlation and tolerances. According to Hair, Anderson, Tatham, & Black (1998), the variance inflation factors (VIF) method was utilized to discover the intensity of multicollinearity and to guarantee that there is no severe issue that may deteriorate the stability and accuracy of the model's parameter. Commonly, VIF indicate how much the variance of the estimated regression coefficients swells as contrasted to when the independent variables are linearly identified. Hair, Money, Samouel, & Page (2007) stated that satisfactory values for collinearity recognized the value of tolerance greater than 0.1 of the VIF values of not exactly 10:00 to describe practically zero multicollinearity. Moreover, a supreme VIF values of more than 10.00 would indicate that the existence of multicollinearity might give impact to the slightest squares estimations. Appropriately, small tolerance values with high values of VIF will uncover the issue of possibly redundant correlation items.

3.11 Conclusion

In this chapter, the research methodology is crucial to address the research problem as well as research questions. All the steps starting from collecting the data until the tools to analyze the data were discussed in this chapter. The next chapter would be the continuation of this chapter, which is findings of the data analysis.

CHAPTER FOUR

FINDINGS

4.1 Introduction

This chapter discusses the findings or the results obtained from the analysis. Through data collected, the factor analysis will be conducted in order to validate the instruments followed by the reliability test. All the data analysis already mentioned in the previous chapter will be thoroughly discussed in this chapter.

4.2 Research Response

A total of 200 sets of questionnaire were distributed to the respondents and a total of 150 were returned. The total returned representing a response rate of 75 percent, which is considered acceptable. Furthermore, all the questionnaires returned are usable. The response rate was considered adequate for the previous research involving Islamic banks' staff used less than 100 respondents.

4.3 Demographic Characteristics of Respondents

The respondents participated in this study consist of the Islamic banks' staffs working in banks that are operated based on the Islamic principles. Table 4.1 shows the distribution of respondents involved in this study.

Table 4.1

Distribution of respondents

Demographic Profile	Categories	N	Percentage (%)
Gender	Male	69	46.0
	Female	81	54.0
Age	Below 30 years	67	44.7
	30 – 39 years	45	30.0
	40 – 49 years	34	22.7
	50 and above	4	2.7
Education Level	STPM / Diploma	78	52.0
	Bachelor's Degree	57	38.0
	Master's Degree	11	7.3
	Others	4	2.7
Education Background	Islamic finance & banking	36	24.0
	Non-Islamic finance & banking	114	76.0
Office Department	Operation	72	48.0
	Credit	55	36.7
	Administration	14	9.3
	Others	9	6.0

In this study, there is a total of 150 respondents consisting of Islamic bankers currently working in Islamic banks around the main city of Kedah. Five demographic factors are reported, namely age, gender, education level, education background and office departments. From the above table, among the 150 respondents, 69 (46 %) of them are male, while the rest of 81 (54 %) are female.

As for age, most of the respondents are in the age of below 30 years where the amount is 67 which is equivalent to 44.7 percent. This is followed by the respondents in the age of between 30 to 39 years where the number of respondents involved are 45 which is equivalent to 30 percent. Meanwhile, 34 of 150 of the respondents in the age range 40 to 49 years. The percentage in this age is 22.7 percent. There are only 4 respondents who are in the age of above 50 years involved in this study.

In terms of higher education level, 52 percent of the respondents held at least STPM or diploma while another 38 possess having a bachelor degree. Meanwhile, 7.3 percent of the respondents hold a master's degree while the rest of 2.7 percent held a secondary school certificate such as Sijil Pelajaran Malaysia (SPM).

Interestingly, it was found that more than half of the respondents are coming from non-Islamic finance and banking for the education background. 114 of the respondents which is equivalent to 76 percent held a different, unrelated academic background with their current post. Some of them hold a bachelor in international business, marketing, information technology, biotechnology and accounting. Meanwhile, the rest of 36 (24 percent) have an academic background of Islamic finance and banking.

From the data collection, 72 out of 150 respondents are working in the operation department while 55 of the respondents worked in the credit department. Another 14 respondents are coming from the administrative department, while the remaining 9 respondents come from various departments such as from the recovery unit, logistic and etc.

4.4 Levels of Knowledge towards Underlying Principles, Religiosity, Perception and Training

This section required the researcher to identify the level of each element of knowledge, underlying principles, religiosity, perception and training. In order to describe the level of knowledge, the mean score for each independent variable will be verified.

4.4.1 Respondents' Knowledge towards the Islamic Banking Product

Table 4.2

Results of Mean Score for Knowledge

Code	Items	Mean
K1	I know and understand the differences between Islamic and conventional banking products.	4.23
K2	I know the concept applied to Islamic banking.	4.05
K3	I know that Islamic banking products are offered to both Muslim and non-Muslim.	4.35
K4	I believe that Islamic banking must be based on Shariah.	4.55
K5	I understand that the system adopted by Islamic banks is really helping in promoting Islamic values among employees, customers and the public.	4.23
K6	I agree that the rules and regulations given by the Shariah experts must be in accordance to Quran and Sunnah.	4.42
K7	I know that the products offered by Islamic banks are in accordance with the needs and preferences of customers.	4.27

Based on Table 4.2, the mean for each item of knowledge are 4.23, 4.05, 4.35, 4.55, 4.23, 4.42, and 4.27 respectively. This indicates that more than half of the respondents (84 percent) understood the differences between Islamic and conventional banking products. Meanwhile, 78 percent of the respondents acknowledge the concepts applied in Islamic banks. There are 130 respondents aware that Islamic banking products are offered to both Muslims and non-Muslims. Besides, 138 of respondents believed that Islamic banking is based on Shariah principles. In addition, 80.6 percent of respondents agreed that system adopted by Islamic banks is really helping in terms of promoting the Islamic value among the staffs, customers and the general public. Meanwhile, the majority of respondents which were 135 of them agree that the rules laid down by the Shariah expert must be in line with the main sources of the Quran and Sunnah. Last but not least, 128 out of 150 respondents agree that the products offered by Islamic banks are in accordance with the customer preferences.

4.4.2 Respondents' Understanding of Underlying Principles in Islamic Banking

Table 4.3

Results of Mean Score for Underlying Principles

Code	Value	Mean
UP1	I understand that Islamic banking can only invest in businesses that are not prohibited by Islam.	4.19
UP2	I agree that each Islam bank must have Shariah Supervisory Board to ensure that all business activities are in line with Shariah requirements.	4.15

UP3	The Islamic banking system has been introduced since Muslims are prohibited from receiving or giving interest as practiced by the conventional banking system.	4.39
UP4	I know that there must be <i>aqad</i> in the Islamic banking transactions.	4.30
UP5	I know that return on Islamic banking is based on the sale, lease and profit-sharing rather than interest.	4.45
UP6	I believe that Islamic banking prohibits excessive uncertainty in all forms of transactions.	4.38
UP7	There is very high potential of Islamic banking products in Malaysia.	4.29
UP8	Islamic banks are able to compete with conventional banks.	4.31

Table 4.3 above shows the value of mean for descriptive analysis of the underlying principles. It showed that the mean for every item are 4.19, 4.15, 4.39, 4.30, 4.45, 4.38, 4.29, and 4.31 respectively. 84.7 percent of the respondents agree that Islamic banks can make an investment in the *halal* business only. Meanwhile, 80.7 percent of respondents agreed that each Islamic bank must have a Shariah supervisory board to ensure the operation of the banks is in line with the Shariah. There are 129 respondents who believed that the reason behind the establishment of the Islamic banks was due to the prohibition of interest practiced by the conventional banking system. There are 82.6 percent of the respondents agreed and notice that Islamic banking transaction must begin with *aqad*.

More than half of the respondents (130 of the respondents) agreed that the return of Islamic banking is derived from sales, leases and profit sharing and they also believed that Islamic banking prohibit excessive uncertainty in all forms of transaction.

Furthermore, 127 of respondents agree that the Islamic banking products have a high potential in Malaysia and they also agree that Islamic banks have a competitive advantage to compete with conventional banks.

4.4.3 Respondents' Level of Religiosity Factor

Table 4.4

Results of Mean Score for Religiosity Factor

Code	Value	Mean
R1	I regularly offer prayer five times a day.	4.69
R2	I fast regularly during Ramadhan.	4.71
R3	I try to follow the Islamic conjunction in all matters of my life.	4.15
R4	I pay zakat every year if I meet the prescribes criteria.	4.55
R5	I regularly recite the Holy Quran.	4.61

Table 4.4 above shows the descriptive analysis of the religiosity. The mean for each item are 4.69, 4.71, 4.15, 4.55, and 4.61 respectively. This indicates that more than half of the respondents agreed with all the items in this variable. However, 7 out of 150 respondents disagree with this variable. This is because there is a possibility that the respondents are non-Muslims. The researcher assumed that all the respondents who worked in the Islamic banks are Muslims. However, some of them are non-Muslims. Therefore, it will not affect the result of the study at all.

4.4.4 Respondents' Perceptions towards Islamic Banking Products

Table 4.5

Results of Mean Score for Perception

Code	Value	Mean
P1	Islamic and conventional banks market their products in an effective manner.	3.95
P2	By associating themselves with the Islamic bank people would be more ethical in their values.	4.02
P3	Islamic banking is the unique quality of the products and services they provide and not about competing on price.	3.95
P4	Islamic banks can provide lower cost of products and services compared to conventional banking.	3.86

Table 4.5 above shows the descriptive analysis of the perception of Islamic banking products. The mean value for each item is 3.95, 4.02, 3.95, and 3.86 respectively. The mean is lower as compared with other items in other variables since most of the respondents had to choose “agree” as their answer for each question. There are 107 respondents who agree that both Islamic and conventional banks market their products in an effective manner. In addition, there are 76.7 percent of respondents who believed that when people engage with Islamic banks, they would be more ethical in their values. In addition, 70 percent of them said that Islamic banking provides unique quality product rather than competing on price. Meanwhile, there are 102 of respondents who believed that Islamic banks can provide lower cost of products and services as compared to conventional banks.

4.4.5 Respondents' Training Gained in the Islamic Banks

Table 4.6

Results of Mean Scores for Training

Code	Value	Mean
T1	I have extensive knowledge of our products and services under my supervision.	3.73
T2	I am encouraged to attend short courses, seminars and conferences related to Islamic banking.	3.77
T3	I have an adequate training and exposure in Islamic banking.	3.64
T4	I gained experience on Islamic banking products during my working session.	3.98
T5	I have the capability to solve the problems related to Islamic banking.	3.71
T6	I always attend an Islamic banking program organized by the banks.	3.55
T7	The bank management had provided adequate sources regarding to Islamic banking.	3.75
T8	My bank manager helps me understand the Islamic banking product in more detail.	3.81
T9	My friends help me understand the Islamic banking product in more detail.	3.83

Based on Table 4.6, the mean for each item in training is as follows: 3.73, 3.77, 3.64, 3.98, 3.71, 3.55, 3.75, 3.81, and 3.83 respectively. There are 91 respondents said that they have extensive knowledge about the products and services offered in their workplace. Moreover, 95 respondents agree that they are encouraged to attend short courses, seminars and conferences related to issues of Islamic banking while working in

the bank. Meanwhile, 73 out of 150 respondents claimed that they have an adequate training and exposure in the Islamic banking field. In addition, 112 of respondents agree that they had gained much experience on Islamic banking products during their working session.

In terms of capability in problem solving, 59.3 percent of the respondents claimed that they have the capability to solve problems related to Islamic banking. There are 68 respondents who mentioned that they always attend an Islamic banking program organized by the banks. With regards to management support, 62.7 percent of them said that their bank management had provided sufficient sources regarding Islamic banking. Last but not least, 101 respondents agree that their bank manager helps them in enhancing their knowledge while 98 of the respondents agree that their colleagues had helped them in gaining in-depth understanding of Islamic banking products.

4.5 Differences between Gender and Knowledge, Underlying Principles, Religiosity, Perception and Training

This analysis corresponds to answering the research question one of this study, which is to identify the differences between genders with all the variables involved. Therefore, the independent group t-test analysis is conducted to test the hypothesis related to gender in this study. The previous chapter had discussed several assumptions that need to be taken into consideration before conducting a t-test. According to the first assumption, the scale of measurement should be an interval. Since the interval scale was applied to

the measurement of knowledge and independent variables, therefore, there is no violation of the assumption testing. Besides that, for the second assumption, the score should be random. Since this study had used a random sampling, hence, there is also no violation to the assumption testing.

The third assumption mentioned about normality. Since the scores are normally distributed, then, there is no desecration of the assumption towards normality (Appendix D). Meanwhile, the fourth assumption relates to the independence of the group. In this study, the respondents appear only in one group known as gender and it is unrelated to each other. The last assumption stated about the homogeneity of variance. To realize this assumption, Levene's test is used and if the test gives a significant value of $p < 0.05$, the alternative hypothesis is accepted while the null hypothesis is rejected. This means that the variance is unequal. Table 4.7 indicates the result of t-test analysis.

Table 4.7

Gender Differences

Variables	Male		Female		t-value	Sig.
	Mean	Std. Deviation	Mean	Std. Deviation		
Knowledge	4.41	0.55	4.21	0.63	2.02	0.045
Underlying Principles	4.40	0.53	4.23	0.61	1.82	0.070
Religiosity	4.66	0.39	4.44	0.64	2.52	0.013
Perception	4.03	0.61	3.87	0.61	1.58	0.117
Training	3.88	0.68	3.64	0.83	1.95	0.053

Levene test is normally used to test if the groups tested came from the same population. It can only be conducted if the two groups belonged to the same population. Table 4.7 showed that t-test has been conducted towards gender, where there are two groups (male and female) for this study. The value of significance in this analysis is < 0.05 . In the circumstance that the Levene's test gives a significant value, the variance assumed is not equal. Meanwhile, if the Levene's test provides insignificant value, this means that the variance assumed is equal. These statements are used to interpret the t-value as well as the standard deviation. In addition, if the significant value is below than the stated indicator, it can be concluded that the variance for the two tested groups (male and female) is different.

4.5.1 Knowledge of Islamic Bankers towards the Islamic Banking Products

H_{o1a} : There is no significant difference between gender and knowledge.

H_{a1a} : There is a significant difference between gender and knowledge.

Based on Table 4.12, the significant value of *knowledge* in a Levene's test is 0.433 which is greater than 0.05. This means that the variance for both groups is the same. Since the variance is equal, the mean value of these two groups is from the same population. It was found that the mean efficacy for male is 4.41 and for females is 4.21. The significant value obtained is 0.045 which is less than 0.05. Thus, the null hypothesis (H_{o1a}) is rejected. It can be concluded that there are significant differences between men's and women's knowledge of Islamic banking products. As a result, H_{a1a} is accepted.

4.5.2 Understanding of Underlying Principles

H_{o 1b}: There is no significant difference between gender and underlying principles.

H_{a 1b}: There is a significant difference between gender and underlying principles.

As for *underlying principles*, the Levene's test significant value is 0.305 which is greater than 0.05. It showed that the variance for these groups is the same. The mean value for male is 4.40 while the female is 4.23. The t-test significant value for this variable is 0.070 which is above the significant value of 0.05 and this indicate that the null hypothesis (H_{o 1b}) cannot be rejected. Therefore, there was no significant difference between men and women in understanding the basic principles of Islamic banking. Thus, H_{a1b} was rejected.

4.5.3 Religiosity Factors

H_{o 1c}: There is no significant difference between gender and religiosity factors.

H_{a 1c}: There is a significant difference between gender and religiosity factors.

In terms of *religiosity*, the Levene's test significant value is lower than 0.05 which is 0.009. This means that the variance between male and female is not the same. The value

of mean for male is 4.66 and female is 4.44. The sig. (2-tailed) value for this variable is 0.016 which is less than the value of 0.05. Hence, it can be concluded that there are significant differences between the means of male and female respondents on religious factors in this study. Therefore, the null hypothesis (H_{01c}) is rejected while the alternative hypothesis (H_{a1c}) was accepted.

4.5.4 Perceptions of Islamic Bankers towards Islamic Banking Products

H_{01d} : There is no significant difference between gender and perception.

H_{a1d} : There is a significant difference between gender and perception.

Meanwhile, the significant value of Levene's test of *perception* is 0.850. This value is greater than the significant value of 0.05 where it means that the variance assumed is equal. In addition, the mean value of male and female is 4.03 and 3.87 respectively. The significant value of equality of means is 0.117 which is greater than the value of 0.05. This indicate that the null hypothesis (H_{01d}) cannot be rejected. Thus, it showed that there is no significant difference between male and female towards their perception of Islamic banking products. As a result, H_{a1d} was rejected.

4.5.5 Training Gained in the Islamic Banks

H_{01e} : There is no significant difference between gender and training.

H_{a1e} : There is a significant difference between gender and training.

From Table 4.7, *training* showed a significant value of 0.077 for the Levene's test which is greater than the stated indicator of 0.05. This would lead to the same variance for both groups. It is found that the mean for male gender is 3.88 and the mean for female gender is 3.64. Significant value obtained is 0.053 which is above the critical value of 0.05 and due to this, the null hypothesis (H_{0le}) cannot be rejected. Based on the analysis, it can be determined that there are no significant differences between gender regarding the training gained in the Islamic banks. Therefore, H_{a1e} was not supported (the hypothesis is rejected).

4.6 Differences between Age and Educational Level with Knowledge, Underlying Principles, Religiosity, Perception and Training

In the previous chapter, the researcher had mentioned several assumptions that must be met before conducting ANOVA. For the first assumption, it is related to the normality of the population. This assumption is quite similar to the assumption before conducting a t-test. Therefore, since the data showed that it is normally distributed, the scale of measurement is interval and it is randomly sampled in population, then it is considered that the assumption will not be violated. For the second assumption regarding the homogeneity of variance, the result obtained in Levene's test (Appendix F) showed that the significant value is above 0.05. Therefore, it can be assumed that the group come from the population with equal variances.

4.6.1 Age Differences

This analysis corresponds to answering the research question which is to identify the differences between ages with all the variables involved. Therefore, the analysis of variance (one-way ANOVA) is conducted to test the hypothesis related to age in this study. To determine significance in this study, critical F tables will be used. In addition, significance can also be determined by looking at the F-probability value. Table 4.8 indicates the result of one-way ANOVA for age category.

Table 4.8

ANOVA Results for Age

Variables	Age Category	Mean	Standard Deviation	F	Sig.
Knowledge	Below 30 years	4.28	0.63	0.570	0.635
	30 – 39 years	4.26	0.58		
	40 – 49 years	4.41	0.56		
	50 years above	4.14	0.61		
Underlying Principles	Below 30 years	4.26	0.59	0.402	0.752
	30 – 39 years	4.35	0.60		
	40 – 49 years	4.36	0.55		
	50 years above	4.16	0.62		
Religiosity	Below 30 years	4.50	0.60	2.126	0.099
	30 – 39 years	4.45	0.53		
	40 – 49 years	4.71	0.44		
	50 years above	4.85	0.19		
Perception	Below 30 years	3.94	0.63	0.079	0.971
	30 – 39 years	3.93	0.61		
	40 – 49 years	3.99	0.63		
	50 years above	3.88	0.47		
Training	Below 30 years	3.69	0.82	0.269	0.848
	30 – 39 years	3.80	0.75		
	40 – 49 years	3.80	0.74		
	50 years above	3.81	0.77		

Based on Table 4.8, it indicates that the F-probability value for each variable is 0.57, 0.40, 2.13, 0.08 and 0.85 respectively. Meanwhile, the significant value of knowledge is

0.635, underlying principles is 0.752, religiosity is 0.099, perception is 0.971 and training is 0.848. This showed that all the values are not significant since the values are above the indicator value which is 0.05. Therefore, the alternate hypotheses (Ha2a, Ha2b, Ha2c, Ha2d and Ha2e) for each variable involved are rejected while the null hypotheses (Ho2a, Ho2b, Ho2c, Ho2d and Ho2e) for all of them are accepted. Furthermore, age does not have an influence on the variables involved. This might be due to the fact that most of the respondents are in the age of below 30 years old and they might have the same thought and understanding towards the knowledge of Islamic banking products.

4.6.1 Educational Level Differences

Table 4.9

ANOVA Results for Education Level

Variables	Education Level	Mean	Standard Deviation	F	Sig.
Knowledge	STPM / Diploma	4.30	0.61	0.029	0.993
	Bachelor's	4.30	0.64		
	Degree	4.26	0.35		
	Master's Degree	4.36	0.44		
	Others				
Underlying Principles	STPM / Diploma	4.25	0.60	0.636	0.593
	Bachelor's	4.37	0.58		
	Degree	4.38	0.48		
	Master's Degree	4.43	0.43		
	Others				
Religiosity	STPM / Diploma	4.61	0.45	0.978	0.405
	Bachelor's	4.46	0.68		
	Degree	4.45	0.49		
	Master's Degree	4.60	0.33		
	Others				
Perception	STPM / Diploma	3.95	0.60	0.781	0.506
	Bachelor's	3.98	0.64		
	Degree	3.68	0.67		
	Master's Degree	4.06	0.31		
	Others				

Training	STPM / Diploma	3.80	0.74	1.264	0.289
	Bachelor's	3.63	0.84		
	Degree	3.86	0.69		
	Master's Degree	4.28	0.41		
	Others				

Based on Table 4.9, it indicates that significant value of knowledge is 0.875, underlying principles is 0.412, religiosity is 0.388, perception is 0.159, training is 0.374 and awareness of fundamental terms is 0.278. Meanwhile, the F-value for each variable is 0.03, 0.64, 0.98, 0.78 and 1.26 respectively. It means that there is enough evidence to reject alternative hypotheses (H_{a3a} , H_{a3b} , H_{a3c} , H_{a3d} and H_{a3e}) of all variables involved since all the values are not significant and are above the critical value of 0.05. Therefore, in this analysis, null hypotheses (H_{o3a} , H_{o3b} , H_{o3c} , H_{o3d} and H_{o3e}) were substantiated. The researcher expected that education level would affect the knowledge of the Islamic banker, however the result does not meet the expectation since all the significant value for each variable is not significant. Hence, the education level does not give a significant difference towards the Islamic banker's knowledge of Islamic banking products.

4.7 Correlation Between Knowledge and Factors Affecting Knowledge

The Pearson correlation was used to determine the relationship between the two variables in which the lower scale is based on an interval scale. It will discuss the relationship between knowledge (DV) with all the independent variables involved. To interpret the correlation coefficient, examine the coefficient and its associated significant value (p). Before coming out with the correlation output, the researcher need to fulfill several assumptions mentioned in the previous chapter. It is noted that the scale of

measurement of the data is an interval, and the data are also normally distributed. Thus, there is no violation to the assumption testing. Meanwhile, it showed that there is linearity between the two variables involved (Appendix H). The last assumption for the correlation is related to the homoscedasticity. The scatter plot showed that there is no obvious pattern and it indicate that homoscedasticity is in the set of independent variables (Appendix H). Table 4.10 below shown the results of the correlation between knowledge and all independent variables that might affect knowledge.

Table 4.10

Results for Correlation of Knowledge and other Variables

Variables	Correlation	Sig.
Underlying Principles	0.802**	0.000
Religiosity	0.525**	0.000
Perception	0.445**	0.000
Training	0.562**	0.000

***Correlation is significant at the 0.01 level*

Table 4.10 shows the correlation matrix between knowledge and *underlying principles*. The Pearson correlation between both variables is 0.802 which is significant at 0.01. The significant value of these variables is 0.000. This indicates that there is a strong relationship between knowledge and underlying principles. Therefore, the null hypothesis (H_{04a}) is rejected and the alternative hypothesis (H_{a4a}) would be accepted.

Meanwhile, for *religiosity* factors, the Pearson correlation between both variables is 0.525 where the correlation is significant as 0.01 levels. In this study, the significant

value for religiosity is at 0.000. This indicates that there is a moderate positive relationship between knowledge and religiosity factor. Thus, the null hypothesis (H_{o5a}) is rejected and the alternate hypothesis (H_{a5a}) was accepted.

In addition, the table above also indicated the correlation matrix between the knowledge and the *perception* of Islamic bankers towards the Islamic banking products. The table indicates that the Pearson correlation of these variables is 0.445 where the correlation is significant at 0.01 levels. Meanwhile, the significant value for this analysis is 0.000. Hence, this would verify that there is a positive relation between knowledge and perception and the relationship is moderate. As a result, the null hypothesis (H_{o6a}) is rejected while the alternative hypothesis (H_{a6a}) is accepted.

Last but not least, Table 4.10 indicated that the correlation matrix between the knowledge and the *training* gained by the Islamic bankers while working in Islamic banks. The star (**) sign indicates that there is a significant relationship at the confidence level of 99% where the significance level is produced when the significance value is same or smaller than 0.01. The Pearson correlation value between both variables is 0.562 where it is significant at 0.000. This shows that there is a moderate positive relationship between the knowledge and training gained in the Islamic banks. Therefore, the null hypothesis (H_{o7a}) is rejected while the alternative hypothesis (H_{a7a}) is accepted.

4.8 Relationship between the Various Determinants and Knowledge

In order to answer the last research question which concern about the relationship between the various determinants and the knowledge of Islamic bankers, the regression analysis was conducted. Before conducting the analysis, the data should be examined to detect whether there is any serious violation of the basic assumptions underlying the regression analysis, which is known as linearity, normality and homoscedasticity (Hair, Anderson, Tatham, & Black, 1998).

Before implementing the regression analysis, the number of cases needed should be twenty times more cases than the predictors and the minimum is to have at least five times more cases than the independent variables. In this study, there are four independent variables and the number of respondents is 150 which indicate approximately around 30 times more cases than independent variables. In addition, in terms of outliers, the extreme cases is deleted in this study. Therefore, in this study, one extreme cases were deleted in order to avoid considerable impact on the regression.

Another assumption relates to normality. It is to be examined by the normal Q-Q plot of the residual. According to Hair, Anderson, Tatham, & Black (1998), the normal distribution form a straight diagonal line and also the plotted data values are compared with the diagonal. In the circumstance where the distribution is normal, the line which represents the actual data distribution closely followed the diagonal. From the normal Q-

Q plot in Appendix D, the values fall together and closely with to the diagonal which indicate that the residuals are normally distributed.

The other assumption deals with homoscedasticity. As recommended by Hair, Anderson, Tatham, & Black (1998), a diagnosis is made by plotting the residuals against the predicted values and compare them with a null plot to show the existence of homoscedasticity. The scatter plot in Appendix H shows no obvious pattern that indicates homoscedasticity in the set of independent variables.

The final assumption of linearity is evaluated through the analysis of partial plot regression. The plot in Appendix H shows the relationship between the independent variables to the dependent variable. Based on the partial regression plot, the plot shows that there is no obvious U-shaped or other curvilinear relationship. Therefore, the assumption of linearity for all independent variables with the dependent variable involved in this study are met. Conferring with Hair, Anderson, Tatham, & Black (1998), it is judicious to scrutinize all relationships in order to identify any retreats from linearity that may give an effect towards the correlation.

For the regression of independent variables towards the knowledge of the Islamic bankers, the values of tolerance, variance inflation factor (VIF) and the condition index for all the independent variables are examined to detect the presence of multicollinearity. Hair, Anderson, Tatham, & Black (1998) recommend that a cutoff value 10.00 as an acceptable for VIF. Therefore, the tolerance and VIF values shown in

the output indicate that there is no multicollinearity exist in this study that would give effect of independent variables towards the dependent variables.

In order to answer the last research question and research objective in this study, the researcher need to prove the hypothesis which was developed earlier. The hypothesis is as follow:

H_{o 8a}: Underlying principles, religiosity, perception and training will not significantly explain the variance of knowledge among the Islamic banks' staff towards Islamic banking products.

H_{a 8a}: Underlying principles, religiosity, perception and training will significantly explain the varince of knowledge among the Islamic banks' staff towards the Islamic banking products.

From the above hypothesis, the researcher assumed that all the variables which are underlying principles, religiosity, perception and training may give influence towards the knowledge of Islamic banks' staff. However, after executing the regression analysis, it was found that, there are some variables which do not give influence towards the knowledge of Islamic banks' staff. Table 4.11 below show the result from the regression analysis.

Table 4.11

Relationship between the Various Determinants and Knowledge

Determinant	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.519	0.289		1.793	0.075
Underlying Principles	0.664	0.061	0.681	10.820	0.000**
Religiosity	0.120	0.063	0.101	1.917	0.057
Perception	-0.051	0.053	-0.057	-0.958	0.340
Training	0.155	0.041	0.212	3.729	0.000**

Note: $R^2 = 0.669$; Sig. 0.01**

Based on the above table, the R square value is the statistic that provides some information about the goodness of the model. The value of R square is 0.669. This indicates that 66.9 percent of the variation in the dependent variable explained by the independent variables. While the rest, which is 33.1 percent is explained by excluding variable. Generally, the higher value of R square, the better the model fits with the data.

Table 4.11 presents the results of regression analysis in order to address the final research objective in this study. The objective is to investigate whether all the independent variables involved can influence the knowledge of the Islamic bankers. From the table, the researcher had summarize the relationship between the variables such as formula equation below:

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4$$

$$y = 0.519 + 0.664 x_{1**} + 0.120 x_2 - 0.051 x_3 + 0.155 x_{4**}$$

Where a = Intercepts
y = Knowledge
 b_1x_1 = Underlying Principles
 b_2x_2 = Religiosity
 b_3x_3 = Perception
 b_4x_4 = Training

From the above formula, it can be concluded that, 1 unit of understanding of underlying principle increase would make 0.519 units of knowledge increase. Mean while, 1 unit of training increase would make 0.155 units of knowledge increase as well. Only these two variables that derived from this formula since it gives significant value at 0.01.

The finding showed that there are at least two variables that have significant influence on the knowledge of Islamic bankers. The factors were underlying principle and training gained in the Islamic banks. However, perception is negatively related to the knowledge where the B value is -0.051. The variable that gives the most influence towards knowledge are underlying principle and training where both give a higher B value of 0.664 and 0.155 respectively. Meanwhile, religiosity becomes the third most influential of the knowledge where the B value is 0.120 but do not give a significant value 0.01.

In general, it can be conclude that, the null hypothesis (H_{08a}) is rejected while the alternative hypothesis (H_{a8a}) is accepted. However, only two variables which is

underlying principles and training were accepted under the alternative hypothesis. While the other two variables which are religiosity and perception is rejected since both do not give a significant value at 0.01. Therefore, in this study, the most influential factors that affect the knowledge of Islamic banks' staffs fall under the underlying principles and training gained in the Islamic banks. Due to this, these factors should become the area of concern and need to be discuss detail in the next chapter.

4.9 Conclusion

The descriptive analysis showed that in general, respondents presented a moderate level of product knowledge among the Islamic bankers. In addition, to examine the relationship between various factors and knowledge, correlation and regression analysis were conducted. The result of the correlation showed that all the independent variables that are underlying principle, religiosity, perception and training. However, in the regression analysis, only two factors, namely underlying principle and training positively influence the knowledge since these variables to give a higher beta value and the significant value is lower than 0.05.

CHAPTER FIVE

DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter will summarize the findings of the study followed by a discussion. Consequently, the theoretical and managerial implications as well as suggestions for future research are also discussed. Last but not least, this chapter ends with the recommendations related to the study.

5.2 Recapitulation of the Study Findings

Based on the previous study of knowledge, this study further investigates the factor that can affect the level of knowledge among the Islamic bankers towards the Islamic banking products. In other words, level of product knowledge is the main interest of this research. Knowledge is simply defined as “practical based experience of a rare or an individual, such as perception of the internal or external and also practical activities” (Jian, 2005). Meanwhile, the operational definition of knowledge in this study is the information acquired by the Islamic bankers through education and experience in the Islamic banking industry.

This research was conducted to achieve three main objectives. The first objective is to determine the differences between age, gender and education level of knowledge and

factors that may influence the knowledge of Islamic banks' staffs. The second objective is to investigate the correlation of Islamic banks' staff knowledge with the underlying principles, religiosity, perception and training. Finally, the third objective is to determine the variance of underlying principles, religiosity, perception and training on knowledge of Islamic banks' staff.

In consideration of the above research objectives, this research was commenced to strive for answers towards the several research questions: (a) Is there any difference between knowledge of Islamic banks' staff with gender, age and education level? (b) What is the correlation between underlying principles, religiosity, perception and training with the knowledge of Islamic banks' staff? (c) To what extent that the underlying principles, religiosity, perception and training influence the knowledge of Islamic banks' staff?

As mentioned in Chapter three, the data was gathered through the designated questionnaires which were distributed among Islamic bankers from various departments working in Islamic banks around the city Alor Setar. Approximately 200 sets of questionnaires were distributed and 150 were collected representing 75 percent of response rate.

The most crucial part in this study was the execution of factor analysis in order to reduce the items as well as to test the factorial validity of the measure. The analysis was implemented separately between the dependent and independent variables. From the analysis, it produced various dimensions of the factors which can affect the knowledge.

In addition, the internal consistency of the instruments was done through comparing the reliability coefficient based on Cronbach's alpha values. This study also implemented correlation analysis in order to identify the relationship between the independent variables with the dependent variable. Finally, the data collected were also analyzed using the multiple regression analysis to test the hypothesis of the study. In order to determine whether the null hypotheses can be substantiated or not, 0.05 was used as a critical level for the entire decision-making throughout the study.

Returning to the first research question regarding the differences of knowledge based on the selected demographic factors, the researcher had chosen to evaluate only three demographic factors namely, age, gender and education level in this study. It was found that, for gender, there are only two variables that give a significant difference between male and female which are knowledge and religiosity factors. While for age and educational level, all variables do not give any significant differences among each of them. This means, the hypotheses (H_0) developed for age and educational level was accepted.

A Pearson correlation analysis was undertaken in order to answer the research question (b). From the analysis, it was found that all the independent variables which are underlying principles, religiosity, perception and training have a positive relationship with the knowledge. In addition, regression analysis was undertaken in order to answer the last research objective. From the analysis, it was revealed that there are at least two variables that are positively related to knowledge which are underlying principles and

training. These two variables had contributed a value of R square 66.9 percent indicating that the explanatory power of the variables in predicting the knowledge of the Islamic bankers. On the other hand, religiosity and perception were found to be not significantly associated with the knowledge.

5.3 Discussions

The following section will discuss in further detail the level of product knowledge among the Islamic bankers as well as the effects of various factors towards the knowledge based on the findings obtained from the previous chapter.

5.3.1 Knowledge of Islamic bankers towards the Islamic banking products

The main purpose of this study was to identify the level of knowledge among Islamic bankers towards the Islamic banking products. It demonstrated that the level of knowledge among the Islamic bankers is quite high since they have given a positive response towards the items related to the knowledge in the questionnaires. As Islamic banker, they should have an in-depth knowledge of the Islamic banking systems. This is because, people would refer to banks' employee in dealing with anything that related to the financial matters in the Islamic financial system. However, what if in the circumstance that they do not have enough knowledge regarding the mentioned issue? This might be a severe problem in the Islamic banking industry where it can lead to misconception among the public and their confidence level towards Islamic banking would decrease.

From the result obtained, the Islamic banker claimed that they know the concept applied in Islamic banking as well as able to differentiate between the Islamic and conventional banking products. However, the question might arise on how deep they know the concept and how far they can explain the concept to the public? The researcher had experienced when asked about the differences between Islamic and conventional banking system to the Islamic banker, they replied that both are doing the same way of business and there is no difference between them. This is supported by Khan & Asghar (2012) who found that the employees agreed that there is not much difference between both systems since they believed that the basis of Islamic banking structure is based on the conventional banking and most of the functions are overlapping.

Nowadays, the acceptance of Islamic banking products doesn't just focus among the Muslim customer only, but non-Muslim as well. This can be referred to the statement by the BNM Governor, Tan Sri Dr. Zeti Akhtar Aziz, where currently at least 50 to 70 percent of the Islamic bank customers are among the non-Muslims. This showed that the Islamic finance products have the potential not just in the country but globally as well. Instead of that, non-Muslims intent to see if the products offered are very competitive benefits to them. In addition, the most preference investment banking among the non-Muslims is *sukuk* or Islamic bond.

From the above statement, the Islamic banker plays a crucial task in order to compete with the increasing number of non-Muslims customers who seems to have a better knowledge regarding Islamic banking products. This is supported by studies conducted

by Abdullah Sidek, & Adnan (2012) which revealed that non-Muslims who possess higher academic qualifications will typically have better knowledge and understanding of the Islamic banking concept. In this situation, it is quite embarrassing if the Islamic bankers do not have extensive knowledge about the Islamic banking.

Thus, it is important for the Islamic banker to possess an extensive knowledge in Islamic banking so that people would respect and give a high appreciation to them for being an expert in the Islamic banking industry. This would also help to enhance the reputation of Islamic banks in order to better compete with the conventional banks more importantly, it will change the mindset of people that Islamic and conventional banking system are different entities which execute different operations with different basis.

5.3.2 Understanding of underlying principles in Islamic banking

Understanding of underlying principle is one of the research questions in this study that affected the level of knowledge among the Islamic bankers. The correlation analysis showed that underlying principle had given a strong positive relationship with the knowledge. In addition, regression analysis was undertaken and the result showed that this factor gives the most influence to the knowledge since it gives a higher beta value which is significant at 0.000 level. This indicates that understanding of underlying principle is the most important factor that affects the level of product knowledge among the Islamic bankers.

It is essential that Islamic bankers have a deep understanding regarding the underlying principles laid down in the Islamic banking system. This is due to the principle of the Islamic banking itself that make it differentiate with the conventional banking system. It is important for the Islamic bankers are aware that the main prohibition in Islamic banking system is engaging with interest or *riba*. In addition, it promotes fair dealing among the parties involved in the transaction. In contrast, the conventional system is based on an interest bearing system which can lead to exploitation and unfair dealings between the contracting parties. There is concrete evidence derived from the Holy Quran which clearly stated that:

“Those who take riba (usury or interest) will not stand, but stands as one whom the demon has driven crazy by his touch. This is because they have said: “Trading is but like riba.” And Allah has permitted trading and prohibited riba.”

(Surah al-Baqarah: 275)

From the above verse, it showed that the prohibition of usury and the injunctions relating to the prohibition. The Islamic bankers should be aware of this principle because lack of concern towards the issue of *riba* would lead them to follow the footstep of the devil. Most of these principles are based on simple and common sense of morality that has led to many religions unites with Islam.

It can be argued that the results obtained from the independent variable of this study are extremely meaningful because it showed the extent of the Islamic bankers’

understanding about the underlying principles of Islamic banking. This is because, if the Islamic bankers fail to understand the principles of Islamic banking system, they would fail to perform their obligation well as well as to meet with customers' expectations. Therefore, the banker must have the ability to predict the customer expectations.

5.3.3 Religiosity factors among the Islamic bankers

Islamic Banking in Malaysia was developed in 1983 and the development continued with the participation of conventional banks currently offering Islamic banking products and services based on the Islamic principles. This becomes a challenge to the Islamic banks to have a competitive advantage with the conventional banks in order to retain the customer from shifting to the others' side. Therefore, this paper is attempting to determine whether the religiosity is an important factor in influencing the knowledge of Islamic bankers.

From the analysis, it revealed that the religiosity factors have a significant relationship with knowledge. Religiosity become one of the important factors in influencing the Islamic bankers' knowledge because those with high positive religiosity would appear to have a greater determination to perform their job well and based on the Islamic guidance. In addition, the Islamic banker who possesses a strong religious attitude may affect their daily conduct which include the way they treat the customers as well as would make them more diligent in work.

As the aspiration of the government to develop Malaysia as Asia's Islamic financial hub, the relevant authority in the banking sector, specifically in the Islamic banking industry have to encourage every employee who worked with Islamic banks to obtain and maintain the religious attitude so that it would differentiate the way of conduct with conventional banks. The literature review indicates that the religiosity factor would influence the ethical belief that might affect the commitment and everyday manners.

In Islam, the Muslim believers are encouraged to have a good attitude and concern towards the relationship with Allah S.W.T through man's conduct. When an individual has the mindfulness of Allah's boundless power and nothing could be covered from Him, he gets propelled to take after the way clear by Him (Ahmad, Rahman, Ali, & Seman, 2008). With the existence of anxiety and a sense of piety, people would likewise perform the normal religious obligation (*ibadah*) such as performing daily prayers, fasting, paying zakat, reciting Quran and followed the entire Islamic conjuncture which gives a positive effect on attitude (*akhlak*) of one person.

In addition, this study seems to be different from other studies as it attempts to measure religiosity by looking at the basic components of Islam as well as taking into consideration the various levels of law such as obligation, recommendation and prohibition. Most of the previous studies attempted to determine whether the religiosity would affect their banking selection decision. However, this study had focused on the level of knowledge that is affected by the religiosity. Thus, it is proven that the religiosity factors had influenced the level of knowledge. It can be assumed that a

person's religious, ethical conduct would give the effect that they might have a better knowledge as compared to those who have not demonstrate religious behavior.

It is recommended that the bank management should hold religious classes either before or after normal working hours, such as reciting the Quran classes in order to increase the level of religiosity among the staff. The bank management also can invite people who have expertise in the religious field to give talks and thus opens the mind and spirit of every employee to be more sincere in doing their jobs as well as consider their job as *ibadah* to get blessing from Allah S.W.T. In this way, the level of religiosity among the workers can be enhanced.

5.3.4 Perception of Islamic bankers towards the Islamic banking products

Basically, this research is an exploratory study to identify the factors that might influence knowledge of Islamic bankers. Thus, the perception becomes one of the factors that influence the knowledge of Islamic bankers towards the products and services of Islamic banking. This is because the Islamic bankers need to deliver the products and services directly to the customers at every branch level. From the result obtained in the previous chapter, it revealed that perception would have a positive relationship with the knowledge, but not really influence the knowledge of the Islamic bankers. This might be due to the fact that different people would have different views towards the Islamic banking products and services.

Furthermore, perception would be related to the knowledge through having an in-depth understanding which will enable the Islamic bankers to promote their products and services wisely and deliver accurate information on the areas concerned. Back to the problem statement of this study, nowadays, customers possess better education and have a high knowledge regarding the Islamic financial system and they would demand more innovative products and services. By giving a wrong interpretation regarding Islamic banking products, the level of knowledge among the Islamic bankers might be questionable.

The Islamic bankers believed that by linking themselves with Islamic banks will make people become more ethical and avoid performing anything that is against the Islamic law. From the rough observation, the Islamic bankers who worked in the full-fledged Islamic banks are more vulnerable towards the Islamic banking products because of their daily involvement in the transaction. On the other hand, the Islamic bankers who worked in a bank which operate a dual banking system would be confronted with some difficulties in understanding the Islamic banking concepts. Likewise, their perception towards the Islamic banking system is also different since their main aim is focusing on the profitability factor rather than promoting socioeconomic justice.

When it comes to the issue of perception, it cannot avoid from the issue of similarities between the Islamic and conventional products. This issue has been discussed a while ago through the dimension of knowledge. Clearly, through observations of the researcher, the Islamic bankers have the same perception as the customers where they

believe that both products are the same. In addition, Islamic banking is also seen to deal with the pursuit of profit compared to safeguarding the customers from any form of suppression as practiced by the conventional banks. In order to justify this issue, Khan (2004) argued that the easiest way to tell the difference between Islamic banking and conventional instruments is through a set of processes where Islamic banking will be based on the main primary sources namely the Qur'an and Sunnah.

Through having a positive perception and possess deep knowledge of Islamic banking, the Islamic banker will be better able to understand the basic principles and can differentiate between the forbidden, offensive, permissible, recommended and obligatory (Khan, 2004). Therefore, Islamic bankers' positive perception towards Islamic banking is crucial since Islamic banks have to compete with the conventional banks which have already established for a long time. Furthermore, it can help the industry to gain higher growth as the customer would remain loyal with the Islamic banks due to a better perception towards the Islamic banking industry.

5.3.5 Training gained in the Islamic banks

The analysis is undertaken to demonstrate that training has a significant impact towards the knowledge of Islamic bankers. Training relates to the creation of well-trained employee which mean that the service provided or the task can be performed excellently. The findings revealed that training becomes the third factor after underlying principle and religiosity that had influenced the level of knowledge among the Islamic

bankers towards the Islamic banking products. It seems that the Islamic bankers had acquired well-training while working in their present banks.

From the past study, it was indicated that most of the bankers do not have extensive work experience or relevant academic background prior to working with their banks (Zainol, Shaari, & Ali, 2008). However, for this study, it was found that the Islamic bankers claimed that they have sufficient knowledge about the products and services offered by the bank. This is due to the bank management itself, which encourage their staffs to attend short courses, seminars and conferences related to Islamic banking.

Basically, training can improve the performance and can create staff assurance where it can expedite the best customer service, better safety practices and improvement in productivity. However, in this study, the researcher had expected that all the Islamic bankers possessed an education background in the Islamic banking field. As a result, the Islamic banks' staff was failing to meet with the expectation where some of the respondents had the background that is far different from Islamic banking such as information technology, international business, management, statistics and etc. In this regard, the question might arise regarding the level of understanding and competence of the employees in managing as well as administering the Islamic banking system since they come from various backgrounds.

Moreover, Islamic bankers must be able to solve the customers' problem when dealing with a banking transaction. It is important to have a good relationship with customers

that will keep them from going to another bank. Well-trained employees make them able to manage their task and understand their job content. According to Daniels, Lauder, & Porter (2009) indicated that a person who is inexperienced in decision making and problem solving would lead to the major cause of dissatisfaction in performing their job. Daniels, Lauder, & Porter (2009) also mentioned that a skilled worker can see circumstances comprehensively instead of regarding viewpoints and see what is the most significant in the situation.

5.4 Contribution of the Research

This research and the findings have academic and managerial implications. These contributions and implications are discussed below.

5.4.1 Theoretical Contributions

The primary objective of this study was to determine the level of knowledge among Islamic bankers. The contribution of this research from the theoretical perspectives lies in identifying how the underlying principles, religiosity factors, perception, training and awareness of the fundamental terms would affect the knowledge of the Islamic bankers. Most of previous researchers have focused more on the customers' perspectives. However, there is little research which has been conducted on the Islamic bankers. Therefore, this study contributes to the literature by investigating the factors mentioned

in the context and develop a theoretical framework that will have an impact on knowledge of Islamic banking.

This study limits the scope of respondents for Islamic bankers only so that it can meet the objectives of this study. This study also helps the Islamic bankers to enhance their level of understanding towards the Islamic banking products in terms of the understanding of underlying principles, perceptions, training as well as the level of religiosity. In addition, the research regarding Islamic banking is limited compared to the research that was implemented on conventional banks. Due to this, this study may contribute to a research paper in Malaysia which will provide some information for future researchers interested in carrying out a study on Islamic banking.

In addition, this study also helps to validate the previous instruments regarding the knowledge as well as the determinants that would give an effect towards the knowledge. The existence of the proposed theoretical framework in this study helps the Islamic bankers in evaluating themselves in order to know how much knowledge that they possessed. The findings also proved that underlying principles, religiosity and training gained in the Islamic banks give a significant impact in predicting the level of knowledge among the Islamic bankers. However, this study does not support the other two factors that are perception and awareness of the Islamic banking terminologies. This may suggest that the perception among Islamic bankers is different and their awareness of the terms also could be different based on what type of products offered in their own banks.

5.4.2 Managerial Implication

Besides the academic contribution of this study, managerial implications can also be derived from the results obtained in this research. The results from this study give several implications for the Islamic bankers with regard to their level of knowledge towards the Islamic banking products. The findings of the study can also be utilized by the management of Islamic banks as well as the Islamic bankers themselves in their effort to enhance the knowledge by taking consideration of all the determining factors involved in this study in order to achieve a better job performance.

The factor that the Islamic bankers have to demonstrate is the importance of enhancing the level of knowledge through increasing the understanding of the underlying principles of Islamic banking. The management of Islamic banks should ensure that the Islamic bankers are well-trained and well-equipped with the entire knowledge regarding the Islamic banking industry without focusing only to certain related field. The Islamic bankers should be able to deliver accurate information to the customers and at the same time maintain a good relationship with the customers as well as concern with the customers' inquiries.

It is important to maintain the quality of interaction between the Islamic bankers, especially the front-line officers and customers as they are the first encounter or point of contact between customers and the higher level management. This is the reason why the employees need to have in-depth knowledge about their current post as well as the

products offered by the banks. The Islamic bankers are also advised to listen to the customers' issues, comments and respond to them appropriately because sometimes the customers can provide some relevant information to the bankers in order to improve their current services and performances.

As suggested by the previous researchers such as Zainol, Shaari, & Ali (2008), Arshad, Aslam, Razi, & Ali (2011) and Yusoff, Kamdari, & Masri (2013) the bank management need to take greater initiative in providing their employees with adequate knowledge of banking and exposure to the Islamic Shari'a rules and principles governing the Islamic banking industry. Thus, this study also recommends that the need for experienced, skillful and knowledgeable staff in order to develop products in the Islamic banking industry. Furthermore, the Islamic bank themselves are encouraged to have their own training which is related to Islamic banking as well as seminars or forums which will help them to upgrade and improve the efficiency of their staffs.

5.5 Limitations and Future Research Directions

The limitations of the study are discussed in order to stipulate the limitations and to recognize anticipated possibilities for research. First, because of the constraints of time, the respondents in this study are limited to the Alor Setar area as well as Jitra and Changlun as the contingency areas. Furthermore, this study also has a limitation in deciding the number of population among the bankers around the area of study. Therefore, the researcher had decided to get the total number of staff from the

investigated banks in order to get the number of population. Since the intention of this research to take Islamic bankers as respondents, therefore the results obtained in this study cannot be generalized to the entire population of bankers.

Basically, the scope of this study is limited to exploratory study among the Islamic bankers in order to obtain the information regarding the level of knowledge among them. This exploratory study could be improved in the future research through more empirical research which involved other Muslim ethnics in Malaysia through cross-cultural and cross-country studies. In addition, the future research could be extended to investigate the religiosity level among the Islamic bankers as well as their practices in handling the transactions instead of just being aware of the product's existence.

Instead of that, as highlighted above, the future research also needs to cater the staffs of other religions as potential respondents. This is because there are some non-Muslim bankers who are engaged with the Islamic banking products such as the bank which operated dual banking systems. Through implementing this, respective religiosity level of bankers towards the Islamic banking products could be ascertained. Moreover, future research regarding the potential correlation between several independent variables can also be carried out in order to reveal other implications towards influencing the level of product knowledge among Islamic bankers.

5.6 Conclusion

The purpose of this study was to investigate the level of knowledge among Islamic bankers towards the Islamic banking products which involved several factors that might affect the level of knowledge, that are underlying principles, religiosity factors, perception and training gained in the Islamic banks. The findings of the study suggest that the level of knowledge is still at moderate level since some of them are still not familiar with certain Islamic banking terminologies and some of them had claimed that they do not have sufficient knowledge regarding the Islamic banking industry.

The findings revealed that all the independent variables have a positive relationship with knowledge. However, only two of them such as understanding of underlying principles, and training had given a strong influence towards the knowledge. The findings also suggest that the factor of perception and religiosity do not give a greater impact towards the knowledge due to the different perception among the individual and the religiosity would be based on the individuals' determination of the spiritual.

Based on these results, it is recommended that management of the banks should take a greater initiative to provide a well-trained and well-equipped staffs through exposing them to the current standard of Islamic banking industry by conducting short-courses, seminars or workshop. Furthermore, it will help the Islamic bankers to perform their duties well and also to equip them in facing the future challenges in order to be parallel with the objective of the government to develop Malaysia as one of the Islamic financial

hub in the region. Moreover, bank management should insist on a job applicant's background before deciding to recruit them. This is because different educational background can affect a person's achievement, especially in decision-making.

In a nutshell, the research findings reported have been discussed at length in the context of the study objectives and also referring to the previous literatures. The theoretical contribution and managerial implication of the study were deliberated to give a clear picture that this study gives a significant to the academic field as well as researchers' perspectives. The theoretical model that has been developed in this study can be used as an explanatory model for future researchers to measure the knowledge in another field. Therefore, the current study had provided some beneficial implications for both academic as well as practitioners based on the review on the work done by the researcher.

REFERENCES

- Abdullah, A. A., Sidek, R., & Adnan, A. A. (2012). Perception of Non-Muslims Customers towards Islamic Banks in Malaysia. *International Journal of Business and Social Science Vol. 3 No. 11*, 151-163.
- Abdullah, M. R. (2011, January - March). Development of Islamic Banking in Malaysia. *Kuala Lumpur Regional Centre for Arbitration (KLRC) Newsletter*, pp. 22 - 23.
- Ahmad, A. (1997). Towards An Islamic Financial Market: A Study of Islamic Banking and Finance in Malaysia. *Research Paper No. 45*, 35 - 40.
- Ahmad, A. U., & Hassan, M. K. (2004). The Time Value of Money Concept in Islamic Finance. *The American Journal of Islamic Social Sciences 23:1*, 66 - 89.
- Ahmad, A. U., & Hassan, M. K. (n.d.). Riba and Islamic Banking. *Journal of Islamic Economics, Banking and Finance*, 1-33.
- Ahmad, N., & Haron, S. (2002). Perception of Malaysian Corporate Customers Towards Islamic Banking Products & Services. *International Journal of Islamic Financial Services, Volume 3, Number 4*.
- Ahmad, W. M., Rahman, A. A., Ali, N. A., & Seman, A. C. (2008). Religiosity and Banking Selection Criteria Among Malays in Lembah Klang. *Shariah Journal Vol. 16 No. 2*, 279-304.
- Ajija, S. R., Annisa, E., & Hudaifah, A. (2012). *How Do Islamic Banks Optimize Profit and Loss Sharing Arrangements?* Kuala Lumpur: International Islamic University Malaysia.
- Akbar, S., Shah, S. Z., & Kalmadi, S. (2012). An Investigation of User Perceptions of Islamic Banking Practices in The United Kingdom. *International Journal of Islamic and Middle Eastern Finance and Management Vol. 5 No. 4*, 353 - 370.
- Alam, S. S., Janor, H., Zanariah, Wel, C. A., & Ahsan, M. N. (2012). Is Religiosity an Important Factor in Influencing the Intention to Undertake Islamic Home Financing in Klang Valley. *World Applied Sciences Journal 19 (7)*, 1030-1041.
- al-Jarbi, M. A. (2004). Islamic Banking and Finance: Philosophical Underpinnings. In S. S. Ali, & A. Ahmad, *Islamic Banking and Finance: Fundamentals and*

- Contemporary Issues* (pp. 13 - 24). Saudi Arabia: Islamic Research and Training Institute (IRTI).
- Amin, H. (2007). Borneo Islamic Automobile Financing: Do Demographics Matter? *Labuan e-Journal of Muamalat and Society*, 68-81.
- Arshad, M., Aslam, S., Razi, A., & Ali, S. A. (2011). A Comparative Analysis of Bankers' Perception On Islamic Banking in Pakistan. *International Journal of Economic Resources*, 1-12.
- Ayub, M. (2007). *Understanding Islamic Finance*. John Wiley & Sons Ltd.
- Bank Islam Malaysia Berhad (BIMB). (n.d.). *Corporate Profile*. Retrieved October 18, 2013, from <http://www.bankislam.com.my/en/pages/CorporateProfile.aspx?tabs=1>
- Blaikie, N. (2003). *Analyzing Quantitative Data: Inferential Analysis From Sample to Population*. London: SAGE Publications Ltd.
- Bley, J., & Kuehn, K. (2004). Conventional Versus Islamic Finance: Student Knowledge and Perception in The United Arab Emirates. *International Journal of Islamic Finance Services Vol. 5 No.4*, 1-13.
- Bley, J., & Kuehn, K. (2004). Conventional Versus Islamic Finance: Student Knowledge and Perception in The United Arab Emirates. *International Journal of Islamic Financial Services Vol. 5 No. 4*.
- Coakes, S. J., & Steed, L. (2007). *SPSS: Analysis Without Anguish Using SPSS Version 14.0 for Windows*. Australia: John Wiley & Sons Australia, Ltd.
- Conroy, S. J., & Emerson, T. L. (2004). Business Ethics and Religion: Religiosity as a Predictor of Ethical Awareness among Students. *Journal of Business Ethics*, 383-396.
- Daniels, H., Lauder, H., & Porter, J. (2009). *Knowledge, Values and Educational Policy: A Critical Perspective*. New York: Routledge.
- Department of Higher Education. (2013, April 1). *List of Public and Private Higher Education Institutions*. Retrieved January 13, 2014, from Webmasterjpt: <http://jpt.mohe.gov.my/eng/index.php?page=IPT%20MALAYSIA/SENARAI%20IPTA.php>

- Department of Statistics Malaysia. (2012). *State/District Data Bank of Malaysia 2012*. Kuala Lumpur: Department of Statistics, Malaysia.
- Dusuki, A. W. (2012). *Islamic Financial System: Principles and Operations*. Kuala Lumpur: International Shariah Research Academy for Islamic Finance (ISRA).
- Ernst & Young. (2012). *World Islamic Banking Competitiveness Report 2012 - 2013*. Dubai: A MEGA Brand.
- Faisal, M., Akhtar, A., & Rehman, A. (n.d.). Awareness of Islamic Banking in India - An Empirical Study. 1-14.
- Gerrard, P., & Cunningham, J. B. (1997). Islamic Banking: A Study in Singapore. *International Journal of Marketing*, Vol. 15 Iss: 6, 204 - 216.
- Gerrard, P., & Cunningham, J. B. (204 - 216). Islamic Banking: A Study in Singapore. *International Journal of Marketing*, Vol. 15 Iss: 6, 1997.
- Gliner, J. A., Morgan, G. A., & Leech, N. L. (2009). *Research Method in Applied Settings: An Integrated Approach to Design and Analysis*. New York: Taylor & Francis Group, LLC.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate Data Analysis*. New Jersey: Prentice-Hall, Inc.
- Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2007). *Research Methods For Business*. London: John Wiley & Sons Ltd.
- Hamzah, A. Z. (2013, October 28). Training Gap Overshadows Malaysia's Islamic Finance Growth. *Thomson Reuters Edition*.
- Haque, A., Osman, J., & Ismail, A. Z. (2009). Factor Influences Selection of Islamic Banking: A Study on Malaysian Customer Preferences. *American Journal of applied Sciences*, 922-928.
- Haron, S., Ahmad, N., & Planisek, S. I. (1994). Bank Patronage Factors of Muslim and Non-Muslim Customers. *International Journal of Bank Marketing* Vol. 12 No. 1, 32-40.
- Idris, A. R., Naziman, K. N., Januri, S. S., Asari, F. F., Muhammad, N., Sabri, S. M., et al. (2011). Religious Value as the Main Influencing Factors to Customers Patronizing Islamic Bank. *World Applied Sciences Journal 12 (Special Issue on Bolstering Economic Sustainability)*, 8-13.

- Iqbal, M., & Molyneux, P. (2006). Thirty Years of Islamic Banking: History, Performance and Prospects. *J.KAU: Islamic Economic Vol. 19*, 37-39.
- Iqbal, Z., & Mirakhor, A. (2011). *An Introduction to Islamic Finance Theory and Practice*. Singapore: John Wiley & Sons (Asia) Pte. Ltd.
- Jamalluddin, H. (2011). *Analyst Briefing - Dec 2011*. Kuala Lumpur: Bank Islam Malaysia Berhad (BIMB).
- Jian, P. H. (2005). What is Knowledge: A Pedagogical Definition. *Journal of Jiangsu University (Higher Education Study Edition)*.
- Jian, P. H. (2005). What is Knowledge: A Pedagogical Definition. *Journal of Jiangsu University (Higher Education Study Edition)*.
- Kahf, M. (2002). Decision-making Under Uncertainty: An Islamic Perspective. In M. Iqbal, & D. T. Llewellyn, *Islamic Banking and Finance: New Perspectives on Profit-Sharing and Risk* (pp. 31-36). United Kingdom: Edward Elgar Publishing, Inc.
- Khan, H. N., & Asghar, N. (2012). Customer Awareness and Adoption of Islamic Banking in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 359-366.
- Khan, M. S., Hassan, M. K., & Shahid, A. I. (2008). Banking Behavior of Islamic Bank Customers in Bangladesh. *Journal of Islamic Economics, Banking and Finance*, 159-194.
- Khattak, N. A., & Rehman, K.-U. (2010). Customer Satisfaction and Awareness of Islamic Banking System in Pakistan. *African Journal of Business Management Vol. 4 (5)*, 662-671.
- Khir, K., Gupta, L., & Shanmugam, B. (2008). *Islamic Banking: A Practical Perspective*. Malaysia: Pearson Malaysia Sdn Bhd.
- Kim, J.-o., & Mueller, C. W. (1994). Introduction to Factor Analysis: What It Is and How To Do It. In M. S. Lewis-Beck, *Factor Analysis and Related Techniques* (pp. 1-69). Singapore: Toppan Co. (S) Pte Ltd.
- Kishada, Z. M., & Wahab, N. A. (2013). Factors Affecting Customer Loyalty in Islamic Banking: Evidence from Malaysia Banks. *International Journal of Business and Social Science Vol. 4 No. 7*, 264-273.

- Kothari, C. R. (2004). *Research Methodology: Methods & Techniques*. New Delhi: New Age International (P) Limited.
- Lewis-Beck, M. S. (1994). *Factor Analysis and Related Techniques*. Singapore: Sage Publication, Ltd.
- Ling, K. L., Ling, K. M., Pey, L. S., & Hui, W. Z. (2012). *Awareness of Islamic Banking Products and Services Among Non-Muslims in Malaysia*. Kuala Lumpur: University Tunku Abdul Rahman.
- McCombs, B. I. (1984). Processes and Skills Underlying Continuing Intrinsic Motivation to Learn: Toward a Definition of Motivational Skills Training Interventions. *Educational Psychologist Vol. 19 Issue 4*, 199-218.
- Naser, K., & Moutinho, L. (1997). Strategic Marketing Management: The Case of Islamic Banks. *International Journal of Bank Marketing Vol. 15 Iss: 6*, 187-203.
- Omar, A. M. (2010). *An Overview of Shariah Contract Practice in Malaysian Islamic Banks*. Kuala Lumpur: Malaysian Press Institute (MPI) .
- Osman, M. R., & Ali, H. (2008). Exploring Muslim Entrepreneurs' Knowledge and Usage of Islamic Financing. *Seminar Keusahawanan Islam II Peringkat Kebangsaan*, (p. 26).
- Osman, M. R., & Ali, H. (2008). Exploring Muslim Entrepreneurs' Knowledge and Usage of Islamic Financing. *Seminar Keusahawanan Islam II Peringkat Kebangsaan* (pp. 1-26). Kuala Lumpur: Jabatan Shariah dan Pengurusan, Akademi Pengajian Islam, Universiti Malaya.
- Rahman, Z. A. (2006, January 23). *Contracts in Islamic Banking*. Retrieved November 10, 2013, from al-Ahkam.net: <http://www.al-ahkam.net/home/content/contracts-islamic-banking>
- Reinhardt, W., Mletzko, C., Slope, P. B., & Drachsler, H. (2012). Understanding The Meaning of Awareness in Research Network. 1 - 17.
- Run, E. C., & Lip, D. Y. (n.d.). Awareness, Understanding and Behavior of Islamic Banking: Results of a Special Study. *Institute of Bankers Malaysia (IBBM)*.
- Rustam, S., Bibi, S., Zaman, K., Rustam, A., & ul-Haq, Z. (2011). Perceptions of Corporate Customers Towards Islamic Banking Products and Services in Pakistan. *The Romanian Economic Journal*, 107 - 123.

- Schneider, B., & Bowen, D. E. (1985). Employee and Customer Perceptions of Service in Banks: Recaplication and Extension. *Journal of Applied Psychology*, Vol 70 (3), 423 - 433.
- Sekaran, U. (2003). *Research Methods For Business: A Skill Building Approach*. United States of America: John Wiley & Sons.
- Tan Sri Dr. Zeti Akhtar Aziz. (2013, May 17). *Kewangan Berlandaskan Syariah Menjadi Pilihan*. Retrieved December 10, 2013, from Malaysia Terkini: <http://www.malaysia-terkini.com/kewangan-berlandas-syariah-jadi-pilihan/comment-page-2/#.UqametIW3Hg>
- Thambiah, S., Ismail, H., & Eze, U. C. (2011). Customer Awareness and Current Usage of Islamic Retail Banking Products and Services in Malaysia. *Australian Journal of Basic and Applied Sciences*, 667-671.
- Yusoff, R., Kamdari, N. A., & Masri, D. N. (2013). Selection Factors of The Acceptance al-Ijarah Thumma al-Bay (AITAB) in Shah Alam. *5th Islamic Economics System Conference (iECONS 2013)* (pp. 302 - 325). Kuala Lumpur: Universiti Sains Islam Malaysia (USIM).
- Zainol, Z., Shaari, R., & Ali, H. M. (2008). A Comparative Analysis of Bankers' Perceptions on Islamic Banking. *International Journal of Business and Management*, 157-168.
- Zainol, Z., Shaari, R., & Ali, H. M. (2008). A Comparative Analysis of Bankers' Perceptions on Islamic Banking. *International Journal of Business and Management*, 157-168.
- Zikmund, W. G. (2002). *Business Research Methods 7th Edition*. Mason: South-Western College Pub.