

ADOPTION OF ISLAMIC CREDIT CARD UTILIZING INNOVATION
DIFFUSION THEORY AND THEORY OF REASONED ACTION

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DEDICATION

To my father, who gave me endless love, trust, constant encouragement over the years, and for his prayers.

To my family, for their patience, support, love, and for enduring the ups and downs during the completion of this thesis.

Thank you for your love, support, encouragement and understanding

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ABSTRACT

Islamic banking is the most developed part of the Islamic financial system. In order to ensure that it is competitive within the banking industry, Islamic banks have to have their own distinctive Islamic-based financial schemes and appealing alternatives to the services offered by conventional banks. Among the Shariah compliance products offered, the main focus of this study is the Islamic credit card (ICC). Currently, the market share of ICC is comparatively smaller than the conventional ones and the service is under-used. Since the factors determining the usage of ICC remained inconclusive, this study was conducted to fill the gaps. Besides, due to the enormous advantages it offers to banks as well as customers, a close examination of the main factors that makes ICC attractive to consumers is worth the study as well. This study expanded a model of antecedents that was found to affect customers' intentions to adopt ICC. It also used using Innovation Diffusion Theory (IDT) in combination with Theory of Reasoned Action (TRA), along with other related predictors. Using a quantitative methodology, 649 Islamic bank customers in Kuala Lumpur participated in the study and completed the survey. A structural equation modeling (SEM), particularly Partial Least Squares (PLS) was incorporated to evaluate the relationships between constructs and to estimate both the measurements and structural parameters proposed. The results depicted that relative advantage, compatibility, trialability and observability have positive associations with the customers' intentions to use ICC. The study is a pioneer in terms of extending the validity of IDT in the field of ICC research. Besides, it is also the first in integrating two well-established adoption and acceptance models, namely IDT and TRA in order to provide more in depth results in regards to the acceptance of ICC.

ABSTRAK

Perbankan Islam adalah bahagian yang paling maju dalam sistem kewangan Islam. Bagi memastikan ianya berdayasaing dalam industri perbankan, bank-bank Islam perlu mempunyai skim yang berasaskan kewangan Islam yang tersendiri dan menawarkan perkhidmatan alternatif yang menarik berbanding perkhidmatan yang ditawarkan oleh bank-bank konvensional. Antara produk yang mematuhi Syariah yang ditawarkan, fokus kajian ini adalah kad kredit Islam (ICC). Pada masa sekarang, pasaran kad kredit Islam agak kecil berbanding kad kredit konvensional dan perkhidmatannya amat kurang digunakan. Memandangkan faktor penentuan penggunaan ICC masih berkurangan, kajian ini dijalankan untuk mengisi kekurangan tersebut. Selain itu, oleh kerana kebaikan yang diberikan kepada bank dan pelanggan, kajian mengenai penelitian faktor-faktor utama yang menarik minat pelanggan untuk memilih kad kredit Islam adalah penting. Kajian ini menambah baik model faktor terdahulu yang mempengaruhi pelanggan untuk menggunakan kad kredit Islam. Ia juga menggunakan Gabungan Teori Resapan Inovasi (IDT) dan Teori Tindakan Bersebab (TRA) serta peramal lain yang berkaitan. Dengan menggunakan kaedah kuantitatif, 649 pelanggan bank Islam di Kuala Lumpur menyertai dan melengkapkan kaji selidik. Pemodelan Persamaan Struktur (SEM), Partial Least Squares (PLS) telah digunakan untuk menilai hubungan antara konstruk dan menganggarkan kedua-dua ukuran dan parameter yang telah dicadangkan. Hasil kajian menunjukkan bahawa kelebihan relatif, keserasian, kebolehcubaan dan kebolehpemerhatian mempunyai impak positif terhadap niat untuk memilih kad kredit Islam. Kajian ini adalah perintis dalam melanjutkan kesahan IDT dalam kajian berkaitan kad kredit Islam. Selain itu, ia adalah perintis dalam mengintegrasikan dua model yang mantap, iaitu IDT dan TRA, untuk memberikan hasil yang lebih menyeluruh dalam menilai penerimaan terhadap kad kredit Islam.

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LIST OF ABBREVIATIONS

AVE	-	Average Variance Extracted
BIMB	-	Bank Islam Malaysia Berhad
BNM	-	Bank Negara Malaysia
CB-SEM	-	Covariance-Based Structural Equation Modeling
CCC	-	Conventional Credit card
COM	-	Compatibility
COMX	-	Complexity
CUA	-	Customer Awareness
DTPB	-	Decomposed Theory of Planned Behavior
IAIB	-	International Association of Islamic Banks
ICC	-	Islamic Credit Card
IDB	-	Islamic Development Bank
IDT	-	Innovation Diffusion Theory
INTU	-	Intention to Use
OB	-	Observability
OIC	-	Organization of Islamic Conference
PLS	-	Partial Least Squares
PLS-SEM	-	Partial Least Squares Structural Equation Modeling
RA	-	Relative Advantage
RA	-	Religious Adherence
RM	-	Ringgit of Malaysia
SAC	-	Shariah Advisory Council
SEM	-	Structural Equation Modeling
SPSS	-	Statistical Package for the Social Sciences
TAM	-	Technology Acceptance Model

TPB	-	Theory of Planned Behavior
TR	-	Trialability
TRA	-	Theory of Reasoned Action
UTAUT	-	Unified Theory of Acceptance and Use of Technology
UTM	-	Universiti Teknologi Malaysia
VIF	-	Variance Inflation Factor

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CHAPTER 1

INTRODUCTION

1.1 Islamic Banking

The past decade experienced an unprecedented growth of Islamic finance with a notable expansion of Islamic banks operations (Godlewski et al., 2013). Islamic banking is the most known and most developed part of the Islamic financial scheme (Rustam et al., 2011). Although the concept of Islamic banking system is old, the Islamic banking scheme was introduced in the twentieth century, with its main reason referred to the need of financial foundation for Muslim bank customers to satisfy their needs on the basis of Islamic principles (Khattak and Rehman, 2010).

More specifically, the offering of Shariah compliant products and services have become more widespread and substantial in the last 30 years while Islamic finance and banking have been practiced for many years (Gait and Worthington, 2008). In view of that, in the Muslim world, the emergence of the Islamic banking scheme is known as the most inspirational and terrific 20th century financial and economic phenomenon (Daud *et al.*, 2011). In 2011, Islamic banking assets worth \$1.3 trillion and had a normal yearly development of 19% over the past four years. During 2013, the global Islamic banking assets had reached \$1.8 trillion (Harun *et al.*, 2015).

The key mission of Islamic banks refers to an attempt for the achievement of economic and social progress by the delivery of various monetary and financial services in accordance with Islamic principles (Metawa and Almassawi, 1998). Islamic banks and financial institutions are hoped and expected to achieve the socio-

economic goals of Islam, such as economic well-being with full employment, socioeconomic justice and equitable distribution of income and wealth in society, the mobilization and investment by saving for economic development, as well as stability in the value of money (Hassan and Lewis, 2007a).

Prohibition of interest is the basis of the Islamic banking system, which is created based on religious beliefs rather than economic principles (Ghannadian and Goswami, 2004). Basically, investing money in conventional fixed-term deposit does not create any risk (Gerrard and Cunningham, 1997), and the main reason for prohibition of interest-based banking system refers to the belief that it would be unfair to earn profits without assuming risk (Siddiqui, 2001).

The prohibition of *riba* has restricted profits from the activity of lending money; however, *riba* prohibition allows for administrative expenses of financial intermediaries, as well as compensation for inflation (El-Komi and Croson, 2013). Accordingly, prohibition of *riba* or interest as the basis of Islamic banking does not permit banks to charge interest regarding loan to bank customers, and money lending process is required to be interest-free. This means that Islamic banks finance their investment throughout profit and loss sharing system (Saini *et al.*, 2011).

Under this condition, fixed rate of return, which is called *ex-ante* rate of return in financial contracts, would be replaced by *ex-post* rate of return, which is uncertain and is based on the profit and loss sharing system, and the only ratio of profit and loss sharing between entrepreneur and investor could be determined *ex-ante* (Al-Ajmi *et al.*, 2009). Indeed, introducing profit and loss sharing system is a kind of response for interest-free banking scheme (Khattak, 2011).

It seems that the main goal of Islamic finance is equal distribution because Islam believes that the mass exploitation of resources for obtaining maximum profits could create inequity in society; besides, the principles of Islamic transaction are required to check inequities, exploitation and the creation of an imbalance in Islamic society by using different types of concepts, rules and principles in order to eradicate unjust enrichment (Razak and Taib, 2011).

Due to risk sharing operations, interest-free products and services and strong linkage with religion, Islamic banks are gaining popularity (Ahmad *et al.*, 2010b). At first, the Muslims were the only target by Islamic banks; however, currently, this has changed and non-Muslims customers are welcomed as well. In view of the fact that Shariah finance is a blend of modern lending principles and Islamic economics, both Muslims and non-Muslims could be customers of its products (Abdullah *et al.*, 2012).

Moreover, the popularity of Islamic banking among non-Muslim customers around the world has increased (Dusuki and Abdullah, 2007) and interestingly, many non-Muslims are eager to understand and recognize attractive aspects of Islamic banking scheme (El Qorchi, 2005). After observing the increasing demand, various multidimensional conventional banks have opened Islamic banking windows and provided interest-free products and services to large groups of population (Huda *et al.*, 2007).

In addition, over the years, Islamic banking system has achieved popularity and expanded in various countries, namely Australia, Singapore, the United Kingdom and the United States (Amin, 2007a). However, despite the fact that the market for Islamic banking and finance is growing, lack of liquidity for the instruments, lack of religious councils ruling in the banks, lack of trained employees in the area of Islamic finance, as well as lack of standard accounting methods are some obstacles and challenges that have the potential to influence and limit the growth of Islamic financial system (Imam and Zubairu, 2011).

1.1.1 Islamic Banking in Malaysia

Islamic banking in Malaysia is developing well especially with the engagement of the government in regulating and supporting its development (Mohammad and Shahwan, 2013). Islamic banking history in Malaysia dated back to 1963 when Tabung Haji (the Pilgrims Management and Fund Board) was established by the government of this country in order to provide systematic mobilization of

funds from Muslims to support them for pilgrimage performance to Makkah and also to encourage them to participate in economic activities and investment opportunities. Due to these unique features, Tabung Haji is known as its first kind in the world (Mokhtar *et al.*, 2008). Afterward, many parties in Malaysia requested for the establishment of Islamic banks (Ecchabi and Olaniyi, 2012).

As one of the most progressive Muslim nations in the world, Malaysia has promoted the idea of implementing Islamic banking system (Abdullah *et al.*, 2012). Islamic banking scheme in Malaysia has emerged as a competitive constituent related to the overall financial system, which is constructed to complete conventional banking and financial system as indicators of economic growth that lead to development. It seems that Malaysia has been successful in applying a dual banking system, which makes Malaysia as the first country to have an Islamic banking system that is operating in parallel with the conventional scheme.

In fact, Malaysia is considered as an international Islamic banking and finance central part. Government support exists for reinforcing dual banking system, whereby Islamic banking system is implemented in parallel with the conventional banking scheme. Actually, Malaysia is considered as the first Islamic country that supports the expansion of Islamic banking system (Khattak and Rehman, 2010).

In order to protect Muslim and non-Muslim customers from interest, Islamic banks are required to set up financial instruments that are based on Islamic principles and in line with Islamic banks' objectives (Amin and Isa, 2008). In addition, changes in financial landscape of Malaysia and introduction of Islamic banking have created new phenomena and dimensions in banking sector. Such scenario has also led to customers changes in taste and request for better and high quality banking services (Abdullah *et al.*, 2012). One of the controversies of Shariah-based products offered by Islamic banking, which is the focus of this study, is Islamic credit card (ICC).

1.1.2 Islamic Credit Card

Credit card is known as one of the latest gadgets in the banking industry. It helps people to make transactions without carrying cash because the issuer of credit card pays the transaction process on behalf of the buyer (Ferdian *et al.*, 2012). Credit card is defined as a plastic money that includes “buy first and pay later” option for its users (Choo *et al.*, 2007). Likewise, ICC refers to a plastic money that includes “buy first and pay later” opportunity for its holders, although its implementation is strictly based on Shariah values, objectives and principles (Amin, 2012b).

As stated by Massey (2007), ICC is defined as a payment instrument that meets at least three standards of Islamic principles. First, this type of card needs to meet Shariah requirements of lending, which are different from one region to another. As a general rule, it must avoid three Islamic finance essential prohibitions, namely gharar, riba and maysir. As applied in the interest concept, riba has been clearly proscribed in the Hadith of Prophet Muhammad (PBUH) and the Quran. Consequently, ICC is not permitted to charge any interest to payment even in the case of user being late for payment. Uncertainty or gharar in ICC practice must be avoided through excluding a charging scheme where the service charges or monthly repayments are visible on the basis of a number of factors. Besides, maysir or gambling has been prohibited as well. Therefore, preventing the card holder to access sites like online gambling (Ferdian *et al.*, 2012).

In particular, conducting haram transactions is strictly prohibited, and ICC can be utilized solely for halal transactions financing (Amin, 2012b). Regardless of a conventional credit card (CCC) or ICC, accepted worldwide, easy payment scheme and benefits, and facilities offered are the three items that are used as benchmarks by customers in applying credit cards (Dali and Rais, 2006). However, there are some differences between CCC and ICC concerning the interest-free that adheres to the Shariah system and regulations to render service or buy products. Moreover, ICC holders agree that they have selected this service due to interest-free based, as well as Shariah rules and regulations compared to CCC holders, who did not agree with these statements (Dali and Rais, 2006).

In fact, before the introduction of ICC, many questionable dilemmas have arisen regarding potential problems, including its legal impacts, permissibility of the card, its acceptance, as well as questions about high debt among young graduates. This means that Islamic banks need to come up with appropriate measures in order to avoid these issues. Therefore, banks are of prime importance to introduce ICC facilities that meet their policies.

This clarifies that those customers who are affluent and have greater income are capable to possess this Islamic service (ICC). However, despite all these mentioned issues, it is expected that ICC will strengthen the threatened Islamic identity for Muslims, since it is prohibited for those affordable Muslims to continuously use CCC that is totally prohibited by Islam (Amin, 2012a).

In addition, there are two main reasons indicating the need for ICC. Firstly, it has been introduced to meet customers' demands, intended to deal only with Islamic financial transaction (Amin, 2012b). To be sure, the first and most important Islamic bank feature refers to interest prohibition, and particularly ICC is consistent with this requirement (Olson and Zoubi, 2008).

Secondly, ICC is important for a commercial bank in diversifying its financial resources. At present, financing sources of banks are limited to the Islamic money market, sukuk and deposit-taking activities. Importantly, ICC availability enhances customer base of Islamic banks which can diversify and rise funding sources (Amin, 2012b).

In fact, Al-Wadiah, Bai Al-Inah and Quardhul Hassan are mostly applied in ICC transactions. These features enhance ICC to be based on Shariah contracts, which have a fixed profit margin, free of gharar and riba, impose zero interest on easy payment plan, charge a low rate of profit on the outstanding balance and offer balance transfer facility. These beneficial aspects of ICC would encourage Muslim as well as non-Muslim consumers to use this Islamic banking service (Dali and Hamid, 2007).

Further, Islamic-based credit card may have some attractive aspects with regards to online purchase to encourage customers to use this service (Choo *et al.*, 2007). In addition, the increase in the number of ICC services provides different alternatives for Muslim bank customers to have interest-free credit system and payment (Dali *et al.*, 2008).

In addition, Amin (2012b) argued that investigating the use of ICC is valuable because of two main reasons. Firstly, ICC will promote Islamic financial transaction among bank clientele, specifically to buy halal goods and services. Secondly, past studies in the context of ICC have produced mixed results with regards to the influential factors that affect the usage of this Islamic banking service. Dali *et al.* (2008) argued that studies in different factors related to ICC such as usage and perception could contribute in enriching the studies regarding ICC holders' behavior and preference.

Islamic banks have issued ICC in order to meet the need of Muslim customers to make financing transactions without cash on hand (Ferdian *et al.*, 2012). Additionally, ICC is still at infancy stage as compared to CCC which indicates the importance of research in the area (Mansor and Che Mat, 2009).

Moreover, before the introduction of ICC, several issues including credit card permissibility, its legal impacts and high debts among graduates at the young age have been identified. To tackle these issues efficiently, Islamic banks have been recommended to develop suitable measures. Therefore, Islamic banks are of prime importance to offer ICC facilities that meet their policies as well as maqasid al-Shariah. ICC is viewed as an important payment form amongst young generations (Amin, 2013).

A person has this type of money for several reasons, including cash advance, attain credit facility, charge card, easy payment and prestige (Billah, 2003). ICC appears to be people's wealth and status of individuals (Amin, 2013). Therefore, during these years, ICC industry has gained popularity among Malaysians (Mansor, 2005).

Due to ICC enormous advantages of ICC for both banks and customers (Amin, 2012a), identifying the main factors that influence consumers to use ICC is the purpose of this study. Amin (2012b), highlighted only a few researchers have investigated usage intention of ICC, and further studies are required to fill the gap on the usage intention and adoption of the ICC. Moreover, previous studies showed mixed findings in holding ICC, have proven that studies in this field are significantly lacking, which in turn warrant further investigation (Amin, 2013).

1.2 Background of Study

Due to introduction of Islamic banking in various countries such as Bahrain, Malaysia, and Pakistan, as well as non-Muslim nations around the world, many studies have investigated conventional and Islamic banking from different points of view (Raza *et al.*, 2012). However, although the market share of Islamic banking products and services seems to be low, studies on customer's adoption and usage intensity concerning Islamic banking products and services have remained scarce (Thambiah *et al.*, 2011a). Table 1.1 shows Malaysia's market share, growth rate, and value of Islamic assets in comparison to five other countries based on World Islamic Banking Competitiveness Report 2013-14.

Table 1.1: Islamic Banking Assets

Country	Five Year compound annual growth rate	Values of Islamic assets	Market share
Malaysia	20% or 2.1 x faster than conventional	US\$ 125 billion	20%
Qatar	31% or 1.8 X faster than conventional	US\$ 54 billion	24%
Indonesia	42% or 3.1 X faster than conventional	US\$ 20 billion	4.6%
Saudi Arabia	11% or 3.6 X faster than conventional	US\$ 245 billion	53%
UAE	14% or 3 X faster than conventional	US\$ 83 billion	17%
Turkey	29% or 1.6 X faster than conventional	US\$ 39 billion	5.6%

In view of that, some important questions could be raised, for instance, in a country where both Islamic and conventional banking systems operate and majority of the population are Muslims, what would be the major factors that stimulate the motivation of customers to use Islamic banking services and specifically ICC? Importantly, several studies have been conducted on ICC (Choo *et al.*, 2007; Dali *et al.*, 2008; Mansor and Che Mat, 2009). Each of these studies has explored ICC in different ways in terms of statistical analysis and findings.

Choo *et al.* (2007), investigated customer's choice of ICC. They used a survey questionnaire based on convenience sampling to identify their study objectives. Briefly, the study revealed that employment was the only factor that had a significant effect on the probability of selecting ICC where private sector employees had a lower tendency to use ICC while, government employees were more eager to choose ICC as most of them are Muslims.

In addition, the study indicated that the frequency of using a credit card for online purchase had a significant relation to the possibility of choosing ICC. Actually, the positive impact of the card tells the customer that ICC is cheaper and more secure. Another study by Mansor and Che Mat (2009) examined the influence

of demographic factors on the usage of ICC. Analysis of the collected data from 305 respondents revealed that income level was an important factor for the usage of ICC. The authors believed that customers increase their spending when their income grows. When the level of income and education variables were considered, certain degrees of differences existed.

Moreover, low- and middle-income individuals were eager to use ICC in their daily activities if it is able to provide convenience and safety features. No statistical difference was found between Malaysian males and females in ICC usage. Besides, a study by Dali and Rais (2006) revealed that accepted worldwide, easy payment and provided benefits and facilities are main concerns and requirements of the majority of customers. They recommended that in order to attract customers, the above standards should be met. In addition, they indicated that there is a noteworthy difference between CCC and ICC in terms of buying goods and rendered services.

In another interesting study by Dali *et al.* (2008), factors that influence credit card holders' satisfaction in Malaysia were investigated using self-administrated questionnaire. Exploratory factor analysis (EFA) and logistic regression were utilized in this study in order to achieve the study objectives. Although the study could find that bulk purchase, shopping and concept understanding were the key items in one's ICC use' satisfaction, however, the study did not explore important factors regarding ICC usage. Moreover, the associations between independent and dependent variables were not tested.

In another recent study, Amin (2012b) investigated the important factors that influence ICC usage intention. Bank customers in Labuan and Kota Kinabalu who had accounts in Islamic bank were the target sample of the study. Although the study could prove that religion, knowledge of ICC, financial recommendation, marital status, age and education level were significantly related to the usage intention of ICC, but the study had some limitations, such as only a specific user group in a particular location and limited number of predictor variables that influence ICC usage intention were considered. The author recommended further and future study

in regards to ICC usage, as well as considering richer set of predictors like religiosity, financial benefit factors and social factors.

Consistently, Amin (2012a) attempted to recognize the factors that influence bank customers' behavioral intention in Malaysia to employ ICC. Drawing from the Theory of Reasoned Action (TRA) model, the study identified a framework to explore attitude, subjective norm and perceived financial cost influence on usage intention of ICC. To achieve the objective of study, the data were collected through a modified questionnaire from 257 bank customers. A multiple regression model was applied to identify influences of independent variables on the usage intention of ICC.

Although, the results of the study indicated that attitude, subjective norm and perceived financial cost significantly influence usage intention of ICC, but its author pointed that the study had two main shortcomings. Firstly, the paper only considered Eastern Malaysia as the sample target and Western Malaysia was excluded. Moreover, the study only applied three predictors for usage intention of ICC and accordingly, the author recommended for applying a richer set of variables, as well as including personal factors and prior experience as predictors to offer improved explanatory power for adoption of ICC.

Meanwhile, the interest on patronage and customers' perception studies toward Islamic banks has increased in recent years, in which focused research that studies specifically offered products and services by Islamic banks remains embryonic (Abdullah and Dusuki, 2006). Besides, it should be noted that ICC usage and adoption topic have received little empirical support in previous studies (Amin, 2012b).

Moreover, Amin (2012a) argued that studies on the adoption of ICC have produced mixed results regarding key antecedents that lead to the adoption of this Islamic banking service, and it would be of paramount importance to justify that studies on the adoption of ICC have remained inconclusive. Therefore, further studies are needed for the contribution of ICC to the body of knowledge.

1.3 Problem Statement

In order to compete with conventional banks and capture greater profits and market shares, Islamic banks are making huge efforts to increase the number of customers by through offering a large number of products as alternatives for interest-based banking services and products (Ahmad *et al.*, 2010a). In other words, Islamic banks are in the race to innovate and introduce many products and services in order to remain competitive in the industry and to become profitable. In view of that, the issuance of ICC has been able to provide different merits and facilities for the banks and its customers. According to these merits, ICC has enabled the issuers banks to diversify their operations portfolio and generate more benefits (Amin, 2012b).

In Malaysia, credit cards were first introduced in 1973 with the advent of Diners Club Card. Then in 1978, the Bank of America introduced VISA Card. In 1979, American Express, and Hong Kong Bank with Master Card followed. The year 2004 witnessed Citibank and Malayan Banking Berhad (Maybank) became the market leaders in Malaysian credit card business. Credit card that has begun in 90's created a new dimension in credit transaction among Malaysians. Instead of cash-transaction, Malaysians can opt for electronic banking that provide easiness and security. Table 1.2 shows the details of credit card industry in Malaysia and its growth during recent years.

Table 1.2: Credit Card Details in Malaysia

Year	2010	2011	2012	2013	2014
Number of credit cards	8,547,000	8,281,000	8,150,000	8,128,000	8,160,000
Credit card transaction volume (RM Million)	294.9	316.9	325.3	332.4	345.9
Credit card transaction value (RM Million)	79,810	88,797	94,085	99,733	105,485

Source: Bank Negara Malaysia

As to cater this demand, Muslim bankers in the same position have started promoting the industry and provoking the Shariah-based institutions and bodies to initiate an alternative for this well-growing industry. Therefore, in the year 2002, the first Islamic Credit Card was introduced by Arab Malaysian Bank (AMbank) with a card known as Al-Taslif and later followed by Bank Islam Malaysia Berhad, with Bank Islam Card. Therefore, ICC is new to Malaysian bank customers compared to CCC. According to Amin (2013) research on the selection of ICC still lacking and are inconclusive which required further investigations.

Besides, lots of products and innovations do not reach the expected market share (Schoorman *et al.*, 2011). In view of that, the market share of ICC is relatively small and there is a high probability that this Islamic banking service remains under-used or unnoticed by bank customers (Amin, 2012b). As the market share of Islamic banking assets is only 17.4 % (Aziz, 2009), there is necessity to expand the usage and adoption of ICC. This depends on effective identification of the factors and items that enhance to attract and increase prospective holders of this facility among Malaysian bank customers.

The swift changes in general economic environment and in particular the banking sector have impacted customers' bank selection and patronage behavior (Almossawi, 2001; Blankson, 2009; Owusu-Frimpong, 1999) and have attracted scholars' attention over the past three decades and more so even today. Thus, the need to understand the factors impinging on consumer's selection of retail banks is one of the most crucial strategic issues in the banking sector, particularly for policy-makers such as senior bank managers and advertising executives (Blankson *et al.*, 2007; Mohd Dali *et al.*, 2015).

As the Malaysian economy continues to prosper and develop new markets in Islamic banking, finance and takaful, customers' expectations will equally evolve which requires a deeper understanding of the factors impinging on their selection decisions (Mohd Dali *et al.*, 2015). Therefore, it is important to analyze the acceptance of Islamic credit cards for further enhancement and expanding its market share in Malaysia, since there is lack of research on the determinants of factors

affecting the selection of Islamic credit cards among Malaysians(Shafinar *et al.*, 2013).

In addition, the government of Malaysia aims to build a strong and progressive Islamic banking system ingrained in Islamic principles and values (Thambiah *et al.*, 2013). Malaysia's aspiration to be an Islamic finance hub has made it necessary for decision and policy makers in this country to comprehend the growing needs of consumers in order to achieve more popularity, specifically in dual banking system that has made the competition more fierce with their conventional bank types (Echchabi and Olaniyi, 2012).

Therefore, in order for Islamic banking industry to continue its growth, stiff competition would be expected between Islamic and conventional banking systems to attract and maintain various customers by representing new and innovative products and services (Sun *et al.*, 2012). It seems that the innovative use of ICC could be an effective strategy to attain an appropriate market share of Islamic banks regarding their products and services. In view of that, in order to ensure ICC services are able to strengthen Islamic banks competitive position, these banks are required to deepen their comprehension about the factors that influence customers' decision to adopt and use this Islamic product.

Moreover, although several studies have been undertaken to investigate issues in a wider context of an Islamic banking scheme, continuous study in the marketing area and customer's adoption of ICC in Malaysia has been rather limited. In more detail, although some studies regarding Islamic banking products and services adoption have been implemented, however, the need for future studies in this area is still required due to the explanatory nature of the subject (Islamic banking), as well as the fact that each of new findings complements the existing results (Echchabi and Olaniyi, 2012). More specifically, although bank customers are aware of ICC facilities, but the factors that lead them to choose this Islamic banking service need further exploration (Amin, 2013).

Consequently, the research aims to address the question concerning the factors influencing behavior and adoption of ICC among both Muslim and non-Muslim customers in Malaysia. It is important to acquire a thorough understanding of the customers' different behaviors, needs and preferences, so that appropriate marketing strategies could be applied to capture a considerable market share (Dusuki and Abdullah, 2007).

As the question of factors determining usage of ICC remains inconclusive (Amin, 2012b) and given the importance of ICC to Islamic banks (Amin, 2013), this study would try to add this Islamic banking product (ICC) to the current academic understanding. ICC has been analyzed in previous studies from different angles. For instance, Choo *et al.* (2007) have considered the impact of demographic factors and the frequency to purchase using ICC on possession of ICC, whereas Mansor and Che Mat (2009) analyzed the demographic items impact on the use of ICC.

On the other hand, there are a limited number of studies that appropriately identify the factors of ICC adoption (Choo *et al.*, 2007). The rareness of studies related to ICC adoption in Islamic banking and finance context and literature has created the motivation for conducting the present research. The reasons of the current study would be twofold. Initially, the research outcome would be necessary for future studies in Islamic banking and specifically ICC studies. In addition, the current research would promote the debates in the arena of ICC by assisting in increasing ICC studies and providing more literature in this area.

Secondly, the managers of bank branches would be provided with a better and more developed understanding of the factors that enhance ICC use and behavior by Malaysian bank customers. Consequently, this enables these banks to tailor their marketing attempts and strategies in order to attract potential ICC holders. The government of Malaysia would also be provided with promoted understanding of Malaysian customers' perception and behavior in regards to ICC adoption, use and decision intention.

Besides, previous studies on ICC produced mixed results regarding the key antecedents of ICC choice criteria, which explain that studies on ICC remain inconclusive and thus, warrant further investigation in this area (Amin, 2013). Therefore, the current study addresses the gap in the literature by looking at the illumination and predicting bank customers' usage and adoption of ICC as one of the Islamic retail banking services in Malaysia.

The study expands a model of antecedents that affect customers' intention to adopt ICC using perceived attributes of innovation derived from Innovation Diffusion Theory (IDT) (Rogers, 2003) and TRA (Fishbein and Ajzen, 1975), as well as added predictors (customer awareness and religious adherence) as the framework of the study.

Notably, Echchabi and Olaniyi (2012) have recommended future studies in order to examine the Islamic banking services determinants in Malaysia by employing different models in order to discover more detailed outcomes. Additionally, they have recommended focusing on specific types of financial and banking services.

Importantly, Amin (2013) recommended the use of a richer set of variables may be used in ICC studies to improve the research model's explanatory ability and also in order to have better reflection of Malaysian bank customers regarding usage of ICC, this study integrates two well-established adoption and usage theories (IDT and TRA), as well as adding other related constructs such as customer awareness and religious adherence.

Taking everything into account, the study would contribute to the literature of ICC from several aspects. First, to the best of the author's knowledge, this study would be a pioneer attempt in the applying the perceived attributes of IDT to the ICC studies, as well as integration of this model with TRA to explain customer adoption of ICC that has been offered to Malaysian bank customers by different institutions. Second, the study has added religious adherence and customer awareness as two new constructs in the domain of ICC studies to the existing perceived attributes of

innovation and TRA in order to provide a better justification of ICC adoption and usage.

The main advantage of the current framework would be consolidation of a larger number of predictor variables, which in turn would be able to provide more explanation regarding the adoption and usage of ICC. Understanding the reasons behind the acceptance or rejection of ICC would assist Islamic banks strategies in increase in the acceptance and usage. This can overcome the issues related to underutilization of ICC.

1.4 Research Questions

As mentioned earlier, the main concern of the study is to identify the main factors that contribute to adoption, acceptance and usage of ICC. Specifically, the study attempts to answer the following research questions:

- 1) Which perceived attributes of innovation influence individual bank customers' intention to use ICC?

In order to answer this question, the study identified the following sub-questions:

- 1a) What is the association between relative advantage, a perceived attribute of innovation and individual bank customers' intention to use ICC?
- 1b) What is the association between compatibility, a perceived attribute of innovation and individual bank customers' intention to use ICC?
- 1c) What is the association between complexity, a perceived attribute of innovation and individual bank customers' intention to use ICC?
- 1d) What is the association between trialability, a perceived attribute of innovation and individual bank customers' intention to use ICC?

1e) What is the association between observability, a perceived attribute of innovation and individual bank customers' intention to use ICC?

2) Which perceived attributes of innovation influence individual bank customers' attitude toward the use of ICC?

This question is answered according to the following sub-questions:

2a) What is the relationship between relative advantage, a perceived attribute of innovation and individual bank customers' attitude toward using ICC?

2b) What is the relationship between compatibility, a perceived attribute of innovation and individual bank customers' attitude toward using ICC?

2c) What is the relationship between complexity, a perceived attribute of innovation and individual bank customers' attitude toward using ICC?

2d) What is the relationship between trialability, a perceived attribute of innovation and individual bank customers' attitude toward using ICC?

2e) What is the relationship between observability, a perceived attribute of innovation and individual bank customers' attitude toward using ICC?

3) Does religious adherence predict individual bank customers' attitude and individual bank customers' intention to use ICC?

4) Does customer awareness on ICC influence individual bank customers' attitude and individual bank customers' intention to use ICC?

5) What is the association between individual bank customers' attitude toward using ICC and their intention to use?

1.5 Research Objectives

The main purpose of this study is to examine the factors that influence bank customers to adopt and use ICC as an Islamic banking product. In other words, this study attempts to add to the body of knowledge in the Islamic banking and extend the knowledge and literature regarding the factors that affect ICC adoption and

usage. Accordingly, the following comprise the core objectives of this study, which guide the process to achieve the aim of the study:

- 1) To investigate the association between perceived attributes of innovation and individual bank customers' intention to use ICC.

In order to achieve this objective, five distinct sub-objectives have been formulated:

1a) To examine the connection between relative advantage, a perceived attribute of innovation and individual bank customers' intention to use ICC.

1b) To examine the connection between compatibility, a perceived attribute of innovation and individual bank customers' intention to use ICC.

1c) To examine the connection between complexity, a perceived attribute of innovation and individual bank customers' intention to use ICC.

1d) To examine the connection between trialability, a perceived attribute of innovation and individual bank customers' intention to use ICC.

1e) To examine the connection between observability, a perceived attribute of innovation and individual bank customers' intention to use ICC.

The second objective of this study is to discuss the influence of perceived attributes of innovation on bank customers' attitudes toward ICC. Therefore, the following objectives have been developed:

- 2) To determine the association between perceived attributes of innovation and individual bank customers' attitude toward the use of ICC in Malaysia.

To realize this objective, five sub-objectives have been formulated as follows:

2a) To identify the relationship between relative advantage, a perceived attribute of innovation and individual bank customers' attitude toward the use of ICC.

2b) To identify the relationship between compatibility, a perceived attribute of innovation and individual bank customers' attitude toward the use of ICC.

2c) To identify the relationship between complexity, a perceived attribute of innovation and individual bank customers' attitude toward the use of ICC.

2d) To identify the relationship between trialability, a perceived attribute of innovation and individual bank customers' attitude toward the use of ICC.

2e) To identify the relationship between observability, a perceived attribute of innovation and individual bank customers' attitude toward the use of ICC.

The third objective of the study refers to the impact of religious adherence on attitude and the use of ICC. Therefore, this objective has been developed:

3) To examine the connection between religious adherence, individual bank customers' attitude and individual bank customers' intention to use ICC.

The fourth objective of the study is concerned with the linkage between customers' awareness on ICC, their attitude and their decision to use it. This leads to the next objective:

4) To examine the relationship between customer awareness on ICC, individual bank customers' attitude and individual bank customers' intention to use ICC.

In addition, the study discuss about the influence of attitude toward the use of ICC on the intention to use this banking service. Accordingly, the following objective has been developed:

5) To determine the association between attitude toward the use of ICC and individual bank customers' intention to use ICC.

1.6 Significance and Contribution of the Study

Bashir *et al.* (2011), highlighted the need for more work on the existing Islamic banks in order to make their services and products more acceptable for customers. Accurate and appropriate shortage of literature in regards to the Islamic banking scheme (Ahmad *et al.*, 2010b), particularly ICC (Amin, 2012b), is the inspiration for conducting the current study. Hence, it is critical to identify the factors that inhibit or facilitate the adoption of ICC in Malaysia.

Therefore, the aim of the current study is to recognize items that determine the possibility of ICC adoption as an Islamic banking service from Malaysian bank customers' perspective. It should be noted that ICC usage and adoption topic has received little empirical support in previous studies (Amin, 2012b). Although previous studies provided valuable knowledge regarding adoption and usage of ICC, however, many questions have remained unanswered. This research attempts to provide a clearer picture of bank customers' behavior in regards to ICC. Although it is not feasible to consider all important antecedent factors in one research model due to the fact that there are many antecedents involved, the conceptual model of this study attempts to provide a framework to achieve the objectives of study.

This study utilizes nine constructs in regards to bank customers' behavior to ICC, which are richer sets of constructs than the previous studies. This unified framework is structured based on well-established models of IDT, integrated with TRA and two more constructs namely religious adherence and customer awareness. The integration of IDT and TRA in this study can paves a new avenue for future studies as it provides a more view on ICC acceptance and usage.

The importance and significance of the current study can be viewed in two dimensions; theoretical contributions and practical implications. With regards to theoretical contributions, this study attempts to apply perceived attributes of innovation (relative advantage, compatibility, complexity, trialability and observability) that are derived from IDT and integrate these attributes with TRA in studies of ICC adoption.

In other words, this study extends the applicability of one of the most used models proposed in adoption and acceptance of diverse products and services to ICC adoption, as well as its integration with a well-structured theory, namely TRA. Hence, based on the literature and to the author's knowledge, IDT has not been tested in the ICC studies with regards to adoption and usage. TRA has been used to explain adoption of ICC (Amin, 2013); nevertheless, on the basis of the author's knowledge, this is the first study that integrates these two models to explain adoption, acceptance and usage of ICC.

Hence, this study proposes a model that will assist comprehending the decision-making process of an individual, specifically the factors that influence customers' decision to choose ICC. Thus, conducting the current study would expand the model applicability into a new emerging context, which would be ICC. Furthermore, based on this model, the present study would measure the adoption and usage of ICC by adding two new variables that are relevant to Islamic banking adoption studies, namely religious adherence and customer awareness.

The combination of IDT with other theoretical perspectives has been viewed as an appropriate way to operationalize IDT (Hanafizadeh *et al.*, 2013; Mat, 2011; Zolait and Mattila, 2009; Zolait and Sulaiman, 2008). In fact, using the combined and integrated framework creates a multidimensional approach in order to understand adoption intentions (Tan and Teo, 2000).

Given the impact of perceived attributes of innovation characteristics (relative advantage, compatibility, complexity, trialability and observability), customer awareness, attitude and religious adherence on ICC usage is a new, especially within the Islamic markets. The outcome of this research would present a significant contribution and better understanding customers' decision regarding the adoption of ICC.

In other words, the current study includes a theoretical model that may help researchers and bankers to investigate customers' perceptions of ICC. In fact, such an understanding would help academicians in their research endeavors, as well as

marketers and bank managers in designing their marketing practice on the basis of their customers' preferences.

On the practical side, the current study would help marketers in different banks to recognize the most important factors that influence bank customers to adopt and use ICC. Marimuthu *et al.* (2010) indicated almost half of Malaysian respondents believe that Islamic banks have not done enough in marketing their products.

Accordingly, this study can assist Islamic banks and other ICC issuers in devising suitable marketing strategies for attracting and reaching different groups of customers. The research finding would be helpful for bankers in Malaysia to be able to identify ICC shortfalls and allocate resources in order to improve consumers' behaviors and perceptions toward ICC.

Information about the Islamic perspective on marketing is still lacking (El-Bassiouny, 2014). Therefore, ICC issuers can also use the outcome of this research to improve their competitive advantage around those salient adoption attributes in order to address their relative strengths and also weaknesses in a competitive banking industry.

In other words, the benefits of this study can assist in understanding how to cement relationships with existing ICC holders, as well as how to gain new ones. Lastly, the finding of this study can be used by ICC issuers to achieve a better understanding of customers' adoption intention in order to expand the suitable agenda to better develop specific market segments.

1.7 Scope of the Study

In Malaysia, the importance of Islamic banking and finance is no longer deniable (Mohamed *et al.*, 2011). Sixty percent of its population is Muslim. Both Islamic and conventional banks are simultaneously offered in Malaysia (Amin and

Isa, 2008). Malaysian government target to develop the country into a regional Islamic banking hub. Islamic banking system and Islamic finance are emerging as the vital component of the general financial system in Malaysia. It had contributed and enhanced the growth and improvement of Malaysian economy (Dusuki and Abdullah, 2007). Banking based on Sharia principles is known as Islamic banking and more than 100 various Islamic financial products and services are offered by different banks in Malaysia utilizing various Islamic concepts and principles (Marimuthu et al., 2010).

Since, it is clear that Islamic banking in Malaysia has evolved as a competitive component in the overall financial and monetary system, complementing the conventional financial system as a catalyst for development and economic growth, the scope of this research revolves around determining the factors that influence adoption of ICC which is offered by Islamic banks to bank customers. However, since this research will not have sufficient resources at its disposal to cover all Islamic banks and their customers, the study will only cover several selected Islamic banks and their branches that issue ICC in Kuala Lumpur. Accordingly, due to different advantages that enhances the process of data gathering to be more efficient, this study uses self-administered questionnaires to collect its relevant required data from different Islamic banks' customers in various parts of Kuala Lumpur. Therefore, this study is a quantitative research in which the data will be analyzed in terms of numbers that can be quantified or summarized. Quantitative research methods are more precise and the results are more likely to be free of researcher's biases and therefore usually have more credibility (Johnson and Onwuegbuzie, 2004). This research is a cross-sectional study, since it will collect the required data at a single point in time (Zikmund *et al.*, 2010). Cross-sectional design permits the researcher to collect data at one point in time from large groups.

1.8 Definition of Key Terms

Definitions of terms are commonplace writing tasks within academic writing, and it is important to define the terms presented throughout this study. For the

purpose of this study, a number of terms are used frequently and therefore, the subsequent definitions have been provided to ensure understanding and uniformity the terms throughout the study.

Islamic banking: The conduct of banking business activities on the basis of Islamic teaching (Mirakhor, 2000).

Islamic bank: A banking institution which conducts all its operations conforms to Shariah, without involving itself and its client in Riba (interest) in any way” (Hassan, 2007).

Shariah: The “centerpiece and backbone of the religion of Islam” (Amin, 2010).

Dual-window bank: A bank that has two windows under the same roof, in which one of them conducts conventional banking activities and the other one conducts interest-free operation (Warde, 2000).

Islamic credit card: The plastic money that includes “buy first and pay later” opportunity for its holders, although its implementation is strictly based on Shariah values, objectives and principles (Amin, 2012b).

Adoption: Acceptance and usage of product, idea or service (Sathye, 1999).

Relative advantage: The degree to which an innovation is perceived to be better than the idea it supersedes (Rogers, 2003).

Compatibility: The degree to which a new innovation is perceived to be consistent with current values, past experiences and different needs of potential adopters (Rogers, 2003).

Complexity: The degree to which an innovation is perceived to be difficult to understand and also use (Rogers, 2003).

Trialability: The degree to which a product or innovation may be experimented with people on a limited basis (Rogers, 2003).

Observability: The degree to which results and outcomes of an innovation are visible to others (Rogers, 2003).

Customer awareness: Knowing about the products offered (Mansor *et al.*, 2012).

Attitude: Negative or positive feeling that people may have toward performing a behavior (Taylor and Todd, 1995a).

1.9 Outline of the Study

This study is organized into five chapters. The introductory chapter presents the overview and background of the research. In addition, the problem statement is introduced. Research questions and research objectives are determined, whereas the scope and significance of the study are discussed. This chapter also provides definitions of key terms of the study. Figure 1.1 shows the study outline in more detail.

Chapter two of the study highlights related literature review regarding Islamic banking concept, Islamic banking in Malaysia, credit card and also ICC aspects. In addition, the basic model of the study and added variables are reviewed. This review provides a lucid explanation in regards to the conceptual model of the study.

Chapter three represents the research procedure, as well as methodology of the study. In more detail, this chapter starts with the research procedure, the

conceptual framework and hypothesis of the study. In addition, this chapter provides some details regarding research design, research method, research purpose, instrument development process, construct measures, data collection procedure, pilot study, sampling design, validity, reliability and finally data analysis process. The structure of chapter three is provided in Figure 1.1.

In chapter four of the study, the data analysis that contains the results description is presented. The discussions on the findings, which are on the basis of different types of testing, are provided in this chapter.

As the final part of the study, chapter five provides the discussions on the conclusion and recommendations. Accordingly, the author provides the overview of the findings, concludes the research and suggests some recommendations in this chapter. Besides, suggestions for further research are also presented.

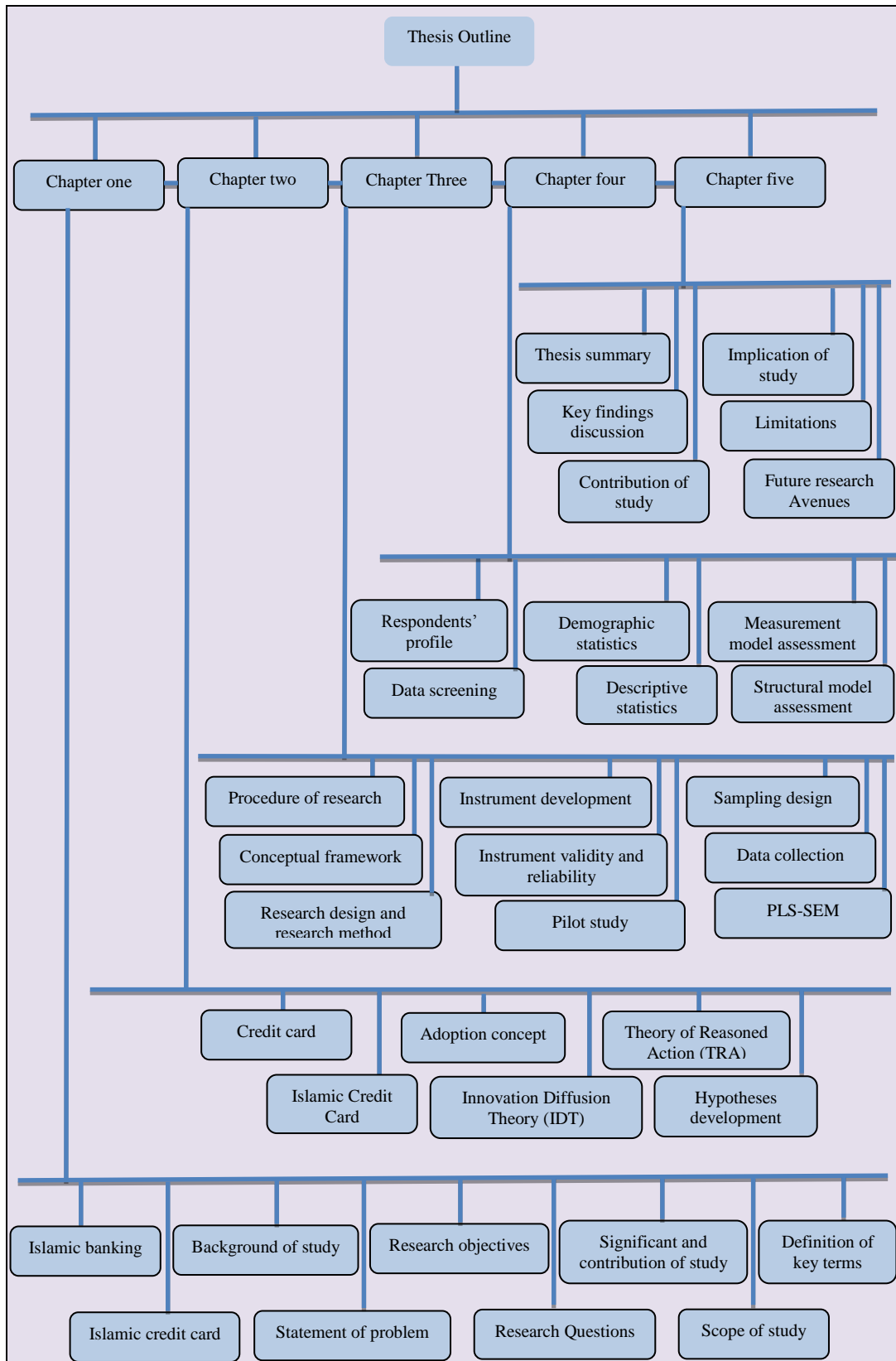


Figure 1.1 Structure of the Study

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