# DETERMINANTS OF CONSUMER INTENTION TO ACCEPT MUSHARAKAH MUTANAQISAH HOME FINANCING: EMPIRICAL EVIDENCE FROM MALAYSIA AND PAKISTAN

IMRAN MEHBOOB SHAIKH

ACADEMY OF ISLAMIC STUDIES UNIVERSITY OF MALAYA KUALA LUMPUR

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### **IMRAN MEHBOOB SHAIKH**

## THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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Matric No: IHA 150038

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### DETERMINANTS OF CONSUMER INTENTION TO ACCEPT MUSHARAKAH MUTANAQISAH HOME FINANCING: EMPIRICAL EVIDENCE FROM MALAYSIA AND PAKISTAN

#### ABSTRACT

This research has been carried out to determine the determinants that predict the consumer's intention to accept a specific Islamic mortgage product. Previously, some models for consumer intention were developed and proposed to enrich understanding of the issue. The theoretical framework of the current study was drawn upon the decomposed theory of planned behaviour because of its predictive power and robustness to base a model when comparing it with the theory of planned behaviour, theory of reasoned action and innovation diffusion theory. This study added the pricing variable to the proposed model and incorporates country as a moderator variable, which provides a better explanation for consumers' intention to accept *mushārakah mutanāgisah* (diminishing partnership) home financing. Respondents for the current study were faculty members of three universities in Malaysia, namely, University of Malaya, University Putra Malaysia and University Kebangsaan Malaysia and three universities in the context of Pakistan, namely, University of Sindh, Bahria University and Mehran University of Engineering and Technology. Consequently, the research framework was tested using data obtained from both surveys of 610 academic staff of six universities. Data obtained from respondents were analysed using descriptive analysis, t-test, exploratory and confirmatory factor analysis with two statistical analysis software application: SPSS and AMOS. After the measurement model has achieved acceptable results and proved to have goodness-of-fit, the subsequent phase was to test the full structural model and the postulated research hypotheses as proposed in the model. A total of twenty-three hypotheses were proposed in this study based on an extensive review of the literature, out of which, twenty were supported, and three hypotheses were rejected using the t-test group difference testing. The findings of this research revealed that behavioural intention

appeared to have been directly and indirectly influenced by all constructs. All the main beliefs, namely, attitude, subjective norm, perceived behaviour control, which are predicted by compatibility, relative advantage, peers and self-efficacy were significantly affecting consumers' intention to accept *mushārakah mutanāqisah* home financing. The effect of pricing variable on intention was significant as well. Further, it was revealed that attitude mediated the relationship between subjective norms and intention to accept mushārakah mutanāgisah home financing; the relationship between compatibility and consumer's intention; the relationship between relative advantage and intention. The country was a significant moderator. On the whole, the findings of the study reveal that the proposed framework elucidates a better understanding of the determinants that affect consumers' intention to accept mushārakah mutanāgisah home financing. Around, 75% of the total variance was explained for behavioural intention. As anticipated, decomposing the main beliefs would provide more specific factors that influence the behavioural intention. The findings of this empirical research would have implications for policymakers and managers of the Islamic banking industry in order to devise a proper strategy to attract more consumers' for mushārakah mutanāqisah home financing product.

Keywords: Mushārakah Mutanāqisah, Home financing, Malaysia, Pakistan

### DETERMINANTS OF CONSUMER INTENTION TO ACCEPT MUSHARAKAH MUTANAQISAH HOME FINANCING: EMPIRICAL EVIDENCE FROM MALAYSIA AND PAKISTAN

#### ABSTRAK

Penyelidikan yang menyeluruh telah dilakukan untuk menentukan faktor yang meramalkan niat pelanggan untuk menerima produk gadai janji Islam tertentu. Sebelum ini, terdapat beberapa model yang dibangunkan dan dicadangkan oleh niat pengguna untuk memperkayakan pemahaman tentang isu ini. Kerangka teori kajian semasa telah diambil berdasarkan teori yang dikenal pasti dari teori perilaku dirancang yang diurai kerana kuasa ramalan dan keteguhannya sebagai asas kepada model ketika membandingkannya dengan teori tingkah laku yang dirancang, teori aksi beralasan dan teori penyebaran inovasi. Kajian ini menambah harga kepada model yang dicadangkan dan memasukkan negara sebagai pemboleh ubah moderator yang menyediakan penjelasan yang mendalam kepada pelanggan untuk menerima pembiayaan rumah *mushārakah mutanāqisah*. Responden untuk kajian ini adalah ahli fakulti dari tiga buah universiti di Malaysia iaitu Universiti Malaya, Universiti Putra Malaysia dan Universiti Kebangsaan Malaysia dan tiga universiti di Pakistan, iaitu Universiti Sindh, Universiti Bahria dan Universiti Kejuruteraan dan Teknologi Mehran. Rangka kerja penyelidikan ini diuji menggunakan data yang diperoleh dari kedua-dua tinjauan 610 kakitangan akademik dari enam universiti. Data yang diperoleh daripada responden dianalisis dengan menggunakan analisis deskriptif, ujian-t, analisis faktor pengesahan dengan dua aplikasi perisian analisis statistik: SPSS dan AMOS. Selepas model pengukuran dicapai, keputusan yang dapat diterima dan terbukti mempunyai ketepatan padanan, fasa berikutnya adalah untuk menguji model struktur penuh dan hipotesis penyelidikan yang dikemukakan seperti yang dicadangkan dalam model. Sejumlah dua puluh tiga hipotesis telah dicadangkan dalam kajian ini berdasarkan kajian menyeluruh literatur, yang mana dua puluh hipotesis disokong dan tiga hipotesis ditolak menggunakan ujian perbezaan

kumpulan ujian-t. Penemuan kajian ini mendedahkan bahawa niat tingkah laku telah secara langsung dan tidak langsung dipengaruhi oleh semua konstruk. Semua keyakinan utama, iaitu sikap, norma subjektif, kawalan tingkah laku yang dirasakan, yang diramalkan oleh kesesuaian, kelebihan relatif, rakan sebaya dan keberkesanan diri sangat mempengaruhi keinginan pelanggan untuk menerima pembiayaan rumah mushārakah *mutanāgisah*. Kesan pemboleh ubah harga terhadap niat juga penting. Selanjutnya, ia mendedahkan bahawa sikap mediator hubungan antara norma subjektif dan niat untuk menerima pembiayaan rumah mushārakah mutanāqisah; hubungan antara keserasian dan niat pelanggan; hubungan antara kelebihan dan niat relatif. Negara adalah moderator penting. Keseluruhannya, penemuan kajian mendedahkan bahawa rangka kerja yang dicadangkan menjelaskan pemahaman yang lebih baik mengenai penentu yang mempengaruhi niat pelanggan untuk menerima pembiayaan rumah mushārakah *mutanāgisah*. Sekitar 75% daripada jumlah varians dijelaskan untuk niat tingkah laku. Seperti yang dijangkakan, penguraian kepercayaan utama akan memberikan faktor yang lebih spesifik yang mempengaruhi niat tingkah laku. Penemuan kajian empirikal ini akan memberi implikasi kepada para penggubal dasar dan pengurus industri perbankan Islam untuk membuat strategi yang tepat untuk menarik lebih banyak pelanggan untuk produk pembiayaan rumah mushārakah mutanāgisah.

Kata Kunci: Mushārakah Mutanāqisah, Pembiayaan rumah, Malaysia, Pakistan

### **DEDICATION**

I dedicate this thesis to my Grandfather Muhammad Ismail Shaikh to whom I am indebted for his unseen love, which cannot be retired for Generations, who is not around us today but his presence will always be felt every moment.

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### LIST OF SYMBOLS AND ABBREVIATIONS

- AGFI : Adjusted Goodness of Fit
- AITAB : Al- ijārah Thumma Al-Bay'
- AMOS : Analysis of Moment Structure
- ASV : Average Shared Variance
- AT : Attitude
- AVE : Average Variance Extracted
- BBA : Bay' Bi Thaman Ājil
- BINT : Behavioural Intention
- BNM : Bank Negara Malaysia
- CFA : Confirmatory Factor Analysis
- CFI : Comparative Fit Index
- COPX : Complexity
- CP : Compatibility
- CR : Composite Reliability
- CR : t-value
- DF : Degree of Freedom
- DOI : Diffusion of Innovation
- DTPB : Decomposed Theory of Planned Behaviour
- EFA : Exploratory Factor Analysis
- et al. : And others
- GFI : Goodness of Fit
- IB : Islamic Banks
- IDT : Innovation Diffusion Theory

IFI	:	Incremental Fit Index
IMGE	:	Image
INT	:	Intention to Accept Mushārakah Mutanāqisah
КМО	:	Kaiser-Meyer-Olkin
MM	:	Mushārakah Mutanāqisah
MSV	:	Maximum Shared Variance
ρ	:	Significance Level
Р	:	Pricing
PBC	:	Perceived Behavioural Control
PCU	:	Perceived Usefulness
PE	:	Peers
PIIT	:	Personal Innovation Information Technology
RA	:	Relative Advantage
RED	:	Result Demonstrability
RMSEA	:	Root Mean Square Error of Approximation
SBP	:	State Bank of Pakistan
S.E.	:	Standard Error
SE	:	Self-Efficacy
SEM	÷	Structural Equation Modelling
Sig	:	Significance
SN	:	Subjective Norm
SPSS	:	Statistical Package for Social Sciences
SRMR	:	Standardised Root mean Residual
Т	:	t-test
TAM	:	Technology Acceptance Model
TPB	:	Theory of Planned Behaviour

- TRA : Theory of Reasoned Action
- VIF : Variance Inflation Factor
- VOLA : Voluntariness
- $\chi^2$  : Chi-Square
- $\chi^2/df$  : Normed Chi-square

university

### TRANSLITERATION TABLE

#### A. Consonant

Arabic	Roman	Arabic	Roman
e .1	a, '	L L	t
÷	b	ظ	Ż
<u>ت</u>	t	ع	٠
ٹ	th	غ	gh
ح	j	ف	f
C	h	ق	P
ċ	kh	اف	k
د	d	U	1
ذ	dh	5	m
ر	r	ن	n
ز	Z	٥	h
س	S	9	w
ش	sh	ي	У
ص	ş	5	h, t
ض	ģ		

### B. Vowel

Short vowel	Transliteration
Ó	a
Q	i
ó	u

Long vowel	Transliteration	
ا، ی	ā	
ي	ī	
و	ū	

### C. Diphthong

Diphthong	Transliteration
<b>َوْ</b>	aw
َيْ	ay
ذو	uww
ৃহ	iy, ī

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### **CHAPTER 1: INTRODUCTION**

This chapter presents an overview of the study. It contains seven sections. The first section provides a background of the study; the second section shows the problem statement of the study; while the third and fourth sections discuss the research questions and objectives of the study. The fifth and sixth sections present the scope and significance of the review. Finally, this chapter outlines the structure of the thesis.

### 1.1 BACKGROUND OF THE STUDY

Home is one of the necessities that is required by a human being to fulfil the ultimate desire of feeling secure, which includes protection of life, *al-hayāh*, and protection of wealth, *al-māl* (Shahwan *et al.*, 2013). In order to fulfil this obligation an individual moves on and looks for different alternatives available to him. In the dual banking system, these alternatives can be based on interest, *ribā*, which is offered by conventional home financing or *halāl* choice offered by Islamic mode of financing.

Islamic banks (IB) play their vital role to fulfil this ultimate need of human being by devising permissible, *halāl* products based on tenets of objectives of *Sharī'ah*, which are deemed to be fair, just and safeguard the rights of an individual. Islamic mortgage is either debt-based or equity-based. Debt-based Islamic mortgage includes *bay' bithaman ājil* (BBA), *al-ijārah thumma al-bay'* (AITAB) and *Tawarruq* whereas equity-based Islamic mortgage is based on the concept of diminishing partnership, *mushārakah mutanāqisah* (MM) (Hanafi, 2012). In Malaysia, most of the Islamic banks offer BBA home financing, and it is argued to be based on debt and contain the contract of *bay* ' *al-* '*īnah*. Since the current study is set out to illuminate the factors influencing the consumers' acceptability of Islamic mortgage, it is worthy to highlight some issues which may arguably deflect the consumers away from Islamic banks products. The mimicking of the conventional bank's products, to begin with, is one of the frequent criticism that Islamic home financing faces, as Khan (2010) argues that for many critics, the difference between Islamic products and their conventional counterparts is by no means a substantive one. Instead, it is only prima facie.

Most of the issues related to BBA home financing are said to be resolved by MM home financing. Many studies consider the price of a home under BBA is higher than MM home financing (Shahwan *et al.*, 2013). Due to flexible monthly instalments MM home financing is deemed to be competent to its conventional counterpart with no preagreed sale price but on the other hand in BBA home financing the cost of the home is fixed, and banks try to secure the price which makes it look like conventional loan in structure (Shahwan *et al.*, 2013).

On the same note, the issue of the rebate is also resolved in MM home financing as pricing in BBA is fixed as opposed to MM. Further, Ka (2009) assert that in case of uncertainty, *gharār* in the sale of under construction home, MM home financing should be able to resolve the issue of uncertainty, *gharār* with the use of forward lease.

The Securities Commission of Malaysia describes forward lease as "a lease, *Ijārah* of an asset that is not yet available or owned by the lessor, at the time of the agreement. The agreement, however, is based on the undertaking by the lessor to deliver the asset based on the agreed detailed specifications, value and time of availability. The rental payment under this *ijārah* represents the right of the lessee to use the property in the future whenever the property is ready to use" (SCM, 2009).

Moreover, MM home financing is also able to meet the requirement of objectives of *Sharī* '*ah* in terms of promoting justice and fairness to the parties involved due to the element of profit and risk-sharing (Razak and Ismail, 2011). According to Usmani (2002), equity contracts are argued to be superior to any other contract in *Sharī* '*ah* perspective whereas debt-based Islamic mortgage products are widely criticised for its similarity to conventional interest-based mortgage, where banks try to avoid risk and rights of customers are neglected (Rosly and Abu Bakar, 2003). BBA is more popular and offered by most of the Islamic banks in Malaysia in spite of its non-acceptance by other countries (Shahwan *et al.*, 2013).

Regardless of the above criticism BBA home financing was dominant over the past three decades in the financial market (Hanafi, 2012). Later in 2006, the Kuwait Finance House (KFH) took the initiative to introduce the equity-based hybrid contract of *mushārakah mutanāqisah* (MM) for the home financing in Malaysia (Amin *et al.*, 2014; Shuib *et al.*, 2011). The *Sharīʿah* Advisory Council (SAC) of Bank Negara Malaysia (BNM), which is a regulatory body for financial institutions in Malaysia, endorsed the MM contract on 5<sup>th</sup> February 2006 (BNM, 2010). Currently, in Malaysia, MM home financing is being offered by only 6 Islamic banks (BNM, 2015).

Whereas in Pakistan, MM is the only contract which is in place by Islamic banks for home financing facility (SBP, 2010). In 2004, Meezan Bank, which is the first fullfledged Islamic bank in Pakistan, started to offer housing mortgage based on MM contract (Osmani and Abdullah, 2010). In Pakistan, there is a dual-banking system alike Malaysia, Shaikh, and Noordin (2018), whereas the State Bank of Pakistan regulates the banking system in the country. According to Sayyid (2003), conventional banks in Pakistan are more prominent than Islamic banks. At present, the total number of banks which are catering for home financing facility in Pakistan are 26 which comprises 5 Islamic banks, and 14 Islamic banking windows of the conventional banks and rest are conventional banks. The large share in home financing sector is taken up by conventional banks and a state-owned home mortgage company (SBP, 2015).

Although, MM home financing compared to BBA is quite novel product introduced by the Islamic bank. This study aims to examine the acceptance of Islamic banks consumer for MM home financing in Malaysia and Pakistan as an alternative tool for home financing. Drawing upon the decomposed theory of planned behaviour (DTPB) this study will also analyse the effect of attitude, perceived behavioural control, pricing, subjective norm, and decomposed variables, perceived compatibility, perceived relative advantage, peers and self-efficacy on intention to accept *mushārakah mutanāqisah*, home financing".

#### **1.2 STATEMENT OF PROBLEM**

In Malaysia, Islamic banks offer milti modes of home financing, but the most common contracts which are widely offered are; *bay' bithaman ājil* which is debt-based and *mushārakah mutanāqisah*, which is equity-based financing. Debt-based Islamic home financing is argued to be similar to the conventional mortgage financing, and on the other hand, equity-based mortgage offered by Islamic banks is deemed to safeguard the rights of an individual, whereas conventional mortgage deprives its customer of such rights and obligation (Hanafi, 2012).

Apart, from the global recognition of MM, there are specific issues which limit the overall objectives of *Sharī'ah* to be met as expected and ultimately hinder its acceptability such as use of interest rate instead of rental rate benchmark, *Sharī'ah* issue of legal ownership of the asset, payment of legal fees and other related cost born solely by the customer, transfer of maintenance cost and *takāful* cost to customer, last but not least obligation of the customer to purchase the remaining shares in case of default or termination due to a controversial element of *wa'd* (Hanafi, 2012).

In Malaysia, after BBA contract, MM contract is the most utilised contract for home financing, and it is still new when compared to BBA (Shahwan *et al.*, 2013). BBA Islamic home financing is argued to mimic conventional home financing (Abduh and Razak, 2011). On the same note, the Islamic banks have tried to attract prospective customers towards Islamic mortgage, however, some of the Malaysians favour Conventional mortgage over Islamic (Thean, 2009). Moreover, the Chief Activist of Persatuan Penguna Islam Malaysia (PPIM) Datuk Nadzim Johan said that "housing loans, which are offered by Islamic banks, are crueller than conventional housing loans as the customer of Islamic bank is at higher risk of bankruptcy than conventional banks". Further, he urged that "Bank Negara Malaysia (BNM) and the National Fatwa Council to review the Islamic housing system offered by banking institutions to the public" (Saw, 2016).

This statement by PPIM, Chief Activist was with reference to BBA home financing contract reflecting recent cases of abandoned housing projects and bankruptcy of Islamic bank's customers in Malaysia. Furthermore, the Association of Islamic Banking Institutions Malaysia (AIBIM) dismissed these claims by Malaysian Muslim Customers' Association (PPIM), saying that "there is no element of cruelty in Islamic Finance" (Saw, 2016).

In Malaysia and Pakistan, criticism is present concerning Islamic home financing products. However, statistics show that since 2003, in terms of dissatisfaction of consumer towards Islamic banking product there were at least 4000 complaints about Islamic mortgages (Suhana, 2012). These figures entail why there is lower share and poor acceptance of Islamic mortgage in the Malaysian mortgage market (Amin *et al.*, 2016).

This warrants further research on Islamic bank's home financing product acceptance by its consumers for a specific equity-based product MM home financing and effect of individual factors on its acceptance. In the case of Pakistan, top 400 scholars of Sunni sect pronounced a collective religious ruling stating that Islamic banks are not practising *Sharī'ah* in real means (Ghias, 2013). On the other hand, according to Munir sultan, member sub-committee of the Karachi Chamber of Commerce and Industry on housing and construction (KCCI) said that "Pakistan needs project financing and financial institutions in the country are not doing enough to cater the housing needs" (Shaikh and Noordin, 2019).

Furthermore, he added that "there is no big difference between Islamic home financing and Conventional home financing and Islamic banks need to cater house financing sector with project financing as it will be beneficial for both consumers and banks". Further, he stressed that "people are not much aware of Islamic home financing, so therefore there is a need to disseminate information on the basics of the subject" (Shaikh and Noordin, 2019).

The findings of a study by (Butt *et al.*, 2011; Shaikh and Noordin, 2018) support the above statements and fatwa through the perceptions collected from users and nonusers of Islamic banks. Their respondents consider that Islamic bank products are similar to the conventional banks and IB in Pakistan do not follow *Sharī'ah* completely.

Further comparing between conventional and Islamic mortgage, consumers will likely choose conventional home loans as both interest rate and repayment period are lower and shorter (Amin *et al.*, 2016). To the author's wonder, mainly in the context of Pakistan, the large chunk of the mortgage industry is still in the hands of conventional banks (SBP, 2015). The country's housing market is a main indicator of the economic growth, but regrettably, this important segment of development was overlooked in Pakistan leading to a backlog of 9 million housing units in the country (SBP, 2015).

Having a thorough look at the housing market conditions in the context of Pakistan, it deems necessary to determine the factors that are responsible to attract more consumers to engage themselves in Islamic mortgage activity. Collectively, it is therefore vital to study whether MM home financing offered to the Islamic bank consumers is acceptable by them and to determine the facilitating factors that may influence them to use MM home financing. In order to answer and achieve the following research questions and objectives;

### **1.3 RESEARCH QUESTIONS**

- What are the significant differences in the attitude, subjective norms, pricing, perceived behavioural control, perceived relative advantage, perceived compatibility, self-efficacy, and peers on consumers' acceptance for MM home financing in Malaysia and Pakistan?
- 2. What are the specific factors affecting the consumers' attitude towards MM home financing? Do subjective norms, perceived relative advantage and perceived compatibility affect the attitude? And does peers affect the subjective norm? And does self-efficacy affect the perceived behavioural control?
- 3. What are the factors that affect MM home financing acceptance? Do perceive behavioural control, attitude, subjective norms, and pricing influence the consumers' acceptance of MM home financing in Malaysia and Pakistan?

- 4. Does attitude play the role as mediating variable in the relationship between perceived compatibility and acceptance towards MM home financing; between subjective norms and MM home financing acceptance; and between perceived relative advantage and MM home financing acceptance by the consumers?
- 5. Does country moderates the relationship between attitude and intention to accept MM home financing; between subjective norms and intention to accept MM home financing; and between perceived behavioural control and intention to accept MM home financing acceptance?

### 1.4 OBJECTIVES OF THE STUDY

This study examined the relationship between consumer acceptance for *mushārakah mutanāqisah* home financing concept introduced by Islamic banks and attitude, subjective norm, perceived behaviour control and pricing of Islamic home financing. Further, the effect of compatibility, relative advantage, peers and self-efficacy on their respective main beliefs is also examined. The main objectives of the study were:

 To investigate the differences in perceived behavioural control, attitude, subjective norm, pricing, perceived compatibility, perceived relative advantage, peers, and self-efficacy for acceptance towards MM home financing in Malaysia and Pakistan.

- 2. To examine the effect of subjective norms, perceived compatibility and perceived relative advantage on attitude towards MM home financing acceptance; and the effect of peers on the subjective norms; and the effect of self-efficacy on the perceived behavioural control.
- To determine whether attitude, subjective norm, perceived behavioural control and pricing influence MM home financing acceptance in Malaysia and Pakistan.
- 4. To assess the mediating role of attitude between subjective norms and MM home financing acceptance; between perceived compatibility and MM Islamic financing acceptance by the consumer's; and between Perceived relative advantage and MM home financing acceptance.
- 5. To determine the role of the country as a moderator for the relationship between attitude and MM home financing acceptance; between subjective norm and MM home financing acceptance by the consumer's; and between Perceived behaviour control and MM home financing acceptance.

### **1.5 SCOPE OF THE STUDY**

This study employed a quantitative method in order to validate, establish and generalise the contribution towards theory (Leedy and Ormrod, 2001). Further, the study focused on the impact of various factors on the consumers' intention to accept MM home financing in two countries, namely, Malaysia and Pakistan. As such, the purpose of this research was to validate the effect of attitude, subjective norm, perceived behavioural control, pricing and decomposed variables on consumers' intention to accept MM home financing and to examine the causal relationship between the variables.

In this research study, differences between consumer's acceptance for *mushārakah mutanāqisah* home financing in Malaysia and Pakistan were identified due to two reasons. Primarily, *mushārakah mutanāqisah* home financing is available in both countries for an extended period of ten years (Shaikh and Noordin, 2018). Secondly and more importantly, there are issues associated with the acceptability of Islamic mortgage product in both the countries, which are discussed in chapter 3 in detail. Therefore it becomes more important to investigate the factors responsible for predicting consumers' acceptance for MM home financing with the theoretical support.

This study is comparative, and according to Nakata and Sivakumar (2001), every country practices its culture nationally, which disposes of a way of thinking, feeling and entrenched actions in communal convention and mutual beliefs. Moreover, a comparative study results in a diverse insight of most of the crucial problems in different countries apart from finding the knowledge gap (Hantrais and Mangen, 1998). On the same note Pakistan and Malaysia, share different cultures and ethnic diversity. In the case of Malaysia, the data was gathered from three research universities from Klang Valley. The reason for choosing Klang Valley is due to the fact that it is the business centre and all the headquarters of the Islamic banks are located here. Further, the purpose of choosing three universities from Sindh state in Pakistan is due to the fact that two cities, namely, Karachi and Hyderabad consist of the second most extensive network of banks after Lahore.
Karachi city, in particular, is the industrial and business hub of Pakistan and the fifth most populated city in the world. The province of Sindh is the second largest market for Islamic banking and finance industry in the country after the province of Punjab (SBP, 2017).

### **1.6 SIGNIFICANCE OF THE STUDY**

This study aims to add to the body of the knowledge on the specific Islamic mortgage product established on *mushārakah mutanāqisah* hybrid contract, which is in practice by Islamic banks. On the same note, this study focuses more on the consumers' acceptance towards MM home financing in the context of Malaysia and Pakistan. Moreover, this study is based on empirical evidence from Malaysia and Pakistan. There are very few comparative studies on the topic as indicated by the sparse of literature.

Furthermore, the insights of Islamic bank consumers into Islamic mortgage in Malaysia and Pakistan will assist the current efforts towards improving the Islamic mortgage products. Thus, this study will be of particular importance to fill in the gap in the literature on the *mushārakah mutanāqisah* home financing which was not covered adequately by empirical evidence mainly in Pakistan. Also, this study is of equal importance for practitioners of Islamic bank to formulate strategies to attract more Malaysian and Pakistani consumers towards MM home financing.

More importantly, this study will be a useful guide for academicians for a particular Islamic home financing instrument of MM. The study adds to the decomposed theory of planned behaviour by extending a new variable, namely, pricing and contributes regarding a moderator variable, which is country. The variable pricing and moderating variable country were not tested previously.

Thus, this study adds to the theory and further validates the decomposed theory of planned behaviour in a comparative study between Malaysia and Pakistan. By far, the model is formulated based on a comprehensive framework that incorporates dependent variable, independent variables, mediating variables and a moderating variable. By doing so, this study contributes to the theory and thus provides significant results that are useful for business researchers and academicians at large.

In a similar vein, pricing, decomposition of perceived attributes, namely, perceived relative advantage and perceived compatibility with attitude; decomposition of self-efficacy with perceived behavioural control and lastly peers influence with subjective norms will predict the consumers' acceptance for MM home financing.

As a result, those factors that are found significant in this study will ultimately assist the managers and stakeholders of Islamic bank to realise the determinants that consumers consider substantial for MM home financing usage. Thus, the findings of the study will serve those Islamic banks, which desire to target their consumers for Islamic mortgage facility delivered by them.

### 1.7 THESIS ORGANISATION

Chapter 1, Includes *Introduction* with the background to the topic, statement of the problem, defining research questions, objectives of study and significance of the study.

Chapter 2 *Literature Review*, presents review of consumer behaviour theories, which are Diffusion theory of innovation (DOI), theory of reasoned action (TRA), theory of planned behaviour (TPB), theory of interpersonal behaviour (TIB), decomposed theory of planned behaviour (DTPB) and empirical studies on Islamic home mortgage in Pakistan and Malaysia. This chapter also discusses the shortcomings of the theories which are excluded and both advantages and disadvantages in support of the decomposed theory of planned behaviour used for the conceptual model developed for this study.

Chapter 3 *Mushārakah Mutanāqisah* (Diminishing Partnership) Home Financing: An Equity-Based Tool of Islamic finance- provides an insight into the concepts and rules on the premise of which *mushārakah* stands. Additionally, the essence of the equity-based contract of *mushārakah mutanāqisah* differentiating itself from *bay 'bithaman ājil* is discussed further underlining the use of *mushārakah mutanāqisah* home financing product in Pakistan and Malaysia leading to laws that are legally binding MM. Lastly, the legitimacy of the MM is discussed along with issues associated in terms of functioning, *Sharī 'ah* and lawful outlooks in the rest of the chapter.

Chapter 4 *Methodology*- discusses the research design and gives a description of the survey procedure. Structural Equation Modelling (SEM) technique is used to analyse the data using AMOS software along with the SPSS. The preliminary details of the study are reported along with the discussion on the instrument design.

Chapter 5 *Data Analysis*- Covariance-based, SEM is used to investigate the measurement and structural model, and finally, this chapter also discusses findings and answers all the research questions, hypotheses are also considered.

Chapter 6 *Conclusion and Research Implication*- This chapter summarises the preceding sections and presents the main academic contribution. Further, research limitations are also highlighted followed by future guidelines and concluding remarks.

### **CHAPTER 2: LITERATURE REVIEW**

#### 2.1 INTRODUCTION

This chapter presents the literature review on consumer behaviour towards Islamic mortgage that helps to establish the background of the constructs of the proposed study model, which includes attitude, subjective norm, perceived behavioural control and pricing. Additionally, the decomposed variables, which are peers influence, self-efficacy and perceived attributes, namely, perceived compatibility and perceived relative advantage are predicting consumer's intention to accept MM home financing drawing upon the decomposed theory of planned behaviour (DTPB).

Section 2.2, 2.3, 2.4 and 2.5 discusses theoretical models used to predict acceptance, adoption, and intention of the consumers' in the context of Islamic mortgage studies including studies allied to the Information communication technology. These models are based on diffusion of innovation (DOI) theory, the theory of reasoned action (TRA), the theory of interpersonal behaviour (TIB) and the theory of planned behaviour. Section 2.6 discusses DTPB. Section 2.7 presents literature on Islamic home financing followed by section 2.8 describing the receptivity of the products offered by Islamic banks. Section 2.9 presents Islamic mortgage and its basic principles. Section 2.10 discusses *Bay* '*BiThaman Ājil* vs *Mushārakah Mutanāqisah*. Section 2.11 mentions about social housing as a mean of home ownership leading to section 2.13 summarises the chapter.

#### 2.2 CONSUMER THEORIES

Consumer acceptance behaviour is expounded by a number of theories, and the literature covers a wide range of such theories but this study will focus on nine constructs which are derived from five user acceptance theories such as innovation diffusion theory (IDT), theory of reasoned action (TRA), theory of planned behaviour (TPB), theory of interpersonal behaviour (TIB) and decomposed theory of planned behaviour (DTPB). This section highlights the literature on DOI, TRA, TPB, TIB, and DTPB with emphasis on the constructs of each theory.

#### 2.2.1 Diffusion Theory of Innovation

Innovation diffusion theory or diffusion of innovation (DOI) theory is among the first theories to describe user adoption behaviour, and it is also known as the Innovation theory of diffusion (Rogers, 1995). To say innovations are diffused, according to Rogers, it is to say that innovations have been communicated via a communicative channel over a certain time frame among particular individuals within the social system. DOI model, Fichman (1992), furnishes well-founded ideas and explains both explanatory and exploratory, which is quantitative and qualitative theoretical instruments, which facilitate the identification and assessment of the factors which may hinder the diffusion of technology adoption. In general, when considering the diffusion process, there are three aspects to look at decision technique for innovation, innovation's characteristics, and innovators qualities.

According to Rogers, (1995) and Rogers and Shoemaker, (1983) categorise the process to adopt change into five stages provided that the extent to which innovation adopters are dispersed is estimated along normally distributed time to adopt; while to decide whether

an innovation to be rejected or otherwise adopted depends on the decision techniques opted by a particular group or an individual. Following are the stages:

#### 2.2.1.1 Innovation's Knowledge

An indication of how far a group or person in terms of the process of decision making, aware of innovation's ubiquity. In addition, knowledge further also be related to the knowledge about awareness that drives innovation seekers to ask about the existence of innovation in reality. Further, another aspect of knowledge is to look for necessary information to innovation usage (how-to know), in addition to having clues about the process that underlies the exact way by which innovation works (principles-knowledge). Among these three categories, Rogers emphasises the necessity of awareness-knowledge which has an influence that goes as far as decision steps and confidence and one of the sources to acquire it is communication channels such as mass and social media.

## 2.2.1.2 Forming Attitude towards the Innovation

Once the individuals gain knowledge about the innovation, they start to build attitude or persuasion toward the innovation that mobilises individuals or other group unit's definite interest in innovation. At this stage, the decision-makers become psychologically involved and seek credible information from their available sources (*e.g.*, surroundings and peers) to minimise uncertainty levels and develop a general perception about the innovation that drives them to adopt it. However, according to Rogers, establishing a favourable or unfavourable attitude at this stage towards changes does not entail direct adoption or rejection of the innovation.

### (a) The adoption or rejection decision

On his way to adopt an innovation, the individual undergoes a process of evaluation through which he retains dedication for an innovation to get rejected or approved. Furthermore, the rejection decision can take place during any decision process stage related to the innovation (Rogers, 2003). For example, that may result after adopting it, *i.e.*, rejecting it and in that case, it is said to be an active and happen as a consequence of the experience of adoption (based on how-to-knowledge). On the contrary, rejection may passively occur prior to adoption in such a way that the consideration of new innovations are not grounded on individuals' knowledge or the significant opinions of colleagues or superiors, which leads a particular person in rejecting the innovation.

#### (b) Application of the innovative idea

It is a transitional phase during the adoption journey which can be described as a trialbased process of operationalisation whereby a particular person uses an innovation practically. On his way to implement the innovation, a particular person engages in the process of decision making on the ground of intellectual thinking. Once the innovation comes into effect, the perceived difficulty or complexity of the original innovation idea with the existence of inadequacy of the change maker to aid technical support in order to determine the extent to which that idea will be reinvented. Conversely, at its core is how well simplified the application is in addition to facilitation of the local environment and implementation.

## (c) The decision to confirm

Has the individual reached as far as this stage, he builds up a positive response upon his experience of innovation and therefore has its use finalised. In this phase, the consolidation of diffusion process initiates as soon as the formation of knowledge or during different stages throughout the decision making the process by either not to go for innovation or by adopting the innovation. Furthermore, Rogers (2003) goes on and point out that a particular person may not continue the process of adoption as a result of substitution discontinuity, whereby a person adopts an improved innovation that replaces the current in operation and disillusionment discontinuity, when a particular person completely rejects the innovation and perceive it as dissatisfactory with regard to its performance.

#### 2.2.1.3 Perceived attributes

Having elucidated the possible sequential stages that the individuals go through in their way to decide to adopt the innovation, the other category of factors which affect the process of diffusion regarding the attributes of innovation are highlighted.

According to Rogers, it is the attitude towards the innovation along with the persuasion to use it which affect the innovation diffusion so long as the differences between the innovations are considered. Besides, Rogers (2003) notes, there is a risk of the innovations to be oversimplified and thus regarded as identical units from the analytical perspective. Going by this, the perceived attributes of the innovation are categorised into five groups, which have been echoed throughout the technology acceptance theories. Rogers also call attention to the context if the analysis to be generalised.

## (a) Relative advantages

The extent to which the innovation is thought of as the best choice in comparison to its predecessors, is the first attribute of the innovation to be perceived by the individuals, which is identified by, Moore and Benbasat, (1991), as relative advantages (RA). The latter has been referred to as perceived usefulness (PCU) in the literature concerned with the effectiveness and convenience usage of the innovation (Davis, 1989; Taylor and Todd, 1995b). If the individuals are to be convinced to adopt the innovation, says Rogers (1995),

relative advantages help them to come to grips with the efficacy, effectiveness, and satisfaction towards problem-solving.

# (b) Compatibility

The second aspect pertaining to innovation characteristics according to Moore and



**Figure 2.1: Innovation Diffusion Process** 

Source: Rogers (1995, p.170)

Benbasat, (1991), is compatibility (CP) which refers to " the degree to which an innovation is perceived as being consistent with the existing values, needs and past experiences of potential adopters" (p. 195). The latter has to do with the individuals' opinion, demand, patterns, structural and cultural needs that may alter his desire towards the innovations' adoption and then prefer it beyond the conventional way of performing a job. Moreover, there is an assumption that a person has different choices and preferences which have bearings on their final decision of acceptance or refusal. Consequently, CP is a gauge of how satisfied/dissatisfied individuals are with the perceived needs of innovation.

## (c) Complexity

Complexity (COPX) according to Thompson, Higgins, and Howell (1991), refers to the perceived easiness of the innovation and the degree to which an innovation is seen by the user as relatively difficult to be discerned and used. By and large, COPX is deemed integral to innovation due to the fact that each innovative product centres on a process of learning/understanding. Noticeably, COPX and adoption are conceptualised as reciprocally related to each other, that is to say, the easier a system is to be understood, learnt and used, the more quickly it is adopted and vice versa. As far as innovation is concerned, COPX is viewed as a usability-related factor, Sonnenwald *et al.*, (2001), which negatively affect the perceived ease of use. Figure 2.1 above depicts a five-stage model of the Innovation diffusion process.

## (d) Trialability

Trialability (TRA), Rogers (2003) defines, is an indication of the uncomplicatedness of the experience that individual had with innovation with technology or system. In most of the innovation line of research, TRA falls under the category of usability factors as it has to do with being aware of the uncertainties associated with using a system.

Additionally, TRA provides the potential adopters with an instrument that expedites cost-effective recovery. Among the factors which are found to be positive determinants, according to Sonnenwald *et al.* (2001), are effortless recovery as well as the cost.

### (e) Observability

Observability (OBV), Moore and Benbasat, (1991), is the lens through which an individual can watch those who are using the system in the surrounding environment. What OBV measures, according to Rogers (2003), is what individuals perceive and learns from a system or peers. Sonnenwald *et al.* (2001), put the matter another way by narrating OBV as the extent to which perception about understanding and easiness related to the innovations are formed by an individual.

On the other hand, Rogers (2003) stresses the need for adding other variables in order to accelerate the diffusion's rate, social systems' characteristics, *e.g.*, the extent of correlated networks, means of communicating, *e.g.*, interpersonal or social media, the degree to which agent of change support the efforts.

### 2.2.1.4 Groups of Innovators

The third dimension of factors affecting the process of diffusion is the typical traits of the innovators. The criterion upon which Rogers (2003) classify innovators is how early innovation is adopted by a member or an individual with contrast to other group members inclined towards adopting ideas that are novel. Rogers identified five innovators groups grounded on time-sequence, which are as follows:

#### (a) Innovators

The other term used to denote innovators is "system gatekeepers," innovators are the one who possesses the potential of holding and applying complex practical information. Moreover, such innovators may also be able to handle innovations which are characterised as highly uncertain at the time the process of diffusion.

## (b) Early adopters

Such adopters are dubbed "change agents" for the reason that they chiefly form the spearhead of the adoption of innovation. They also act as an exemplar for those who are most likely to embrace the innovation on the one hand, and for the information seekers as well as whoever belong to a local social system and seeking advice about the innovation on the other.

### (c) Early majority

Distinguishably, early majority are described as being "deliberative" and compared to other members of the system they are early-birds to embrace the innovation. They usually adopt the innovation on the basis of thoughtful eagerness yet they rarely lead; instead, they play a mediating role between early adopters on the one hand and the late majority on the other.

## (d) Late Adopters

Being socially pressured either by their peers or economic necessity, late majority adopt an innovation following those who embrace it earlier on. Due to the scepticism and uncertainty about the innovation, they lag behind the early adaptors and later join them when the innovation sprawls across the system.

## (e) Traditional Users

Having innovative work been adopted, traditional users will be the last to adopt the innovations. As they are also called laggards, they draw upon their personal experience. Besides, they are doubtful about change agents, and because of the shortage in resources and the lack of knowledge disseminated by customary users similar to them, they are usually reluctant.

The DOI has been a centre of attention for many lines of researches predominantly within the domain of process of making the decision for technological innovations (Tornatzky and Klein, 1982; Venkatesh, Morris, Davis., and Davis, 2003). Going by this, DOI has been subjected to refinement and then expanded by many scholars, including (Rogers, 1995; Rogers and Shoemaker, 1983), along with an injection of additional constructs. As far as innovations' adoption is concerned, the study of Moore and Benbasat (1991) and Agarwal and Prasad (1998) are paramount. Moore and Benbasat (1991) study is considered to be seminally extending the theory by proposing two variables, that is "image" (IMGE) and "voluntariness" (VOLA) so far as the adoption is concerned in the domain of information technology. Moreover, in their study an instrument to measure all the variables rooted from IDT was formulated incorporating: "result demonstrability" (RED), "compatibility" (CP), "relative advantage" RA, "perceived ease of use" PEOU, "visibility" (V), IMGE as well as TRA. These authors report that RA, PEOU, and CP were the strong predictors of an individual intention to adopt innovation in ICT as well in influencing the actual user behaviour. Agarwal and Prasad (1998) in the similar territory of IT drawn upon an extension to the model based on IDT theory introduced new moderator, that is, "personal innovations of information technology" (PIIT), that marks the difference between the domain-specific innovation and global innovation. Although incorporation of moderators to IDT theory was an interesting advancement to the theory, yet the moderator has been partially exhibited, and it has drawn a substantial impact on the association between CP and the intention towards innovation and CP. Finally and most importantly, Karahanna and Straub's (1999) study made another valuable input by integrating model of theories of attitude and forming a composite framework in order to study the attitudes and beliefs with a longitudinal approach for prior and subsequent adoption.

Moreover, Karahanna and Straub's (1999) amended the constructs of Rogers' (1995) IDT theory, to mention few COPX and RA and substituted with the PEOU and PCU respectively. On the same note constructs of RED and IMGE used originally by Moore and Benbasat (1991) were adapted as well. Karahanna and Straub (1999) findings demonstrate that behavioural intention of a particular person to embrace innovation is affected by social pressures and personal interest. Social influence denotes the subjective norms or the social pressures, which corresponds to the conception associated to "type of communication network" of IDT theory; whereas one's interest is the requisite through which attitude to engage in particular behaviour could be shaped by considering knowledge relevant to effective information, cognitive information and previous behaviour. According to these authors, social influence comprises of two classifications:

- normative Influence, originating from one's confirmation of others prospects using either the compliance process, internalisation and identification; and
- information influence when a particular person conceives of and takes knowledge as a proof of the fact.

Results of Karahanna and Straub (1999) suggests that in the process before adoption, both mechanisms of instrumentality, which is perceived usefulness or relative advantage and non-instrumentality values affecting attitude; nonetheless, once the experience is gained in post-adoption, only IMGE, and mechanism values affect attitude. Although the renowned technology acceptance model (TAM) is grounded on different theoretical underpinning from IDT, similarities in the main constructs are recognised. For case in a point, as stated previously, the relative advantage construct of IDT is used interchangeably often with PCU, and on the other hand COPX is taken as opposite to PEOU in the constructs associated with TAM. Consequently, it is therefore evident that more or less TAM to some degree underscores the conceptual groundings of innovation diffusion theory (Chen, Gillenson., and Sherrell, 2002).

Irrespective of the extensive applicability of the theory of DOI in the domain of information system research. DOI theory has been limitedly figured in Islamic mortgage studies. Amin, Abdul, and Razak (2013) investigate the adoption of Islamic mortgage using the composite or modified method using TPB and IDT. Amin *et al.* (2013) work validate the use of IDT in the context of Islamic mortgage on empirical grounds. However, it seemingly offers insufficient arguments with regards to the method of determining specific attitudes that subsequently result in making the decision to accept or reject. In addition, IDT found to be ineffective in providing a way by means of which features of innovation (mentioned beforehand) are incorporated in the method of instituting the attitude (Chen *et al.*, 2002; Karahanna and Straub, 1999). In order to overcome these recognised limitations, theories concerned with one's cognitive operation acknowledging course as an evolving attitude was established and theory of reasoned action (TRA) is one of them.

### 2.3 THEORY OF REASONED ACTION (TRA)

Second essential model building theory well-thought-out medial for other models and theoretical frameworks is TRA, which was introduced initially by (Fishbein and Ajzen, 1975). According to Bagozzi (1992), from a conceptual standpoint, TRA is a theory with parsimonious constructs and considered to be an utmost instinctive model that provides understandings into one's behaviour.

Parallel to innovation diffusion theory, the theory of reasoned action is grounded on social cognitive habitat. Besides, theory of reasoned action positions intention as the central predictor of the behaviour of a particular person. Beliefs in the theory of reasoned action are influential towards one's attitude that shapes intention, which in turn serves as a guideline which dictates actions or actual behaviour (Chau and Hu, 2001).

Ajzen and Fishbein (1980), points out that "TRA assumes rationality in individuals that they systematically take into account the inferences of their actual behaviour before they decide to whether or not to get involved in a specific behaviour" (p. 5). This is further clarified by the following statement by (Ajzen and Fishbein, 1980) "most behaviours of social relevance are under volitional control and are thus predictable from intention" (p. 41). The significant constructs that shape TRA are (behavioural intention, attitude, and subjective norms) and association of each with others are explained in the following sections.

#### 2.3.1 Behavioural Intention

Behavioural intention (BINT) is an immediate antecedent of behaviour (Ajzen, 2002). It is a cognitive process which indicates the degree to which individual is ready to act a specific behaviour albeit behaviour manifests action carried out by a particular person explained by his experience as well as or intervened through exchangeable observations to a specified objective (La Rose and Eastin, 2004). This implies that Warshaw and Davis (1985), intention or behavioural intention is the extent to which a particular person consciously set a plan upon which his decision will be whether or not to get involved in certain advanced behaviour with regards to target. Furthermore, BINT is contingent upon ones' attitude with regards to the subjective norms and behaviour (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980).

#### 2.3.2 Attitude

Attitude (AT) explains "human actions" Ajzen and Fishbein (1980, p.13) and is defined as "individual's positive or negative evaluation of performing the behaviour" (Fishbein and Ajzen, 1975, p. 216). It is determined by the evaluation of a person's beliefs about the consequences of performed behaviour. Therefore, if past experience about targeted behaviour is positive then AT will also have a positive influence on BINT or else it will have an adverse effect on the intention to behave. Attitude is the product of critical behavioural beliefs and the individual's outcome evaluation Fishbein and Ajzen (1975), whereas behavioural beliefs are a subjective probability that a particular outcome is a concomitant of such ideas. In an extension of TRA known as the TAM, Davis, Bagozzi, and Warshaw (1989) defines these behavioural beliefs with the perception of usefulness (PCU) and the perception of ease of use (PEOU) by which one evaluates differently.

## 2.3.3 Subjective Norms

Subjective norms (SN) as identified by Fishbein and Ajzen (1975), is "the person's perception that most people who are important to him or her think he should or should not perform the behaviour in question" (p.302).

Accordingly, such perception signifies one's normative beliefs which govern his behaviour (Schepers and Wetzels, 2007). Ajzen and Madden (1986) define normative beliefs as "probability that important referent individuals or groups would approve or disapprove of performing the behaviour"(p.455). These authors point out that the magnitude of SN is contingent upon the degree to which an individual is constrained with the opinion of essential referents.

The typical formula that represents TRA is; BINT=AT+SN, which speaks to the effect that fundamental person's attitude has on behavioural outcomes and intentions whether by means of SN or AT (Madden, Ellen, and Ajzen, 1992). Otherwise stated that TRA affirms that volitional intention-behaviour of a particular person is reliant on one's attitude towards subjective norm and intention as depicted in Figure 2.2.



Figure 2.2: Theory of Reasoned Action

Source: Fishbein and Ajzen (1975)

TRA is an extensively applicable theory that has been a centre of attention in such fields as an information system, health, and business. At the outset, Sheppard, Hartwick, and Warshaw (1988) utilised TRA in consumer behaviour line of research; Sparks, Shepherd, and Frewer (1995) contextualised it to the agricultural and food domain. Additionally, as far as information system research is a concern, TRA also underwent revision extensively by scholars which result in the incorporation of numerous factors in order to investigate the influence of SN and AT in predicting BINT.

Following this personal norms was included by Fishbein (1967) and later, Ajzen (1985), contributed to it by including perception for control over behaviour achievement variable. Davidson and Morrison (1983) put forward competing for attitudes; also the effect of the previous behaviour was investigated by, Bagozzi, (1981) in relation to innovation. Along the same research domain, Davis *et al.* (1989) introduced a conceptual framework for a consumers' technology acceptance model abbreviated as TAM based on an extension of TRA. It was reported that the total variance or explained the prediction strength of TAM's model was in line with the previous research work that applied TRA in order to predict behavioural intention.

In spite of the fact, model based on TRA was massively employed in diverse research areas, Ajzen (1985) notes, TRA is characterised as a limited theory. One of the significant limitations is the assumption it makes when measuring the behaviour done of one's own volition. That is, beliefs which are determined by the will of the individual to have the behaviour performed (Ajzen, 1985). Thus, whenever an individual's volitional capacity is low (*i.e.*, it is difficult to predict the will of the individual), TRA was reportedly unsuccessful in predicting whether BINT affects B

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considerably. Foxall (1997) emphasised new viewpoints are positing TRA fall short to predict the expected behaviour. As an illustration, TRA was more parsimonious model along with values in the process for either particular behaviour that is not specified. Meaning that the environmental values or non-attitudinal personal values possibly will enhance the  $AT \rightarrow BINT$  association or predicting usage behaviour enhancement are not catered for. Therefore, it can be argued that before employing the TRA model, Davis et al. (1989) contends, the conspicuous beliefs of the individual's behaviour should be investigated. However, because of both time and cost constraints, it seems impractical or expensive to do so. Secondly, TRA is also limited so far as predicting future usage behaviour is concerned. That is, says Foxall (1997), TRA's expansion was meant for predicting behaviour Intention instead of the results of the behaviour per se. TRA to be examined, objective and unobtrusive measurement to actual user behaviour should be done so that a fine line between pre and post intention towards the usage behaviour can be drawn (Davis et al., 1989). In disagreement with Davis' cautious statement, TRA originally conceptualises behavioural intention a direct predictor of behaviour, thus, (BINT and B) are measured simultaneously. That is to say, the predictive power of the model to measure future usage behaviour is inaccurate. As a matter of fact, on every occasion when behaviour and intention are interrelated significantly, TRA will be of narrow predictability. This shortage of TRA model was pointed out by Ajzen and Fishbein (1980) admitting how predicting post behaviour usage was uneasy to arrive at in due part to the unexpected incidents that may occur at a time interval.

As a consequence, the relationship between TRA's constructs becomes at stakes. The third TRA's recognised limitation from the perspective of BINT, (Foxall, 1997), is that BINT acts as a complete mediator so far as AT affects behaviour (Foxall, 1997). Bagozzi and Yi (1989) note that the extent to which intentions are well-formed have to bear on how attitude affect the behaviour.

Thus, to claim that  $AT \rightarrow BINT \rightarrow B$  is inadequate to foresee circumstances where behaviour intentions seem unshaped, in the case where such relation is partially mediated, or there is no mediation when attitude has a positive effect on behaviour (AT $\rightarrow$ B).

### 2.4 THEORY OF PLANNED BEHAVIOUR

Theory of reasoned action or TRA's predictive power was admittedly insufficient to cater for cases where individuals possess a low level of volitional control, Ajzen, (1988; 1991) put forward a reviewed model of the theory of reasoned action labelled as the TPB an abbreviation of the theory of planned behaviour. On the same note, Ajzen (1991), figured extra construct in the model of TRA, which is typically perceived behaviour control (PBC), including perceived behavioural control, Miller (2005) points out, gives greater weight to TPB model and allow for explaining specific conditions in which the original behaviour is carried out with a dearth of confidence along with loose control over the behaviour. Ajzen (1985) introduced PBC to serve as a direct predictor of behaviour as well as an indirect predictor to be mediated by BINT.

## 2.4.1 Perceived Behavioural Control

Ajzen (1991, p. 188), the definition of PBC is "perceived ease or difficulty of performing the behaviour". Subsequently, Taylor and Todd (1995) contextualised PBC to information system research and identified it as the extent to which the behaviour is perceived as internally or externally constrained. Behavioural control is what the individual believes about the presence of some factors that may either be facilitating or inhibiting to the act of behaviour. It is varied from SN that has no impact on BINT for usage, and it refers to the perception of individual of being socially pressured as well as what he makes of normative expectations from others.

Ajzen, (1988; 1991) incorporation of PBC is accredited to the postulation that behaviour related to the social pressure of the majority of humanity is governed by volitional control of which behavioural intention is the sole predictor. However, such assumption came under criticism in most circumstances as well as challenges were put by numerous scholars (Eagly and Chaiken, 1993; Taylor and Todd, 1995; Ajzen, 2002). It is argued that the paucity in volitional control may constrains people's desire to perform a particular behaviour even if it is favourable to them, for instance, having intention to meet a physician with a bid to acquire constructive outcome for ailment indicators, which not utterly is one's influence somewhat contingent upon performance of others' act and resulting in dearth of influence on one's actual behaviour. The recent disagreement illuminated from Sheppard et al., (1988), these researchers, on the one hand, recognised TRA and differ for volitional control on the other hand. According to these authors, "behavioural intention is a predictor act that is voluntarily done unless intention shift precedes performance or the intention measurement is not in line with the behavioural criterion regarding action, target, context, time-frame and specificity" (p.325). The typical constructs of TPB (PBC, AT and SN) are affected by behavioural values (*i.e.*, other's characteristics of behaviour or probable concerns), normative values and control values correspondingly (Ajzen, 2002). Ajzen's (1991) TPB framework holds that if  $AT \rightarrow BINT$  and  $SN \rightarrow BINT$  results in positive outcomes, implying that higher the PBC more will be one's intention to participate in the behaviour with the strength.

TPB, similar to TRA, is a conceptual framework and adapted as well adopted in various lines of researches. Additionally, Conner, Povey, Sparks, James, and Shepherd (2003) assessed TPB constructs in relation to several eating behaviours. As far as an

information system is concerned, several studies made use of TPB and emphasised the effect that PBC has on predicting BINT (Chau and Hu, 2001; Foxall, 1997; Mathieson, 1991; Taylor and Todd, 1995).

In addition, to its ability to be a generalised and extensive adaptation, a number of scholars refined TPB in the various research area. Precisely, a lot of studies have been conducted with the objective of modifying the supplementary variable of PBC. As a case in point, proposing a PBC's substitution, Warshaw and Davis (1985) recommended that what individual expect from a behaviour may be a possible factor of behaviour. On the same note, (Elliott, Armitage., and Baughan, 2003; Conner and Armitage, 1998) states it to be so far as reutilised behaviour is concerned, instead of BINT, the habit may be the most influential factor to the behaviour. In addition to that, additional constructs have also been put forth to be added to the theory of planned behaviour, for instance, aspiration, Perugini and Bagozzi (2001), self-identity (Sparks, 2000), intention execution, Orbeil, Hodgldns, and Sheeran(1997), goal-directed behaviour, Leone, Perugini, and Ercolani (2004), and self-identity (Sparks, 2000).



Figure 2.3: Theory of Planned Behaviour

Source: Ajzen (1991)

Having the theoretical gap of TRA regarding behaviour under volitional control filled, yet many factors that TPB falls short of addressing it are illuminated in the literature. Eagly and Chaiken, (1993), for instance, highlights some factors that may have an impact on BINT and behaviour (*e.g.*, self-identity, moral obligation, and habit) within TRA, which has not been addressed in TPB.

Further, as an extended model of TRA, TPB is grounded on the theoretical assumption of adjacency between BINT and behaviour, which still requires certain situational conditions to be considered for the prediction of the actual behaviour (Foxall, 1997). In other words, it can be said that since beliefs are bounded up with its context and in no condition be generalised, consequently, it is always necessary to modify the measurement items in line with the specific context and population (Ajzen, 1991). Eagly and Chaiken (1993), the link amid PBC and BINT is grounded under the presumption that individuals decide to engage in certain behaviour guided by the feeling that they are up to it. However, TPB was found to be incapable to address how such presumption is made by an individual and which technique might be desirable in order to carry out particular behaviour (Taylor and Todd, 1995).

Along with this, TPB came under criticism by reason of operationalisation of its supplementary construct PBC. Presumably, PBC is capable of catering for all the non-controllable factors that predict behaviour. More precisely, the beliefs that record the control and predicted behaviour are those which measurements of PBC are accumulated from. Hence, the existence of unique characteristics that envisage behaviour, as well as behaviour intention, might be overlooked (Taylor and Todd, 1995b).

In opposition to decomposing control beliefs into one PBC composite factor, Manstead and Parker (1995) found that effective appraisal and personal norms of behaviour are significant to elucidate a change in BINT. This finding reveals that there could be other determinants, which may well predict extra variance for the relationship between intention and behaviour. As early as the time of developing TPB, Ajzen (1991) emphasised the need for expanding the research to involve supplementary predictors so long as they allow for a significant degree of variance in intention or behaviour.

## 2.5 TRIANDIS THEORY OF INTERPERSONAL BEHAVIOUR

Theory of interpersonal behaviour as portrayed in the Figure 2.4 coined by Triandis (1977) is a model with multidimensional constructs predicting one's intention to participate in an act that shapes his behaviour, the occurrence of ones' habit (preceding behaviour) along with the conditions to facilitate comprising of current circumstantial restraints (Robinson, 2010).

As stated earlier that the theory of interpersonal behaviour (TIB) is a multidimensional model, going by this Triandis (1977) in an initial level of the model provides an investigation on how the particular attitude, social factors, and beliefs linked to the one's behaviour are formulated by his personal characteristics along with his experience. In the second level of the model, Triandis elucidates the degree to which the individual's intention towards his behaviour is affected and shaped by his cognisance about the outcome from the social factors, act and affects associated with a particular action. As a final point, Triandis argues in the last stage of the framework with regards to habits, conditions to facilitate and behavioural intention have to bear on behaviour in actual (Robinson, 2010).



Figure 2.4: Triandis' Theory of Interpersonal Behaviour Source: Triandis (1977)

Triandis' model suggests an unequivocal role that effective factors hold for an intention. Moreover, there is support of scholars in terms of incorporating the dimension of emotions into action's framework (Dabholkar and Bagozzi, 2002). TIB model is surrounded by criticisms levelled to the balanced theory of preference in the sense that other theoretical models are devoid of it. Furthermore, TIB lacks empirical evidence and

needs to be tested in order to be validated in different fields, and to some researchers, few of constructs in TIB framework may lead to tautology if tested empirically (Amin *et al.*, 2016). Comparatively, the application of Triandis work is far less than the work done by Ajzen and Fishbein. However, what distinguishes TIB model is its apparent additional explanatory value compared to Ajzen's model, particularly by having such factors as habits and beliefs.

#### 2.5.1 The Relations and TIB Model's Factors

The researcher in this part discuss those determinants that form the framework of TIB together with the relations among factors in level two and level three of the trio model drawn upon the theory of interpersonal behaviour. Owing to lack of potency in the model the level one of TIB framework is not elaborated in detail.

The second level of the TIB model, Brislin and Triandis (1980) state, posits that the attitude (or perceived consequences) that is associated with a certain behaviour, the emotions, and the social factors (self-concept, norms, and roles) which are attached to the behaviour by the individual, are the typical predictors of the behavioural intention. According to Robinson (2010), the concept of perceived outcomes or attitudes has to do with whether individual subjectively believes that particular outcomes will be a result of specific behaviours and the evaluation of these outcomes. Perceived outcomes of specific action could vary to a small or large extent from existing one, Triandis (1977) argues, are conveyed by beliefs, which refer to favourable or unfavourable emotions a particular person would experience in case these circumstances take place (Limayem, Khalifa., and Chin, 2004). When it comes to intention to use MM home financing, attitudes may involve perceived financial benefit and perceived risk about the consequences of the impacts of applying for Islamic mortgage. Social factors refer to roles and the norms that have to bear on one's behavioural intention in addition to the perception of oneself and the responses of others, *i.e.*, an individual's self-concept. Besides, norms refer to "beliefs that an individual hold about certain behaviours as being correct, appropriate, or desirable and other behaviours, on the contrary, are incorrect, inappropriate, immoral and undesirable" (Triandis (1977, p. 8). Precisely, as Jackson (2005) put it, norms as rules that are socially motivated that dictate what needs not to be done or supposed to be done. Roles are "sets of behaviours that are considered appropriate for persons holding a particular position in a group" (Triandis, 1977, p. 8). Despite the relative stability of the social roles in the past, Robinson (2010) contends, in today's societies, they seem to be rapid change and as a consequence individuals regularly on their own affiliated to a diversified disputing groups, and subsequently, they end up undergoing clash of role.

Regarding self-concept, it is defined by Jackson (2005) as what the person perceives of him, the adequate objectives that such person should be in pursuit of or otherwise give up on, and the behaviours that are in line with the perceived profile or do not fit it. Following the former discussion, it can be inferred that the intention to use Islamic mortgage can be affected by society or peers.

According to Robinson (2010), affect refers to the emotional arousal of certain feeling associated with individual thinking about a specific action. Further precisely, it involves a variety of emotions such as discontentment or distaste, pleasure, and elation that accompanies the behaviour. Such responsive reactions, Jackson (2005) notes, are context-driven, that is to say, their positivity or negativity, as well as their strength, are contingent on the situation. Triandis (1977) points out that, affective determinants in one way or another are unconscious involvement in decision making.

Triandis (1977) in level three explains the predictors of the behaviour in real. According to Triandis' the behaviour's antecedents are a habit, facilitating conditions and behavioural intention. Behavioural intention "is a cognitive antecedent of an act" (Triandis, 1977, p. 5). Triandis (1977) says that it is the definite intention which is bound up with behaviour because it is characterised as organised, sequential, and it is directly related to a certain goal. Likewise, behavioural intention is conceptualised as a direct antecedent of behaviour in the aforementioned consumer theories, which includes TRA and TPB.

The potency of preceding behaviour in forming the behaviour aimed at is referred as a habit, Triandis (1977) as cited in (Robinson, 2010) and is equal to the repetition of a particular behaviour that a person performed in the past. One of the robust determinants is habit towards the final output of behaviour on the grounds that the higher the degree of recurrence of a specific action, the higher the possibility that a particular person will act in a usual manner. Moreover, if guiding a specific behaviour earlier is followed by receiving reinforcement positively and frequently, Triandis (1977) argues, it is extremely likely to engage in this action over and again owing to one's anticipation of the additional consolidation.

Facilitating conditions, according to Brislin and Triandis (1980) cited in (Robinson, 2010), are an indication of how far the person is able to carry out the behaviour and the individual's degree of inclination towards the behaviour. Additionally, it also measures the extent to which the person is constrained to perform the behaviour as well as the required knowledge to get involved in it along with the environmental context conducive to act. Jackson (2005) notes the moderating role played by facilitating conditions for the outcome. Irrespective of how habitual a certain behaviour is or its intention, Robinson (2010) notes, facilitating conditions' presence or absence play a critical role. It is further mentioned by Robinson (2010), as stated by Triandis that the behaviour is partially ascertained by BINT, in part by customary acceptances and to some extent by ecological restraints and situations within which the behaviour takes place.

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It is worthy to add that, Triandis (1977) points out, behaviours have different precursors depending on the situation, that is to say, it may be natural for a person to perform a particular behaviour and it can also be performed infrequently even on the first occasion.

# 2.6 DECOMPOSED THEORY OF PLANNED BEHAVIOUR

The DTPB model has its theoretical foundation underpinned from TAM, TPB, and DOI. In addition, DTPB shares more than one version, and so far it has dual versions. The initial version of DTPB model integrates features of IDT model, which includes but not limited to; perceived compatibility perceived complexity and perceived relative



Figure 2.5: Decomposed Theory of Planned Behaviour (First version)

Source: Taylor and Todd, (1995)

advantage are decomposed with attitude and followed by subjective norms decomposed with normative influences. Lastly, facilitating conditions and efficacy are linked to the perceived behavioural control (Taylor and Todd, 1995b). Figure 2.5 gives a picture of DTPB's initial model. Taylor and Todd (1995b) argues that DTPB is much more well-organised from TPB.

**2.6.1 A modified version of Decomposed Theory of Planned Behaviour (DTPB)** Additional work by Taylor and Todd (1995a) resulted in introducing the second version of DTPB. In this version, a combination had been made to PCU and PEOU, derived from TAM, as well as integrating other two constructs, *i.e.*, compatibility to attitude. As far as subjective norms dimensions are concerned, the influence of superior and peers influence was incorporated.

Besides, the prediction of perceived behavioural control is presumably by technology facilitating conditions, resource facilitating conditions and self-efficacy. As illustrated above, it is evident that the two versions do share similarities with the exception of the decomposition of the constructs. That is, in the first version, complexity, relative advantage and compatibility were the attitudes' determinant while in the second version drawn from TAM attitude becomes the outcome variable measured by perceived ease of use, which transformed the form of perceived complexity and perceived usefulness replaces relative advantage.



Figure 2.6: Decomposed Theory of Planned Behaviour (Second version)

**Source:** Taylor and Todd, (1995a)

Furthermore, in the modified version emphasis is more on facilitating conditions and subjective norms. Nevertheless, many gaps are identified in the two theoretical frameworks with regard to experience, demographic variable, moderated variable, and enjoyment.

## 2.6.2 Decomposition Approach

Integrative models approach is found to be successful in certain studies (*e.g.*, Amin *et al.*, 2013; Gumussoy and Calisir, 2009) in the field of business and technology. Theories are mainly integrated for three reasons. Primarily, when theories are integrated they lead to a

multifaceted procedure which leads to a comprehensive understanding of the behavioural intention towards the adoption (Tan and Teo, 2000). In the present study, it is anticipated that the integrated framework will deliver a stronger illustration of the relations hypothesised. The decomposed theory of planned behaviour is derived from three other consumer behaviour theories, namely, theory of planned behaviour, innovation diffusion theory and technology acceptance model.

Moreover, it offers comprehensive explication for certain circumstances or situation. Secondly, integrating numerous theories related to consumer behaviour successfully applied in other settings without testing it in the area of home financing offered by the Islamic bank. From other areas of research, it has been implied that numerous scholars have integrated theories in order to investigate intention by means of merging individual models' strength (Shih and Fang, 2004; Tan and Teo, 2000; Taylor and Todd, 1995). On the other hand, Amin et al. (2013) applied the method of integrating two theories for the first time in the context of Islamic mortgage and put forward an integrative model based on DOI and TPB. Further, Amin et al. (2016) also used TIB in the context of Islamic mortgage, but as far as Islamic mortgage is engrossed, there is no study that has proposed DTPB. For instance, a study by Taib, Ramayah, and Razak (2008) validates the only theory of reasoned action and validates it in the domain of Islamic mortgage devoid of combining it to other theoretical models. Hence, the current researcher's model fills such gaps by associating attitude with perceived compatibility and perceived relative advantage, subjective norms with peers and perceived behavioural control with self-efficacy to explicate intention to accept MM home financing.

Moreover, explanatory research studies demonstrate that the combined framework is distinguished with its robust explanatory power to predict the behavioural intention to engage in certain activities. Theories, when integrated, tend to yield dependable, accurate and robust results. Such empirical works endorsed with enough literature support directed the author to use DTPB model. The reasons for selecting DTPB are explained in detail in a later section. Previous research has expanded literature drawing upon; TRA, TPB, IDT or DOI, TIB in their research models (Amin *et al.*, 2013; Amin, Abdul., and Razak, 2014a; Amin *et al.*, 2016; Amin *et al.*, 2014). All of these studies share findings with something in common and concludes that all the original predictors or determinants of consumers' intention such as; perceived behaviour control, perceived compatibility, attitude perceived relative advantage and subjective norm, *etc.* are influential contributors of individual's acceptance or adoption for Islamic mortgage. However, these factors are not decomposed and, therefore, the applicability of the DTPB model is not examined as well.

DTPB was established by Taylor and Todd (1995), and the resultant model has two versions, in this study author have opted the first version of DTPB model of Taylor and Todd (1995) as seen in Figure 2.5.

DOI's perceived attributes, namely, perceived compatibility and Perceived relative advantage along with attitude are clustered together in the context of this study due to the phenomenon that mortgage financing offered by Islamic bank is innovation based product. Furthermore, all Islamic bank products including the mortgage financing products are developed on the premise of the *Hadīth* and the Holy *Qur'ān*, which are considered to be an innovative idea (Amin *et al.*, 2013). The mortgage products available in the market at present comes with different contracts such as *mushārakah mutanāqisah*, forward *Ijārah*, *istiṣnā'*, *tawarruq* and *murābaḥah* (Hanafi, 2012). Going by this, the DTPB lends itself to be an appropriate theoretical framework on which Islamic home financing adoption can be grounded. DTPB model is yet to be applied in the Islamic mortgage context and to best of researcher's knowledge, previous research work in the domain of Islamic mortgage never adopt this method in terms of theory building empirically (Taib *et al.*, 2008; Abduh and Razak, 2011; Amin,*et al.*, 2014a; Amin *et al.*, 2013; Amin *et al.*, 2014b; Amin *et al.*, 2016; Amin, Mohamad, Suddin., and Ricardo, 2009; Amin, Rahim, Razak., and Hamid, 2017; Amin, *et al.*, 2014). This gap is filled in the current study drawing upon DTPB in predicting consumers' intention to accept MM home financing. The present study is undertaken to fill this gap.

In terms of validation of the DTPB model into an Islamic mortgage, case remains under-researched theory into Islamic home financing context. To date, scant attention is given to attest the applicability of the DTPB model in the field of Islamic finance empirically. To test DTPB, therefore, becomes a theory of interest and it seems to be of paramount importance. It turns out that, the DTPB has been found to be useful in predicting a wide range of behaviours in social sciences. It is expected that in predicting consumers' behavioural intention towards MM home financing acceptance, the DTPB model lends itself as an adequate lens through which Islamic mortgage can be looked at. As a consequence, it is expected that the comprehensiveness of the DTPB model will push forward the frontier of knowledge for empirical work on Islamic bank mortgages.

The current study's proposed model is based on DTPB. The reasons for using DTPB are three folds. Firstly, DTPB is not used in the Islamic mortgage financing setting to the best of the knowledge of the author. Secondly, comparing DTPB with TIB, it can be concluded that TIB is still surrounded by lack of evidence support in different fields (Amin *et al.*, 2016). Lastly, DTPB is utilised in the current context to serve as a theoretical framework which comparatively suits the intended objectives of this study. For this purpose, nine variables are analysed for testing the model, which includes; perceived behavioural control, subjective norm, attitude, pricing, perceived compatibility, perceived relative advantage, self-efficacy, peers and MM home financing acceptance. Of these variables perceived
behavioural control, subjective norm, attitude, pricing, perceived compatibility, perceived relative advantage, self-efficacy and peers are predicting variables. Intention to accept *Mushārakah Mutanāqisah* home financing is the dependent variable in this study.

#### 2.7 STUDIES ON ISLAMIC HOME FINANCING

The topic of Islamic mortgage has been presented in a number of published literature. It was looked at from different angles with variant objectives. On the one hand, there are studies conducted to test theories and others built on market survey without adopting a theory, on the other hand, Islamic home finance was qualitatively studied and from a legal perspective as well.

In the context of law, Norjaya, Mohd, and Osman (2007) study explicates *bay 'bithaman ājil* (BBA), drawing upon two cases taking place in connection with the system of Islamic banking, (*i.e.*, the cases involved Dato Hj Nik Mahmud Daud and Adnan Omar) against Bank Islam Malaysia. In the context of Malaysia, these cases bring to the surface the true shortcomings of the BBA transaction. Taking for instance in the Adnan Omars' case there is no rebate tendered to relieve him of legal responsibility. Instead, the bank requests the prices to be fully paid which is deemed incompatible with Islamic law. Having the same point of view, Abu-Backer (2002) criticises *bay 'bithaman ājil* and goes even further by describing it as a blot on the Islamic justice administration. Besides, the bank, according to Abu-Backer, does not practice its freedom of offering a consumer with rebate, which drives to defaming the image of Islamic finance as being expensive and abusive, and as a consequence, Abu-Backer (2002) contested, this case shakes the foundation of the *Sharī 'ah* law under which the Islamic banks are based and brings inconsistency to the spirit and intent of justice under Islamic rule. It is obvious

from these studies that how problematic it is for the Islamic-oriented financial establishments working in the dual economic system to distance itself from being partially equalised with their conventional counterparts.

In search of developing Islamic home financing-oriented theory, Islamic mortgage was looked at in several studies. Taib et al. (2008) puts mushārakah mutanāqisah mortgage under the microscope of the TRA model and points out that the consumer's intention to use such mortgage is not only predicted by subjective norm but also attitude. Admittedly, however, the TRA pair of constructs fall short to provide a thorough investigation of the determinants of Islamic home financing acceptance. On the same token, Abduh and Razak's (2011) study does not go beyond the two factors (attitude and subjective norm) to examine the factors that influence the embracing of mushārakah mutanāqisah mortgage. It is evident from the findings of these two empirical studies that the incorporation of new predictors is of paramount importance to get to grips with the complexity of consumers' behaviour, which successively, suggests an informative understanding regarding impacts of different determinants on the performance of the consumer. In line with such need, Alam, Janor, Zanariah, and Ahsan, (2012) expand the TPB model by adding the religiosity factor to the existing predictors. The results of their study suggest that the introduced factor of religiosity along with TPB's constructs is significantly affecting the likelihood that the customers will decide to prefer Islamic mortgage. In tune with Alam et al. (2011) further, Amin et al. (2014) expand the model of TPB and adds the Islamicity of the product as an additional determinant to grasp the consumer adoption of Islamic mortgage.

Along with PBC, attitude, and subjective norm, Islamicity of product measures up to the requisite statistical significance to predict consumer acceptance of Islamic mortgage products. The same course of extending TPB is applied by Amin *et al.* (2014)

to investigate the extent to which the consumers are willing to go for *mushārakah mutanāqisah* mortgage. Their method varies from (Alam *et al.*, 2012; Amin *et al.*, 2014a) in their approach of utilising structural equation modelling and their findings suggest the significance of perceived behavioural control, attitude, and the subjective norm in predicting consumers' willingness. Amin *et al.* (2016) utilise the theory of interpersonal behaviour (TIB) to get an insight into the determinants that effect consumers to choose Islamic mortgage. Their reported results reveal a significant influence of affect, facilitating conditions, and social factors on consumer's intention. Besides, the remaining factors, *i.e.*, perceived financial benefits and perceived risk also significantly impact the willingness to select Islamic mortgage.

Based on the market survey, a number of studies on Islamic mortgage conduct literature review without adopting a theory. Mohammed and Mehmet (2012) identify social factors as well as a lifestyle as an important determinant to select Islamic home financing products. The latter study echoes Dar (2002) in this study, *i.e.*, examining the effectiveness of demand of the Islamic mortgage in the UK. An identical study carried out by Razak and Taib (2011) yet diverse in scope which explains how postgraduate students perceive MM and BBA mortgage. Their findings report dissatisfaction of the respondents with the present transaction of BBA which is ascribed to the certitude that the profit of the bank is calculated up-front, which result in skyrocketing prices that result in imposing a burden on the society.

In the territory of qualitative research, a number of studies on Islamic mortgage are also found. Shuib *et al.* (2011) explore Kuwait Finance House *mushārakah mutanāqisah* based mortgage. They assert the benefits of providing such a service, the first of which is the sharing of the profit between the customer and the bank. Secondly, cash aid is available; thus the customer can get cash by selling the share to the bank of the share that they possess. Thirdly, early settlement of the product is offered to the customer as long as they are capable. Interestingly, (Mohammed and Mehmet, 2012; Razak and Taib, 2011) altogether arguably nominate *mushārakah mutanāqisah* as a likely alternative to Islamic home finance.

In all, the detailed account is given in the reviewed literature, particularly the studies that have tested theories leads to the conclusion that the proper integration of a widely accepted theory, which is DTPB with exogenous constructs will yield a better understanding of the behavioural intention of Islamic mortgage consumers. It is also remarkable that it is absent from the theories that were mapped into the context of an Islamic mortgage. Therefore, this is study is set out to fill this gap in the literature.

#### 2.8 ISLAMIC BANK'S PRODUCT RECEPTIVITY BY CONSUMERS

Islamic banking is in existence for more than three-decades-long periods, but its acceptance in terms of market acceptance is relatively lower when compared to conventional banks (Ahmad and Haron, 2002; Thambiah, Eze., and Ismail, 2011).

Further, Ahmad and Haron (2002) contend that the majority of respondents consider that Islamic banks are unable to promote and market their products which are available to them in the market. On the same note, it is argued by Haque, Tarofder, Rahman., and Raquib, (2009) that the majority of their respondents who were Malaysian were unaware of the Islamic banking services and products.

Looking at the broad picture, if there is no intended level of technology usage or services acceptance then the product or system cannot be implemented successfully (Amoako-Gyampah, 2007). In other words, it can be said that the acceptance of a particular product or intentions towards a system is reflected by a system usage. Furthermore, if targeted customers are not enthusiast to accept the new system or the new arrangement in a product per se, then the organisation will have a blur vision on the benefits that the new offered system may bring (Davis and Venkatesh, 1996). In the author's opinion, considering the paradigm of products being introduced and made available for current consumers of an Islamic bank, it is still implicit whether customers will embrace these services and products or not. Having said that, acceptance of Islamic banks' products and services are contingent upon the consumers' eagerness and willingness to espouse it.

#### 2.9 ISLAMIC MORTGAGE

Having explained the consumer theories in the previous section, this section is entirely dedicated to Islamic mortgage or Islamic-oriented housing finance. The chief fundamentals of Islamic finance along with the approaches or tools used for Islamic-based finance of housing are discussed in detail.

#### 2.9.1 Islamic Finance: Basic Principles

Among the wide spectrum of Islamic economics aspects, Islamic finance is viewed as the best alternative of finance meant for succeeding the prevalent conventional system of finance. Aiming at bringing justice and fairness to the entire society, Islamic finance is distinguishably injected with elements of a moral dimension (Hanafi, 2012).

As a religion that its teachings give direction for the all aspects of life, specific rules which govern economic works and commercial transactions with the aim of bringing prosperity to both individuals and society, Chapra (2000) points out, are clearly stated in Islam. Therefore, Chapra (2000) adds, the basis upon which all financial deals and economically-related activities are grounded are the values of the religion of Islam which are deeply rooted in *maqāşid al-Sharī 'ah*. For instance, the principle of "consent from both contracting parties" which is postulated so far as engagement in a financial

transaction is concerned, is a central rule in Islam which entails individuals' freedom in drawing up contracts and conducting business transactions. Such a principle is an integral part of the concept of justice promoted by Islam (Hanafi, 2012).

The *ribā* and *gharār* impressibility in all economically-related activities and financially-based transactions is the central theme through which the concept of *maqāṣid al-Sharī* '*ah*, which constitutes the principles by which prosperity and justice are brought to society, can be discerned (Hanafi, 2012). Having said that, for all transactions to be deemed permissible and compatible with Islamic norms, it must be done apart from *ribā* and *gharār*. These practices which are based on *ribā* and *gharār* are prohibited in many *Qur'ānic* verses and several narrated sayings of the Prophet (Hanafi, 2012).

#### 2.9.1.1 Prohibition of *Ribā*

In general, Bakar (2008) defines  $rib\bar{a}$  as "unlawful gain derived from the quantitative inequality of the counter values in any transaction purporting to affect the exchange of two or more species which belong to the same genus and governed by the same legal cause" (p. 11). In light of this definition,  $rib\bar{a}$  is an interest, which represents constant return with no specific effort and without having a bearing on the real economy.

According to the authentic *hadīth* of the Prophet, two distinguished categories of *ribā* can be identified: the first one is called *ribā al- Fadl, i.e., ribā* by the increase and *ribā al-nasi 'ah* (Hanafi, 2012). *Ribā al- Fadl* is also termed *ribā al-buyu* ' as it is a quantity-based *ribā* whereas the concept behind *ribā al-nasi 'ah* is how far the debt is delayed by the creditor, *i.e.,* it is a time-based *ribā* (Hanafi, 2012).

As far as *ribā al- Faḍl* is concerned, the *hadīth* narrated by the Prophet identifies typical six items (gold, silver, wheat, barley, dates, and salt) the two of which are commodities (gold and silver) while the remaining four are basic food articles.

According to Bakar (2008), there is a unanimous consensus among scholars to refer the commodities to money as a channel of exchange, store and value measurement, which is described as  $ribaw\bar{i}$  or usury-like objects. Consequently, the principle of hand to hand and equal to equal must be considered whenever these items are to be exchanged for each other.

Bakar (2008) stresses that *ribā al-nasi'ah* does not necessarily entail extra payment instead of delaying the payback of a loan, but it involves the case where similar usurious articles to be exchanged are not impacted at the same time, even for equal counter value. For instance, Bakar (2008) adds, if 1 kg of wheat is to be exchanged for 1 kg wheat but not on the basis of hand to hand then such transaction falls under the category of *ribā al-nasi'ah*. Thus, it is evident that *ribā al-nasi'ah* is not exclusive to the cases where the positive return on a debt remains constant in return for postponing or prolonging the period of repayment. That is to say, in case where the exchange period varies it will be deemed *ribā al-nasi'ah*.

On the other hand, Bakar (2008) argues, striking a balance between the merits and demerits of  $rib\bar{a}$  reveal the wisdom behind its prohibition in Islam. Despite the certain benefits that  $rib\bar{a}$  brings for those who indulge in its practice in the form of mounting money, such an increase of money will be at the expense of those who are immersed in debt. Therefore, the practice of  $rib\bar{a}$ , though its slight yet undeniable benefits, it is only giving privilege for those who have excessive money whereas victimising the indebted ones. In addition to this, another rationale for the strict prohibition of  $rib\bar{a}$  is that it undermines one of the dimensions of the economic structure, which is equity. This is when the borrower is under obligation to pay the fixed interest rate regardless of whether the business he engaged in is profitable or unprofitable. As a result, the borrower will end up with accumulative debt that he is unable to pay, which will have him gone bankrupt and therefore exacerbating the problem of unemployment and losing a productive potential.

Furthermore, if the financial system is designed in such a way that being an interest-based system, it will be oriented towards security rather than growth. That is to say, those with a perfect financial establishment who are sufficiently secure will be given priority by the banks so as to guarantee the continuation of monthly return. As a consequence, plenty of promising entrepreneurs along with their innovative works will be negatively affected by the resultant economic shrinkage. Having carried on such practice by the banks will probably lead to maximising the gap of income and wealth in society. Having said that, it can be concluded that the demerits of the *ribā* far exceeds its merits.

Moreover, getting involved in *ribā* practice will give rise to complacency among individuals or banks and therefore they will be more sensitive to run any risk as well as gaining profits. Such scenario is completely opposite to two of *Sharī'ah* rules, namely *al-ghunmu bi al-ghurmi* which means profit is associated with risks, and *al-kharaj bi al- dhaman* which means that profit or gain are legitimate so far as bearing the responsibility of loss is agreed upon. Following these two Islamic legal principles, it can be said that the entitlement to gain or profit has to be associated with the responsibility to lose as well. In light of these two jurisprudential maxims it is evident that whenever the individual engages in a financial transaction, the concept of profit and loss sharing

is highly encouraged by Islamic jurisprudence. Profit and loss sharing (PLS), according to Dar and Presley (2000), is extensively emphasised in the Islamic finance literature and it is referred to as a contractual agreement between those who are involved in a financial transaction, which enables them to invest their resources in a project collectively on the basis of profit and loss sharing. For many Islamic finance theorists, PLS, which is commonly found in two financial modes, namely *mudārabah* and *mushārakah*, is put forward as a substitute to the dominant practice of *ribā* as the share of reward is associated with the share of risk between all parties involved in the commercial transaction. Such case is entirely compatible with the principles of *Sharī'ah* articulated in the two rules stated earlier.

#### 2.9.1.2 Prohibition of Gharār

Having explained the first principle of Islamic finance,  $rib\bar{a}$ , it is important to refer to the second chief basis of Islamic finance, which is the prohibition of *gharār*. According to Buang (2000), the latter is important whenever a commercial transaction or economic-related activities, especially in Islamic finance of housing, in the case where the sale transaction's subject matter is a house, is completely constructed or still under construction. In general, a clear-cut definition of *gharār* is not stated in both the *Qur'ān* and the reported sayings of the Prophet. However, the constituents of *gharār* have been stated in plenty of samples of contracts which are not allowed in Islam. Literally, *gharār* means danger, peril, jeopardy, hazard or risk, Ibn Manzur (1990), which semantically indicates a situation where a transaction is characterised as uncertain or indeterminate and involves ambiguity in both the quantity and quality of the commodity that intended to be sold. In addition, a typical case of *gharār*, Siddiqi (1985) points out, is when the draw-up of commercial contracts does not include definite statements which determine the rights and duties of all the parties involved in the transaction.

#### (a) Sale of thing which does not exists at the time of contract

The concept of *gharār* in its earlier development contains a situation when the contract is finalised the commodities which are meant to be sold are not present. That is to say, the commercial contract is considered invalid if the articles to be sold do not exist at the time of contract finalisation and thus they are not deemed a contract's subject matter. In addition to the aforementioned conditions of a legitimate contract, Islamic jurisprudential principles have illuminated the conditions for the contract's subject which validate the contract. Broadly speaking, most of the Islamic schools of jurisprudence, Al-Zuhaily (2007) states, typically, Shāfi'ī, Mālikī and Hanafī, postulate that the items to be sold should be accessible assets as well as existent ones during the time contract's formulation. They grounded their argument on the hadith narrated by the Prophet: "Do not sell what you do not have" in addition to their contention on the prohibition of gharār in the contract. However, some cases are excluded from this general principle. This requisite is made simple in two types of contracts, namely salām and *istisnā*' sale, where the transactions are deemed authentic even if the objects to be sold are not present when finalising the contract. Salām sale refers to the kind of sale in which the price of an assured future asset the seller of which is liable and obliged is paid in advance at the time of contract. Further, finding the subject matter of salām sale in the market is not difficult. On the other hand, istigna ' sale is defined as a sale which is grounded on an agreement to erect or manufacture an asset in line with prerequisite particular specifications. The main basis to depart from the general rule is based on the consideration that these sales are allowed on the basis of public interest.

In contrast, the doctrine of  $Hanbal\bar{i}$  holds a different point of view compared to other schools of thoughts by not considering the existence of merchandise at the time of contract as conditional to the validity of the contract. The  $Hanbal\bar{i}$  argument centres on the proposition that so long as all the parties involved in a commercial transaction reach an agreement that the merchandise is will be present and certainly are going to be delivered to the buyer, then the contract is authentic accordingly. Going by this view of  $Hanbal\bar{i}$ , as far as the validity of the contract is concerned, what matter is the degree to which the delivery of merchandise is certain rather than whether the products to be sold do exist at the time of contract.

Contemporary jurists hold the *Hanbalī* scholars point of view. It is worthy to note that *Hanbalīs*' stance is in line with what *Ibn Qayyim* argues that the case of *gharār* is merely associated with how far the asset is available and certain and it is not confined to whether or not the objects under interest are present at the time of contract. As far as the Malaysian context is concerned, the Securities Commission have adopted the same opinion to the extent that passing the resolution about it and thus allowing for selling future commodities (SCM, 2006).

#### 2.9.2 Instruments of Islamic Housing Finance

Needless to say, the importance of house as a shelter, an enclosed space for rest, relaxation, and make use of all delightful worldly matters in addition to worshipping Almighty Allāh, is recognized in Islam. According to Al-Qardawi (1960), the definition of a house in line with the Holy  $Qur'\bar{a}n$  is that it is a place which provides protection for people from the external environment and wherein they are not pressurised and constrained by the society. Having said that, it goes without saying that a house is a necessity that every Muslim should possess.

In fact, the launch of Islamic-based house financing is dated back to 1970 ever since the Islamic-oriented banking has made ground within the conventional economic system. Following this, it can be argued that as long as the Islamic-oriented products of housing are compatible with the rules of Islam, they can serve as a substitute for similar usurious products. As mentioned earlier, the common practice of traditional banking systems where the loan given to acquire a house is returned with additional interest is prohibited in Islam. Therefore, the way by which Islamic finance of housing is operated is completely different. That is to say, in the Islamic-oriented system the house of interest will be owned by the bank and later on, the house will either be sold or leased to the customer who has been financially assisted. Such practice is referred to as an Islamic mortgage. The latter is operated in such a way that signing a contract of sale and buy between both parties, namely the bank and the individual who is interested in owning a house.

Diverse modes of financing have been introduced by the Islamic institutions of finance so as to cater to the desire of those who are looking for *Sharī'ah*-compliant services in general and houses in particular. On the basis of Islamic contracts, many types of transactions are popularly used, which are: *murābaḥah, al-ijārah thummah al-bay', bay' bithaman ājil, and mushārakah mutanāqisah*.

## 2.9.2.1 Murābahah

Among the different Islamic modes of finance, *murābaḥah* is the most common one. It can be found in plenty of Islamic banks and institutions and an approximate interpretation of which in English is a mark-up sale.

The typical description of *murābaḥah* transaction, according to Billah (2008), is that the seller purchases the merchandise first then offer it for sale under *murābaḥah* contract through which the seller will gain the original price of the commodities plus agreed upon profits. In the *murābaḥah* transaction, there are three parties involved: the bank, the purchaser, and the seller. Further, unless the purchaser is certain about buying the asset the bank will not give the approval to buy it. Upon the request of the buyer, the bank will move forward to purchase the commodities and then resell it for its typical price, in addition, to be agreed upon extra price (Billah, 2008).

The price for which the property has been sold which includes the original price plus profit should be revealed in advance, and it must remain constant. According to Dar (2005), it is the mark-up between the price that the asset has been sold for and the price which it has been bought with, which the profits of the bank come out of. Within a specific period, the interested buyer should have the payment done via instalments that are paid every month. Further, until the customer owns the property completely, the bank bears the *murābaḥah* contract.

In actuality, the *murābaḥah* transaction has merits and demerits for both the bank and the client. On the latter part, *murābaḥah* contract of sale is beneficial in that it offers them constant instalments paid every month. Therefore, clients will end up having a good financial plan which is necessary for the mortgage payment that takes a huge amount of the individual's income. In addition to this, having disclosed the entire cost in advance, Laldin (2006) points out, will result in a transparent process for all the involved parties in *murābaḥah*. From the bank side, such practice is quite advantageous with a low degree of risk due to the fixation and predetermination of the payment.

On the other hand, such practice could also be disadvantageous for the purchasers that they do not get any benefits from instalments payment which is made earlier. The reason why is that it is only the bank which has the right to decide whether what has been settled earlier should be rebated.

Likewise, the bank may negatively be affected in case the clients are late in paying the instalments. Thus, penalties cannot be imposed on them and therefore a default margin will be added to the markup price. As a result, Ebrahim (2005) explains, the services offered through *murābaḥah* will be more expensive and less attractive for the target customers. Besides that, the current practice of *murābaḥah* contract of sale has come under criticism by many contemporary scholars. According to Meera and Razak (2005), it is believed that the way by which *murābaḥah* is practised is similar to the interestbearing transactions where the bank lends the customers rather than selling products.

# 2.9.2.2 Bay' BiThaman Ājil

The second mode of Islamic-oriented finance is known as *Bay' bithaman ājil* (BBA) which is grounded on *'īnah* contract. Typically, in such a deferred payment-based contract structure, the bank serves as a buyer to a particular item which is going to be sold back to a client for an agreed price with a margin of profit. BBA sale contract, according to Billah (2008), is common for housing finance and the contract is established to enable the customer to repay the bank in regular instalments. Based on this, the constant rate which the bank and the client have agreed upon is labelled as a profit, and it remains constant until the end of the contract.

As far as the Malaysian context is concerned, the BBA contract is a popular Islamic financing technique for housing finance. Typically, at the first stage, the client makes ten per cent (10%) down payment of the cost to the developer. Having signed the contract of buying and selling, the client is supposed to repay the financial institution the rest ninety per cent 90% of the entire price of the residential property. At first, Mohd Yasin (1997) states, the needs of the client in terms of the time he needs to repay and the mode of repayment is determined by the financial institution. After this, he adds, the required item will be purchased by the bank then it will be sold back to the client at an agreed price. The latter consists of the typical cost of the property in addition to a margin of profit set by the financial institution, and it gives a client an opportunity to divide the cost that he has to pay back into regular instalments.

On the other hand, similar to *murābaḥah* contract, BBA structure brings some merits for both the client and the financial institution. Regarding the former, BBA allows the client to rigorously plan for the repayment which is done on a constant regular basis. On the bank's part, such practice has a low degree of risk. However, likewise *murābaḥah*, in a situation where repayment is settled earlier, the client will not be given a rebate because it is the bank which exclusively has a right to make such a decision. In a similar vein, in case the client settles the payment lately, the financial institution has no capacity to penalise the client.

It is worthy to point out that the BBA contract is considered as a controversial matter among the Muslim clerics. There are two required financial documents insofar as BBA contract of house financing is concerned, which are: Property Purchase Agreement (PPA) and Property Sale Agreement (PSA). These two scripts are required to determine the nature of the relationship between the financial institution on the one hand and the interested client on the other.

In such case, the property is purchased by the financial institution and then it is sold to the client at the original cost of the property in addition to a margin of profit set by the financial institution. However, if the contract is established in such a way that the possession of the property is not properly transferred, then it does not be considered as original BBA. That is to say, BBA is ultimately intended for having the property completely acquired, which is not the case for having the item sold and then purchase it. Additionally, the purpose of PSA and PPA is to gain liquidity which house developers are going to get. If the transaction is to gain cash, then it is seemingly a reflection of *bay'al-'īnah*. The latter is a type of sale contract which falls under the category of *nasi'ah* (postpone) structure. Typically, in such practice, particular items are sold by a borrower to the lender so as to get liquidity which is paid on the spot. The very same items are bought by the indebted person for an increased amount for an upcoming period. Therefore, such contract is identical to a given loan, and the difference between these two prices is equivalent to the interest.

This financial practice is dated back to the earlier time of Islam, and it is considered as a major reason why the interest-bearing transaction is prohibited in Islamic law as it involves *ribā*. In such kind of financial transaction, interest is there for both the debtor and the creditor, which leads to a circumvention of the *ribā* forbidding. According to Rosly (2001), what matter is to what extent such mode of finance should be judged according to Islamic law, that is to say, should it be deemed permissible purportedly or otherwise seen as impermissible and therefore treated like an interest-bearing transaction.

In addition to the abovementioned matter, it is worthy to point out that unlike the majority of the jurisprudential school of thoughts, *Shāfi 'ī* and *Zahiris* see *bay 'al- 'īnah* as an unforbidden commercial transaction. According to them, as long as the conditions of the contract of sale authenticity are met, then it cannot be annulled based on the allegation that the *modus operandi* of the transaction is meant for circumvention of the *ribā* ban. Further, they also argue that for a financial technique to be legally judged, it is supposed to be grounded on an articulated intention rather than what has been inwardly intended which is only known by Almighty Allāh.

According to Rosly (2001), *Shāfi 'ī 's* doctrine establishes that such type of sales contract is permissible as Imam *Shāfi 'ī* states that the validity of the contract (*i.e.*, saying that it is *saḥiḥ*) is contingent upon an outward proof from which a proper conclusion of

the contract was made. That is to say, what has been inwardly intended either by the seller or the buyer has no impact on the validity of the contract unless it is outwardly manifested. Additionally,  $Sh\bar{a}fi$  ' $\bar{i}$  argues that what the buyer and seller intends has a bearing on contract validity in case it is clearly stated as an article. However, both the  $Sh\bar{a}fi$  ' $\bar{i}$  and Zahiris discourage from getting involved in bay' al-' $\bar{i}$ nah and see it as makr $\bar{u}h$ .

In contrast to the previous view, the *Hanbalī* and *Mālikī* regard *bay' al-'īnah* as a prohibited financial transaction and see it as nothing but a way of circumvention to usury ban. They ground their view on the Islamic jurisprudential rule closing the door which might lead to *hāram* (*sadd al-dharai'*), which is interpreted as to avoid any act and consider it as impermissible so long as it may lead to fall in *hāram* in the future.

# 2.9.2.3 Al- Ijārah Thummah Al-Bay'

A third technique for home financing is known as *Al-ijārah thummah al-bay*' which comprises two distinguishable components of Islamic-oriented contract, which are leasing contract and sale contract. At the first stage, the client and the financial institution agree to have the latter purchased an asset upon a request of the former. After this, says Dar (2005), a leased deal will be made by the financial institution with the client upon which a constant rental will be paid by the client every month as agreed by both parties. Having done this, then the lessee will have a usufruct right over the asset despite the fact that the property's possession will be retained for the financial institution as a lessor until the client is done with paying the whole cost.

The next stage, according to Billah (2008), begins once the time of lease is over as a second contract is established between the lessor and the client for a concurred cost. It is evident that there is no difference between this structure and the traditional hire buying with the only exception that the latter is in line with Islamic law. One of the advantages of *Al-ijārah thummah al-bay*<sup>4</sup>, Laldin (2006) notes, is that when the property is completely owned by the clients, they will get whole advantages from the asset value which is appreciated. In addition, as long as the property belongs to the financial institution as a lessor of it, thus, the client is not going to stand liable so far as the possession of the house is concerned. On the other hand, it is worthy to note that the ownership of the property will not be transferred to the client until the end of the leasing contract. However, a degree of uncertainty is associated with the rental cost as it may be paid either on annual-basis, semi-annual-basis, or quarter-basis. As a consequence, it will be difficult for the client to have a well-planned financial blueprint during the tenure period.

According to Ebrahim (2005), the financial institution is benefited in that the property is under its possession despite the fact that the entire risk of the asset is borne by the lessor. Besides, since the rent is altered either quarter a year, half a year, or every year, the bank has an advantage of making use of the cost of the rent of the property. However, it is disadvantageous in that in case that the rental payment is made lately, the financial institution will not be in a position to penalise the lessee but a fee of the services enjoyed by the client.

#### 2.9.2.1 Mushārakah Mutanāqisah

Generally, *mushārakah* refers to partnership and sharing, whereas in terms of business setting according to Usmani (1999), it refers to "a joint enterprise in which the partners share the profit or loss of the joint venture" (p. 203).

Moreover, with reference to a home mortgage, *ijārah* and *mushārakah mutanāqisah* will function based on the partnership contract, through which the consumer and the financier, *i.e.*, Islamic bank might purchase the property that will be regarded as jointly co-owned by both of them as shared property. Later, Islamic bank as a financier will lend its portion of ownership to the consumer at a particular rent for an agreed time.

Furthermore, the Islamic bank's portion in the ownership of property is distributed into units and consumer purchases single unit by paying rental cost resulting in a reduction of a total number of units held by an Islamic bank. Consistently the amount of rent diminishes leading to consumer's units in property getting increased till the time when entire units in the property are fully owned by the consumer at the specific time of termination of the contract of partnership as well as lease agreement (Ahmad, 1995).

The concept of *mushārakah* proposes that the risk involved in the property including the extent to which it is appreciated and depreciated in line with the value of client and bank's share is borne by both the financing institution and the client (Hanafi, 2012).

As far as the bank is concerned, *mushārakah* contract, Meera (2005) states, is advantageous in that what the clients pay is governed by market rental values that the financing institution can to some degree occasionally revisit so as the market status quo is reflected. Additionally, according to Salama (1991), such practice provides a protective shield against the inflationary situation, and in case the value of the property is appreciated in a continuous rise in prices, a proportion of the house's value is secured to the bank. However, according to Ebrahim (2005), the process might be of the high cost to the bank as the asset should be assessed whenever the bank's share is to be bought off.

#### 2.10 BAY' BITHAMAN ĀJIL VERSUS MUSHĀRAKAH MUTANĀQISAH

As mentioned earlier, financial institutions characterised as Islamic-oriented involve a number of modes of home ownership which are *Sharī'ah*-compliant. The most popular one in the region of South East Asia, according to Meera and Razak (2005), is BBA. The latter is arguable to bear a resemblance to the conventional loans as Meera and Razak (2005) contends.

The work of Meera and Razak (2005) provides an anatomy of BBA and explain why it is problematical in terms of what is believed to be a similarity with interest-based transactions. The thrust of their argument is centred on the degree of conformity of BBA with *maqāşid al-Sharī 'ah*. Drawing a comparison between the conventional system and the BBA, according to Meera and Razak (2005), will reveals no big difference in the formula, that is to say, instead of the customers being charge interest, he will be charged on the basis of buy-and-sell contract which is permissible in Islam, but deplorable, Meera and Razak (2005) note, it is the market interest rate that the profit rate depends on due to arbitrage activities.

As a consequence, even if the practice of BBA is compliant with  $Shar\bar{i}$  'ah in some countries, yet the computational equations of conventional mode whereby the profit rate tracks the market interest rate are applied.

Another important point highlighted by Meera and Razak (2005) is the referring to the difference between the current practice of BBA, and the conventional mode is that the fixed profit rate will remain constant over the whole duration of financing. The ensuing problem that financers bear is the difficulty of accurate estimation of the fund cost and the profit rate for a long period, *e.g.*, 20 years, due to the instability of the economic conditions. As a result, customers will be inclined to conventional during the low-interest periods and vice versa. As far as the principles of *Sharī'ah* is concerned, BBA also ignores the two principles, *i.e., al-Ghorm bil Ghonm* (no reward without risk) and *al-Kharaj bil Daman* (any benefit must be accompanied with liability), which hold that the liabilities should be borne by all parties involved in the transaction.

Meera and Razak (2005) comment in this issue stating that the current practice of BBA shows that the banks merely acts as a funder rather than a seller and distances itself from all liabilities. They conclude by portraying the current practice of BBA as burdensome especially for those who fall under the low-income category.

In line with the objectives of *Sharī* '*ah*, as they point out, is such transaction as MM which facilitates home ownership for people with limited initial capital and promotes their welfare, thus, serving the *maşlāhah* of them. Parallel to the latter is what al-Ghazzali remarks:

"The very objectives of the Sharī'ah are to promote the welfare of the people, which lies in safeguarding their faith, their life, their intellect, their posterity and their wealth. Whatever ensures the safeguarding of these five serves the public interest and is desirable" cited in (Meera and Razak., 2005).

#### 2.11 SOCIAL HOUSING AS A MEAN OF HOME OWNERSHIP

The term social housing, (Hanafi, 2012) refers to the house which is subsidised by the government. Traditionally, in term of its financing, social housings are seen as aspects of national policies which therefore normally consist of government grant and subsidy (Hills, 2007).

Prior to the advent of social housing, as Hanafi (2012) explicates, households who belong to low-income class live in conditions characterised as cramped and overcrowded which gives rise to environmental as well as public health problems. Therefore, the involvement of the public sector in the provision of the house is primarily intended to ensure that every household is capable of owning a decent house (Hanafi, 2012).

Another provider of social housing without the intention to make a profit are house associations. According to Harriott and Matthews (1998), these associations are nonlucrative organisations with no legal obligation like the local authorities. Besides providing homes, they elaborate, local authorities subsidise individual households including those who are involved in social housing. For instance, the majority of households with low incomes may have all or some of the property's rental cost paid by the local authority. Although most of the methods appear to be in favour of the privileged buyer, yet the underprivileged buyers' opportunities are still there by means of cooperative and social housing. It also shows that, from Hanafi (2012) view, the national policies set by governments have an important role to play in promoting home ownership among those who are characterised as underprivileged.

#### 2.12 HOME OWNERSHIP: AN ETHICAL PERSPECTIVE

Advocating the urgent need of reformation of the Islamic financing application, Hanafi (2012) stresses the idealisation of the Islamic banking model. In order to establish an Islamic financing system in line with *Sharī'ah* rules, Siddiqui (2005) suggests a gradual transition to a new system capable of eliminating the interest (*ribā*). Siddiqui argues that the contradiction between the obvious condemnation of the cleric, *ulema*, to all interest-based transactions and the lack of pure *Sharī'ah*-compliant products have brought about confusion to ordinary Muslims. Siddiqui (2005) gives reference to the case of Pakistan where the banks' Islamisation took place only by name with the exception of a few examples.

Aziz (2006) points out that the requisites for assuring the future sustainability of Islamic banking and finance lie behind providing products and services of high quality. Being merely *Sharī'ah*-compliant, he says, is no longer sufficient to guarantee the sustainability of the offered products and services. Therefore, he goes on, so far as innovation is concerned, it is quite challenging for Islamic financial institutions to provide for a comprehensive range of products and services which live up to today's consumer requirements and above all, are up to par of *Sharī'ah* rules.

In so far as Islamic mortgage is concerned, due to so many issues regarding the use of BBA, it is time for diversification into equity financing as an alternative method of financing in order to sustain the future needs of the society, particularly the Muslim (Hanafi, 2012). Going by this, MM can be thought of as a feasible alternative to the current prevailing transactions (*e.g.*, BBA).

Besides, MM is not only capable of fulfilling the *Sharī'ah* contracts' requirements but, (Hanafi (2012)) believes, it also measures up to the true spirit of Islam in as much as it provides justice to the home buyer.

#### 2.13 CHAPTER SUMMARY

The aim of this chapter is to provide an overview of the consumer's acceptance of MM home financing. Potential predictors of the consumer's behaviour were illuminated, which are typical: customer's attitude, subjective norms, pricing, perceived behavioural control, perceived relative advantage, perceived compatibility, peers influence, and self-efficacy. There is a dearth of literature on Islamic home financing in general and in particular on Pakistan. Various studies have applied different consumer theories to predict the acceptance and adoption of Islamic home financing mostly carried out in the context of Malaysia. These studies utilised the theories ranging from TRA, TPB, DOI, TIB and T*i*CB (Amin *et al.*, 2013; Amin, *et al.*, 2014a; Amin *et al.*, 2014b; Amin *et al.*, 2016;

Amin *et al.*, 2009; Amin *et al.*, 2017; Amin *et al.*, 2014). On the contrary, all these theories are yet to be applied in the context of Islamic home financing acceptance in Pakistan. There exists very little literature based on empirical grounds as illustrated in this chapter.

Most relevant literature visited in this chapter is chiefly empirical studies that were scanned in order to identify the research gap. The previous literature points out that with reference to MM home financing there exist no study that compares two countries in our case, Malaysia and Pakistan. Furthermore, there is also no study until now that utilised decomposed theory of planned behaviour in order to predict the consumers' acceptance in the Islamic mortgage context. There is no study to date that used the country as a moderator for multigroup analysis to compare and contrast the differences that may exist in two countries, namely, Malaysia and Pakistan.

# CHAPTER 3: *MUSHĀRAKAH MUTANĀQISAH* (DIMINISHING PARTNERSHIP) HOME FINANCING: AN EQUITY-BASED TOOL OF ISLAMIC FINANCE

#### **3.1 INTRODUCTION**

The previous chapters provide the support for devising a product that is more customer oriented. In other words, moving from the one which is more criticised, *i.e.*, BBA and a debt-based home financing product to more equitable product, namely, MM. Resultantly, due to widespread criticism for the debt-based Islamic banking products in Malaysia, it was later decided by the Bank Negara Malaysia (BNM) to switch the mortgage lending from debt-based to equity-based home financing products (Hanafi, 2012). It was therefore imperative for the financiers of the Islamic mortgage to offer home financing based on MM.

In a similar vein, Islamic banks in their drive of disengaging themselves from offering BBA and moving towards the equity-based product of MM home financing is offered today by various Islamic banks. Section 3.2 discusses the concept of profit and loss sharing. Section 3.3 presents the main categories of *mushārakah* followed by section 3.4 discusses Islamic medium of financing under *mushārakah*. Section 3.5 mentions home financing under *mushārakah mutanāqisah* in Pakistan leading to section 3.6 which describes home financing under *mushārakah mutanāqisah* in Malaysia. Lastly, the legitimacy of the *mushārakah mutanāqisah* along with issues associated in terms of functioning, *Sharī'ah*, and lawful outlooks is discussed.

#### **3.2 THE CONCEPT OF PROFIT AND LOSS SHARING**

According to Siddiqi (2006), there are a variety of issues in particular poverty, unemployment, recurrent business cycle, inflation and augmented inequality linked with financial market entrenched from the economic system, which is capitalism that is said to be grounded on the method of advancing done on interest. Going by this Siddiqi (2006) stress that, it is postulated by Islamic banking to put forward such a system, which is competent financially and in large part stand on the concept of risk sharing and profit sharing contract and may also be referred to profit and loss sharing (PLS) contract as distinguished from the advancing or lending activity that takes place in capitalist system, in accordance with which presumably backed higher firmness specifically in financial markets and chiefly in economic system.

In Islamic finance, the paramount and perceptible literature is related to PLS, and it is referred as "a contractual arrangement between two or more contracting parties, which allows them to pool their resources to invest in a project to share in profit and loss" (Farooq, 2007). It is deemed necessary by number of scholars who are also expert of Islamic economics that "profit and loss sharing contracts are desirable and prevailing in an Islamic context" as a consequence the share in the profit is associated to share in loss as well between the partners in a contract (Dar and Presley, 2000; Warde, 2000).

At the same time, the products which are devised on the contracts such as *mudārabah* and *mushārakah mutanāqisah* bears more risk in contrast to those based on debt-based contracts to mention few instruments, which are *murābahah* and *ijārah* (Hanafi, 2012).

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The ratio in PLS arrangement for the joint undertaking is not guaranteed earlier in equity-based contract, in contrast to the one fixed previously in the context of debtbased financing. The prominence of the debt-based instruments is evident from the guaranteed fixed profit. Financing of the debt, specifically in the context of *murābaḥah*, the profit is certain even without taking into account the potential risk of loss, other than that the buyer's nonpayment or damages suffered due to insolvency (Saeed, 1996).

Moreover, in the financing of debt-based arrangement the aversion of the risk is by and large secured and usually conceded over to another stakeholder (Siddiqi, 1983). It is argued that over-dependence on the financing through the debt-based instrument portrays that the practice of Islamic bank congregates to that of its conventional counterpart by means of an imitating procedure, apart from that there is compliance on debt-based contracts by means of the Islamic law. It is argued by (Agha, 2009; Ahmed, 2011) that it opens a new discussion on form over substance representing that lawful compliance possibly do not adequately reflect financing based on *Sharī* 'ah in contrast with financing on *Sharī* 'ah compliance.

In the similar vein, it will be hard for the financial system that is formed mainly around the debt- based mechanisms can barely get the privilege of superiority on top of the interest-based banking by virtue of growth, stability, efficiency, and equity (Siddiqi, 1983).

It is underlined by the eminent scholar that the doctrine of Islam will be incapable of being interpreted into certainty until such a time the Islamic banks broadens the practice of *mushārakah* usage into their operations (Usmani, 2002). Nevertheless, the business of the bank remains intact, which is to manage the money and most managers of the money are conventional and desire to appraise their returns earlier, without any insecurity or uncertainty. Additionally, Yasseri (1999) mentions that these money managers of the banks are accountable towards those who maintain deposits with them and expect their deposits to be free of risk, but do not aim for any business returns, rather it is expected of them to have deposits to get inflation related adjustment. Nonetheless, Chapra (2011) argues not to misunderstand that Islam prohibits contracts such as *murābaḥah*, which is a debt-based instrument but rather it is required that such instruments are *ribā* free.

Moreover, the debt-based instruments comprise the most usual form of transactions. Nonetheless, Farooq (2007) contends that such instruments are not rewarding and consequently, fail to perform an important role in the financial advancements of Islamic banking and finance. As such, it is important not to highlight the legitimacy of debt creation methods, but rather the choice for the instrument based on the equity method on top of the method of debt creation.

In addition, Farooq (2007) points out that Islamic bank by lending in large measure using transactions of this type deprives the financial institution of the Islamic values for which the concept of Islamic banking was originated, that is to say for the welfare of the Muslims. Resultantly, it will, therefore, be required to be regarded that debt-based financing will not assist such a noble cause (Hanafi, 2012).

Notwithstanding, most of the Islamic banks' theoretical modes are either *mudārabah* or *mushārakah*, but unfortunately looking at bigger picture what is being practised is not in any way related to both of afore stated equity-based contracts. As witnessed by (Aggarwal and Yusuf 2000; Iqbal and Molyneux 2005; Asutay 2007; Shinsuke 2007), Islamic banks' dominantly choose to finance such activities, which are either leased-based, markup or commissioned manufacturing. According to Dar and

Presley, (2000) in Islamic finance, PLS features are marginally in practice. The inclination of evading PLS modes can also be elucidated as listed below:

- (1) The difficulty in implementing the PLS modes in specific the instrument of *mudārabah*, at its core is susceptible to the agency issue because financiers face impediments in employing exertion and offer remuneration in the account for a smaller amount of profit. Conversely, Wilson (2002) in this case reports the issue of moral hazard can be evaded by the *mushārakah* on the grounds that the entrepreneur and the Islamic banks equally tend to have right to use information. Nonetheless, in reality, Islamic financial institutions are unwilling to offer *mushārakah* owing to cost associated with structure and supervision;
- (2) In order to operate efficiently, the PLS method demands the recognisably different right to ownership. Nonetheless, it is worth mentioning here as stated by Hanafi (2012), that in most of the Muslim world the right to ownership is not apparent;
- (3) Financing based on debt well-thought-out to be less insecure compared to equity-based modes and it is required to be made available as a consequence of tough rivalry from long-standing financial institutions and banks;
- (4) In terms of lending for short-run ventures the equity-based financing is not much favoured owing to the risk of large extent in contrast to the lower risk associated with a debt-based contract that is assured with respect to liquid assets;
- (5) Unjust conduct for taxation in the PLS system;

(6) The secondary market to trade contract based on PLS is not present ensuing in lack of mobility of the financial means.

In the current conditions, the impediments that are taking place in the execution of *mushārakah* may be due to the reason that there is no much backing by the government and also because the operation of Islamic banks' is secluded (Usmani, 2002). Moreover, *ribā*-free banking approaches that are related to *mushārakah* turn out to be complex, getting it difficult for not only customers' to comprehend but the banks' professionals as well. Yasseri (1999) adds that this confusion can give rise to the situation where the same procedure is being translated in a different way at another bank.

Farooq (2007) mentions that there is permissibility of making adjustments to PLS in order to interpret the mode of PLS into a certainty, though it may be necessary to disengage it from the traditional Islamic jurisprudence meaningfully. Iqbal *et al.* (1998), in a similar vein, highlighted that how important engineering in the financial methods is and also affirm that use of traditional tools of Islamic finance that dates back to centuries may aid as a guiding principle for instruments of Islam though there is no need for being limited to them only.

As stressed by (Dusuki 2008; Ahmed 2011) that products which are devised on the principle of *Sharī* '*ah* may also be competent enough to fulfil the legal and *Sharī* '*ah* prerequisite, consequently, there may be a need to evade imitation as that of conventional products and therefore the products offered by Islamic banks' are required to endorse the true spirit of objectives of *Sharī* '*ah*. Furthermore, Naqvi (2000) points out that most of all, if the implementation of the contract of PLS is carried out and is deprived of precautions if any then it may result in incompetence and unfairness.

#### 3.3 FORMS OF MUSHĀRAKAH

The concept of *mushārakah* is noteworthy to be considered before proceeding to the home financing based on MM as the origin of the later are engrained from the *mushārakah*. Furthermore, *mushārakah* refers to "a partnership where two or more persons join their capital or labour together to share the profits, manage the business, and enjoy similar rights and liabilities" (Hanafi, 2012, p. 81). Furthermore, according to Al Harran (1995) *shirkat* another term used for *mushārakah* dates back to the then era of the messenger of Allāh (May Peace be upon Him) during the time when Muslims from Makkah migrated to Madinah and then formed partnership in order to trade. The word "*mushārakah* is commonly used in Islamic banking and finance as opposed to *shirkat*, which is common in Islamic jurisprudence and all these modes of sharing or partnership are term as *shirkat* in *fiqh*" (Usmani, 2002, p. 5). *Mushārakah*, the partnership can either be categorised as; (a) Partnership in ownership also known as *Shirkat al-milk*; and (b) Partnership by contract or *Shirkat al-'aqd* (Al Harran *et al.*, 1994; Naim, 2011).

#### (1) Partnership in ownership

The joint or co-partnership which is formed between more than one person for a particular property or asset is known as a partnership in ownership. Mostly, in this co-partnership, there may be no share in profit, but rather a property that may be shared by the partners together or independently. In the case where the joint property is used by one of the partners, the other partner may demand rental for his part of the property from the benefiting partner (Hanafi, 2012). According to Ayub (2007), the dissemination of income under this arrangement is contingent on the percentage of share in the property.

#### (2) Partnership by contract

The standards of AAOIFI refers to the partnership by a contract which is "an agreement between two or more persons to combine their assets, labour or liabilities to make a profit" (AAOIFI, 2010). According to Ayub (2007) "contractual partnership is further divided into several types depending on the subject matter of partnership namely capital, labour or personal creditworthiness" (p. 309).

#### 3.4 ISLAMIC MEDIUM OF FINANCING UNDER MUSHĀRAKAH

Islamic banks do not offer an equity-based contract of *mushārakah* extensively in contrast to debt-based financing; undoubtedly there are many types of *mushārakah* that are currently applied in Islamic finance (Hanafi, 2012). According to Hanafi (2012) among types of *mushārakah*, few are mentioned including; *mushārakah mutanāqisah* home financing, joint venture, *Şukūk mushārakah*, short-term project financing using *mushārakah*, *mushārakah* in *takāful*, partnership financing and capital venture by means of *mushārakah* (Hanafi, 2012).

Moreover, the ideal framework of *mushārakah* is in place in order to alleviate poverty by rebuilding and offering economic improvement amongst Malaysian fishermen residing in Terengganu (Al Harran, 1995). Moreover, Smolo and Hassan (2011) highlight that *mushārakah* contract is functional all around the globe in many financing forms offered by the banking system.

With respect to housing finance premised on MM, it may be assumed to be the comparatively novel mode of financing comprised of hybrid contracts, which includes partnership, sale and a lease contract (Hanafi, 2012). The existing scholars proposed

this hybrid contract while taking into account the difficulties assumed when conversing the traditional *mushārakah* doctrine in the larger financial outlook. Siddiqi (2010) states that;

"a form of co-ownership in which two or more persons share the ownership of a tangible asset in an agreed proportion and one of the coowners undertakes to buy in periodic instalments the proportionate share of the other co-owner until to such intangible asset is completely transferred to the purchasing co-owner" (p. 114).

Moreover, MM can be steered equally with regard to contractual partnership and partnership in ownership (Ayub, 2007). In a similar vein, MM is customarily offered to finance home mortgage using partnership by ownership contract of *mushārakah* (Ayub, 2007).

# 3.5 HOME FINANCING USING *MUSHĀRAKAH MUTANĀQISAH* IN PAKISTAN

In Pakistan, housing finance is facing serious issues, whereas, *mushārakah mutanāqisah* is the only contract which is in place by Islamic banks for home financing facility (SBP, 2010). In 2004, the premier Islamic bank of Pakistan "Meezan Bank" initiated to offer housing mortgage based on *mushārakah mutanāqisah* contract (Osmani and Abdullah, 2010).

The industry of Islamic banking in Pakistan comprises of 33.7 per cent share of *mushārakah mutanāqisah* financing (SBP, 2018). On the other hand, the use of *mushārakah mutanāqisah* is taking place in activities, which are small and medium enterprises, corporate and commercial sector along with offering house mortgages, equipment, auto and machinery financing in consumer sector (Hanafi, 2012). In Pakistan,

there is a dual-banking system alike Malaysia (Shaikh and Noordin, 2018). The State Bank of Pakistan regulates the banking system in the country. The large share in home financing sector is taken up by conventional banks and a state-owned home mortgage company (SBP, 2015).

The house financing in Pakistan is one of the lowest in the world and accounts for 0.4 per cent of GDP, Shaikh et al. (2018a) and until 2007 commercial banks were not spending on this segment merely due to long-term liquidity problem and also due to the presence of specialised financial institutions which were available for the housing sector. The then House Building Finance Company Limited (HBFCL) was solely responsible for financing activity and was meant for accommodating affordable housing mainly for unprivileged people of the country. Ultimately the slogan of housing for poor was not met due to huge number of defaults, frauds accompanied by mismanagement and scams resulting in non-performing loans and write-offs. The lower income-group mostly is unable to have legal ownership or property title and instances where most probably financing will lead to default. Some of unprivileged do have a roof over them due to financing by this autonomous body. It is interesting to note that HBFCL also adopts the same Islamic model designed on *mushārakah mutanāqisah* as a tool for mortgage financing. It is currently in use by five Islamic banks including 16 Islamic banking window. In Pakistan, Meezan bank which is first full fledge local Islamic bank in the country is facilitating Islamic mortgage since 2004 through the affordable Easy home scheme, which is Sharī'ah compliant. At the end of December 2017, the total house financing of Meezan Bank amounts to Rs.11.99 Billion with 3,600 customers with an increase of 28 per cent compared to 2016 (MBL, 2017).

In Malaysia, *mushārakah mutanāqisah* model was initiated by Kuwait Finance house in 2005, and still it is in transforming phase as most of the banks were using *bay*<sup>4</sup>

*bithaman ājil* which is a debt-based contract and lead to scams, frauds and ultimately abandoned housing schemes. For house financing, Islamic banks use *mushārakah mutanāqisah* contract which is equity-based and argued superior to other contracts. Similar to Islamic banks the same concept of *mushārakah mutanāqisah* (MM) is working very well by HBFCL for a long time.

The product under *Sharī'ah* compliant contract of MM needs to confirm that the supply of liquidity being used for the financing is from non-interest source. MM differs in form from conventional finance and as a product MM is completely different from conventional as former is based on tenets of *Sharī'ah* (Islamic principles) and observes objectives of *Sharī'ah* and later is working under a traditional mortgage. The current statistics depicts that there is rapid progress in the share of MM as a housing financing product and second most utilised Islamic finance contract after *Murābaḥah*. State bank of Pakistan in its efforts for development of housing mortgage sector also established Mortgage Refinance Company of Pakistan, which is secondary mortgage market with the aim to provide long-term liquidity to financial institutions which facilitate mortgage facilities.

The role of SBP is to be admired for its effort in promoting Islamic finance and all those sectors which are related to the economic growth of the country. Lastly, according to Islamic banking survey in Pakistan titled knowledge, attitude, and practices (KAP), there is least awareness among Islamic banking consumers and non-consumers with regards to *mushārakah mutanāqisah* in contrast to other Islamic contracts. Therefore, banks need to promote Islamic mortgage products, so that common people are aware of such products.

#### 3.6 MUSHĀRAKAH MUTANĀQISAH HOME FINANCING IN MALAYSIA

In Malaysia, the house financing using the instrument of MM is relatively not as old as another mode of financing used for house mortgage such as BBA. Comparatively, BBA home financing is offered as long as three decades. Islamic jurists, on the other hand, do not allow the use of BBA and argue that it contains an element of *gharār*. In a similar vein, BBA contract is not recognised by the scholar of *Sharī 'ah* in Gulf countries (Hanafi, 2012).

Moreover, as mentioned previously that the instrument of MM is a hybrid contract, which combines three diverse contracts, specifically, partnership agreement, *Ijārah* contract, and contract of sale, the mechanism or working of MM can be restated; firstly there will be an agreement of partnership in which the consumer and Islamic bank will enter to buy the particular house or property. In order to enter into such agreement, it is required by the consumer to make an initial payment of 10 per cent, which will allow the consumer to become the co-partner in the property. However, an Islamic bank will usually provide the 90 per cent of the outstanding balance, and later the consumer will then pay the outstanding amount of 90 per cent at pre-agreed amount regularly till the time consumer own the property completely.

Furthermore, a consumer will be charged for the specific amount in the form of rent by the financier using the *ijārah* instrument during the redemption procedure. A rental that is paid will be shared between both the partners and depend on a block of shares of each partner at a certain point in time, and the rental amount that needs to be paid periodically will be adjusted from time to time in case of inflationary conditions (Meera and Razak, 2005).

According to Smolo and Hassan, (2011) and Meera and Razak, (2005) the unit of shares will reduce, and the shareholding of the consumer will augment with every
payment of the rent paid periodically up till consumer owns the said property. Meera and Razak, (2005) argue that even though MM in contrast to BBA is novel but fairly have the potential to overcome the uncertainty and risk involved in BBA contract in the context of Malaysia. According to Haneef *et al.* (2011) following are the steps on which MM is structured;

- 1. The particular property or house is identified by the consumer and the sale and purchase agreement is signed by paying down payment in order to apply for a mortgage.
- 2. As soon as a claim for financing is sanctioned then the consumer and the bank come into the contract of *mushārakah*, partnership.
- 3. Islamic mortgage provider's portion in the property is leased by the consumer.
- 4. An additional sum apart from the periodic rent is required to be paid by the consumer to acquire share that is owned by the bank or Islamic mortgage provider.
- 5. Once the consumer would own all units of property, then it would lead to the end of the partnership resulting in the transfer of property title.

The case of uncertainty, *gharār* in the sale of under construction home using MM home financing should be able to resolve the issue of uncertainty, *gharār* with the use of forward lease (Ka, 2009). The Securities Commission of Malaysia describes forward lease as "a lease, *Ijārah* of an asset that is not yet available or owned by the lessor, at the time of the agreement. The agreement, however, is based on the undertaking by the lessor to deliver the asset based on the agreed detailed specifications, value and time of availability. The rental payment under this *ijārah* represents the right of the lessee to use the property in the future whenever the property is ready to use" (SCM, 2009).

On these grounds, the mode of PLS offered by Islamic banks for Islamic mortgage aims at eradicating the problems associated with debt-based home financing. So far, in Malaysia Islamic mortgage is accessible only by 6 Islamic banks on MM basis. On top of that, notably, 3 out of these 6 Islamic mortgage providers are International banks, namely, Standard Chartered Saadiq Islamic Bank; HSBC Amanah Malaysia Berhad and OCBC Al Amin Malaysia Berhad. However, Maybank Islamic Berhad; RHB Islamic Bank Berhad and Affin Islamic Bank Berhad are the three local Malaysian banks.

# 3.6.1 Mushārakah Mutanāqisah Home Financing Legitimacy

According to Smolo and Hassan, (2011) and Thani *et al.* (2003) there are various principles upon which the validity of the financing using MM can be argued and are precisely described as follows :

- a. In accordance with the religious ruling pronounced at the 1st Conference on Islamic Banks, Dubai, 1979, with regards to MM admissibility. Additionally, as mentioned by Osman and Abdullah, (2010), "the International Fiqh Academy of OIC (2004) in its 15th session made a resolution that MM is a valid contract and in Malaysia particularly, there is also resolution by the *Sharī'ah* Advisory Council of Central bank of Malaysia in its 56th meeting that decided on the permissibility of MM contract" (p. 277).
- b. In accordance with the principle of being free from *gharār*, uncertainty as well as *ribā*, interest-free transaction, though the partnership contract has no clash with any of the principles of Islamic law and above all, there is no involvement of interest and uncertainty.

- c. In accordance with a common arrangement made by some Muslim scholars regarding the applicability of MM with regards to *al-istişlah*, public interest.
- d. In accordance with legitimate Islamic axiom, there is nothing in particular with regards to sources in line with *Sharī'ah* that disapprove the conduct in accordance with the idea of partnership. Thus, none of any obvious objection is present that overrule MM concept.

# 3.6.2 Law Administering Mushārakah Mutanāqisah

In Malaysia, largely the legal structure for regulating the transactions of Islamic banks is premised on " the Islamic Banking Act 1983", which is formulated from the legislative law that administers transactions of Malaysian conventional banks, which is "the Banking Act 1973" (Hanafi, 2012, p. 91). In contrast, the information about the permissible *Sharī 'ah* profit-making trades is not revealed by this act.

Moreover, in reality, it is Islamic banks' practitioners who are the one to face the challenges when it comes to the preparation of the MM instrument's legal documentation. On the same note, it is also the responsibility of these practitioners to certify the compliance of the documentation to be in line with *Sharī'ah* together being encountered with the agreement (Hanafi, 2012). Moreover, Smolo and Hassan, (2011) point out that all the documents need to be organised in a way so that can be enforced in civil courts predominantly in case of imminent conflicts (Hanafi, 2012).

In Islamic banking scenario, there were certain cases that were taken to civil court and were argued not to be entertained on the grounds of inadequacy of current laws to administer those instruments. The issue of proper framework required to regulate the legal side of Islamic banking is not available in most of the dual banking countries, and there are challenges in legally administering Islamic contracts (Hanafi, 2012). Moreover, Wilson (2002) arguably, points to the difference that exists in conventional and Islamic banking contracts respectively, additionally there is a clear difference in the mechanism of both (conventional and Islamic) contracts which needs attention, or possibly there is a need to treat these legal matters differently in particular conduct if the asset is damaged or loss, an event of default and last but not least proprietor's liability.

Thus, such an issue can be viewed as the legitimate risk postured by the interestfree banks and such risk is impossible to be ignored as it is substantial, emerging as a result of the nonexistence of a consistent legal system to administer financial contracts, disclosure to unexpected alterations in rules, ambiguity of rules, dearth of presence of legal professionals and incorporation of rules and the legitimacy of financial contracts.

#### 3.6.3 Issues Associated with Mushārakah Mutanāqisah

Numerous problems are associated with MM instrument ranging from MM operations to *Sharī 'ah* and legal perspective.

# 3.6.3.1 One Contract with Dual or Multiple Agreements

According to Bendjilali and Khan, (1995) in contrast to BBA Muslim jurists have reached an agreement with regards to the acceptability of instrument of MM. By and large, the instrument of MM is considered in line with *Sharī'ah*, and it is based on multiple Islamic contracts, which is relating dual or more sales in the single contract of sale (Hanafi, 2012). Conversely, Smolo and Hassan, (2011) argue that such arrangement is allowed provided that two of these instruments do not merge explicitly with one another along with being established distinctly and additionally it is also allowed to enforce a covenant on the consumer 's shareholding. In the similar vein, Ka (2009) make that clear in a way that when there will be a situation in which MM is required to be refinance, then it will be necessary to conclude the preceding one in order to execute the financing again. In this way, it will be ensured that two contracts in one do not execute. Accordingly, pursuant to the Malaysian legal framework there will be the release of custody by the instituting bank.

#### 3.6.3.2 Trust and Legal Charge

Pointing to the legal issue that is by what means the consumer is asked to provide security to the Islamic bank in the context of MM Islamic mortgage. Wilson (2002) indicates that it is possible that for the purpose of contract of *murābaḥah* and leasing the Islamic banks may accept securities, and might recourse to state secular court in the contract law and secular commercial law, in order to make certain their privileges for securities to be imposed in situation of nonpayment or default. In various ways, financiers can be granted with the securities, for case in a point, in terms of the obligation related to funds concerning contracts of supply and individual pledge, belongings or real estate. In the context of MM Islamic mortgage, there are two modes of safeguarding bank's right as required by the national land code (NLC) (Haneef *et al.*, 2011; Ka, 2009). These two modes are:

# a. In terms of the legal trust

Formerly in use by KFH for offering Islamic mortgage based on MM instrument, in legal trust arrangement the financier, which is bank will be entitled as the legitimate titleholder in order to retain specified house or asset on trust for consumer and oneself. Consequently, the consumer will resultantly become a joint beneficiary in the right to property followed by the execution of the trust deed registered under section 344 of the NLC (Hanafi, 2012).

Moreover, it is important to understand that there will be a charge on the whole house despite the fact that there is no indication of the whole property's market value by fractional re-financing (Ka, 2009). In addition, Hanifa (2012) argues that in order to appropriately take on this situation will be that a share of property must be charged to the extent to which it is refinanced, which is part and not completely or fully. According to Hanifa (2012) on the grounds of the firm *Sharī'ah* submission, in the context of transaction related to MM, there cannot be guaranteed in terms of legal charge as in no condition in case of MM a guarantee is not allowed for financing to be paired with. In spite of the fact that Bank Negara Malaysia, this dispute is previously inspected but so far no any adjustment has been made to the related regulation.

Conversely, such procedure is considered to be the perfect choice by those banks which offer Islamic mortgage product based on MM. Furthermore, there are possibly certain legal issues that may arise from this approach as argued by (Ka, 2009). In a situation where there is no piece of legislation directing such approach and antecedents, it will ultimately raise a situation when a consumer will go to court in order to contest against right of Islamic bank, it is a situation where Islamic bank want to practise right to use based on trust deed, in a country like Malaysia there is no established concept of trust available (Hanafi, 2012). As mentioned by Smolo and Hassan, (2011) Islamic mortgage in Malaysia based on MM cannot be considered to be devoid of unlawfulness, predominantly from the perspective of judicial compliance.

# b. In terms of legal charge (listed in section 243)

In the case under consideration, the registration of specified land is done in the name of the consumers, which entitles him to be the legitimate owner and at the same time act as a bank's trustee. It is decided and agreed upon by the concerned parties to consider the consumer to act in the role of trustee, must record a charge over the entire land in the bank's support. Even though it turns out that as a co-partner, the Islamic bank is authorised for a fraction of land's share, on the other hand, it is allowed to have charge fully rather than partial control on land as per NLC (Hanafi, 2012).

#### 3.6.3.3 *Takāful*, Ownership, and Maintenance

Furthermore, it is expected that Islamic mortgage based on MM will push Islamic banks to involve in a risk-sharing regarding ownership and ultimately results in gradual handing over of the ownership to the consumer (Taib *et al.*, 2008).

According to Hanafi (2012), it is fundamental to have possession of the property, as it ensures that the degree to which there are liabilities and rights of each contracting party involved. It makes it evident that to what extent bank will be burden by the ownership risk, which is taking up share in asset linked cost related to maintenance and purchase of the asset. Furthermore, Khan (1995) argues that in this case, the role of the bank may transform from conventional practice of being a financial intermediary.

Keeping in view, the contract of leasing devoid of asset related cost and risk associated with liabilities and loss of property will make it mimicking to financial leasing, which is not in line with teachings of *Sharī'ah* (Hanafi, 2012). Nonetheless, Hanafi (2012) argues that Islamic bank, in reality, wants to lower its risk linked to the asset or property that may or possess a higher chance of losses or incur liabilities. Such a situation may arise when entire rights related to asset or house are retained by the bank, and legal title is also with the bank then this case will make bank vulnerable when compared to the consumer or user of the property in case of contract's violation by the consumer (Tag Eldin and Abdullah, 2007).

Likewise, on the subject of being the proprietor of the asset or house, there is a common obligation of the bank and a consumer towards the property related risk. By and

large, it is the responsibility of the bank to cover the cost associated to basic wear and tear related to property as a lessor and in contrast regular and operative maintenance will be borne by the consumer as a lessee. Nonetheless, meanwhile, the consumer desires to solely get the complete hold of the house or asset and does not only hire it for a certain period. Therefore, it is debated that the consumer should cover the related expenses completely.

Furthermore, Smolo and Hassan (2011) states that in terms of legal ownership, it belongs to the consumer who is legal titleholder of the specified property, however, the title of ownership related to the asset as a beneficiary remains with the bank who is possessing the ownership of the asset in claim until the consumer buy back the entire portion held by the bank.

Consequently, Ka (2009) argues with reference to the principle of partnership that either the *Sharī* '*ah* spirit is achieved with the documentation related to MM instrument or not, additionally to the author's wonder the legitimacy of MM in terms of stamp duty and payment of taxes. The author further specifies that on the grounds of scrutinising the co-partnership contract of MM precisely the clause related to expenses and taxes imbursement, regardless of consumer possessing half of the asset or house ownership till co-partnership reaches to termination, the consumer is required to compensate solely property related taxes.

Furthermore, Ka (2009) emphasises about the disproportionate arrangement that prevails in terms of tax imbursement and stamp duty for the consumer to pay all the costs that are related to the property. In addition, the *takāful* sum of insurance needs every time to exceed the remaining share's price that the bank holds. The condition gets worst whereby consumer regularly dispense privileges to the bank which are related to *takāful* earnings (Hanafi, 2012).

#### 3.6.3.4 Dispute over Promise

The Arabic term *wa'd*, promise in terms of *Sharī'ah* refers to "an expression of willingness of a person or a group of persons on a particular matter" (Hanafi, 2012, p. 95). According to Dar (2010), *wa'd* usage turns out to be a useful mechanism for devising interest-free products by Islamic banks that normally mitigate the risk in order to escape losses that may be faced by the bank by presenting the obligation each stakeholder have to accomplish the jointly agreed contract.

On the substance of the acceptability of promise is acknowledged mainly by (the Council of Islamic Fiqh Academy) resolution, that makes promise defensible in a situation where it is contingent to the attainment of obligation and by this time promise has already sustained a cost on the grounds of such wa'd (Hanafi, 2012). On the same note, when wa'd is effected being mandatory then it is expected that wa'd need to be attained and in case of the act that leads to indefensible and non-attaintment of wa'd that results in compensation of loss.

It is pointed by (Naim, 2011; Ka, 2009) that there are more than one forms upon which promise related application for MM instrument is based. Primarily, it will be required by the consumer to make payment once a month regularly till ownership of property, and legal equity title is passed to consumer fully. Moreover, the consumer then irreversibly commences acquiring units held by the bank if he fails to pay. In accordance with promise, it is the obligation of a consumer to obtain the units of the bank shareholding that belong to the bank at the certain price in the event of an irregularity, despite the fact that it is not the consumer who led to it.

Thus, this practice will lead to a violation of distinctive attribute of *mushārakah* instrument, the use of promise will assist in the assurance of capital as this plan will be used as a tool to get back total amount from the disposal of the asset. Additionally, as

discussed previously that financial institutions try to skip risk associated with partnership contract and avoid liability, where the consumer is burdened for no reason, which according to Naim (2011), is contrary to the spirit of *mushārakah*, based on which there should be equal share in profit and loss between all stakeholders.

#### 3.6.3.5 The dispute over Rental Rate

Rental rate dispute is the significant and integral part of MM Islamic mortgage due to its ability to substitute the currently used interest rate as a benchmark for home financing by Islamic banks, as pointed by (Taib *et al.*, 2008). On the same note, Smolo and Hassan (2011) contend that Islamic home financing can substitute the interest rate with the rental rate benchmark.

From the perspective of *Sharī* '*ah*, it is suggested by Meera and Razak (2005), that it is not advisable to use interest rate as a benchmark for property's valuation as rental rate can prove to be better substitute instead. Contrary to the conventional interest that is typically the same for most of the assets, and therefore cannot be considered in case of property as the value of different houses or property differs from one another (Hanafi, 2012). For instance, the value of an apartment may vary from a single storey house, and therefore rental rate may also vary.

Nonetheless, as supported by (Meera and Razak, 2005; Mohd Nor, 2008; Hanafi, 2012) the method for estimating the rental rate that varies from property to property in the context of the instrument of MM will result in incurring extra expenditure for the consumer as well as an Islamic bank. Furthermore, it is suggested that the advice may be taken from those related to real estate independent agents and their expert assistance may be sought in estimating real market rental rates that are prevailing in the market. Furthermore, Meera and Razak (2005) suggest that the already available indices for rental can be used without incurring expenses related to real estate agency. Nonetheless, there

might be a lack of accuracy regarding rental indices that may need to be revised from time to time.

Usmani (2004), talks about fixing the rental, says that it is worthwhile to decide about the rental for entire lease tenure when contracting. Additionally, the author explains that it is allowed as well that rental is fixed at a different rate at the particular point of lease tenure, with the condition that each periodic rental is already discussed and decided when property or asset was being leased. Nevertheless, the author further adds that the lease will not be valid if there is no rent decided for the successive period of the tenure of the lease or remains at the lessor's hands. From this standpoint, Al-Zuhaili (2007) adds while supporting the sale contract validity that contracting parties need to know the cost or value of the substance. Accordingly, without knowing the value or price of the substance, the contracting parties must not reach an agreement. Therefore, it is necessary to wisely set successive rental without influencing the lease agreement legitimacy as well as the consumer's concern who will be ultimately burdened due to rental renewal.

#### **3.6.3.6** Issue Related to Property Revaluation

As discussed earlier the instrument of diminishing partnership forms an arrangement of a partnership between the consumer and the Islamic bank (financier) by means of which property is jointly owned by both the partners. Moreover, such partnership will lead to sharing of increase in the value of an asset and income from rent as well. Consequently, this will give rise to the problem of fluctuating price of the asset, which is leased. Meera and Razak (2005) do not like the practice of asset's valuation during the period of the agreement. In the similar vein authors also stress over the valuation of the asset at the time of sale of an asset that includes ownership transfer completely or else, the rise or fall in the property's worth will appear in documents only.

For this reason when the contract of diminishing partnership is terminated, then the consumer will be transferred complete hold or ownership of the property. In a similar vein, in connection with defaulting, the expiry of the contract, the decision of reassessment and redemption will be subject to the events. In the case where the consumer does not need to vacate the property then there will be no need for reassessment because the amount to be redeemed will be equal to the unpaid amount. There might be a reassessment of the house in the case when consumer aims to vacate the property, and in the event of contract expiry, due to nonpayment because it will head over to sale of the house. Whereas Meera and Razak, (2005) add that the Islamic bank and the consumer will equally divide the outstanding sum after deducting all unpaid debts, costs related to insolvency, legal cost and other related expenses in accordance with the usual ratio of profit sharing prevailing.

# 3.6.3.7 Problem Related to Pricing

In contrast to a debt-based instrument of BBA home financing, where the rate remains constant during the whole tenure of financing, furthermore, Islamic banks providing Islamic mortgage using MM instrument can manage the risk of liquidity while there can be an adjustment made to rent to be paid on the completion of every subcontract. In contrast to debt-based contract using floating rate such as BBA Islamic mortgage, diminishing partnership instrument varies each time regarding the outstanding mortgage prior to the contract completion. Consequently, Smolo and Hassan, (2011) mentions that regarding affordability of housing finance founded on MM contract will be more effective than the interest based mortgage and on the top of everything else more lower in price than that of BBA.

Moreover, Meera and Razak (2005) contend that in doing so compliant framework involved in this mortgage, the consumer can get possession of the house by making early settlement by paying off bank's principal sum. Furthermore, (Taib *et al.*, 2008; Ahmad, 2000) points out that diminishing partnership instrument is developed on the concept of PLS. Therefore, the society's prosperity by and large including promotion of wellbeing will be taken care of that is consistent with the Islamic bank's core concept.

# 3.6.3.8 In Case of Non-payment

To find out either there is a difference in mechanism of treatment in case of nonpayment when contrasted with the financing offered through debt-based contracts and equity-based contract, there is a need to find differences if any. In this respect, it appears to be uncertain in case of *wa'd* existence for the reason that ultimately it is the obligation of a consumer to procure the outstanding units of the bank, resulting the consumer being indebted and burdened (Haneef *et al.*, 2011). Moreover, Ka (2009) contends that situation like payment failure lead to a debt creation, and the consumer is responsible for paying it to the bank, even when the consumer was not responsible. For instance, when due to some reason the project or the development at housing site is stopped by the developer leading to the abandoned project due to negligence on the part of developer himself. Such a situation is alike conventional financing using which consumer needs to pay regular payments even in the case when the house is damaged, and claims from insurance are received. This practice by the Islamic bank will lead to the essence of the equity-based contract of *mushārakah* to be questioned.

At the same time, in cases where consumer's promise is not obtained, it underlines different procedure as the earnings from the sale of the property in the market need to be divided on the basis of a recent share of each stakeholder (Haneef *et al.*, 2011). Such case will be considered in line with a core of *mushārakah;* unfortunately, till now, it is at the sole discretion of bank either MM contract offered by them uses or do not use *wa'd*.

It is imperative, to study the structure of MM in spite of the fact that there are many problems associated with debt-based Islamic mortgage, which are resolved by the equity-based contract of MM so that this instrument achieve the objectives of *Sharī'ah*. In order for an equity-based instrument such as MM, there will be a need to make necessary legal changes so as to make it valid and acceptable contract, which is in line with *Sharī'ah*. Due to the lack of an appropriate caution, MM will not be perceived different from BBA and conventional home financing.

# **3.7 CHAPTER SUMMARY**

In this chapter, the contract of PLS was discussed in detail. The extensive review of the literature on PLS advocates that such contract is the need of the day and is required to be utilised by the Islamic banking industry. PLS mode of financing is needed but in fact, in executing these contracts that are based on equity there exists various problems, which hinders PLS contracts to remain at borderline in the financial market. With regards to the acceptance of MM home financing based on *Sharī'ah* in Malaysia and Pakistan is better in contrast to debt-based home financing, but there are certain issues that still surrounds its operations leading to halt the objectives of *Sharī'ah* to be met so as to offer the fairness to value the society at large.

# **CHAPTER 4: METHODOLOGY**

#### 4.1 INTRODUCTION

This chapter outlines the methodology used in developing this study. The research design is discussed, followed by the research processes to accomplish research objectives, sampling plan and methods used for the collection of data from the target population. Lastly, the data analysis technique, structural equation modelling (SEM), validation and reliability of the research model as well as the development of a research questionnaire is discussed.

# 4.2 **RESEARCH DESIGN**

The most important and fundamental steps in the research process are research design. According to Creswell (2009) research design comprises of quantitative, qualitative and mixed-method. In a qualitative approach, the researcher obtains precise details of respondent's standpoints and describes their preferences, attitudes, experiences, feelings, perceptions, positions and preferences (Patton, 1990; Yin, 1994; Churchill, 1995; Bryman, 2006; Silverman, 2006). The quantitative approach seems more logical for a study that involves making a distinction between variables (Johnson and Christensen, 2008). On the same note "a quantitative study, consistent with the quantitative paradigm, is an inquiry into social or human problem, based on testing a theory composed of variables, measured with numbers, and analysed with statistical procedures, in order to determine whether the predictive generalisations of the theory hold true" (Creswell, 1994, p.2). Further, Malhotra and Birks (2007, p.171) define a quantitative method as "a research methodology that aims to quantify the data to use statistical method for analysing and describing a data set".

The current research employs quantitative methods and is deductive in nature for hypotheses testing. This quantitative research looks at the influence of attitude, pricing, perceived behavioural control, subjective norms and their antecedents, namely, peers, relative advantage, compatibility and self-efficacy on consumers' intention to accept MM Islamic home financing in Malaysia and Pakistan.

Previous studies also used this approach extensively and effectively in predicting consumers' acceptance in many disciplines and mainly in the context of Islamic mortgage (Amin *et al.*, 2013; Amin *et al.*, 2014; Amin *et al.*, 2014a; Amin *et al.*, 2017). As such using a quantitative approach is most suited in this study context in order to examine the link between AT, PBC, SN, P, and other variables studied in this research. Table 4.1 gives an overview of the study research questions, research objectives, and data analysis techniques that are required to meet the objectives of this study.

**Table 4.1: Summary of Research** 

Sr.No.	Research Questions	Research Objectives	Quantitative
1	What are the significant differences in the attitude, subjective norm, pricing, perceived behavioural control, perceived relative advantage, perceived compatibility, self-efficacy, and peers on consumers' acceptance for MM home financing in Malaysia and Pakistan?	To examine the differences in attitude, subjective norm, perceived behavioural control, pricing, perceived compatibility, perceived relative advantage, peers and self-efficacy for acceptance towards MM home financing in Malaysia and Pakistan.	Independent sample T-test using SPSS
2.	What are the specific factors affecting the consumers' attitude towards MM Islamic home financing? Do subjective norm, perceived relative advantage and perceived compatibility affect the attitude towards MM home financing acceptance? And does peers affect	To identify the effect of subjective norm, perceived compatibility and perceived relative advantage on attitude towards MM home financing acceptance; and determine the effect of peers on subjective-	Regression analysis using Amos

	the subjective norm? And does self- efficacy affect the perceived behavioural control?	-norms; and to examine the effect of self-efficacy on the perceived behavioural control.	Regression analysis using Amos
3.	What are the factors that affect MM home financing acceptance? Do attitude, perceived behavioural control, subjective norm and pricing influence the consumers' acceptance of MM home financing in Malaysia and Pakistan?	To determine whether attitude, subjective norm, perceived behavioural control and pricing influence MM home financing acceptance in Malaysia and Pakistan.	Regression analysis using Amos
4.	Does attitude play the role as mediating variable in the relationship between perceived compatibility and acceptance towards MM home financing; between subjective norms and MM home financing acceptance; and between perceived relative advantage and MM home financing acceptance by the consumers?	To assess the mediating role of attitude between perceived compatibility and MM home financing acceptance by the consumer's; between subjective norms and MM home financing acceptance; and between perceived relative advantage and MM home financing acceptance.	Mediation test in Amos
5.	Does country moderates the relationship between attitude and intention to accept MM home financing; between subjective norms and intention to accept MM home financing; and between perceived behavioural control and intention to accept MM home financing?	To determine the moderating role of the country between attitude and MM home financing acceptance; between subjective norms and MM home financing acceptance; and between perceived behaviour control and MM home financing acceptance.	Moderation in Amos

#### 'Table 4.1: continued'

# 4.3 HYPOTHESES

This study examines 23 hypotheses and discussion on each hypothesis is done in this section.

# 4.3.1 Attitude

Consumers' attitude for innovation's adoption originates from one's values to embrace the innovation that results in a particular outcome (Ajzen and Fishbein, 1980). That indicates whether an individual is positively or negatively evaluating his performance of the behaviour. Ajzen (1991) advocates that attitude is a concomitant of what an individual believes about behaviour and how he evaluates the consequences of that behaviour. Intention to perform a behaviour occurs whenever the person holds an optimistic appraisal of executing the behaviour. Put it differently; greater the favourable attitude consumers' have towards a particular behaviour, more robust is a person's desire to engage in that behaviour.

Attitude turns out to be a major influential determinant, which predicts internet trading adoption (Gopi and Ramayah, 2007). Taib *et al.* (2008), finds out that the association amid attitude and postgraduate student's desire to choose MM home financing is statistically significant. They argue in response to one's attitude being significant construct is considered to be underscored when examining consumer's acceptance of Islamic mortgage. Pre-adoption transformation in ones' attitude is crucial for the improved establishment of forthcoming receptiveness. Similarly, Lada, Harvey Tanakinjal, and Amin (2009) perceive attitude as conceptualised by (Taib *et al.*, 2008). Lada *et al.* (2009) determine that attitude is significantly related to the individual's preference for *halal* food and these results are consistent with (Taib *et al.*, 2008).

In the same vein, the influence of attitude on the behavioural intention has been underscored and confirmed by plenty of studies in Information technology (Taylor and Todd, 1995). A study on the acceptance of a word processing program by Davis (1989) revealed a significant effect of attitude on behavioural intention. Moreover, Mathieson (1991) empirically shows that individuals' behaviour intention to use a spreadsheet could be anticipated by their attitude for it. A comparison between the trio TRA, TPB, and DTPB, (Taylor and Todd, 1995) find that attitude towards the computing resource centre has a direct influence on a users' intention to use it. In another study on the acceptance of IT among small business senior executives by Harrison *et al.* (1997), it is reported that attitude toward IT is in a positive statistical relationship with the intention to adopt the technology. The positive effect of attitude on the intention is also reported in a study conducted by (Chang and Cheung, 2001; Hu, Chau, Sheng., and Tam 1999) who studied the willingness to accept telemedicine and the World Wide Web, respectively.

Furthermore, in the domain of Internet banking, the influence of attitude for intention is also confirmed. Liao, Shao, Wang, and Chen's (1999) findings are also no exception showing that customers' attitude toward Internet banking usage does have a significant effect on their behavioural intention for technology adoption. Suh and Han (2002) investigation on online banking consumers in Korea furnishes similar results.

In a similar vein, Amin, Ghazali, and Supinah (2010) reports that attitude is a pivotal determinant in defining a person's receptivity on Islamic personal financing. There are numerous studies that endorse that attitude is a factor of behavioural intention in Islamic mortgage context (Amin *et al.*, 2013; Amin *et al.*, 2014a; Amin *et al.*, 2014). In the context of this study, attitude is hypothetically believed to hold a direct relationship with the intention to accept MM home financing. More the consumers' attitude towards MM home financing product, the higher the possibility to accept such home financing. It is speculated consumers' attitude will have a direct effect on intention to accept MM home financing. Hence, it leads to the first hypothesis:

Hypothesis 1: There is a difference between the consumer's attitude towards MM home financing in Malaysia and Pakistan.

We speculate that one's attitude has a significant effect on the MM home financing acceptance. Thus, it is also hypothesised that:

Hypothesis 2: There is a positive relationship between attitude and intention to accept MM home financing.

#### 4.3.2 Subjective Norm

Subjective norm pertains to one's insights related to social build pressures' expecting an individual to perform certain behaviour (Fishbein and Ajzen, 1975). As stated earlier, the construct of the subjective norm was theorised as far back as TRA by (Fishbein and Ajzen, 1975). Subjective norm is figured in a variety of contexts such as the adoption of technology and others. Furthermore, this construct is asserted as noteworthy by a number of researchers (Taib *et al.*, 2008; Amin *et al.*, 2013; Amin *et al.*, 2014; Amin *et al.*, 2016). Taib *et al.* (2008) examines the influence of subjective norm and intention and reports subjective norms to affect the behavioural intention of postgraduate student's acceptance for Islamic mortgage. In order to emphasise the importance of *halāl* products as a rapidly growing market force, a work by Lada *et al.* (2009) that applies TRA reports subjective norms to have a direct influence on attitude for consumption of the *halāl* product. Correspondingly, Amin *et al.* (2013) findings lead to the conclusion that subjective norm is directly related to the Islamic mortgage products' adoption.

As far as Islamic home mortgage is concerned, the social or subjective norms connotes that a particular person tends to be disposed to the products' adoption, which is offered by Islamic bank provided that the tendency towards such products within their social circle is high. The latter assumption is substantiated by what Ajzen (1991) argues that the individual's behaviour for using a particular technology is shaped by the beliefs and attitudes of the groups to which they are affiliated with. Liker and Sindi's (1997) study on determinants that affects accountants' intention to use an expert system reports the finding that subjective norm is one of the significant predictors of intention. A crosssectional study by Karahanna and Straub (1999) on future users of Microsoft's Windows 3.1 finds out that subjective norm directly influences of potential users' towards their intention for technology adoption. An investigation by Limayem *et al.* (2000) reveals a

substantial influence of subjective norm and consumers' intention to participate in online shopping.

Other studies have come to the same conclusion that subjective norm is a precursor of behavioural intention (Amin *et al.*, 2013; Harrison *et al.*, 1997; Riemenschneider, Hardgrave., and Davis, 2002; Taib *et al.*, 2008; Taylor and Todd, 1995b; Taylor and Todd, 1995; Venkatesh and Davis, 2000). Based on the research findings mentioned earlier, it is expected that same result for MM home financing acceptance will be obtained. This leads to the formulation of the third hypothesis:

Hypothesis 3: There is a positive relationship between subjective norms and intention to accept MM home financing.

In postulating the influence of subjective norm on the attitude the literature also suggests that subjective norms positively affects attitude. The previous studies by (Lada *et al.*, 2009; Amin *et al.*, 2013) finds that subjective norm is a significant predictor of attitude. Thus, it is hypothesised that:

Hypothesis 4: There is a positive relationship between subjective norm and attitude towards the use of MM home financing.

Moreover, this study also compares the differences in subjective norms for Malaysian and Pakistani consumers. Hence it is also hypothesised that:

Hypothesis 5: There is a difference in subjective norms influencing consumers to use MM home financing in Malaysia and Pakistan.

# 4.3.3 Pricing

According to Ebert and Griffin (1998), Islamic mortgage pricing pertains to the act of an Islamic bank in selecting the most appropriate price to sell the financing product and striking a balance between the bank and the customers' interest. Olson and Zoubi (2008), calls attention that share in profit and loss or (PLS) is practised by Islamic banks for selling their products and rendering services. On the other hand, Islamic bank does not use interest due to its inhibition in Islam, nevertheless, practising PLS is permissible and *Sharī'ah* compliant (Amin, Abdul, Stephen., and Ang, 2011). In addition, Amin *et al.* (2011) contend that commission charges for trade finance and a surcharge for payments made late are permissible in the framework of Islamic banking. Dusuki and Abdullah (2006) argue that hire purchase designed on Islamic principles appears to be costly while other structures were considered confused. In the same vein, Amin (2008) points out "lower monthly payments" was placed second factor after "transparency practice", suggesting that pricing with nominal payments is classified as the consumers' incitement to deal and participate with IB.

Furthermore, Amin *et al.* (2011) administrate that pricing for Islamic personal financing is a significant determinant that influences the behavioural intention of consumers' to engage in Islamic personal financing in Malaysia. As a result, in the context of current study pricing is also classified among the determinants for the consumers' intention to accept MM home financing. Hence, the following hypothesis is proposed:

Hypothesis 6: There is a negative relationship between pricing and intention to accept MM home financing.

Furthermore, as this study is designed as a comparative in nature so as to investigate the differences in pricing in Malaysian and Pakistani consumers, hence it is also hypothesised that:

Hypothesis 7: There is a difference in pricing for MM home financing in Malaysia and Pakistan.

# 4.3.4 Perceived Behavioural Control

Perceived behavioural control denotes to an individual's insight of the easiness or uneasiness of carrying out the behaviour of concern (Ajzen, 1991; Ajzen and Madden, 1986). It emulates the person's perception of the degree to which he gets hold of the internal factors (*e.g.*, self-confidence) and the external ones (*e.g.*, money and time) that might weaken the possibility of performing the behaviour. The internal perception of behavioural control is attuned with Bandura (1977) idea of self-efficacy point toward that the degree to which a person is confident to perform a behaviour has a bearing on performing that behaviour. The peripheral insight of behavioural mechanism that Brislin and Triandis (1980) calls facilitating conditions is an indication of whether or not the resources needed to engage in a certain behaviour are available. Previous studies in the domain of Islamic finance have investigated the role of subjective norm and consumers' attitude in predicting individual's choice for interest-free home financing (Taib *et al.*, 2008; Abduh and Razak, 2011). Behavioural control's perception, however, is yet to be examined in Islamic mortgage frame of reference in Pakistan, whereas in Malaysian context it has been empirically tested in the pioneering study of (Amin *et al.*, 2013).

Perceived behavioural control is described by Ajzen (1991, p. 188) as "the perceived ease or difficulty of performing the behaviour with the assumption that to the

past experience as well as anticipated impediments and obstacles the individual has faced are reflected". To match the context of this study, perceived behavioural control is how far the individual is unconstrained or inhibited to take part in the intended behaviour, in this case indulging oneself in availing *Sharī'ah* complaint non interest mortgage, has to do with person's knowledge to engage in transactions which are *ribā* free, which are offered by Islamic banks. The significance of perceived behavioural control is highlighted in other fields as well. For instance, Notani (1998) in the context of consumer psychology investigates students as respondents and demonstrates that intention is significantly predicted by perceived behaviour control.

An examination of the factors that influence e-reverse auction use done by Gumussoy and Calisir (2009) suggest that perceived behavioural control is directly related to e-reverse auction's intention to use. Alleyne and Broome's (2011) study related to intention to investment amid forthcoming investors concludes that investor's intention is significantly predicted by perceived behavioural control. Following this, the current study is prospectively to follow the footsteps of previous research findings of having the instrumental influence of perceived behavioural control in predicting consumers' intention to accept MM home financing.

In the present research, perceived behavioural control is utilised to examine the home buyers' perception to the extent to which they have the capability to select products related to Islamic mortgage in addition to the required knowledge, and it is assumed for the sake of this study that consumers do have financial resources to adopt such financing facility. Besides, banks will only sanction Islamic mortgage once they (Islamic banks) find the consumers to be sound financially based on his/her bank statements and financial history. Presumably, the possibility that an individual's willingness to go for Islamic home financing is high provided they possess skill, knowledge and financial resource. Thus, it

can be said that more the perceived behavioural control, then very likely there is a possibility that mortgages offered by Islamic banks will be accepted.

The TPB model recommends that person's intention is affected by ones' perceived behavioural control, Ajzen (1991) which is grounded on the proposition that when a particular person presume that he has the vital means and self-confidence to act a particular behaviour, they are likely to engage in it. The latter premise has been maintained by many empirical studies. Examining physicians' intention to use telemedicine technology, Hu *et al.* (1999) find out that perceived behavioural control is a substantial factor of intention. Bhattacherjee (2000) also reports a similar result that accepting electronic brokerage by online investors is predicted by their perceived behavioural control.

In an empirical investigation of the influential factors of intention of workers to use the World Wide Web and Internet at work, Cheung, Chang, and Lai (2000) conclude that behavioural intention is significantly affected by perceived behavioural control. Additionally, Lau (2002), conducted a study in Hong Kong on the acceptance of internet trading between brokers. His findings reveal that perceived behavioural control is directly related to the intention to use the technology. The positive influence of perceived behavioural control on intention is found in other studies as well (Amin *et al.*, 2013; Amin *et al.*, 2014a; Harrison *et al.*, 1997; Liao *et al.*, 1999; Limayem *et al.*, 2000; Mathieson, 1991; Taylor and Todd, 1995b; Taylor and Todd, 1995). Overall, the existing literature's findings attach significance to suggest that perceived behavioural control positively influences the MM home financing acceptance. Hence, the proposed eighth hypothesis is developed:

Hypothesis 8: There is a positive relationship between perceived behavioural control and intention to accept MM home financing.

Additionally, this study also compares the differences for perceived behavioural control between Malaysia and Pakistan. Thus, it is also hypothesised that:

Hypothesis 9: There is a difference in perceived behavioural control for MM home financing in Malaysia and Pakistan.

# 4.3.5 Attitude as Mediator

The reported findings from several empirical studies suggest an additional role that attitude can play in the context of Islamic mortgage, that is, partially mediating the relationship between simplicity, subjective norm, and relative advantage on the one hand, and adoption of the Islamic mortgage on another hand. This is under the assumption that a consumer's attitude for Islamic mortgage usage, which is likely to culminate in the Islamic home financing selection is influenced by the trio aforementioned factors. However, Amin *et al.* (2013) failed to identify the mediating role of attitude in relationships between perceived compatibility and acceptance of the Islamic mortgage. While the relationship between attitude and compatibility is not reported, the latter has been found to be a direct significant predictor of the adoption of Islamic home financing, which is why attitude does not serve as a mediator between perceived compatibility and adoption of Islamic home financing.

Amin *et al.* (2013), call the attention to the point that the observation of consumers' attitudes throughout the time is important and remedial measures are required in order to accommodate any adverse attitudes which may become an obstacle to the receptiveness towards product related to Islamic mortgage. In order to have individuals' attitudes towards Islamic mortgage product improved, their complaints and critics regarding the existing products should be addressed. Having said that, the current study's model, attitude serves as intervening variable in relationship amid subjective norm and consumers' intention to accept MM home financing (Amin *et al.*, 2013; Amin *et al.*, 2010; Lada *et al.*, 2009; Lobb,

Mazzocchi., and Traill, 2007). A work by Ismail, Haron, Ismail, and Vinten (2007) examines factors which may have a bearing on acceptance of practice review system by auditors. Furthermore, findings suggest that attitude is a mediator as far as perceived usefulness, rule observant and behavioural intention are indirectly related, thus, such finding could be extended to Islamic home financing.

Similarly, Norjaya, Ramayah, Mohamad, and Wah (2009) employ attitude as an intervening variable in many relations between behavioural intention and patronage factors. Consequently, it is hypothesised that:

Hypothesis 10: Attitude mediates the relationship between subjective norm and intention to accept MM home financing.

Hypothesis 11: Attitude mediates the relationship between relative advantage and intention to accept MM home financing.

Hypothesis 12. Attitude mediates the relationship between compatibility and intention to accept MM home financing.

# 4.3.6 Decomposition of Attitude

#### 4.3.6.1 Perceived relative advantage

Perceived relative advantage speaks to the individuals' perception of how far an innovation is better than its precursor. Relative advantage is contextualised in adoption towards Islamic mortgage in order to indicate how competitive the offered products are when collated along with the mortgages offered by the conventional banks (Amin *et al.*, 2013). Despite the fact that mortgage products that are Islamic tend to possess advantageous characteristics such as vigorous endorsement in accordance with

objectives of *Sharī ʿah* by *Sharī ʿah* advice-givers responsible for endorsing the product's admissibility and also regularly evaluate them every once in a while, Lahsasna (2010), nonetheless, such component is not taken into account when operating conventional home loan. The latter statement could be a justification of why the conventional home loan is superseded by Islamic home financing to a certain degree. Relative advantage has been found to be a significant predictor of an individual's attitude. Drawing upon the decomposed theory of planned behaviour, Shih and Fang (2004), investigate online banking usage in Taiwan. Having 425 subjects, the findings show that relative advantage is significantly affecting attitude.

Olatokun and Igbinedion (2009), conduct a survey in Nigeria to look at the automatic teller machines (ATM) adoption and finds that automatic teller machines adoption is significantly predicted by perceived relative advantage. On that account, Gallos, Daskalakis, Katharaki, Liaskos, and Mantas (2011) work on electronic health record (EHR) acceptance findings report that perceived relative advantage to have a very strong effect on individual's attitude for EHR. Additionally, Morris and Dillon (1997) examination of Netscape usage among students reveals a positive influence of the relative advantage (usefulness perceived in that context) on attitude toward using the browser. A survey conducted by Hu and Chau (1999) aiming to investigate whether physicians accept telemedicine technology has a similar significant relationship between perceived relative advantage and attitude. Chen et al. (2002) findings of an online survey conducted to examine Internet users' intention to online shopping demonstrate that high degree of relative advantage (usefulness perceived) lead to additional favourable attitude toward shopping online. In the same vein, investigating the effect of trust on technology usage, Suh and Han (2002) findings based on investigation of the effect which trust may have on customers' willingness to accept Internet banking suggest that perceived relative

advantage (perceived usefulness) construct measures up to statistical significance with a positive impact on attitude toward using the technology.

Further, Amin *et al.* (2013) report perceived relative advantage to be a significant positive factor of consumers' attitude towards the adoption of Islamic mortgage. Two other works by (Sohail and Shanmugham, 2003; Gerrard and Barton Cunningham 2003) studying comparison of online banking adopters with non-adopters reveals that the former tend to have the additional favourable attitude for the technology than the latter. They note that the adopters perceive the service as convenient. Furthermore, it is claimed that more the consumers' relative advantage is perceived for Islamic mortgage over home loans offered by the conventional banks, the more likely consumers will adopt them (Amin *et al.*, 2013). The latter statement leads to expect a direct positive association between perceived relative advantage and adoption of Islamic mortgage. Theoretically speaking, it is highly expected that individuals who perceive Islamic banking advantages will develop a positive attitude toward using MM home finance.

When the unique advantage of the offered services of Islamic home financing is perceived by the consumers, they are slightly more inclined towards its adoption. The current study theorised that the impact of consumers' relative advantage towards attitude is probable. Such a distinct advantage may result in positive consumers' attitude, resulting in ones' adoption of the intended product. Subsequently, the following hypotheses are made:

Hypothesis 13: There is a positive relationship between perceived relative advantage and attitude towards MM home financing.

In parallel to this, this study also compares the differences for perceived relative advantage in Malaysian and Pakistani consumers. Therefore, it can be hypothesised that:

Hypothesis 14: There is a difference in perceived relative advantage for MM home financing in Malaysia and Pakistan.

#### 4.3.6.2 Perceived compatibility

Change is customarily not liked by an individual as has been advocated that it is more likely that an innovation perceived to be persistent with existing needs, previous needs and existing values is to be adopted presumably (Rogers, 1995). Perceived compatibility according to Rogers (1995), is the extent in accordance with which the existing values, past experiences, and needs of prospective adopters are perceived to be consistent with an innovation. According to this author, compatibility is a critical factor if the consumer decides to adopt an innovation. As far as Islamic mortgage adoption is concerned, compatibility speaks to the degree to which an individual's mortgage preference is aligned with his need, habit, and existing style.

In the context of Malaysia, the effect of compatibility in Islamic mortgage have been recently introduced, *e.g.*, Amin *et al.* (2013), but it is yet to be tested in the context of Pakistan. Compatibility, theoretically speaking, predicts an individual's attitude towards Islamic mortgage. Furthermore, Islamic home financing products are claimed to be appropriate for devout Muslims hence this mortgage, which is *Sharī 'ah* compliant is devised in accordance with the *Hadīth* and the *Qur 'ān* (Amin *et al.*, 2013). Therefore, it is expected in the current study that perceived compatibility would significantly affect consumers' attitude towards MM home financing acceptance. In the framework at hand, products of Islamic mortgage are presumably observed to be attuned with existing beliefs, personalities and desire for Islamic mortgage users. Plenty of studies with contrast findings have reported the relationship between consumers' attitude and compatibility. Shih and Fang (2004), in the context of Taiwan, investigate online banking using the lens of decomposed theory planned behaviour. With as much as 425 respondents, the study findings show perceived compatibility to have no significant direct relationship towards attitude. Similarly, Amin *et al.* (2013) also report there is no significant association between perceived compatibility and consumer's attitude. However, a significant relationship is found in Olatokun and Igbinedion (2009) study in the context of Nigeria, investigating attitude with regards to the use of Auto Teller Machine (ATM). Md-Nor and Pearson (2007) results, unlike the latter study, reveal that there is no significant direct association between perceived compatibility and attitude with regards to online banking acceptance. Likewise, Gallos *et al.* (2011) findings are on a par with Md-Nor and Pearson (2007) having no significant relation amid perceived compatibility and attitude.

Further, Tan and Teo (2000), carried out a study in case of Singapore on online banking adoption, it was discovered that those who see online banking is consistent with their beliefs are likely to have a favourable attitude towards it and then probably adopt it. Contrasting the beliefs of users and non-users with regards to online banking, Gerrard and Cunningham (2003) note the necessity for financial institutions to emphasis on optimistic attributes of technology that is compatibility so as to promote those who are interested in using it. According to these authors, those who embrace online banking consider that the technology was in line with their way of life. Lastly, a work including 82 firms related to brokerage, Lau (2002) comes to the conclusion that perceived compatibility has a significant influence on attitude towards internet trading online.

In light of the previous literature, it is evident that a particular person presumably adopts Islamic mortgage products as long as offered products, which are financed are in accordance with an individuals' belief and desire. Furthermore, it is contended that more the individuals perceive MM home financing as compatible with their needs, the higher the possibility for them to embrace. Chen *et al.* (2002), contends that the adoption rate to a large extent is contingent upon perceived compatibility. That is to say; individuals are believed to have a favourable attitude towards products related to Islamic mortgage insofar as these offered products are in line with their needs and values. It is believed that immense compatibility will stimulate a positive attitude on consumer's intention to accept MM home financing. This leads to the fifteenth hypothesis.

Hypothesis 15: There is a positive relationship between perceived compatibility and attitude towards MM home financing.

Besides, this study also compares the differences for perceived compatibility in Malaysian and Pakistani consumers. Hence it is also hypothesised that:

Hypothesis 16: There is a difference for perceived compatibility towards MM home financing in Malaysia and Pakistan.

# 4.3.7 Decomposing Subjective Norm

Subjective norms pertain to perceptions of a person for social pressures related to whether to go for innovation adoption or either to reject it. A normative effect is caused by social influence leading to an individual to comply with others anticipations (Bearden, Calcich, Netemeyer., and Teel, 1986). Many reference groups are highlighted in the literature exercising the social influence on people and push them towards particular behaviours. Taylor and Todd (1995) point out that superiors and peers both turn out to be significant predictors of an individual's intention when deciding on using computing resource centre for operating computers. Besides, Parthasarathy and Bhattacherjee (1998) who study rendering services online find out that colleagues, relatives, and friends that were labelled as interpersonal influence were influential in having users forming their preliminary decisions of adoption.

In their study on adoption by the future users and Microsoft's Windows 3.1 existing users, Karahanna and Straub (1999) findings suggest that peers, top management, MIS department, friends, local computer technology experts, and supervisors do influence the future adopters' behavioural intention towards the technology use. Examining the factors which make customers purchase online using the internet, Limayem *et al.* (2000) conclude that customers' online purchasing is affected by family members, media, and friends. Lau's (2002) investigate factors that have a bearing on the adoption of online trading, and his findings demonstrate that decision makers, customers, employees, and competitors are notable referent groups which affect the decision of brokers' with regards to technology usage.

Following the quick survey of the aforementioned studies, identified reference groups, which are peers or colleagues and family members who are likely to be influential to the subjective norm (*i.e.*, social pressures) on whether or not MM home financing is to be accepted. As this study is using university academic staff, therefore other reference groups, which are a superior influence, family and friends are not considered. To the author's viewpoint, peer influence seems to be more suitable in the context of Islamic home financing than superior influence, family, and friends, which might work well in an organisation setting (Maizaitulaidawati and Asmak, 2013). This leads to the following hypotheses, which are:

Hypothesis 17: The peers' influence on using MM home financing will positively affect the subjective norm.

In addition, this study also compares the differences between peers influence on Malaysian and Pakistani consumers. Hence it is also hypothesised that:

Hypothesis 18: There is a difference for peers to use MM home financing in Malaysia and Pakistan.

# 4.3.8 Decomposing Perceived Behavioural Control

Ajzen (1991) defines perceived behaviour control as a belief of an individual related to his capacity to direct behaviour. Such beliefs are affected by internal and external factors. When behavioural control is internally perceived it reflects an individual's selfconfidence in the capacity to direct the behaviour. Bandura (1991) conception of selfefficacy, which holds that a person's behaviour is to a large extent influenced by a person's confidence in his ability to accomplish it.

Based on the above conceptualisation, perceived behavioural control is decomposed into self-efficacy that speaks for internal factors. As discussed above, self-efficacy speaks to person's self-belief in the capacity to direct behaviour, and it is defined as "a person's judgment of their capabilities to organise and execute courses of action required to attain designated types of performances". "It is concerned not with the skills one has but with the judgment of what one can do with whatever skills an individual possesses" (Bandura, 1986, p. 391). With regards to the present study, it is more likely expected that users with higher self-efficacy (*i.e.*, self-belief) most likely tend to adopt the MM home financing.

The effect which self-efficacy on perceived behavioural control is reported in numerous empirical studies. Examining students' intention to use a computing resource centre, Taylor and Todd (1995a) find that both self-efficacy and resource-based facilitating conditions are significant determinants of predictors of behavioural control.

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The same result is also reported in Taylor and Todd (1995b). Bhattacherjee's (2000) empirical examination of individuals' underlying motivation to accept electronic brokerage technology among e-brokerage users resulted in a significant effect of one's self-confidence in skills to perform the intended behaviour (*i.e.*, self-efficacy).

In the present study, it is foreseeable that self-efficacy will likely have to bear on the consumers' perceived behavioural control. Thus, the following hypothesis is developed:

Hypothesis 19: Self-efficacy will positively affect perceived behavioural control.

Furthermore, this study also compares the differences in self-efficacy in Malaysian and Pakistani consumers. Thus, it is also hypothesised that;

Hypothesis 20: There is a difference in self-efficacy to opt for MM home financing in Malaysia and Pakistan.

In this study, DTPB is further extended by introducing country as a moderator variable and attitude as a mediator. Also, the details and hypotheses are discussed in the following section. Following this, the interactions between variables are further examined.

# 4.4 MODERATOR

Moderator variable may be helpful in studies related to adoption, acceptance and innovation studies. According to Sun and Zhang (2006), moderators might be playing a key role in explaining the inconsistencies that might exist among the constructs or predicting power among numerable models associated with the adoption of technology in the related works as well as numerous studies employing identical models in diverse

frameworks (*e.g.*, different organisations and countries). Similarly, Venkatesh *et al.* (2003) suggest that the utilisation of the moderator would possibly improve the projecting strength of the numerous adoption models. Consequently, the current study investigates the moderating role of the country in explaining the consumer's intention to accept MM home financing.

#### 4.4.1 The country as a Moderator

As far as consumer behaviour research is concerned, the moderating variable is usually utilised as a contextual factor, for example, country, age, gender, education, and income. The reason why is that people in different countries think, feel and act differently (Minkov and Hofstede, 2011). Such patterns of thinking, feeling, and acting are learned during an individual's lifetime (Hofstede and Minkov, 2010). When environmental behaviour is to be explained, it is the national culture attributes representing important macroenvironmental determinant along with country may act as moderator. Contemporary research suggests that ecological behaviour and pro-social behaviour, in particular, differs significantly over cultures nationally and countries as far as the theoretical framework of TPB is concerned (Marguart-Pyatt, 2012; Feng and Feng, 2013; Soyez, 2012; Arvola et al., 2008; Milfont, Duckitt., and Cameron, 2006; Morren and Grinstein, 2016a). Marquart-Pyatt (2012), as an example, points out that environmental activism is affected by the attitude towards the environment in a number of countries such as; Netherlands and Switzerland though not in others; including Slovenia and Russia. Besides, Ando, Ohnuma, Blöbaum, Matthies, and Sugiura (2010) report that subjective norms are more influential in Japanese context in stimulating intention towards being environmentfriendly whereas in context of Germany attitude toward environmental behaviour has an additional effect. Additionally, Arvola et al. (2008) in their examination of the intention to buy organic food find out that effects of personal norms and subjective norms are different across the UK, Italy, and Finland. Further, inverse results are reported by
previous researchers (Michaelidou and Hassan, 2008; Arvola *et al.*, 2008; Tarkiainen and Sundqvist, 2005; Dean, Raats., and Shepherd, 2012) for the association amidst attitudes related to, and intention to purchase a variety of organic or green food preferences amid and inside countries (*e.g.*, the UK and Finland). Likewise, diverse results are reported with respect to the effect of perceived behavioural control and behavioural intention to act environmental-friendly in other national cultures and countries (*e.g.*, Feng and Feng, 2013; Chan and Lau, 2002) in addition to the link between actual behaviour and behavioural intention (Guerin, Crete., and Mercier, 2001).

Plenty of studies have provided empirical evidence that involvement is variant across countries (Aurifeille, Quester, Lockshin, and Spawton, 2002; Goldsmith, d'Hauteville., and Flynn, 1998; Quester and Smart, 1998). Goldsmith *et al.* (1998) comparison between German, American, and French consumers reveal that the latter had greater involvement than the others.

Likewise, Atkin, Garcia, and Lockshin's (2006) reported results to show that Australians consumers had higher involvement compared to their American counterparts. Following this, it is expected that the proposed model will differ across countries, where the country variable lends itself as a moderator. Thus:

Hypothesis 21: Country moderates the relationship between attitude and consumer's intention to accept MM home financing.

Hypothesis 22: Country moderates the relationship between subjective norm and the consumer's intention to accept MM home financing.

Hypothesis 23: Country moderates the relationship between perceived behaviour control and the consumer's intention to accept MM home financing.

## 4.5 RESEARCH FRAMEWORK

The framework for this study, which is consumers' intention to accept MM home financing is developed based on the adapted constructs from the DTPB by Taylor and Todd (1995b) as well as an additional construct of pricing for MM Islamic mortgage along with country as a moderating variable as shown in Figure 2.7. DTPB is widely used in the area of Information communication technology (ICT) (Shih and Fang, 2004).

In the author's decision to choose between the theories of behaviour, DTPB is considered after drawing upon a comparison between the models of TRA, TPB, and DTPB. What TPB and DTPB have in common is that both of the theories have been derived from TRA. DTPB became the first choice because of the TPB's failure to give an explanation of how an individual believe in performing a particular behaviour and the means by which he gets involved in such behaviour (Taylor and Todd, 1995).

Further, DTPB model, as mentioned earlier, is a combination of a variety of theories such as TPB, IDT, and TAM (Davis *et al.*, 1989; Rogers and Shoemaker, 1983; Taylor and Todd, 1995b), which allow for a thorough investigation of MM home financing acceptance.

Moreover, DTPB is more useful in circumstances, where much in-depth knowledge is intended. It is also preferable when considering the strongest predictive power and explaining the relationship between the unobserved endogenous and unobserved exogenous variables (Taylor and Todd, 1995).

Thus, adapting DTPB will be appropriate in predicting the consumer's acceptance of the Islamic mortgage. The research framework illustrates that behavioural intention towards MM home financing acceptance is dependent on the attitude of an individual, subjective norm and perceived behavioural control in using the product. The researcher adopts the two latent variables related to an individual's attitude, namely perceived relative advantage and perceived compatibility, whereas excluded perceived complexity as the nature of this study is different than that of ICT and adapts similar approach used in the *takāful* context applying DTPB (Maizaitulaidawati and Asmak, 2013).



**Figure 4.1: Research Framework** 

**Source:** Adapted from Taylor and Todd, (1995)

Furthermore, Perceived complexity attribute is justifiably not important in the context of this study, the author believes, considering the fact that Islamic home financing has been in the mortgage market since 1983 in Malaysia and from 2004 in Pakistan. Therefore, it is highly believed that a lot of information has been circulated to make the public aware of it.

Therefore, it seems inappropriate to use all the original constructs of DTPB put forward by (Taylor and Todd, 1995). In the similar vein, the subjective norm is decomposed to "peers influence" only with the exclusion of "superior influence" as the target respondents are university academic staff and the study is more concerned to look into the influence of peers on their decision to opt for Islamic mortgage. To the author understanding, peer influence seems to be adequate in the context of Islamic mortgage than superior influence, which might work well in an organisation setting (Maizaitulaidawati and Asmak, 2013).

Thus, the subjective norm is decomposed to peers influence in the context of this study besides perceived behavioural control that has been originally broken down into three latent constructs, namely, resources facilitating conditions, technology facilitating conditions and self-efficacy. As mentioned earlier, this study modifies and excludes a few original constructs due to their incompatibility with the scope of the study. Therefore, likewise Maizaitulaidawati and Asmak (2013), technology facilitating condition was not suitable as well as resource facilitating condition.

The internal control belief was measured by self-efficacy (Compeau, Higgins., and Huff, 1999; Compeau and Higgins, 1995; Taylor and Todd, 1995). The external control belief was not measured as the objectives of this research are more towards product acceptance in terms of availability rather than the availability of resources needed to engage in certain behaviour. Moreover, this study's emphasis is more towards validating self-efficacy in the context of Islamic mortgage as it is not tested by earlier researchers including but not limited to (Taib *et al.*, 2008; Amin *et al.*, 2009; Hamid *et al.*, 2011; Abduh and Razak, 2011; Amin *et al.*, 2013; Amin *et al.*, 2014, Amin *et al.*, 2014a; Amin *et al.*, 2014b; Amin *et al.*, 2016; Amin *et al.*, 2017; Amin, 2019). Therefore, perceived behavioural control is only decomposed to self-efficacy for the aforementioned reason.

Additionally, this study also proposes a country as a moderator which is used and reported as a significant moderator in cross-culture studies (Rosanna and Destan, 2006). In addition, Morren and Grinstein (2016) investigated the effect of country-level as a moderator in the context of environmental behaviour using TPB. Thus, the country as a moderator is yet to be tested in the context of Islamic mortgage and DTPB. The following section will discuss all the variables used in the study in brief.

The DTPB model is extended further by including the country as a moderator in the proposed model as the study examines the intention to accept MM home financing in two countries.

In this study, actual usage was not measured. It has been assumed that an individual's actual behaviour can be explained by his or her intention for the behaviour (Ajzen, 1991; Davis, 1989; Fishbein and Ajzen, 1975). Numerous studies have supported this assumption (Chen *et al.*, 2002; Davis, 1989; Lau, 2002; Limayem, Khalifa., and Frini, 2000; Morris and Dillon, 1997; Suh and Han, 2002). By measuring behavioural intention, it can be reasonably assumed that all the influencing factors tested in this study will also affect the actual usage. The constructs of the model are combined in line with the research's objectives. Accordingly, the acceptance of MM home financing is mapped into DTPB with a consideration of the specificity of the context.

Based on a review of the literature and the decomposed theory of planned behaviour, the following hypotheses have been developed.

H1: There is a difference between the consumer's attitude towards MM home financing in Malaysia and Pakistan.

H2: There is a positive relationship between attitude and intention to accept MM home financing.

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H3: There is a positive relationship between subjective norms and intention to accept MM home financing.

H4: There is a positive relationship between subjective norms and attitude towards the use of MM home financing.

H5: There is a difference in subjective norms influencing consumers to use MM home financing in Malaysia and Pakistan.

H6: There is a negative relationship between pricing and intention to accept MM home financing.

H7: There is a difference in pricing for MM home financing in Malaysia and Pakistan.

H8: There is a positive relationship between perceived behavioural control and intention to accept MM home financing.

H9: There is a difference in perceived behavioural control for MM home financing in Malaysia and Pakistan.

H10: Attitude mediates the relationship between subjective norm and intention to accept MM home financing.

H11: Attitude mediates the relationship between relative advantage and intention to accept MM home financing.

H12: Attitude mediates the relationship between compatibility and intention to accept MM home financing.

H13: There is a positive relationship between perceived relative advantage and attitude towards MM home financing.

H14: There is a difference in perceived relative advantage for MM home financing in Malaysia and Pakistan.

H15: There is a positive relationship between perceived compatibility and attitude towards MM home financing.

H16: There is a difference for perceived compatibility towards MM home financing in Malaysia and Pakistan.

H17: The peers' influence on using MM home financing will positively affect subjective norm.

H18: There is a difference for peers to use MM home financing in Malaysia and Pakistan.

H19: Self-efficacy will positively affect perceived behavioural control.

H20: There is a difference in self-efficacy to opt for MM home financing in Malaysia and Pakistan.

H21: Country moderates the relationship between attitude and consumer's intention to accept MM home financing.

H22: Country moderates the relationship between subjective norm and the consumer's intention to accept MM home financing.

H23: Country moderates the relationship between perceived behaviour control and the consumer's intention to accept MM home financing.

## 4.5.1 The Research Philosophy

In social sciences, there are four philosophical approaches, namely, participatory or advocacy, social constructivism, pragmatism and post-positivism (Creswell, 1999). The Advocacy/ participatory best suits politics, empowerment, and issue-oriented. Social constructivism is related to qualitative research. On the other hand, when the claims for the knowledge are built on the premise of consequences, actions and situations and not the antecedents conditions then such approach is known as pragmatism. Thus, the aforementioned three approaches are beyond the scope of this study. Thus post-positivism is the most suitable approach for this study — the post-positivism best suits quantitative research.

# 4.6 QUANTITATIVE STUDY

In the quantitative approach, the primary data is gathered by means of observation, survey, and experiment (Baker, 2000). Experiments are suitable for causal research (Keppel, 1991). In order to produce numerical data, the observation method is used. Surveys are a useful and better source of data collection in social sciences and specifically in marketing compared to observations and experiments (Babbie, 2013; Baker, 2000; Burton, 2000; De Vaus, 2002). The survey method is not time-consuming Baker (2000) and has more generalisation. Further, it focuses mainly on contemporary events, and there is no need to get control over the behavioural actions (Yin, 1994).

Surveys can be explanatory and descriptive (Burns, 2000). The explanatory survey links cause and effect relationship without experimental manipulation. On the other hand, descriptive surveys evaluate the parameters or attributes and the nature of the existing conditions of the population. The standard technique used for administering surveys is questionnaire because it is appropriate for analytical and descriptive research (Saunders *et al.*, 2012).

The surveys elucidate facts related to ones' behaviour, physical condition, opinion, attitude as well as economic and social circumstances (McCrossan, 1991). A cross-sectional quantitative research design based on data collection at a single moment in time was adopted in this study. Cross-Sectional research includes "the collection of information from any given sample of population elements only once" (Malhotra and Birks, 2007, p.97).

#### 4.6.1 Development of a Questionnaire

The research instrument is the source to fulfil the objectives of the research (Churchill, 1995). The design of the questionnaire directly affects the quality of the data to be collected; it is therefore imperative to the research process (De Vaus, 2001; Sommer and Sommer, 1997). Nonetheless, in order to design the questionnaire, there is no any generally accepted theory, it is not a science but rather an art (Churchill, 1995).

For the questionnaire development, the researcher first evaluated the measures established in previous research studies (De Vaus, 2001). Sometimes, items from previous scales may need upgradation in order to suit a specific sample or a specific context. The use of well-developed and already tested items or indicators from the literature may accommodate to build a persistent body of knowledge rather than each researcher carrying out their individual distinctive research with distinctive methods (De Vaus, 2001). "Replications and extensions of existing scales help guard against the perpetuation of erroneous and questionable results, as well as assessing the generalisability of the findings from marketing studies" (Mitchell and Bates, 1998, p.200). Therefore, the researcher chooses to include the utmost pertinent indicators or

items, which subjectively relate to the research framework. Thus, past studies were taken into consideration for the development of the questionnaire for this study.

There are two requirements to obtain true response through a questionnaire (Chisnall, 2001). First of all, an investigator should define the nature of information essential to be conveyed through the questionnaire. Secondly, as clearer will be the questionnaire design, the more is the response rate (Chisnall, 2001). The first step in questionnaire development is to outline and postulate the field of constructs through the literature review (Churchill, 1979).

# 4.6.2 Measurement of Constructs

This section specifies the constructs domain along with thorough definition, meaning, and measurement. This study adapts the measurement items from prior research studies. Though, in order to update the items according to the research context modifications are performed. The following sub-sections discuss the measurement of the constructs; attitude, perceived relative advantage, perceived compatibility, subjective norm, perceived behavioural control, pricing, self-efficacy, peer's and consumer's intention to accept MM home financing.

#### 4.6.2.1 Attitude

Ajzen (1991), gives the definition of the term attitude as an inclination related to psychological terms in articulating the desire of referring to an entity for being unfavourable or favourable. By and far, more the favourable attitude towards a behaviour one has, there are chances that more that person will be willing to engage in that behaviour. In this study, attitude is used in the context of MM home financing support by an individual and his or her attitude towards the Islamic mortgage product.

Furthermore, favourable attitude or unfavourable attitude is imperative to consumers' perception towards the usefulness of MM home financing. The attitude is a determinant of consumers' intention in this study.

Constructs	Adapted Statements	Source
AT1	Choosing MM home financing is a good idea	(Taib <i>et al.,</i> 2008)
AT2	Choosing MM home financing is useful	(Taib et al., 2008)
AT3	Choosing MM home financing is beneficial	(Taib <i>et al.</i> , 2008)
AT4	MM home financing is one of the best Islamic banking products	(Taib <i>et al.</i> , 2008)

 Table 4.2: Measurement Scale of Attitude

Table 4.2 depicts the measurement scale for attitude. In this study the construct of attitude is measured by four items, which are represented by AT1, AT2, AT3 and AT4. The item AT1 states that "Choosing MM home financing is a good idea", item AT2 states that "Choosing MM home financing is useful", item AT3 states that "Choosing MM home financing is beneficial" and item AT4 states that "MM home financing is one of the best Islamic banking products". All the measurement items for attitude in this study are adapted from (Taib *et al.*, 2008).

## 4.6.2.2 Perceived Relative Advantage

According to Rogers (1999) perceived relative advantage is the degree to which an individual perceives innovation as a better option than the idea substituted by it. In other words, those who are willing to adopt want to know how far the new idea is better than the existing one. Some preceding empirical research such as Amin *et al.* (2013) finds a relative advantage to be significant in predicting customers' intention to adopt Islamic mortgage whereas Echchabi *et al.* (2014) in their study of customers' willingness to adopt Islamic insurance services report the insignificance of relative advantage in influencing adoption.

Constructs	Adapted Statements	Sources
RA1	Choosing MM home financing will make it easier for me to own a house	(Moore and Benbasat, 1991)
RA2	Considering all tasks MM home financing could assist my home ownership	(Moore and Benbasat, 1991)
RA3	Choosing MM home financing has more advantages, and it is important to me	(Moore and Benbast, 1991)
RA4	Choosing MM home financing will make it easier to own a house	(Moore and Benbasat, 1991)

Table 4.3: Measuremen	t Scale	of Relative	Advantage
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Table 4.3 depicts the measurement scale for perceived relative advantage. In this study the construct of perceived relative advantage is measured by four items, which are represented by RA1, RA2, RA3 and RA4. The item RA1 states that "Choosing MM home will make it easier for me to own a house", item RA2 states that "Choosing MM home financincing could assist my home ownership", item RA3 states that "Choosing MM home financing has more advantages, and it is important to me" and item RA4 states that "Choosing MM home financing will make it easier to own a house". All the measurement items for perceived relative advantage are adapted from the previous study of (Moore and Benbasat, 1991).

### 4.6.2.3 Perceived Compatibility

Rogers (2003) sees compatibility as the degree to which an innovation is perceived consistent by the individual with the present sociocultural values and beliefs on the one hand, and what he has experienced and needed in the past on the other hand. The significance of perceived compatibility and its positive relationship in adopting Islamic banking service is reported. An empirical study by Kaabachi and Obeid (2016) in the context of Tunisia highlights a significant positive relationship of compatibility with adoption by customers' towards services of Islamic banking.

On the contrary Amin *et al.* (2013) finds an insignificant relationship between compatibility and predicting consumers' intention to adopt Islamic mortgage.

<b>Table 4.4:</b>	Measuremen	t Scale of	Compatibility	y
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Constructs	Adapted Statements	Source
CP1	I think MM home financing is completely compatible with my current situation	(Moore and Benbasat, 1991)
CP2	I think MM home financing fits well with all aspects of my banking activities	(Moore and Benbasat, 1991)
СРЗ	I think MM home financing fits my needs	(Moore and Benbasat, 1991)
CP4	I think MM home financing fit well with how to use it and it is important to me	(Moore and Benbasat, 1991)

Table 4.4 depicts the measurement scale for perceived compatibility. In this study the construct of perceived compatibility is measured by four items, which are represented by CP1, CP2, CP3 and CP4. The item CP1 states that "I think MM home financing is completely compatible with my current situation", item CP2 states that "I think MM home financing fits well with all aspects of my banking activites", item CP3 states that "I think MM home financing fits my needs" and item CP4 states that "I think MM home financing fit well with how to use it and it is important to me". All the measurement items for the perceived compatibility are adapted from the past study of (Moore and Benbasat, 1991).

# 4.6.2.4 Subjective Norm

Ajzen (1991), identifies the subjective norm as the valuation of the social pressure incurred by an individual to carry out or not to carry out a specific behaviour. This pressure has to bear on an individual's behaviour in different varying social circumstances. In this study author uses subjective norms as a persons' perceived possibility of consumers of Islamic bank to opt or not to opt the MM home financing.

Constructs	Adapted Statements	Source
SN1	Most people who are important to me would think that choosing MM home financing is a wise idea	(Gopi and Ramayah, 2007)
SN2	Most people who are important to me would think that I should choose MM home financing	(Gopi and Ramayah, 2007)
SN3	My colleagues who are important to me would think that I should choose MM home financing	(Gopi and Ramayah, 2007)
SN4	If I use MM home financing most of the people who are important to me will regard it as valuable	(Gopi and Ramayah, 2007)

# Table 4.5: Measurement Scale of the Subjective Norm

Table 4.5 depicts the measurement scale for subjective norm. In this study the construct of subjective norm is measured by four items, which are represented by SN1, SN2, SN3 and SN4. The item SN1 states that "Most people who are important to me think that choosing MM home financing is a wise idea", item SN2 states that "Most people who are important to me would think that I should choose MM home financing", item SN3 states that "My colleagues who are important to me would think that I should choose MM home financing most of the people who are important to me will regard it as valuable". All the items, which measure the subjective norms are adapted from (Gopi and Ramayah, 2007).

## 4.6.2.5 Perceived Behavioural Control

Perceived behavioural control refers to the perceived difficulty or easiness allied with carrying out a certain behaviour (Ajzen, 1991). Likewise, perceived behavioural control could also be expressed by means of the absence or presence of required opportunities and resources, an individual's insight of difficulty or easiness in acting for the actions in question (Ajzen, 1991). In the context of a future user of the product, perceived behavioural control seems to be appropriate due to one's capability to decide on when choosing for a mortgage, which is better and by trying perceived behavioural control it is projected for formulating a novel strategy to fast-track the use of MM home financing. Thus, anticipating the acceptance in the coming years.

Constructs	Adapted Statements	Source	
PBC1	I would be able to choose MM home financing	(Shih and Fang, 2004)	
PBC2	I have the resources to choose MM home financing	(Shih and Fang, 2004)	
PBC3	I have the ability to choose MM home financing	(Shih and Fang, 2004)	
PBC4	I have the knowledge to choose MM home financing	(Shih and Fang, 2004)	

# Table 4.6: Measurement Scale of Perceived Behavioural Control

Table 4.6 presents the measurement scale for perceived behaviour control. In this study the construct of perceived compatibility is measured by four items, which are represented by PBC1, PBC2, PBC3 and PBC4. The item PBC1 states that "I would be able to choose MM home financing", item PBC2 states that "I have the resources to choose MM home financing", item PBC3 states that "I have the ability to choose MM home financing" and item PBC4 states that "I have the knowledge to choose MM home financing". All the measurement items for perceived behavioural control were adapted from (Shih and Fang, 2004).

## 4.6.2.6 Self-Efficacy

Self-efficacy is associated with an individual's judgments of his skills and capabilities to perform the behaviour (Bandura, 1977). It is reflected in the way an individual perceives his performance to a particular behaviour. In other words, Ajzen (1991) added, an individual's confidence in doing a specific task has a significant bearing on behaviour.

The central idea of self-efficacy according to Barling and Beattie (1983) is that the foundation of an individual's action is the personal beliefs they have in themselves. Hence, self-efficacy has a pivotal role in influencing their decisions about what behaviour to undertake and how much efforts to be put into attempting those behaviours. Given the deficient disproportion of literature on the role of the self-efficacy in influencing consumers' behavioural control toward Islamic mortgage, this study introduces selfefficacy as a predictor of perceived behavioural control.

Constructs	Adapted Statements	Source
SE1	I am confident to apply for MM home financing even if there is no one around to assist me on how to apply for it	(Khalil, 2005)
SE2	I am confident of applying for MM home financing even if I never used it before	(Khalil, 2005)
SE3	I am confident of applying for MM home financing if I know someone else who is using it before I apply for myself	(Khalil, 2005)

Table 4.7: Measurement Scale of Self-Efficacy

Table 4.7 shows the measurement items for self-efficacy. In this study the construct of self-efficacy is measured by three items, which are represented by SE1, SE2 and SE3. The item SE1 states that "I am confident to apply for MM home financing even if there is no one around to assist me on how to apply for it", item SE2 states that "I am confident of applying for MM home financing even if I never used it before", item SE3 states that "I am confident of applying for MM home financing if I know someone else

who is using it before I apply for myself ". All the measurement items of self-efficacy are adapted from a past study by (Khalil, 2005).

# 4.6.2.7 Peer's Influence

Peer's influence comes from the referent group such as co-workers. According to Childers and Rao (1992), the influence of peers is a normative referent that assists an individual through attitude, norms, and values by direct interaction. Referent groups may comprise of family, friends, superiors, co-workers, *etc.* Furthermore, (Khalil, 2005; Taylor and Todd, 1995) finds the influence of superiors and peers to be significant on individuals' adoption and acceptance activities. Peers influence is included as a latent dimension of subjective norms in the context of this study. In other words, the Islamic bank consumers, in the case of this study who are university academic staff might be influenced by their peers to engage in MM home financing.

Constructs	Adapted Statements	Source
PE1	My colleagues think that I should use MM home financing	(Khalil, 2005)
PE2	I will use MM home financing because my colleagues use it	(Khalil, 2005)
PE3	I will have to use MM home financing if my colleagues already used it	(Khalil, 2005)
PE4	I have to use MM home financing because my colleagues think that I should use it	(Khalil, 2005)

#### **Table 4.8: Measurement Scale of Peers**

Table 4.8 presents the measurement scale for peers. In this study the construct of peers is measured by four items, which are represented by PE1, PE2, PE3 and PE4. The item PE1 states that "My colleagues think that I should use MM home financing", item PE2 states that "I will use MM home financing because my colleagues use it", item PE3 states that "I will have to use MM home financing if my colleagues already used it" and item PE4 states that "I have to use MM home financing because my colleagues think that I should use it". All the measurement items for peers are adapted from the previous study by (Khalil, 2005).

# 4.6.2.8 Pricing

Ebert and Griffin (1998) define pricing as Islamic banks' act of proposing a suitable selling price of a product-financing and to maintain the balance between the customers' and the bank interest. Furthermore, the concept of profit and loss sharing, which is practiced by the Islamic bank in order to charge for the financial services and transaction (Olson and Zoubi, 2008).

Constructs	Adapted Statements	Source
P1	Pricing for MM home financing is competitive	(Amin et al., 2011)
P2	Service charges for MM home financing are higher	(Amin et al., 2011)
Р3	Fees obtained for MM home financing are higher	(Amin et al., 2011)
P4	Monthly payments for MM home financing is higher	(Amin et al., 2011)

Table 4.9: Measurement Scale of Pricing

Thus, Islamic banks operate on the *Sharī 'ah* principles, which allows the profit and loss sharing arrangement and on the other hand, it is prohibited to use interest for the benchmarking purpose (Amin *et al.*, 2011).

Table 4.9 shows the measurement scale of pricing. In this study the construct of pricing is measured by four items, which are represented by P1, P2, P3 and P4. The item P1 states that " Pricing for MM home financing is competitive", item P2 states that "Service charges for MM home financing are higher", item P3 states that "Fees obtained for MM home financing are higher" and item P4 states that " Monthly payments for MM home financing is higher". All the items of the pricing construct, which are used in this study are adapted from (Amin *et al.*, 2011).

# 4.6.2.9 Intention to Accept MM, Home Financing

Fishbein and Ajzen (1975, p. 288), defines behavioural intention as a subjective probability that a person will act on or will perform a behaviour.

On the same note, Brislin and Triandis (1980), describes behavioural intention as ones' instructions to act in a certain way. In the current study context, the consumers' intention will signify the acceptance by an individual to use the MM home financing facility.

Constructs	Adapted Statements	Source
INT1	My general intention to choose MM home financing is very high	(Shimp and Kavas, 1984)
INT2	I will think about choosing MM home financing services again	(Shimp and Kavas, 1984)
INT3	I will choose MM home financing services in the future	(Shimp and Kavas, 1984)
INT4	I like to use MM home financing	(Shimp and Kavas, 1984)
INT5	I will also use MM home financing for my second mortgage as well	(Amin et al., 2011)

## Table 4.10: Measurement Scale of Intention to Accept MM Home Financing

Table 4.10 depicts the measurement items for intention to accept MM home financing. In this study the construct of intention to accept MM home financing is measured by five items, which are represented by INT1, INT2, INT3 and INT4. The item INT1 states that "My general intention to choose MM home financing is very high", item INT2 states that "I will think about choosing MM home financing services again", item INT3 states that "I will choose MM home financing services in future", item INT4 states that "I like to use MM home financing" and item INT5 states that "I will also use MM home financing for my second mortgage as well". In this study the measurement items for acceptance towards MM home financing are adapted from (Shimp and Kavas, 1984; Amin *et al.*, 2011).

#### 4.6.3 Questionnaire Type and Scale

There are different types of questionnaires in the literature, based on the communication method (Churchill, 1995). Mainly, the types as mentioned by researchers such as telephone interview, personal interview, self-administered questionnaires and online questionnaire (Blumberg *et al.*, 2008; Cohen *et al.*, 2011). However, the response rate of the personal interview is high with too much cost and with the condition of skilled interviewers (Saunders *et al.*, 2012).

In a similar vein, with limited length, the phone conversations are expensive (Blumberg *et al.*, 2008). On the contrary, the other type, which is self- administering a questionnaire is more low-cost than others (Blumberg *et al.*, 2008).

Moreover, a questionnaire can also be administered online. An online survey is expected to respond slowly, but it is beneficial when considering the large population (Dommeyer *et al.*, 2004).

As discussed earlier the benefit of a self-administered questionnaire, there are advantages for using the online questionnaire as well. Thus, this study used both the online and self-administered questionnaires. Moreover, Google form was used to create a questionnaire online. Later a link to the questionnaire was sent through e-mail with an invitation using official e-mails of the academic staff of the concerned universities.

There are various benefits of online questionnaire (Cohen *et al.*, 2011; Gillham, 2007; Sarantakos, 2012) few are mentioned below:

• It is convenient to send online questionnaire link to groups or population, which are large. Furthermore, the findings can also be generalised if carried out properly.

- The online survey is also cost-effective, as it reduces postage and printing cost and saves both time and effort.
- If the online questionnaire is used all the responses captured from the respondents are saved automatically.
- The online survey provides respondents with a free choice to record their response at their ease as long as a link sent to them is active. Thus, it is more flexible than other surveys.
- Using an online questionnaire provide an easy option to save and keep track of the participant's information and their responses.
- There are some tools that collect the online questionnaire response and also stores the data captured in such files, which can directly be investigated by SPSS.

Marketing research uses different scales including; Likert scale, Guttman scale, Semantic differential scale and Thurstone scale (Chisnall, 2001). Osgood semantic scale and Likert scale are the most popular scales (Chisnall, 2001). Thus, the current study used the five-point Likert scale as it is convenient to respond (see Appendix A).

# 4.6.4 Ethical Consideration

This study took into consideration some ethical aspects. Furthermore, ethical consideration is based on three commitments. Cohen *et al.* (1994) define ethics as a matter of principled sensitivity towards others rights. Firstly, the ethical commitment is associated with receiving respondent's consent in lieu of disclosure of information. In this quest, the researcher provides details about the form of study with the complete information about disposition and purpose to the participants and offer them the chance to specify their intention to participate in the research project.

Secondly, it is also required to abide by the confidentiality and privacy of the responses provided by the respondents. According to the (De Vaus, 2002; Zikmund, 2000) the respondents are guaranteed the confidentiality and are protected of manipulation and falsification, ensuring that the collected data will solely be used for the purpose of research (Sekaran and Bougie, 1992).

Thirdly, it is also a part of the ethical commitment that the researcher is truthful to respondents at all times. In preparing the rapport integrity and honesty is vital, and in return, rapport is crucial for the advancement in cordiality, which helps to gather responses effectively (Cohen *et al.*, 1994; Mason, 2002).

The assertion of professionalism in the practice of research by the researcher is the last ethical commitment. Thus, the outcome of this study is expected to truly contribute to the current body of knowledge and the practice of marketing.

#### 4.6.5 Unit of Analysis

For any study, the unit of analysis is a significant section in this study academic staff of different universities, who are also Islamic bank consumers from two different countries in two countries, namely, Malaysia and Pakistan. Moreover, university lecturers are considered with the justification that they are using banking services with experience in various products offered by Islamic as well as conventional banks. Above all, they are familiar with the home mortgage facility offered by the banks they are transacting with (Amin *et al.*, 2017).

Furthermore, according to Amin *et al.* (2017), there are different persons available in the universities based on position, grade and age. Hence, this study focus on users of MM home financing, thus keeping in view the legal status requirement to apply for Islamic housing finance it is necessary that the applicant's age must be over 25 years. Following this rule, all the respondents' age must be over 25 years. This study predicts consumers' acceptance towards MM home financing empirically.

## 4.6.6 Validity-Test

The purpose of validity-test in this study is to ensure the content and face validity of the questionnaire. According to Hardesty and Bearden (2004, p.99), "the degree to which a measure's item represents a proper sample of the theoretical content domain of a construct" is known as content-validity.

The items content-validity also requires the face-validity. Hardesty and Bearden (2004) define face-validity as "the degree that respondents or users judge that the items of assessment instrument are appropriate to the target construct and assessment of objectives" (p. 99). The content validity is assigned to experts, in order to ensure the comprehensiveness of measuring instrument, quality of the survey (Hardesty and Bearden, 2004; Saunders *et al.*, 2012). A panel of five experts, three from Malaysia and two from Pakistan were requested to review the content validity, and from their comments, the questionnaire was revised, and desired corrections were made. Moreover, academic position and academic institutions of experts are mentioned (as seen in Appendix D). The experts are mix of statistician and some are from marketing area. This gives strong support for an instrument to be validated. All three experts from Malaysia are from University of Malaya and in case of Pakistan they are affiliated to University of Sindh. Three out of five experts are Professors where as one is Senior Visiting Research Fellow and Associate professor. (See Appendix D).

# 4.6.7 Pilot Testing

The pilot test is conducted prior to initiating data collection for the main study in order to purify the questionnaire (Churchill, 1979; Saunders *et al.*, 2012). For this study, the sample size for the pilot test was 180. The threshold of respondents for pilot testing is

between 10 to 100 in case of normal sample size, but for large sample size, the threshold for pilot testing is 200 (Saunders et al., 2012). Cronbach's alpha is the measure of reliability. The reliability of the entire scale is evaluated by Cronbach's alpha (Hair et al., 2010). The Cronbach's alpha value of 0.7 or above is considered good (Hair et al., 2010; Kline, 2005).

However, according to (Churchill, 1979; Nunnaly and Bernstein, 1994) the alpha value of 0.6 or as low as 0.5 is also acceptable in some cases. The Pilot study results are s of Pilot Testing discussed in table 4.11.

Demographic information	Category	Frequency	Percentage
Gender	Male	88	52.0
	Female	80	48.0
Age	26-35	34	20.0
	36-40	83	50.0
	40 and above	51	30.0
Education	Master's Degree	39	23.0
	PhD Degree	129	77.0
Country	Malaysia	103	61.0
	Pakistan	65	39.0

<b>Table 4.11:</b>	<b>Demographics</b>	of Pilot	Testing
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The valid responses were 168, and the remaining responses were excluded due to missing data. Table 4.11 shows that the age of respondents ranged from 26 years to 40 years and above, with the majority of 50% ranging from 36-40 years and 30% ranging from 40 years and above. The pilot study sample profile has 48% female and 52% male respondents. In terms of educational background, the percentage of PhD and Masters'

degree holder were 77% and 23% respectively. In addition, Malaysian respondents were 61%, and Pakistani were 39% respectively. Table 4.12 represents the value of alpha for all items together. A total

<b>Fable 4.12:</b>	Reliability	<b>Statistics</b>
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Total Items	Malaysia (α)	Pakistan (α)
35	.945	.932

number of items was 35 in both countries. For Malaysia, the Cronbach's alpha value is 0.945 and for Pakistan is 0.932.

In the second step, the value of Cronbach's alpha is analysed separately for all the constructs. Table 4.13 below shows that the attitude has four items with the Cronbach's

Constructs	No. of Items	Cronbach's alpha (α)
Attitude	4	.891
Perceived compatibility	4	.860
Perceived relative advantage	4	.899
Subjective norms	5	.850
Peers	4	.865
Perceived behavioural control	4	.837
Self-efficacy	3	.887
Pricing	3	.841
Intention to accept MM Home financing	5	.890

Table 4.13: Reliability Statistics for Constructs

alpha value of 0.891. The subjective norm has four items, and the value of Cronbach's alpha was 0.850. All four items measuring perceived behavioural control have Cronbach's alpha value of 0.837. Similarly, the Cronbach's alpha value for peers was 0.865; the perceived relative advantage was 0.899, perceived compatibility was 0.860 and self-efficacy had a Cronbach's alpha value of 0.887. The items of pricing had Cronbach's alpha value of 0.841. Lastly, the Cronbach's alpha value for all the five items of intention to accept MM home financing was 0.890.

## 4.6.8 Sampling Process

Sampling process represents a step by step approach that is used to select certain elements from the whole population. According to Forza (2002), the purpose of selecting certain elements from the population is to save cost, time and additional human resources. This study carried out the sampling process by means of four stages, which are;

- 1. To define the target population;
- 2. by sample size determination;
- 3. by sampling procedures opted; and
- 4. on the bases of sampling errors.

# 4.6.8.1 **Population and Sample**

In order to opt for the sample for this study, the first stage was to classify the population from where the sample was to be collected. Fink states that "A sample is a portion or a subset of a larger group called a population. The population is the universe to be sampled. A good sample is a miniature version of the population - just like it, only smaller" (Fink, 1995, p. 1). For the purpose of this study, the target population was drawn from three universities in Malaysia and three universities in Pakistan. The information about Malaysian public research universities and e-mail list was obtained from the Ministry of Higher Education (MOHE) and individual university website. This study is comparative between two countries, Klang valley is chosen for the study purpose as it is the biggest business hub in Malaysia, with a large network of bank branches. MOHE also provide the information that most of the research universities are located in Klang valley itself, namely, University of Malaya (UM), University Putra Malaysia (UPM) and University Kebangsaan Malaysia (UKM) respectively.

In the context of Pakistan, two cities in Sindh province, namely, Karachi and Hyderabad were considered. Keeping in view the education city of the Sindh province, which is Karachi and the biggest business hub in Pakistan as well as a city with the second largest banking business after Lahore. Three universities were chosen from Pakistan, which are University of Sindh (SU), Bahria University (BU) and Mehran University of Engineering and Technology (MUET). The relevant information about the universities was accessed from the Higher Education Commission of Pakistan (HEC) website and also from the concerned university's website. The population consists of the overall consumers regardless of their ethnic background.

# 4.6.8.2 Sample Size

The sample size determination is an intricate process. According to Saunders *et al.* (2012) the sample size hinge on the degree of certainty, the margin of error, statistical techniques and the size of the population. Samples, which represent a large population are costly, hard to achieve and affect the outcome as well (Saunders *et al.*, 2012). There are five factors on which structural equation modelling (SEM) depends on (Hair *et al.*, 2010). The first factor is that the data is normally distributed, which is the normality of data. Secondly, the estimation approach employed is the maximum likelihood estimation technique, which suggests that the minimum sample size of 200 respondents is required

for SEM. The third factor is that the large samples are needed for the models, which are complex. Fourth, the sample size is reduced by the missing data and needs to be considered beforehand defining the sample size. The fifth factor is essential, which is to acquire a large sample size in order to get the communalities of less than 0.5 for the average error variance of indicators (Hair *et al.*, 2010). The sample size of at least 300 is considerable for the complicated model (Hair *et al.*, 2010). The researcher in the present study follows the recommendation of Comrey and Lee (1992), who argue that a sample size of 300 respondents is sufficient. Therefore, the researcher targeted 300 responses to be achieved. In the case of Malaysia 306 usable responses were achieved and 304 in the case of Pakistan. In this study, there is no population stated due to the Islamic Financial Services Act 2013 restrictions.

## 4.6.8.3 Sampling Technique

Sampling techniques are of two main types, which comprise of probability sampling and non-probability sampling. Each unit of population in probability sampling has an equal chance to be drawn. On the other hand in non-probability sampling, the probability of drawing a unit cannot be expected, or in other words, there is no equal chance of drawing a unit from a population (Churchill, 1995). There are further four types of probability sampling, which are stratified random sampling, systematic sampling, multistage sampling, and simple random sampling. The non-probability sampling includes snowball sampling, convenience sampling and quota sampling (Bryman and Bell, 2015). The approach, whereby the entire population is considered, it is termed as 'census' (Pickard, 2007, p. 95). Groves *et al.* (2009, p. 3) mentioned that "censuses are systematic efforts to count entire population".

The faculty members of three Malaysian and two Pakistani universities were sent an invitation using their official e-mail and also using different group emails within each faculty. In the similar vein centre for information technology, which centralises the domain of each university webmail was contacted through webmaster in order to assist the link for the questionnaire. On the other hand, in the case of Bahria University questionnaire was self-administered as the sample size was not that adequate.

Similarly, for two large populations, it is difficult to choose the appropriate sample size from the large populations (Churchill, 1995). Therefore, both the online questionnaire and self-administration of the questionnaire by hand were considered. In the case of this study, a multistage sampling technique was used. Precisely, the aim of this research was to collect data from the faculty members, who are also consumers' of MM home financing from three Malaysian and three Pakistani universities as discussed earlier that in current research there are two large populations. Furthermore, multistage sampling is applied, and at first stage in order to choose the universities, *i.e.*, three universities, namely, University of Malaya, University Putra Malaysia, and University Kebangsaan Malaysia are chosen from Klang Valley in Malaysian case. Similarly, the University of Sindh, Mehran University of Engineering and Technology and Bahria University from Sindh in the context of Pakistan are selected.

Furthermore, a multistage sampling procedure can easily divide the large population. Multistage sampling has the ability to create a more representative sample of the population in contrast to using only one sampling procedure (Churchill, 1995).

Furthermore, at the second stage, the selected six universities from each country are divided into faculties. In each faculty, there are different departments in third stage data collected each department through purposive sampling. Purposive sampling is used as there is a filter question in the questionnaire ( as seen in Appendix A) in order to target purposively only those respondents from the population who are consumers' of an Islamic bank and also the users or consumers' of MM home financing. This approach seems appropriate as the researcher does not know exactly how many faculty members who participate in the study are the consumers' of MM home financing and how many are using conventional or other types of mortgage. Even though, the questionnaire does ask the respondents if they are using MM home financing product and if they are already an existing user of Islamic mortgage product. In addition (item 35 in questionnaire as seen in Appendix A) states that "I will use MM home financing for my second mortgage as well". It is further elaborated that users are currently using or used MM home financing and or intending to use MM home financing for second mortgage as well.

To summarise, the researcher uses a multistage sampling technique, which divides the entire population from two countries, Malaysia and Pakistan. Furthermore, three universities, which are University of Malaya, University Putra Malaysia and University Kebangsaan Malaysia are chosen from Klang Valley, Malaysia. Moreover, the University of Sindh, Mehran University of Engineering and Technology and Bahria University are chosen from Sindh, Pakistan. It is appropriate when the population is very large, and it is difficult to identify the sample size (Creswell, 2012). In the second step, universities are divided into faculties, and further faculties are divided into various diverse departments. In the third step, using purposive sampling data is obtained based on specific established requirements, *i.e.*, those faculty members who are consumers' of Islamic bank and users of MM home financing as a subject or the participant.

## 4.6.9 Analysing Quantitative Data

The analysis of quantitative data is carried out in two stages. The data is cleaned in the first stage by identifying missing data and outliers with SPSS v.22. In order to give an overview related to samples from two countries, descriptive statistics are used. After descriptive statistics, exploratory factor analysis is done in SPSS v.22. In order to check the hypothesis, the t-test is conducted. In the second step, measurement and structural models are established to examine remaining hypotheses in AMOS v.23.

# 4.6.9.1 Preliminary Analysis

The data analysis started with the preliminary analysis. Firstly, the screening of data by examining and correcting errors was conducted (Pallant, 2010). Data screening started by looking at how precise was the data entered, checking values, which were not in range (Pallant, 2010; Tabachnick and Fidell, 2007). The next step is to check the missing data and outliers. In order to assess the missing data and to get a remedy, there are four steps involved.

- 1. to determine the missing data type;
- 2. to measure the missing data amount;
- 3. to analyse the missing data arbitrariness; and
- 4. to provide a remedy for missing data (Hair et al., 2010).

According to Hair *et al.* (2010) if the missing data is less than 10 % or below 5 % (Tabachnick and Fidell, 2007). Then it is suggested that the possible remedy can be employed.

After checking the missing data, the next step is to identify the outliers. Outliers are responses that deviate obviously from the distribution or from the rest of observations that may exist in one variable (Hair *et al.*, 2010). Outliers may occur because the case is a participant but different extreme values are used than the normal distribution, or not a member of the population, due to inspected missing values and also because of incorrect data entry (Tabachnick and Fidell, 2006). While conversion of data values to standard scores the univariate outliers may be identified, whereas Mahalanobis addresses multivariate outliers (Hair *et al.*, 2010).

Once the missing values and outliers are checked, the next step is to fulfil the assumptions of multivariate analysis techniques. data These include multicollinearity, homoscedasticity, and normality (Hair et al., 2010). Normality is an assumption that the distribution of the sample data is normally distributed. It is an important aspect of SEM analysis for the data to be normally distributed because the estimation technique used in SEM requires the data to be indicated as having multivariate normally distributed (Hair et al., 2010). Normality is checked via the level of skewness and kurtosis. Skewness measures the symmetry of distribution whereas kurtosis measures how peaked is a distribution (Pallant, 2007). In order to check the normality as suggested by Hair et al. (2010) at the univariate level and multivariate, the critical value of  $\pm 2.58(.01 \text{ significant level})$  and  $\pm 1.96$  (.05 significant level) can be used. Moreover, the value of lower than 3.0 for skewness is recommended, and lower than 20 is suggested for Kurtosis (Kline, 2011).

Homoscedasticity refers to "the variable in scores for one continuous variable is roughly the same at all values of another continuous variable" (Tabachnick and Fidell, 2006, p. 85).

Levene's test assesses the homoscedasticity of variables. Heteroscedasticity occurs if homoscedasticity is not achieved. Heteroscedasticity is caused if any variable is not normal (Tabachnick and Fidell, 2006).

If variables have a high correlation between them and exceed 0.9, it is known as multicollinearity (Tabachnick and Fidell, 2006). The estimation of regression coefficient, statistical tests and predictive ability of regression model is confounded by multicollinearity Hair *et al.* (2010), and it is measured by variance inflation factor (VIF) and tolerance (Tabachnick and Fidell, 2006).

## 4.6.9.2 Exploratory Factor Analysis

The researcher uses exploratory factor analysis (EFA) widely in order to evaluate and develop scales and questionnaires (Pallant, 2010). According to Pallant (2010), factor analysis provides the tool for analysing the structure of the inter-correlation among a large number of variable, by looking for groups or set of variables that are highly correlated, known as a factor. The data aptness depends on the strength of association amid the items and sample size as well (Pallant, 2010). There are different approaches in the literature regarding the suitability of the data. For factor analysis, it is considered good if the sample size is 300 (Tabachnick and Fidell, 2006). The other approach is based on the ratio between participants and items, which is at least 10:1 between the participants and the items (Field, 2005; Pallant, 2010).

While literature also suggests another approach, employing that each item only requires five cases (Pallant, 2010; Hair *et al.*, 2010). Moreover, Hair *et al.* (2010) stated that EFA provides two distinct, interrelated outcomes. The first is data summarising and the second one is data reduction. In summarising the data, factor analysis derives underlying subscales and dimensions that describe the data in a much smaller number of concepts than the original individual variables.

In contrast, data reduction extends this process by deriving an empirical value or score for each dimension. In other words, factor analysis aids in attaining the data reduction through refining and reducing a large number of related variable to more manageable number for using them in other analysis such as multivariate analyses, or creating a new set of variables, which are smaller in number, to partially or completely substitute the original set of variables (Hair *et al.*, 2010). In addition, EFA is considered an excellent starting point for many other multivariate methods (Hair *et al.*, 2010). To explain, from the data summarising perspective, factor analysis
provides the researcher with a clear understanding of which variables or dimensions that may have an impact on the analysis. The data summarization can be directly incorporated into other multivariate technique through any of the data reduction techniques. Pallant (2007) mentions that there are three steps involved in conducting a factor analysis. The first step is to determine the data appropriateness for factor analysis by having an adequate sample size and to ensure the strength of inter-correlation between items. The second step is the extraction of a factor that determines the minimum factors to signify the finest the interrelation between the groups of the variable. The last stage comprises of factor rotation and interpretation. There are two main approaches in the literature regarding factor rotation, which is an orthogonal rotation technique and commonly used approach (Hair *et al.*, 2010; Pallant, 2010).

#### 4.6.9.3 Independent Sample t-test

Independent t-test is used to compare the means of both countries; Malaysia and Pakistan. It is particularly useful when research questions require comparisons of the variables. Levene's test is used to compare the means.

# 4.6.9.4 Structural Equation Modelling

Structural equation modelling, or SEM, is a multivariate statistical method that can handle a large number of dependent and independent variables. SEM can be viewed as a combination of factor analysis, path analysis and regression that permits to concurrently examine a set of causal relationship between the observed variable and latent construct, and between different latent constructs (Hair *et al.*, 2010).

Moreover, the advantage of SEM is the graphics interface of the software (AMOS), which allows the researcher to modify the models to achieve a good fit. SEM tests the defined hypothesised theoretical model (Tabachnick and Fidell, 2006).

Therefore, it can examine the associations among the subjective norm, perceived behavioural control, attitude, pricing, perceived relative advantage, perceived compatibility, peers, and self-efficacy as an independent variable and acceptance towards MM home financing as a dependent variable.

Further, the role of attitude as a mediator for the subjective norm, perceived relative advantage and perceived compatibility is also measured. This study used AMOS software v.23 to perform the SEM. SEM has two main parts. The first one is based on a measurement model and the second is based on the structural model.

Measurement model was developed for the validity and reliability testing of the model. After the validity and reliability of the measurement model are achieved, then the measurement model is converted into the structural model to test the proposed hypotheses of this study. The six phases demonstrated in Figure 4.2 were followed by the researcher to successfully conduct structural equation modelling.

#### 4.6.9.5 Measurement Model and Confirmatory Factor Analysis

The purpose of the measurement model is to establish the model's reliability and validity. The validity of the measurement model is achieved by getting an acceptable threshold of goodness-of-fit and by assessing the construct validity as well (Hair *et al.*, 2010).

There are three groups of the goodness of fit indices, which includes, incremental measures, parsimony measures and absolute fit indices (Hair *et al.*, 2010). In the incremental fit index, assessment is done basing a null model, an alternate baseline model in order to compare the estimated model (Hair *et al.*, 2010).

Hair *et al.* (2010) explain that the fraction among the degrees of freedom (DOF) of a model to overall DOF of the model used is known as parsimony fit indices. The fit between the specified model and observed data is measured directly by the absolute fit indices (Hair *et al.*, 2010).

After achieving the model fit, the next step is to establish construct validity. Discriminant validity and convergent validity measures the construct validity (Hair *et al.*, 2010). Average variance extracted, composite reliability and factor loadings measure the convergent validity. On the other hand, average shared variance and maximum-shared variance measures the discriminant validity.

Discriminant validity is related to the degree to which the constructs in a model are distinctive, and there is no correlation between the one construct's measures with the others (Hair *et al.*, 2013).

The thresholds for these values are as follows (Hair et al., 2010):

CR>0.7, AVE>0.5, MSV<AVE, ASV<AVE

\* AVE= Average Variance Extracted, CR= Composite Reliability, MSV= Maximum Shared Variance, ASV=Average Shared Variance.

#### 4.6.9.6 Structural Model

After the measurement validity is achieved, then the measurement model is converted into the structural model. This conversion takes place based on the theory by adding the relationships between constructs in order for hypotheses testing (Hair *et al.*, 2010).

# 4.6.9.7 Mediation

There are different ways of measuring mediating variables. Hayes (2009) mentioned that the most widely used method is the causal steps approach developed by (Barron and Kenny, 1986). However, the Baron and Kenny's mediation analysis has been criticised heavily on multiple grounds (Hayes, 2009). This is because of the argument about the significance of the relationship between exogenous and endogenous variables before and after including the intervening variable (Mediation). Another criticism of this approach is the lack of potency when measuring the strength of mediation whereby Baron and Kenny's test is not based on a quantification of everything it is attempting to test the intervening effect, rather, it is based on the outcome of hypothesis tests.

In this study boot-strapping approach was used to test mediation. According to Zainudin (2014), this method is used to test and confirm the indirect effect using the resampling procedure called bootstrapping.

The bootstrap method developed by Preacher and Hayes (2004) is a test that:

"Generates an empirical representation of the sampling distribution of the sampling distribution of the indirect effect by treating the obtained sample of size n as a representation of the population in miniature, one that is repeatedly resampled during analysis as a means of mimicking the original sampling process" (Hayes, 2009, p. 412).

Attitude variable is tested as a possible mediator for two relationships. The first relation is between subjective norms to intention to accept MM home financing. The second is to test perceived compatibility to acceptance for MM home financing. The third relationship is to test either attitude mediates between perceived relative advantage and consumers' intention.

The number of resampling could be between 1000 to 5000 times. However, Hayes (2009) recommended at least 5000 times resampling. According to Hayes (2009) and (MacKinnon *et al.*, 2002), bootstrapping is a powerful method for testing and assessing mediation effects. Its main feature is that it is based on an estimate of the indirect effect, unlike the assumption of normality and sampling distribution. As such, bootstrapping has an advantage over the other tests and can determine the mediation effect certainty (Hadi *et al.*, 2016). Also using bootstrapping can determine the steadiness of parameters estimates, provide enough accuracy for calculating confidence intervals for mediation effect while the mediation effect is non-zero and detect non-sample size bias (Byrne, 2010; Mackinnon, 2008; Preacher and Hayes, 2008).

### 4.6.9.8 Multi-Group Moderation

The role of the country is analysed by the multi-group moderation in AMOS. The purpose of multi-group moderation in this study is to compare both countries and elucidate the difference of population towards acceptance of MM home financing.

#### 4.7 CHAPTER SUMMARY

This chapter presents a summary of the research methodology. The research methodology chapter starts with research design, research philosophy, research instrument, measurement of constructs, ethical consideration and sampling. Adopting a quantitative approach a questionnaire is used to gather the primary data for the constructs proposed in the conceptual model. In order to ensure the clarity, understanding, and equivalence of the instrument, a validity-test was conducted before conducting the final survey. A validity-test is necessary to discover any issues related to instrument and to determine the face validity of the measure.

After the validity-test, the final survey was conducted. Two statistical techniques were adopted to analyse the quantitative data. The statistical package for social sciences (SPSS) v.22 was used to analyse the preliminary data and to provide a descriptive analysis of the study sample. Furthermore, structural equation modelling was used to test the proposed theoretical model in AMOS v. 23.

# **CHAPTER 5: DATA ANALYSIS**

# 5.1 INTRODUCTION

This chapter presents the quantitative analysis of the Consumers' acceptance towards MM home financing in two different countries. Klang Valley is chosen in the context of Malaysia and the state of Sindh in Pakistan's case. In this study using a quantitative approach, the respondents are drawn from three public universities from each country. Using multistage and purposive sampling approach 610 responses were gathered after the screening of the data for outliers and missing data. The refined data was then analysed and reported in detail in the following sections.

### 5.2 QUANTITATIVE ANALYSIS

This section presents the quantitative data analysis carried out using SPSS v.22 and AMOS v. 23.

#### 5.2.1 Data Screening

After data collection, the first stage is to screen the data in order to conduct data analysis. For analysis of data, it is essential to screen the data, which is confirmed by the accuracy of data input, treating the missing data, outliers and fulfil the normality assumptions (Fidell, 2001). Data screening is an imperative step to advance analysis; nonetheless in case of SEM, and it is crucial to get suitable results (Hair *et al.*, 2010; Lomax and Schumacker, 2004).

#### 5.2.2 Missing Data

There are various techniques to handle the missing data. If the total percentage of the missing data is more than 10% with the sample size of over 250, then it is suggested to eradicate it from the data analysis (Hair *et al.*, 2010). Total of 328 questionnaires received from Malaysia only 306 were utilised; 22 were removed and were considered unusable as the volume of missing data was big enough due to incomplete sections. In a similar vein, only 322 questionnaires were received from respondents in three Pakistani universities. Out of the 322 questionnaires, only 304 were usable, and 18 were not usable because of a large amount of missing data.

#### 5.2.3 Outlier

Outlier refers to the responses with extreme values on either dependent variables or independent variables and different from the rest of the responses in the similar data set (Kline, 2011). Outliers directly affect the standard deviation, correlation coefficient values and mean (Lomax and Schumacker, 2004; Pallant, 2007).

#### 5.2.4 Normality

After the missing data is examined and outliers are also checked then it is vital to get normality of data ensured (Byrne, 2010). Hair *et al.* (2010) define the normality as a normal distribution shape of the metric variable as well as its correspondence. Variable's normality can be evaluated statistically or graphically (Coakes and Steed, 2009; Pallant, 2010; Tabachnick and Fidell, 2007). In the case of large sample size, normality is assessed by kurtosis and skewness.

Kurtosis represents the peak of the distribution and skewness refers to the symmetry of distribution (Tabachnick and Fidell, 2007). Nonetheless, the acceptable critical value generally regarded for Z (Skewness/Kurtosis) distribution lies between

the ranges of  $\pm 2.58$  (Hair *et al.*, 2010). Table 5.1 represents the results of Skewness and Kurtosis. Table 5.1 makes it evident that the all the constructs, namely, attitude

Variables	Mean	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
Attitude	3.9119	.79955	828	.099	1.301	.198
Perceived Compatibility	3.9233	.71311	865	.099	1.419	.198
Subjective norms	3.8570	.69373	689	.099	1.304	.198
Peers	3.9590	.67515	986	.099	1.989	.198
Self-efficacy	3.9230	.72064	636	.099	0.330	.198
Pricing	2.3022	.68976	.746	.099	0.289	.198
Perceived relative advantage	3.8553	.78997	759	.099	1.160	.198
Perceived Behavioural Control	3.9090	.69373	850	.099	1.412	.198
Intention to Accept MM home financing	3.9515	.72588	907	.099	1.741	.198

Table 5.1: Skewness and Kurtosis at the item level

N=610

perceived compatibility, subjective norms, peers, self-efficacy, pricing, perceived relative advantage, perceived behavioural control, for Z (Skewness/Kurtosis) distribution lies between the ranges of ±2.58. For instance the value of Skewness attitude is (-.828) and Kurtosis value is (1.301), Skewness value for perceived compatibility is (-.865) and Kurtosis value is (1.419), Skewness value for subjective norms is (-.689) and Kurtosis value is (1.304), Skewness value for Peers is (-.986) and Kurtosis value is (1.304), Skewness value for Peers is (-.986) and Kurtosis value is (1.989), Skewness value for Self-efficacy is (-.636) and Kurtosis value is (0.289), Skewness value for perceived relative advantage is (-.759) and Kurtosis

value is (1.160), Skewness value for perceived behaviour control is (-.850) and value for Kurtosis is (1.412) and Skewness value for Intention to accept MM home financing is (-.850) and Kurtosis value is (1.741) respectively as suggested by (Hair *et al.*, 2010).

#### 5.2.5 Multicollinearity

Multicollinearity is related to the relationship between the variables (Pallant, 2007). It occurs when the relationship between the variables in a model are highly correlated (Hair *et al.*, 2010). Multicollinearity is measured by the variance inflation factor (VIF) and tolerance of the variable (Hair *et al.*, 2010).

However, tolerance, on the other hand, relates to the sum of the variability of an independent variable that another predicting variable or an independent variable do not explain, and it is acceptable if it is equal to 0.1 (Tabachnick and Fidell, 2007; Hair *et al.*, 2010).

The variance inflation factor is another measure of multicollinearity, which is the extent to which multicollinearity causes a standard error. The converse of tolerance (1/tolerance) weights the VIF. Consequently, 10 is an acceptable value meaning that the tolerance equals to 0.1. Thus, VIF more than 10 and tolerance value should be lower than 0.1 in order to identify multicollinearity. Table 5.2 below represents the multicollinearity results.

Variables	Tolerance	VIF
Attitude	.459	2.177
Perceived Compatibility	.382	2.620
Subjective norms	.442	2.263
Peers	.471	2.125
Self-efficacy	.347	2.883
Pricing	.886	1.128
Perceived relative advantage	.441	2.270
Perceived Behavioural Control	.404	2.477

#### Table 5.2: Multicollinearity diagnostics

Dependent Variable: Intention to accept MM Home financing

Table 5.2 above depicts results, elucidating that the highest VIF is 2.883 with tolerance value equivalent to 0.347. Resultantly, indicating that between independent variables there is no multicollinearity in this study.

All the constructs, namely, attitude, perceived compatibility, subjective norms, peers, self-efficacy, pricing, perceived relative advantage, perceived behavioural control, with each exhibiting a tolerance value for attitude is (0.459), for perceived compatibility is (0.382), for subjective norms is (0.442), for peers is (0.471), for self-efficacy is (0.347), for pricing is (0.886), for perceived relative advantage is (0.441), for perceived behavioural control is (0.404), respectively which is above cut-off value of 0.1 as suggested by (Hair *et al.*, 2006).

The VIF value for attitude is (2.177), for perceived compatibility is (2.620), for subjective norms is (2.263), and for peers is (2.125) respectively. These values are below the cut-off value of 10. Subsequently, VIF values for self-efficacy is (2.883), pricing is (1.128), perceived relative advantage is (2.270) and Perceived

behavioural control is (2.477) have not exceeded 10. After assessing the multicollinearity, the data is now ready for further analysis.

# 5.2.6 Sample Profile

In this research, respondents were of different ages. They were categorised into a group of four: including the ones who were aged 26-30, which represents 16.1 per cent of the sample. Respondents in the second group are aged 31-35, representing 23.4 per cent of the sample. The third group includes respondents aged from 36-40, representing 31.0 per cent of the sample. The fourth group comprises of those aged over 40 years consisting of 29.5 per cent of the sample. The main survey sample demographics showed that 54.0 per cent of the entire sample was formed by female respondents, while the male was represented by only 46.0 per cent.

	Catagory	Fraguaray	Percentage
Characteristics	Category	Frequency	(%)
Gender	Male	280	46.0
	Female	330	54.0
Country	Malaysia	306	50.2
	Pakistan	304	49.8
Age	26-30	98	16.1
	31-35	143	23.4
	36-40	189	31.0
	40 and above	180	29.5

 Table 5.3: Demographic profile of respondents

Education	Master Degree	169	27.7
	MS/MPhil Degree	195	32.0
	PhD Degree	246	40.3
Designation	Lecturer	355	58.1
	Assistant. Professor	109	17.8
	Associate. Professor	89	14.5
	Professor	57	9.6
University	UM	118	19.3
	UKM	109	17.9
	UPM	112	18.4
	SU	101	16.6
	BU	81	13.3
	MUET	89	14.5

'Table 5.3: continued'

The professional position of respondents illustrates that 58.1 per cent of the respondents were Lecturers, 17.8 per cent of respondents were Assistant. Professors, followed by 14.5 per cent Associate. Professors and rest 9.6 per cent were Professors.

Table 5.3 further depicts that the respondents from Malaysia representing 50.2 per cent of the sample and those from Pakistan represents 49.8 per cent of the sample. Most of the respondents were Ph.D. degree holders representing 40.3 per cent of the overall sample, 33 per cent were MS/MPhil degree holders, and rest were Master degree holders. Respondents are attached to six universities in Malaysia and Pakistan; 19.3 per cent respondents were from UM, 18.4 per cent belongs UPM, 17.9 per cent

belongs to UKM in Malaysia, and 16.6 per cent belongs to SU, 14.5 per cent belongs to MUET, and 13.3 per cent respondents belong to BU.

#### 5.2.7 Exploratory Factor Analysis (EFA)

After data screening, missing data, outliers, multicollinearity, and descriptive statistics were done, the next step in this study is exploratory factor analysis. It is an important stage and refers to a technique, which is used to define the arrangement of the determinants to be analysed, it identifies the variable and suggests dimensions (Churchill, 1979). It primarily establishes convergent validity and dimensionality of the association among constructs and items. This study aims to carry out exploratory factor analysis mainly for the purpose of data reduction and summarization.

There are three steps in which exploratory factor analysis is conducted (Pallant, 2010). In the first step, it is checked whether data fit by means of intercorrelation and sample size between the items. The inter-correlations between the variables is quantified by a measure of sampling adequacy (MSA) with the value ranging from 0-1. The value of over 0.5 for variable suggests it is good variable forecasted by other variables deprived of error; whereas, lower than 0.5 must be deleted (Hair *et al.*, 2010). The MSA values for each item in the current study were over 0.5, signifying that inter-correlation among items is good. The ratio among the number of items and the number of cases for sample size is bigger than 5:1 (Hair *et al.*, 2010). Furthermore, Tabachnick and Fidell (2007, p.613), suggests that "it is comforting to have at least 300 cases for factor analysis". Therefore following Tabachnick and Fidell (2006) recommendation the current study achieved the threshold for sample size. Moreover, there were dual statistical tests conducted in order to evaluate the data factorability: Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity (Pallant, 2010). The threshold value of a minimum of 0.6 is required for the relevance of EFA (Tabachnick and Fidell, 2006). Bartlett's test of sphericity represents correlation matrix test of significance. Furthermore, the presence of adequate correlations between variables is indicated by the significance level of <0.5.

Table 5.4 depicts Bartlett's test and KMO results. Demonstrating Bartlett's

Kaiser-Meyer-Olkin Measure of Sar	mpling Adequacy .950	
Bartlett's Test of Sphericity Appr	ox χ2 Chi-Square 16256.558	
D S	of 703 ig000	

#### Table 5.4: KMO and Barlett's Test

test significance (P<0.05) along with KMO index, which surpasses the minimum threshold of 0.6; thus signifying the data factorability.

In the second step of EFA analysis, the factor extraction is conducted. The most common and most suitable approach, which is used for factor extraction, is principal component analysis (Hair *et al.*, 2010). Eigenvalue or Kaiser's criterion is used to extract factors; those factors must be retained that have an eigenvalue of one or more.

Initial Component Eigenvalues				E: of Lo	xtraction Square oadings	n Sums d	]	Rotation S of Squared Loadings	Sums
	Total	% of Variance	Cumulative %	Total	% of Varianc	Cumulative e %	Total	% of Variance	Cumul ative %
1	16.262	42.795	42.795	16.262	42.795	42.795	3.661	9.635	9.635
2	2.391	6.293	49.088	2.391	6.293	49.088	3.633	9.560	19.195
3	1.781	4.686	53.774	1.781	4.686	53.774	3.442	9.058	28.253
4	1.431	3.765	57.539	1.431	3.765	57.539	3.247	8.544	36.797
5	1.367	3.597	61.136	1.367	3.597	61.136	3.038	7.995	44.792
6	1.169	3.076	64.212	1.169	3.076	64.212	2.901	7.634	52.426
7	1.155	3.040	67.253	1.155	3.040	67.253	2.795	7.355	59.782
8	1.088	2.864	70.117	1.088	2.864	70.117	2.793	7.350	67.132
9	1.824	2.167	72.284	.824	2.167	72.284	1.958	5.153	72.284

# Table 5.5: Total variance explained

\*Extraction Method: Principal Component Analysis

The factors involved must explain the variance of at least 60% (Hair *et al.,* 2010). Nine factors explaining 72 per cent variance were extracted with an eigenvalue of more than one in the current study, as depicted above in Table 5.5.

The similar number of factors are retained as confirmed by "scree test". Figure 5.1 shows the scree plot of variables. Nevertheless, the methods used to evaluate the retention of the number of factors, largely rest on the researchers' judgment (Pallant, 2010).



Scree test a graphical exhibition "plotting the latent roots against the number of factors in their order of extraction" (Hair *et al.*, 2010, p.110), ascertain as well the extraction of a number of factors. Variables beyond the inflexion point using the scree plot must be incorporated for further analysis. The factor rotation is the third step after the factor extraction (Tabachnick and Fidell, 2007). In this study, the factor rotation approach used for data reduction is an orthogonal method (Hair *et al.*, 2010; Tabachnick and Fidell, 2007). To accomplish the orthogonal rotation of factors, the effective analytic approach is a varimax orthogonal method (Hair *et al.*, 2010). The communality must surpass 0.5 value and those variables with less than 0.5 value needs to be omitted (Hair *et al.*, 2010).

The item P4 of the pricing variable was removed due to communality lower than 0.5. The items of the rest of the variables in this study have the communality more than 0.5. Nine factors were extracted as depicted in Table 5.6, sorted by size. The four items of the first factor expressing the attitude1 to attitude4 loaded on component 4. The second-factor relative advantage 1 to relative advantage 4 loaded on component 8. The third factor consists of four items representing the perceived behavioural control loaded on component 5. The fourth factor consists of four items representing subjective norm loaded on component 2. The factor five consist of four items representing compatibility loaded on component 9. The factor six consist of three items representing peers loaded on component 7. The factor eight consist of four items representing pricing loaded on component 6. The last factor consists of five items representing consumers' intention to accept MM loaded on component 1. Table 5.6 describes the results of the rotated component matrix.

	Con	ipone	nt							
	1	2	3	4	5		6	7	8	9
Attitude 1				764						
Attitude?				813						
Attitude3				.013						
Attitude4				637						
Relative advantage1				.057					673	
Relative advantage?									658	
Relative advantage2									705	
Relative advantaged									702	
Perceived behaviour					678				.702	
control1					.070					
Perceived behaviour					.658					
control2										
Perceived behaviour					.730					
control3										
Perceived behaviour					.686					
control4										
Subjective norm1		.644								
Subjective norm2		.746								
Subjective norm3		.740								
Subjective norm4		.726								
Compatibility1			.637							
Compatibility2			.683							
Compatibilty3			.627							
Compatibilty4			.672							
Self-efficacy1										.658
Self-efficacy2										.723
Self-efficacy3										.675
Peers1							.74	0		
Peers2							.66	5		
Peers3							.61	7		
Peers4							.71	3		
Pricing1						.783				
Pricing2						.887				
Pricing3						.870				
Intention to accept MM1	.536									
Intention to accept MM2	.724									
Intention to accept MM3	.767									
Intention to accept MM4	.739									
Intention to accept MM5	.696									

# Table 5.6: Rotated Component Matrix

Extraction Method: Principal Component Analysis

After conducting the exploratory factor analysis, the reliability test was also conducted using Cronbach's alpha coefficient for internal consistency. The value above 0.70 for alpha is acceptable (Hair *et al.*, 2010). Table 5.7 represents the reliability coefficient for the construct of this study. The table below illustrated the Cronbach alpha results of the present study.

Constructs	No. of Items	Cronbach's alpha (α)
Attitude	4	0.891
Compatibility	4	0.860
Relative advantage	4	0.899
Subjective norms	4	0.850
Peers	4	0.865
Perceived behavioural control	4	0.837
Self-efficacy	3	0.887
Pricing	3	0.841
Intention to accept MM Home financing	5	0.890

Table 5.7: Reliability coefficient for the constructs

The values of Cronbach's alpha are over the cut-off point. The value for attitude is .891, compatibility is .860, relative advantage is .899, subjective norm is .850, peers is .865, perceived behaviour control is .837, self-efficacy is .887, Pricing .841, Intention to accept MM home financing is .890. Thus, these results confirm that all the factors have sufficient internal consistency and good reliability of the items. Hence, all the constructs used in the study are reliable.

# 5.2.8 T-Test in SPSS

A t-test assesses the statistical significance of difference for acceptance towards MM home financing in Malaysian and Pakistani consumers. The test of the difference between two group means can be conceptualised as the difference between the means divided by the variability of random means. Hence, the t-test is the ratio of the difference between two sample means to their standard error in case of the means for two independent samples.

# 5.2.8.1 Attitude for MM Home Financing in Malaysia and Pakistan

Table 5.8 shows that there is no much difference between the sample sizes of both countries. The number of respondents in Malaysia are more as compared to Pakistan. Participants in Malaysia were 306 and Participants in Pakistan were 304. Subsequently, there is a difference between the means of both countries as well. According to the group statistics table, the mean for Malaysia is 3.812. The mean for Pakistan is 4.074. The standard deviation for Malaysia is 0.797 and for Pakistan is 0.778. Table 5.8 represents the group statistics of attitude.

[a]	ble	5.8	: G	roup	stat	istics	of	Attitud	e
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	State	Ν	Mean	Std.Deviation	Std.Error Mean
Attitude	Malaysia	306	3.812	0.797	0.041
	Pakistan	304	4.074	0.778	0.051

Table 5.9 shows the value for Sig. (2-Tailed) is 0.00 and it is less than .05. This means that the consumer's attitude towards MM home financing is significantly different in both countries.

		N	Mean	SD	t Value	ρ Value
	Malaysia	306	3.812	0.797	3.979	0.000
Attitude	Pakistan	304	4.074	0.778		

Table 5.9: Independent samples test of Attitude

The mean of Malaysian respondents is 3.812, while the mean of Pakistani respondents is 4.074. Therefore, it can be concluded that Malaysian respondents have a low attitude for MM home financing compared to respondents in Pakistan.

#### 5.2.8.2 The Subjective Norm for MM Home Financing in Malaysia and Pakistan

Table 5.10 shows that there is not much difference between the sample sizes in both countries. The number of respondents in both countries, namely, Malaysia and Pakistan is more or less the same. Subsequently, there is a difference between the means of both countries as well. According to the group statistics table, the mean of Malaysian respondents is 3.806, and the mean of Pakistani respondents is 3.934. The standard deviation for Malaysians is 0.745 and Pakistanis is 0.853.

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Subjective norm	Malaysian	306	3.806	0.745	0.038
	Pakistan	304	3.934	0.853	0.056

#### Table 5.10: Group statistics of the Subjective Norm

Table 5.11 shows the value for the sig. (2-Tailed) is 0.01 and it is less than

_		Ν	Mean	SD	t Value	ρ Value
	Malaysia	306	3.806	0.745	3.421	0.001
Subjective	Pakistan	304	3.934	0.853		

# Table 5.11: Independent samples test of Subjective Norm

.05. Therefore, it can be concluded that there is a statistically significant difference between subjective norms for MM home financing in both countries. The mean for the respondents in Pakistan is higher than respondents in Malaysia as shown in the group statistics table. Eventhough the difference in mean is marginal or slight, that is mean of 3.806 for Malaysian and mean of 3.934 for Pakistani. Thus, respondents in Pakistan perceive MM home financing to have more influence from the subjective norm than their counterparts in Malaysia do.

# 5.2.8.3 Perceived Behavioural Control for MM Home Financing in Malaysia and Pakistan

Table 5.12 shows that there is no much difference between the sample sizes in both countries. The number of respondents in both countries, namely, Malaysia and Pakistan is more or less the same. Subsequently, there is a difference between the means of both countries as well.

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Perceived behaviour control	Malaysia	306	3.830	0.702	0.036
	Pakistan	304	4.036	0.660	0.043

Table 5.12: Group statistics of Perceived Behavioural Control

According to the group statistics table, the mean of Malaysian respondents is 3.830, and the mean of Pakistani respondents is 4.036. The standard deviation for respondents in Malaysia is 0.702 and Pakistan is 0.660.

Table 5.13 showed that the value for the sig. (2-tailed) is 0.00 and it is less

<b>Table 5.13</b> :	Independent	samples t	est of Pero	ceived Beha	vioural Control
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		N	Mean	SD	t Value	ρ Value
Perceived behavioural control	Malaysia	306	3.830	0.702	3.594	0.000
	Pakistan	304	4.036	0.660		

than .05. Therefore, it can be concluded that there is a statistically significant difference between perceived behaviour control for MM home financing in both countries. The mean of respondents in Pakistan is higher than the Malaysian respondents as shown in the group statistics table. Mean for Malaysians is 3.830 and mean for Pakistanis is 4.036. Thus, it can be concluded that respondents in Pakistan perceive more behaviour control over MM home financing than respondents in Malaysia

#### 5.2.8.4 Pricing for MM Home Financing Acceptance in Malaysia and Pakistan

Table 5.14 shows that there is not much difference between the sample sizes in both countries. The number of respondents in both countries, namely, Malaysia and Pakistan is more or less the same.

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Pricing	Malaysia	306	2.345	0.688	0.035
	Pakistan	304	2.231	0.686	0.045

Table 5.14: Group statistics of Pricing

Subsequently, there is also no considerable difference between the means of both countries. According to the group statistics table, the mean of Malaysian respondents is 2.345, and the mean of Pakistani respondents is 2.231. The standard deviation for Malaysian respondents is 0.688, and Pakistani respondents is 0.686.

Table 5.15 shows that the value for the sig. (2-Tailed) is 0.047 and it is less

		Ν	Mean	SD	t Value	p Value
Pricing	Malaysia	306	2.345	0.688	1.993	0.047
	Pakistan	304	2.231	0.686		

Table 5.15: Independent samples test of Pricing

than .05. Therefore, it can be concluded that there is a statistically significant difference between the pricing for MM home financing in respondents of both countries. The mean for Malaysia is 2.345 and mean for Pakistan is 2.231. Thus, respondents in Malaysia are more concerned about MM home financing pricing than respondents in Pakistan.

#### 5.2.8.5 Compatibility for MM Home Financing in Malaysia and Pakistan

Table 5.16 shows that there is no considerable difference between the sample sizes in both countries. The number of respondents in both countries, namely, Malaysia and Pakistan is more or less the same. Subsequently, there is a difference between the means of both countries as well.

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Compatibility	Malaysia	306	3.846	0.741	0.038
	Pakistan	304	4.048	0.646	0.042

Table 5.16: Group statistics of Compatibility

According to the group statistics table, the mean of respondents in Malaysia is 3.846, and the mean of respondents in Pakistan is 4.048. The standard deviation for Malaysian respondents is 0.741, and Pakistani respondents is 0.646.

Table 5.17 shows that the value for the sig. (2-Tailed) is 0.01 and it is less

		N	Mean	SD	t Value	ρ Value
	Malaysia	306	3.846	0.741	3.421	0.001
Compatibilit	y Pakistan	304	4.048	0.646		

Table 5.17: Independent samples test of Compatibility

than .05. Therefore, it can be concluded that there is a statistically significant difference between compatibility for MM home financing in both countries. The mean for the respondents in Pakistan is higher than the respondents in Malaysia as shown in-group statistics table. Mean for Malaysians is 3.846 and mean for Pakistanis is 4.048. Hence, respondents in Pakistan are more compatible with MM home financing than respondents in Malaysia.

## 5.2.8.6 The Relative advantage for MM Home Financing in Malaysia and Pakistan

Table 5.18 shows that there is no significant difference between the sample sizes in both countries. The number of respondents in Malaysia are more or less the same as compared to Pakistan.

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Relative advantage	Malaysia	306	3.846	0.694	0.035
	Pakistan	304	3.873	0.775	0.050

Table 5.18: Group statistics of Relative Advantage

Respondents in Malaysia were 306 and respondents in Pakistan were 304. Subsequently, there is not much difference between the means of both countries. The mean of Malaysian respondents is 3.846, and the mean of Pakistani respondents is 3.873. The standard deviation for Malaysians is 0.694 and for Pakistanis is 0.775.

Table 5.19 shows that the value for the sig. (2-Tailed) is 0.652 and it is more than .05. Thus, there is no statistically significant difference between relative

	S	N	Mean	SD	t Value	ρ Value	-
Relative	Malaysia	306	3.846	0.694	0.452	0.652	_
uavailtage	Pakistan	304	3.873	0.775			

 Table 5.19: Independent samples test of the Relative Advantage

advantages for MM home financing in both countries. Therefore, it can be concluded that Malaysian respondents and Pakistani respondents are not different for relative advantage towards MM home financing.

#### 5.2.8.7 Peers Influence for MM Home Financing in Malaysia and Pakistan

Table 5.20 shows that there is no much difference between the sample sizes in both countries. The number of respondents in both countries, namely, Malaysia and Pakistan is more or less the same. Subsequently, there is a difference between the means of both countries.

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Peers	Malaysia	306	3.925	0.667	0.034
	Pakistan	304	4.012	0.685	0.044

Table 5.20: Group statistics of Peers

According to the group statistics table, the mean of respondents in Malaysia is 3.925, and the mean of respondents in Pakistan is 4.012. The standard deviation for Malaysia is 0.667 and Pakistan is 0.685.

Table 5.21 shows that the value for the sig. (2-Tailed) is 0.122 and it is more than .05. Therefore, it can be concluded that there is statistically no significant

		N	Mean	SD	t Value	ρ Value
Peers	Malaysia	306	3.925	0.667	1.547	0.122
	Pakistan	304	4.012	0.685		

Table 5.21: Independent samples test of Peers

difference between peers for MM home financing in both countries. Hence, peers act similarly for respondents in Malaysia and Pakistan and have no difference for MM home financing.

# 5.2.8.8 Self-Efficacy for MM Home Financing in Malaysia and Pakistan

Table 5.22 shows that there is no much difference between the sample sizes in both countries. The number of respondents in both countries, namely, Malaysia and Pakistan is more or less the same. Subsequently, there is no much difference between the means of both countries as well.

Table 5.22: Group statistics of Self-Efficacy

	State	Ν	Mean	Std.Deviation	Std.Error Mean
Self- efficacy	Malaysia	306	3.903	0.701	0.036
-	Pakistan	304	3.955	0.750	0.049

According to the group statistics table, the mean of respondents in Malaysia is 3.903, and the mean of respondents in Pakistan is 3.955. The standard deviation for Malaysian respondents is 0.701, and Pakistani respondents is 0.750.

		N	Mean	SD	t Value	p Value
Self-efficacy	Malaysia	306	3.903	0.701	0.873	0.383
Sen-enneacy	Pakistan	304	3.955	0.750		

# Table 5.23: Independent samples test of Self-Efficacy

Table 5.23 shows that the value for the sig. (2-Tailed) is 0.383 and it is more than .05. Therefore, it can be concluded that there is no statistically significant

difference between self-efficacy for MM home financing in both countries. Thus, there is no difference in respondents' self-efficacy for MM home financing in Malaysia as well as Pakistan.

# 5.2.9 Structural Equation Modelling

Structural equation modelling in this study tests the hypotheses arising from the conceptual framework. There are two models involved, which are the measurement model and the structural model. Using confirmatory factor analysis, the measurement model assesses the construct-validity. In the second step, the conversion of the measurement model into the structural model takes place in order to test the hypotheses (Hair *et al.*, 2010).

#### 5.2.9.1 Measurement Model

The validity of the measurement model is assessed through the goodness of fit and validity through confirmatory factor analysis (CFA). According to Hair *et al.* (2010), EFA and confirmatory factor analysis are similar in some respects, but philosophically, it is entirely different.

EFA is used to determine the number of factors and loading whereas CFA explains the researchers about how well the model specifications of factors match with actual data. In other words, CFA is a tool that enables researchers to either confirm or reject the predetermined theory (Hair *et al.*, 2010). The good fit of the measurement model will ease the good fit of the structural model (Hair *et al.*, 2010; Byrne, 2010).

As suggested by Hair *et al.* (2010) this study applied the measurement model with full sets of items collectively. The goodness of fit is measured through absolute

fit indices, the badness of fit indices, and incremental fit indices (IFI). The absolute fit indices are based on a sample size that includes chi-square and GFI (Kline, 2011). The badness of indices includes RMSEA and SRMR. These indices represent the model fit in relation to the population extensively (Hair *et al.*, 2010).

CFI and IFI are extensively used incremental fit indices in structural equation modelling. Hair *et al.* (2010) suggested that three or four fit indices are enough to support the fitness of the model. They recommend reporting one measure from each group along with  $\chi^2$  and *df*. In this study measurement model were assessed by normed chi-square ( $\chi^2 : df$ ), the comparative fit index (CFI), the normed fit index (NFI), the Tucker-Lewis Index (TLI), Incremental fit index (IFI) and root mean square error of approximation (RMSEA).

Incremental indices (CFI, NFI, IFI and TLI) are used to measure the proportionate improvement in the model by comparing the hypothesised model and the baseline model while RMSEA is considered one of the most informative criteria in covariance structural equation modelling, where it takes into account the approximation error in the population (Byrne, 2010).

Figure 5.2 depicts the initial run of a measurement model for respondents in both Malaysia and Pakistan, with initial results yielding acceptable standardised loading of the above threshold of 0.5, following the recommendation of (Bagozzi and Yi, 1988; Hair *et al.* 2010) for all factors. In contrast measurement model may still

**Table 5.24: Fit Indices** 

	χ2	Df	χ2/df	NFI	TLI	CFI	IFI	RMSEA
Criteria			3:1	≥0.9	≥0.9	≥0.9	≥0.9	≤0.08
Model GOF	1627.933	524	3.107	.889	.911	.922	.922	.059

\*  $\chi^2$  : Chi-square, df = degrees of freedom,  $\chi^2/df$  = normed Chi-square, TLI: Tucker Lewis Index, NFI: normed fit index, IFI: Incremental fit index, CFI: comparative fit index and RMSEA: root mean square error of approximation (RMSEA  $\leq 0.08$ ).

needs to be improved in terms of incremental indices.

Table 5.24 clearly shows that most of the incremental indices, which are CFI, TLI and IFI achieved the minimum threshold of 0.9 and on the otherhand value of NFI is marginally lower with 0.889 and not meeting the minimum threshold of  $\geq 0.9$  as recommended by (Hair *et al.*, 2010). Therefore, following Hair *et al.*, (2010) suggestion it is necessary to make a re-arrangement in the initial measurement model.

As mentioned earlier the model fits in this study were assessed by opting maximum likelihood estimation using the normed chi-square ( $\chi 2 : df$ ), the comparative fit index (CFI), the normed fit index (NFI), the Tucker-Lewis Index (TLI), Incremental fit index (IFI) and root mean square error of approximation (RMSEA). The minimum threshold for CFI is 0.90 but more is better Hair *et al.* (1998), similarly NFI value also needs to be 0.90 or above and values for TLI and IFI is 0.90 (Hair *et al.*, 1998). RMSEA

represents badness of fit and it is expected to be  $\leq 0.08$  but lower is better in order to determine either the variables measured reliably the hypothesised latent variable.

Additionally, the results of first run: RMSEA=0.059,  $\chi^2/df$ =3.107( $\chi^2$ =1627.933, df=1297), NFI=0.889, TLI=0.911, CFI=0.922) and IFI=.922. The results of model fit are summarised above in Table 5.24. Moreover, the model may have better fit and for this reason modification indices provided by AMOS software are taken into consideration. For this reason eventhough acceptable standardised loadings are obtained but the model may still be improved and much better results may be achieved in terms of Incremental indices (CFI, NFI, IFI and TLI) and value of root mean square error of approximation as shown in Table 5.25 and Figure 5.3.



**Figure 5.2: Measurement Model Before Modification** 

\**CP* =*Compatibility, SE* = *Self-Efficacy, PE* =*Peers, P* = *Pricing, AT* = *Attitude, RA* = *Relative Advantage, PBC* = *Perceived Behaviour Control, SN* = *Subjective Norms, INT* = *Intention to Accept MM Home Financing.*  Therefore desired improvements with regards to model are carriedout. As discussed in previous section CFA mainly assess the measurement models' fit and validity, and sometimes model re-arrangement is also necessary (Anderson and Gerbing, 1988). Initial measurement model results indicate that the model has sufficient fit, but better fit may be obtained by the re-arrangement.

Anderson and Gerbing (1988) state that:

"Sometimes, the first re-specification necessary is in response to nonconvergence or an improper solution. Non-convergence can occur because of a fundamentally incongruent pattern of sample covariance that is caused either by sampling error in conjunction with a properly specified model or by misspecification. Relying on content, one can obtain convergence for the model by re-specifying one or more problematic indicators to different constructs or by excluding them from further analysis" (p.416).

The modification indices, specification searches, and standardised residuals are alternatives to improve model fit (Hair *et al.*, 2010). There are four likely explanations to deal with items as suggested by Anderson and Gerbing (1988), which includes that; the indicator is related to a different factor; an indicator in a model is deleted; an indicator is related to multiple factors in a model, or correlated measurement errors are used.

This study in order to improve the model fit used the correlations within the same constructs instead of deleting items. After correlating the items with high correlations, the re-arranged measurement model in the second run results in improved model fit.

The results from the modified measurement model lead to better model fit as compared to the results from the measurement model without modification as depicted in Figure 5.2. In contrasting the results obtained from measurement model before modification as seen in Figure 5.2 and measurement model after modification as result of correlating measurement errors are more better as depicted in Figure 5.3.

Table 5.25: Fit Indices

	χ2	Df	χ2/df	NFI	TLI	CFI	IFI	RMSEA
Criteria			3:1	≥0.9	≥0.9	≥0.9	≥0.9	≤0.08
Model GOF	1335.089	508	2.628	.909	.931	.941	.942	.051

\*  $\chi^2$  : Chi-square, df = degrees of freedom,  $\chi^2/df$  = normed Chi-square, TLI: Tucker-Lewis Index, NFI: normed fit index, IFI: Incremental fit index, CFI: comparative fit index and RMSEA: root mean square error of approximation (RMSEA  $\leq 0.08$ ).

There is a difference with regards to improvements in terms of all the indices. In Figure 5.3 as it can be seen that correlation within the same constructs were used following Hair *et al.* (2010) recommendation. On the same note, the indicator is related to multiple factors in a model and correlated measurement errors are used as well. In particular the values obtained from modified measurement model shows better fit. For instance, as presented in Table. 5.24 the value of RMSEA= 0.59 improved after modifying the measurement model in Table 5.25 to RMSEA=0.051, which is more closer to (RMSEA $\leq$ 0.08). Hence more better fit is achieved. Furthermore, other indices, which includes absolute fit indices includes chi-square value  $\chi 2/df$ =2.628( $\chi 2$ =1335.089, df=508). Moreover, the value of NFI= 0.889 improved after
modification of measurement model and surpass the minimum threshold of  $\geq 0.9$ . NFI=0.909. In the similar vein, the TLI= 0.911 as seen in Table 5.24 improved to TLI=0.931 in Table 5.25. In addition, CFI surpassed the minimum threshold value of  $\geq$ 0.9 to CFI=0.941 and better fit in the value of IFI= 0.922 to IFI=0.942 as presented in Table 5.25.



**Figure 5.3: Measurement Model After Modification** 

\**CP* =*Compatibility, SE* = *Self-Efficacy, PE* =*Peers, P* = *Pricing, AT* = *Attitude, RA* = *Relative Advantage, PBC* = *Perceived Behaviour Control, SN* = *Subjective Norms, INT* = *Intention to Accept MM Home Financing.* 

#### 5.2.9.2 Validity and Reliability Assessment of Overall Model

After the adequate model fit is achieved, the next step is to establish the discriminant and convergent validity in the measurement model. Average variance extracted (AVE), maximum shared variance (MSV), average shared variance (ASV) and composite reliability (CR), which are essential to establish reliability and validity. AVE represents the convergent validity; the discriminant validity is represented by MSV and ASV, whereas CR represents reliability. Convergent validity means the extent to which the construct is measured by certain indicators shares the maximum amount of variance (Hair *et al.*, 2010). Whereas the convergent validity is evaluated by factor loading, composite reliability, and average variance extracted. Discriminant validity refers to the point where each construct's measures are uncorrelated to measures of other constructs and are distinctive (Hair *et al.*, 2003). Maximum shared variance measure discriminant validity. The threshold for these values are as follows (Hair *et al.*, 2010).

#### CR>0.7, AVE>0.5, MSV<AVE, ASV<AVE

Table 5.26 presents the results that the constructs convergent validity in the measurement model is confirmed. The reliability of constructs was in the range between 0.830 to 0.922 which was above the minimum threshold of 0.7 and represented good reliability. The value for average variance extracted was beyond 0.5, ranging from 0.58 to 0.79, suggesting good convergence. The values of MSV and ASV are below than the value of AVE. Table 5.26 represents the MSV and ASV values, which are lesser than the value of AVE. Hence, the convergent and discriminant validity of data is proved. The measurement model is ready for further analysis.

<b>Table 5.26:</b>	Validity an	d reliability	of the ov	erall model
	•/	•/		

VARIABLE	ES CR	AVE	MSV	ASV	Р	AT	СР	RA	SN	SE	PBC	INT	PE
Р	0.922	0.797	0.094	0.076	0.893								
AT	0.902	0.699	0.471	0.372 ·	-0.242	0.836							
СР	0.890	0.619	0.554	0.450 ·	-0.278	0.660	0.787						
RA	0.861	0.609	0.507	0.413 ·	-0.280	0.686	0.712	0.780					
SN	0.890	0.670	0.599	0.395 -	-0.262	0.654	0.721	0.634	0.819				
SE	0.830	0.710	0.599	0.402 ·	-0.306	0.673	0.652	0.690	0.774	0.843			
PBC	0.851	0.589	0.564	0.419 ·	-0.250	0.607	0.744	0.691	0.627	0.650	0.768		
INT	0.891	0.620	0.564	0.406 ·	-0.278	0.638	0.729	0.671	0.634	0.623	0.751 <b>0.</b> 7	788	
PE	0.844	0.580	0.554	0.385 -	-0.300	0.593	0.744	0.665	0.587	0.597	0.715 0.6	657	0.762

\*CR=Composite Reliability, AVE=Average Variance Extracted, MSV=Maximum Shared Variance, ASV=Average Shared Variance

The value of  $R^2$  dependent variable represents how much the dependent variable is explained the independent variables (Hair *et al.*, 2010). The  $R^2$  for endogenous variables was above the minimum threshold value of .10 with .66 for AT, .72 for SN, .68 for PBC, .75 for INT.

#### 5.2.9.3 Structural Model

After achieving the model fit and establishing the measurement model's reliability and validity. In the second step as suggested by Hair *et al.* (2010), the measurement model was converted into a structural model for testing the hypotheses that are proposed in theory. Structural equation modelling is identified through hypothesised causal relationships; transforming covariance into path estimates and among constructs. Identification of independent predictors and exogenous constructs is carried out and the establishment of the association among them at zero. In the next step, effects are indicated in the endogenous constructs an addition of error terms is done as well because of not being explained completely. The hypotheses of the identified SEM can be tested now. The initial results shows adequate fit of the structural model is represented: RMSEA=0.051,  $\chi 2/df$ =2.628( $\chi 2$ =1335.089, df=508), NFI=0.909, TLI=0.931, CFI=0.941, GFI=0.882 and IFI=.942. Table 5.27 represents the goodness of fit of the structural model.

	χ2	Df	χ2/df	NFI	TLI	CFI	IFI	GFI	RMSEA
Criteria			3:1	≥0.9	≥0.9	≥0.9	≥0.9	≥0.9	≤0.08
Model GOF	1419.990	520	2.731	.903	.927	.936	.937	.882	.053

Table 5.27: Structural equation model Goodness-of-Fit of the overall model

\*  $\chi^2$  : Chi-square, df = degrees of freedom,  $\chi^2/df$  = normed Chi-square, TLI: Tucker-Lewis Index, NFI: normed fit index, IFI: Incremental fit index, CFI: comparative fit index, GFI: goodness of fit index and RMSEA: root mean square error of approximation (RMSEA  $\leq 0.08$ ).

By identifying the path estimates using critical value, t-value the hypotheses are tested. The critical values at the level of significantly lower than 0.05 at t-value= 1.96, is significant and it will result in support of the hypothesis. This study checked all the estimates, including standardised regression weight ( $\beta$ ), standard error (S.E), the critical ratio (CR) and level of significance ( $\rho$ ). The hypothesis is not supported if critical values are lower than 1.96, turns out to be insignificant (Hair *et al.*, 2010). Total of 23 hypotheses were tested, which resulted in the acceptance of 20 hypotheses. Table 5.28 exhibits the hypotheses testing results.



Figure 5.4: Structural Model

\**CP* =*Compatibility, SE* = *Self-Efficacy, PE* =*Peers, P* = *Pricing, AT* = *Attitude, RA* = *Relative Advantage, PBC* = *Perceived Behaviour Control, SN* = *Subjective Norms, INT* = *Intention to Accept MM Home Financing.* 

Constructs	Structural	Std. Reg. Weight	SE	CB	Significance level
ratn		φ)	5.E.	U.K.	(9)
Attitude	$AT \not \to INT$	.24	0.057	4.533	***
Compatibility	$CP \rightarrow AT$	.47	0.116	4.583	***
Relative Advantage	RA→ AT	.23	0.073	3.187	***
Subjective Norm	SN→ AT	.18	0.067	2.438	0.015*
Subjective Norm	SN→ INT	.15	0.060	2.570	0.010**
Peers	PE→ SN	.85	0.065	16.315	***
Perceived Behaviour					
Control	PBC→ INT	.54	0.058	9.223	***
Self-Efficacy	SE→ PBC	.83	0.056	15.834	***
Pricing	P→ INT	07	-0.045	-2.148	0.032*

## Table 5.28: Results of hypotheses testing on overall model

Notes \*\*\* Significant at 0.001, \*\* Significant at 0.01, \* Significant at  $\rho < 0.05$ 

The significance of the path estimate is revealed ( $\beta$ =.24, S.E=0.057, t-value=4.533, and  $\rho$ =\*\*\*) between the attitude and consumer's intention to accept MM home financing. Therefore hypotheses (H2) is supported; accepting the positive influence of attitude on consumer's intention to accept MM home financing. The results reveal the significance of path estimate ( $\beta$ =.15, S.E=0.060, t-value=2.570, and significance level of  $\rho$ =0.010) between the subjective norm and the consumer's intention to accept MM home financing. It is hence resulting in the acceptance of hypothesis (H3); accepting the

positive influence of subjective norm on consumer's intention to accept MM home financing.

The results reveal the significance of the path estimate ( $\beta$ =.18, S.E=0.067, tvalue=2.438, and  $\rho$ =.015) between the subjective norm and the customer's attitude to accept MM home financing. Therefore, hypotheses (H4) is supported; accepting the direct impact of subjective norm on consumer's attitude to accept MM home financing. The results demonstrate acceptance of hypothesis (H6) for the positive influence of pricing on consumer's intention to accept MM home financing. Pricing exerts a direct significant negative impact towards acceptance for MM home financing with a path estimate of  $(\beta = -$ .07, S.E=-0.045, t-value=-2.148, and a significance level of  $\rho = .032$ ). The result demonstrates acceptance for hypothesis (H8) for the direct relationship between perceived behaviour control and customer's intention to accept MM home financing. Perceived behaviour control exert a direct significant positive impact towards acceptance for MM home financing with a path estimate of ( $\beta = .54$ , S.E=0.058, t-value = 9.223, and a significance level of  $\rho = ***$ ). The results reveal the significance of the path estimate ( $\beta$ =.23, S.E =0.073, t-value=3.187, and  $\rho$  =\*\*\*) for the influence of the perceived relative advantage on consumer's attitude to accept MM home financing. Therefore, hypotheses (H13) is supported; accepting the direct impact of perceived relative advantage on attitude to accept MM home financing. The results reveal the significance of the path estimate ( $\beta$ =.47, S.E=0.116, t-value=4.583, and  $\rho$ =\*\*\*) between the perceived compatibility and attitude to accept MM home financing. Therefore, hypotheses (H15) is supported; accepting the direct impact of perceived compatibility on attitude to accept MM home financing. The results demonstrate acceptance for hypothesis (H17) for the direct relationship between peers and subjective norms to accept MM home financing. Peers exert a direct significant positive impact towards subjective norms to accept MM home financing with a path estimate of ( $\beta$ =.85, S.E=0.065, t-value=16.315,

and a significance level of  $\rho$ =\*\*\*). The results reveal the significance of the path estimate ( $\beta$ =.83, S.E=0.056, t-value=15.834, and  $\rho$ =\*\*\*) between the self-efficacy and perceived behaviour control to accept MM home financing. Therefore, hypotheses (H19) is supported; accepting the direct impact of self-efficacy on perceived behaviour control to accept MM home financing.

### (a) Mediation test

The attitude in the proposed theoretical model is used as a mediator in this study. Attitude is analysed as a mediator between subjective norm, relative advantage, and compatibility in this study. Thus, attitude mediates the relationship between compatibility and consumer's intention to accept MM home financing; also between relative advantage and consumer's intention to accept MM home financing; and between subjective norm and consumer's intention to accept to MM home financing.

The bootstrapping method was performed for all mediation constructs in the present study to confirm whether attitude mediates the relationship between subjective norms and intention to accept MM home financing; also between relative advantage and customer's intention; as well between compatibility and intention. As suggested by Hayes (2009), the usual number of resampling could be between 1000 to 5000 times. In this study, the sample for bootstrapping was 5000 times with bias-corrected confidence interval at 95% as suggested by (Hayes, 2009). Table 5.29 summarises the mediation test result using a bootstrapping approach.



Figure 5.5: Mediation Model for SN, AT, and INT

\* SN = Subjective Norms, AT = Attitude, INT = Intention to Accept MM Home Financing.

All the results exhibited in Table 5.29 showed that the standardised indirect effect for all mediators falls in between the value of lower and upper bound with confidence interval (CI) does exclude zero (Hu and Wang, 2010). For instance, the standardised indirect effect of AT towards the relationship between subjective norms

and INT is .043( $\rho$ < 0.05), S.E=.024 lower bound CI=.004 and upper bound CI=.100. Hence, H10 is supported. Moreover, the standardised indirect estimates of AT towards the relationship between relative advantage and INT is .091( $\rho$ < 0.001), S.E=.042 lower bound CI=.042 and upper bound CI=.156. Therefore, H11 is also supported. Lastly, the standardised indirect estimates of AT towards the relationship between compatibility and INT is .170( $\rho$ < 0.001), S.E=.054 lower bound CI=.095 and upper bound CI=.276. Thus, H12 is accepted.



Figure 5.6: Mediation Model For CP, AT, and INT

\**CP* =*Compatibility*, *AT* = *Attitude*, *INT* = *Intention to Accept MM Home Financing*.

Indirect effects using bootstrapped significance test exhibited a significant mediation of subjected norms through attitude on intention to accept MM home financing (SN  $\Rightarrow$  AT  $\Rightarrow$  INT) as shown in Figure 5.5. Figure 5.6 indicated the effects of mediation of compatibility through attitude on intention to accept MM home financing (CP  $\Rightarrow$  AT  $\Rightarrow$  INT). Mediation of relative advantage through attitude on intention to accept MM home financing (RA  $\Rightarrow$  AT  $\Rightarrow$  INT) is shown in Figure 5.7. Table 4.29 illustrates that the indirect effect for (CP  $\Rightarrow$  AT  $\Rightarrow$  INT) and (RA  $\Rightarrow$  AT  $\Rightarrow$ INT) is strongest with  $\rho = 0.000$  and  $\rho = 0.001$  respectively. Furthermore, the indirect effect for (SN  $\Rightarrow$  AT  $\Rightarrow$  INT) was significant as well with  $\rho = 0.038$ . Table 5.29 represents the indirect effects results.



Figure 5.7: Mediation Model for RA, AT, and INT

\* RA = Relative Advantage, AT = Attitude, INT = Intention to Accept MM Home

Financing.

#### Table 5.29: Results of mediation analysis for AT as a mediator using the

#### **Bootstrapping method**

Path	Standardised indirect estimates	S.E	Bias-C 95% C Int		
			Lower	Upper	Р
			Bound	Bound	
$SN \rightarrow AT \rightarrow INT$	.043	.024	.004	.100	*
$CP \rightarrow AT \rightarrow INT$	.170	.054	.095	.276	***
$RA \rightarrow AT \rightarrow INT$	.091	.042	.042	.156	***

<sup>\*\*\*</sup> Significant at 0.001, \*\* Significant at 0.01, \* Significant at  $\rho < 0.05$ SN =Subjective Norms, AT = Attitude, CP = Compatibility, RA = Relative Advantage, INT = Intention to Accept MM Home Financing.

Overall, all estimates were significant. For standardised estimates, standardised errors, bootstrapped bias-corrected and confidence intervals (95%) are provided. Table 5.29 elucidates that the path through (CP  $\rightarrow$  AT  $\rightarrow$  INT) is the strongest with  $\rho$  = 0.000. Whereas, the path through (SN  $\rightarrow$  AT  $\rightarrow$  INT) was the weakest with  $\rho$  =0.038. Futhermore, the specific indirect effects were calculated using a user-defined AxB estimand in AMOS created by Gaskin (2016).

#### (b) Multi-group moderation

In testing whether the acceptance towards MM home financing is the same across Malaysia and Pakistan, multi-group moderation was applied in order to identify the role of the country. The full sample was divided into two groups based on country: Malaysia, n=306 and Pakistan, n= 304. In this study, the entire model of MM home financing is considered, and the chi-square difference test is carried out in order for the determination of the moderating role of the country. Chi-square differences and differences of DOF are obtained by constraining and unconstraining the model. The  $\rho$  value obtained is .000, at  $\rho$ < 0.05. Thus, signifying that there is a significant difference in the model of Malaysia and Pakistan. Therefore it can be concluded that in this study country plays the role of a moderator.

 Table 5.30: Constrained and unconstrained model with chi-square values and

 degree of freedom

MODEL	<b>Chi-square</b>	Degree of freedom	Δ Chi-square	∆Degree of freedom	p-value
Constrained	2283.95	1052	204.58	24	.000
Unconstrained	2079.37	1076			

To test the effects of moderating variables, the multi-group analysis was employed. Figure 5.8 and Figure 5.9 shows the tested model of the country. The hypothesis in relation to the moderating effect of the country is tested by comparing path coefficients between two groups (Malaysia and Pakistan) by using t-value over 1.96. It is concluded the coefficients have a moderating effect if t-value is more than 1.96. Figure 5.8 and Figure 5.9 represent the full model of MM home financing acceptance for Malaysian and Pakistani consumers respectively.

Figure 5.8 and Figure 5.9, indicates that the Malaysian model, as well as the Pakistani model, attained the acceptable fit.



Figure 5.8: Moderating Effect of Country (Malaysia)

The better fit is demonstrated by the Malaysian model [RMSEA=.044, GFI=.826, CFI=.914] than the Pakistani model [RMSEA=.044, GFI=.822, CFI=.912].



Figure 5.9: Moderating Effect of Country (Pakistan)

Thus, these findings suggest that the Malaysian model better fit the data than the Pakistani model in this study. In order to test the country as a moderating variable, Table 5.31 shows that country significantly moderates the relationship between attitude and intention to accept MM. Hence, hypothesis (H21) is accepted. Furthermore, the findings indicate that the country significantly moderates the relationship between subjective norms and intention to accept MM accepting hypothesis (H22). The country also moderates the relationship between perceived behaviour control and intention to accept MM. Therefore, hypothesis (H23) is supported as well.

Path	Effect	Malaysia	Country	Pak	istan	
		β t-	ρ	β	t-	ρ
AT → INT	Strength	.195 3.353	***	.352	4.548	***
PBC→ INT	Strength	.610 8.904	***	.423	5.207	***
$SN \rightarrow INT$	Strength	.189 3.464	***	.177	2.691	.007

 Table 5.31: Moderating effect of Country (Malaysia & Pakistan)

\*\*\* Significant at 0.001, \*\* Significant at 0.01, \* Significant at  $\rho$ < 0.05

Figures of moderating effect for the overall model at the country level for Malaysia and Pakistan are shown in (Appendix B and Appendix C)

#### 5.3 FINDINGS OF QUANTITATIVE ANALYSIS

This section outlined the quantitative findings. The research hypotheses were tested. Hypothesis one (H1) examine the difference of attitude between Malaysian and Pakistani consumers. Based on the results of analysis hypothesis H1 was accepted. There is a significant difference that exists between the consumer's attitude towards an intention to use MM home financing in Malaysia and Pakistan. Hypothesis two (H2) is accepted as there is a significant positive influence of attitude on consumer's intention to accept MM home financing. Hypothesis three was accepted as there was a significant positive influence of subjective norms on consumer's intention to accept MM home financing in Malaysia and Pakistan. Hypothesis four was accepted as there exist a significant positive impact of subjective norms on attitude. Hypothesis five was accepted as there is a significant difference between the subjective norms of consumers in Malaysia and Pakistan.

Further, hypothesis six was supported as there was a significant negative influence of pricing on consumer's intention to accept MM home financing in Malaysia and Pakistan. Hypothesis seven was also supported as there is a significant difference in pricing of MM home financing between consumers in Malaysia and Pakistan. Hypothesis eight was accepted as there was a significant positive influence of perceived behaviour control on consumer's intention to accept MM home financing in Malaysia and Pakistan. Hypothesis nine supports that there is a significant difference in perceived behaviour control between consumers in Malaysia and Pakistan. Hypothesis ten was accepted as there is a mediation effect of attitude on the relationship between subjective norm and consumer's intention to accept MM home financing in Malaysia and Pakistan. Hypothesis eleven is also accepted as there is a mediation effect of attitude on the relationship between perceived relative advantage and consumer's intention to accept MM home financing in Malaysia and Pakistan. Hypothesis twelve is accepted as there is a mediation effect of attitude on the relationship between perceived compatibility and consumer's intention to accept MM home financing in Malaysia and Pakistan.

Hypothesis thirteen was also accepted as there is a significant positive influence of relative advantage on attitude for MM in Malaysia and Pakistan. Hypothesis fourteen was not supported as there is no significant difference between consumers in Malaysia and Pakistan for relative advantage. Hypothesis fifteen was accepted as there is a significant positive influence of compatibility on attitude for MM in Malaysia and Pakistan. Hypothesis sixteen was accepted as there is a significant difference between consumers in Malaysia and Pakistan for compatibility. There is a significant positive influence of peers on the subjective norm. Therefore, hypothesis seventeen is also supported. Hypothesis eighteen is not supported as there is no significant difference between consumers in Malaysia and Pakistan for the influence of peers. There is a significant positive influence of self-efficacy on perceived behaviour control. Therefore, hypothesis nineteen is accepted. Hypothesis twenty is not supported as there is no significant difference between the self-efficacy of consumers in Malaysia and Pakistan.

Country moderates the relationship between attitude and consumers' intention to accept MM home financing. Furthermore, the country also moderates the relationship between subjective norm and consumers' intention to accept MM home financing; and between perceived behaviour control and consumers' intention to accept MM home financing. Therefore accepting hypothesis twenty-one, twenty-two and twenty-three, respectively. Table 5.32 depicts all the hypotheses and their results. Twenty-three hypothesis were developed, and out of twenty-three, twenty were accepted, and three were rejected. It represents that 87% hypotheses of this study were accepted.

No.	Hypotheses	Results
H1	There is a significant difference between the consumer's attitude	Supported
	towards MM home financing in Malaysia and Pakistan.	
H2	There is a significant positive relationship between attitude and	Supported
112	Intention to accept MM nome financing.	G ( 1
H3	and intention to accept MM home financing	Supported
H4	There is a significant positive relationship between subjective norms	Supported
	and attitude towards the use of MM home financing.	Supporteu
Н5	There is a significant difference in subjective norms influencing	Supported
	consumers to use MM home financing in Malaysia and Pakistan.	11
H6	There is a significant negative relationship between pricing and	Supported
	intention to accept MM home financing.	
H7	There is a significant difference in pricing for MM home financing	Supported
	in Malaysia and Pakistan.	
H8	There is a significant positive relationship between perceived	Supported
	behavioural control and intention to accept MM home financing.	
H9	There is a significant difference in perceived behavioural control for	Supported
	MM home financing in Malaysia and Pakistan.	
H10	Attitude mediates the relationship between subjective norm and	Supported
	intention to accept MM home financing.	
H11	Attitude mediates the relationship between relative advantage and	Supported
	intention to accept MM home financing.	<u> </u>
H12	Attitude mediates the relationship between compatibility and	Supported
1110	Intention to accept MIM nome financing.	G ( 1
HI3	I here is a significant positive relationship between perceived relative	Supported
1114	There is a significant difference in perceived relative educates for	Not
H14	MM home financing in Melaysia and Pakistan	Not
Ц15	There is a significant positive relationship between perceived	Supported
1115	compatibility and attitude toward MM home financing	Supported
H16	There is a significant difference in perceived compatibility towards	Supported
1110	MM home financing in Malaysia and Pakistan	Supported
H17	The peers' influence on using MM home financing will positively	Supported
1117	affect the subjective norm	Supported
H18	There is a significant difference for peers to use MM home	Not
_	financing in Malaysia and Pakistan.	Supported
H19	Self-efficacy will positively affect perceived behavioural control.	Supported
H20	There is a significant difference in self-efficacy to opt for MM home	Not
	financing in Malaysia and Pakistan.	Supported
H21	Country moderates the relationship between attitude and the	Supported
	consumer's intention to accept MM home financing.	
H22	Country moderates the relationship between subjective norm and the	Supported
	consumer's intention to accept MM home financing.	
H23	Country moderates the relationship between perceived behaviour	Supported
	control and the consumer's intention to accept MM home financing.	

 Table 5.32: Summary of results

### 5.4 CHAPTER SUMMARY

This chapter provides the findings of the quantitative analysis. Using a quantitative approach, the analysis was performed in order to pre-test the instrument, which is a questionnaire. The Cronbach's alpha was used for the assessment of the reliability of items and their correlation. An online survey and a self-administered questionnaire were the means of collecting the primary data for this study. In four stages the data were analysed using multiple statistical tests. In an initial stage, the screening of data and multivariate testing takes place. In the second stage, the reliability and validity of the data collected through a self-administered questionnaire. The third stage refers to the analysis of the model developed in SPSS. The fourth stage has been completed by testing the conceptual model developed in AMOS.

### **CHAPTER 6: CONCLUSION AND RESEARCH IMPLICATION**

### 6.1 INTRODUCTION

This chapter presents the discussion on findings of consumer's intention to accept MM home financing in Malaysia and Pakistan. Then, it draws attention to possible knowledge contributions in terms of theoretical, methodological, and managerial contributions. Following these contributions, the research limitations and future recommendations are discussed.

#### 6.2 SUMMARY OF RESULTS

This study investigates the effect of consumer's perceived behavioural control, attitude, subjective norm and pricing on intention to accept towards MM home financing in Malaysia and Pakistan. To achieve the objectives of the study, a theoretical model was developed and empirically tested. It leads towards a better understanding of consumers or users of Islamic mortgage product, namely, *mushārakah mutanāqisah* home financing intention to accept in two different countries. A quantitative approach is used in order to achieve the objectives of this study. The quantitative data was gathered from 610 consumers in Malaysia and Pakistan. SPSS v.22 and AMOS v.23 software were used for the data analysis. Initially, SPSS was utilised for data screening and exploratory factor analysis. The SPSS was used to answer the first objective: to examine the significant differences in consumers' perceived behavioural control, subjective norm, attitude, pricing, self-efficacy, peers, relative advantage and compatibility in Malaysia and Pakistan. The

compatibility, and pricing differ in both countries. On the contrary to self-efficacy, peers and relative advantage do not change.

The research objectives two, three, four and five were answered by employing AMOS. Before explaining the research objectives, confirmatory factor analysis was conducted to establish the model's discriminant and convergent validity. In the next step, the effect of subjective norms, relative advantage and compatibility on attitude was tested. It was revealed from the findings that subjective norms, relative advantage and compatibility are the positive factors of attitude. After analysing the first relationship related to decomposition of attitude, the second part of the research objective was to analyse the effect of peers on subjective norms. The findings report that peers are a positive factor of subjective norms. The last relationship to test was to examine the effect of self-efficacy on perceived behaviour control. The results found self-efficacy to be a positive factor of perceived behaviour control. The third objective was to investigate the influence of consumer's attitude, subjective norm, perceived behavioural control and pricing on consumers' intention to accept MM home financing in Malaysia and Pakistan. The findings revealed that perceived behavioural control, attitude, subjective norm, and pricing were playing a significant role in consumers' intention to accept MM home financing. The fourth research objective was the mediation analysis of attitude between subjective norm and consumers' acceptance for MM; between perceived compatibility and consumers' acceptance for MM; and between perceived relative advantage and consumers' acceptance for MM. The results showed that attitude was mediating the relationship between subjective norm and consumers' acceptance for MM; between perceived compatibility and consumers' acceptance for MM; and between perceived relative advantage and consumers' acceptance for MM. The last objective was to analyse the

multi-group moderation. The results showed that country affiliation affect consumers' intention to accept MM home financing.

#### 6.3 DISCUSSION ON RESULTS

This section is about the discussion of the results of this study, and the discussion pattern is based on research objectives.

# 6.3.1 Differences in Consumers' Attitude, Subjective Norms, Peers, Perceived Behavioural Control, Pricing, Self-Efficacy, Perceived Compatibility and Perceived Relative Advantage in Malaysia and Pakistan

The first research objective seeks the difference between consumers' attitude, subjective norms, pricing, peers influence, perceived behavioural control, self-efficacy, perceived compatibility and perceived relative advantage in both countries Malaysia and Pakistan. This research objective was addressed quantitatively. In order to operationalise the constructs in the model, this research objective acts as an initial step and investigate the effect on consumers' acceptance for MM. In the proposed model this study hypothesised that there is a significant difference in consumers' attitude, subjective norms, pricing, perceived behavioural control, perceived relative advantage, perceived compatibility, peers, and self-efficacy on consumers' intention to accept MM home financing in Malaysia and Pakistan. Therefore, eight hypotheses (H1, H5, H7, H9, H14, H16, H18 and H20) were proposed, representing the level of difference in both countries.

This study found that the first hypothesis H1, which is the consumer's attitude towards acceptance for MM home financing is significantly different in both countries. The consumers' in Pakistan have a more positive attitude towards MM home financing as compared to consumers' in Malaysia. The difference in attitude may be different because of the difference that may exist like financial markets of both countries.

Malaysian local banking industry is robust and updates its customers from time to time with regards to the Islamic mortgage product. On the contrary, the banking industry in Pakistan is not much stronger as it is in Malaysia. Consumers in Malaysia are well aware of the Islamic mortgage products, and they are also much aware of the default cases in the housing and real estate industry, which also sometimes result in abandoned housing projects. There are a number of housing projects in Malaysia, which are abandoned along with numerous pending court cases related to property in Malaysia. Also, Islamic mortgage products in Malaysia are much criticised for being similar to conventional products. For instance, products based on BBA contract and criticism faced by the Islamic bank for such products. The attitude of respondents in Malaysia to be lower than respondents in Pakistan is natural.

Thus, this study suggests that Islamic banks in Malaysia need to develop their strategies in a way that consumers may perceive positive feeling for the Islamic mortgage products and also look into what is expected of the product by the consumers when comparing it with conventional mortgage product.

The results of hypothesis H5 showed that subjective norm is significantly different in both countries. Consumers in Pakistan consider subjective norms to be more instrumental when they make the decision for MM home financing compared to Malaysian counterparts. The reason may be participants in Pakistan are more communally active. Pakistanis as a whole are more dependent while making important decisions for any financial undertaking. Malaysian consumers', on the

other hand, maybe more independent when compared to Pakistani consumers' and may not necessarily depend on others, which may influence their decision. In this study, the variable peers were decomposed with the subjective norm in order to test if it was its factor. The results of H18 finds that the influence of peers is not significantly different in Malaysia and Pakistan. Peers are considered to be an important referent group. In this study, peers were found to not be significantly different in Malaysia and Pakistan. Meaning that both the participants in Malaysia and Pakistan consider peers to be similar to influence their decision to opt for MM home financing. Previously, peers were not decomposed with subjective norms in the context of Islamic mortgage in the comparative study setting.

With reference to hypothesis H7, it was found that the pricing of MM home financing is significantly different in Malaysia and Pakistan. Consumers' in Malaysia are more concerned about the pricing of MM home financing than consumers' in Pakistan. The difference with regards to pricing may be higher in Malaysia due to much condemnation of pricing of Islamic mortgage. Shaikh and Noordin (2018) report that consumers' in Malaysia consider MM home financing to be similar in the calculation as a conventional formula based financing. Pricing of Islamic banks' product always remained a point of contention. Most of the Islamic bank consumers are concerned about the computation of the pricing of the product, specifically Islamic mortgage products. Comparatively, findings show that respondents in Pakistan are not much concerned about the Islamic home financing pricing, may be due to lack of awareness and also because the media do not cover such issues as it includes in Malaysia. Moreover, there are not much default cases reported in Pakistan based on the hidden cost of financing compared to Malaysia. Maybe because the media in Malaysia is much active as compared to Pakistan. Islamic banks in Pakistan, try to be on the safe side and only finance the outright purchase of the property.

The result of hypotheses H9 finds perceived behaviour control is significantly different in Malaysia and Pakistan. Consumers' perception in Pakistan to control their behaviour outnumber the consumers' in Malaysia. The difference in perceptions for behavioural control of consumers in Pakistan and Malaysia can be linked to their ability to apply for the MM home financing. According to results consumers in Pakistan consider they have more behavioural control towards MM home financing than consumers in Malaysia do. These findings are surprising and may be useful in the context of Islamic mortgage as there is no comparative study that reports the differences in consumers' perception of behaviour control towards MM home financing.

The results of H16 presented the perceived compatibility for MM home financing is significantly different in both countries. This result implies that consumers in Malaysia and Pakistan share the difference in their perception towards compatibility of MM home financing with their needs. According to result, the consumers in Pakistan are more compatible with MM home financing than their counterparts in Malaysia. This situation can be explained in light of the study by Shaikh and Noordin (2018), where Malaysian consumers are more aware of MM home financing, but Pakistani consumers are more optimistic about MM home financing product. As discussed earlier consumers' attitude towards Islamic mortgage, in general, is not as good as it needs to be. There is still room for improvement in order to promote the Islamic mortgage product so that consumers in Malaysia consider Islamic mortgage product better than conventional ones.

The results of hypothesis H14 showed that Perceived relative advantage is not significantly different in Malaysia and Pakistan. Thus, it implies that there is no difference in consumers' perception of relative advantage towards MM home financing in Malaysia and Pakistan. The participants in both countries have a similar perception of relative advantage towards MM home financing. As discussed earlier that perceived relative advantage in this comparative study is considered as a decomposed factor of attitude. The decomposition of relative advantage to have a direct impact on attitude is discussed in detail in a later section.

The result of hypothesis H20 showed that there is no difference for selfefficacy of respondents' for MM home financing in Malaysia as well as in Pakistan. These results suggest that the participants in Malaysia consider self-efficacy to be same as the participants in Pakistan. In this study, self-efficacy is decomposed with the main belief of perceived behaviour control. In previous studies, self-efficacy was not decomposed with perceived behaviour control and also not tested as well in a comparative study in the context of Islamic mortgage.

# 6.3.2 Effect of Subjective Norms, Perceived Compatibility and Perceived Relative Advantage on Attitude; and Effect of Peers on Subjective Norms; and Effect of Self Efficacy on Perceived Behavioural Control

The second objective is about decomposition of main beliefs; which includes decomposition of attitude with perceived relative advantage and perceived compatibility; decomposition of the subjective norm with peers and lastly decomposing perceived behaviour control with self-efficacy. On the other hand for the sake of testing mediating role of attitude the direct impact of subjective norms towards attitude is analysed. Furthermore, this objective is responded in three phases. In the first phase, the influence of perceived relative advantage and perceived compatibility on consumers' attitude for MM home financing in Malaysia and Pakistan is investigated. As stated earlier the direct impact of subjective norms is examined in order for predicting the mediating role of attitude, whereas there is no any decomposition of the subjective norm with attitude as theory suggests that peers are decomposed with subjective norms. In order to address the first phase of the research question, three hypotheses H4, H13 and H15 were developed.

The results revealed the significance of the path estimate ( $\beta$ =.15, S.E=0.067, t-value=2.438, and  $\rho$ =.015) between the overall subjective norm and attitude. Therefore, hypotheses (H4) is supported; accepting the direct impact of subjective norm on attitude. These results are consistent with the previous research by (Amin *et al.*, 2013; Olatokun and Igbinedion, 2009; Shih and Fang, 2004). This study validates that subjective norms affect attitude in the Islamic mortgage setting. Whereas, previously there is no study that validated this relationship in a comparative study between subjective norm and attitude in two countries, namely, Malaysia and Pakistan. Thus, the attitude of consumers' toward MM Islamic financing can be predicted by the subjective norms in Malaysia and Pakistan.

The results reveal the significance of path estimate ( $\beta$ =.23, S.E =0.073, t-value=3.187, and  $\rho$  =\*\*\*) for the relative advantage and consumer's attitude to accept MM home financing. Therefore, hypotheses (H13) is supported; hence accepting the direct impact of perceived relative advantage on attitude to accept MM home financing. However, the result of the significance of perceived relative advantage with consumers' attitude towards MM home financing is consistent with the previous research (Amin *et al.*, 2013; Olatokun and Igbinedion, 2009; Shih and Fang, 2004: Suh and Han, 2002; Chen

*et al.*, 2002; Hu and Chau, 1999; Morris and Dillon, 1997). All these studies and the results of this study confirms that more the perceived relative advantage towards a product more will be the favourable attitude for the product. Nowadays, Islamic banks offer online benefits to apply for Islamic home financing, which assist customers in the form of providing fast approval facility of the home financing with nominal efforts. Other advantages are the execution of financial transactions quickly and convenience of information about home financing product online. The results suggest that consumer's form a positive attitude towards MM home financing because of these benefits. More importantly, Islamic home financing has an advantage over conventional one in a way that all the Islamic mortgage products of the Islamic bank are certified by the *Sharī'ah* advisors, and this is a unique feature, which is not available with the conventional loan.

This study validates that the perceived relative advantage effect attitude in the Islamic mortgage setting. Whereas, previously there was no comparative study that validated this relationship between perceived relative advantage and attitude in two countries, namely, Malaysia and Pakistan. Thus, the attitude of consumers' towards MM home financing can be predicted by perceived relative advantage in Malaysia and Pakistan. In the case of Pakistan, this relationship in Islamic mortgage context is not tested previously as scarce of literature shows.

The results demonstrate the acceptance of the hypothesis (H15) for the direct impact of perceived compatibility with consumers' attitude towards MM home financing. Perceived compatibility exert a significant positive influence on attitude with the path estimate ( $\beta$ =.47, S.E=0.116, t-value=4.583, and  $\rho$ =\*\*\*) between the perceived compatibility and consumers' attitude towards MM home financing. This result is consistent with previous literature. The association between perceived compatibility and consumers' attitude is consistent with the previous studies (Olatokun

and Igbinedion, 2009; Lau, 2002; Tan and Teo, 2000). The study by Olatokun and Igbinedion, (2009) finds that perceived compatibility has a significant positive impact on consumer's attitude. Therefore, this study is consistent with the previous literature that perceived compatibility has an influence on consumers' attitude towards MM home financing in Malaysia and Pakistan.

Thus, the findings of this study propose that consumers' positive attitude towards MM home financing can be established by the compatibility of Islamic banks' product fostering the needs of the house buyer.

The house buyers may be inclined to MM home financing due to its feature of risk sharing based on the rental rate existing in real market rather than benchmarking it with interest rate, also MM home financing needs to be compatible if consumers' consider MM home financing is devised on the teachings of the *Qur'ān* and the *Hadīth* then it can be projected to fit well with their current needs.

Therefore, this study is consistent with the previous literature that perceived compatibility has an effect on consumers' attitude. Previously there is no comparative study that tested the influence of perceived compatibility on attitude towards MM home financing in Pakistan.

# 6.3.3 Effect of Peers on Subjective Norms

Continuing with the second objective further it is looked into effect of peers on subjective norms is reported. It is responded by investigating the influence of peers on subjective norms for MM home financing. In order to address this relationship, hypotheses (H17) is developed. It is hypothesised in this study that consumers' will have more intention to accept MM home financing if they have a reference group who are socially supportive and are users of MM home financing. As mentioned earlier that peers are decomposed into this study with subjective norms as the reference group, who might impact consumers' to use MM home financing.

The significance of the path estimate ( $\beta$ =.24, S.E= 0.005, t-value= 16.315, and a significance level of  $\rho$ = \*\*\*) is revealed between peers and subjective norms. Therefore, hypotheses (H17) is supported; accepting the direct impact of peers on subjective norms. From all of the decomposed variables, peers turn out to be the strongest predictor of subjective norms.

This result is consistent with previous studies (Maizaituaidawati and Asmak, 2013; Lau, 2002), and implies that Islamic banks need to take into consideration the importance of availing services to its existing consumers, who are users of Islamic home financing and can influence their peer's decision to opt for MM home financing in the future. In other words, Islamic banks need to underscore the significance of peers in an organisational setting, where they may be influential reference group towards their co-workers, who want to make the decision for Islamic mortgage being the first time home buyers.

Furthermore, Islamic banks also need to promote their targeted housing products in order to receive optimistic recommendations from these reference groups. This implies further that the importance of providing Islamic home financing facility with utmost satisfaction is desired and any unfavourable word of mouth from these reference groups will result in lower acceptance of MM home financing for those who are nearer to them.

This study validates that peers affect subjective norms in the Islamic mortgage setting. Whereas, previously there is no study that validated this relationship in a comparative study between peers and subjective norms in two countries, namely, Malaysia and Pakistan. Thus, subjective norms towards MM financing can be predicted by peers in Malaysia and Pakistan.

#### 6.3.4 Effect of Self-Efficacy on Perceived Behaviour Control

The last segment of the second objective is about effect of self-effect on perceived behaviour control is responded by investigating the influence of self-effect on perceived behaviour control for MM home financing. In order to address this relationship, hypotheses (H19) is developed.

The results revealed the significance of the path estimate ( $\beta$ =.18, S.E=0.056, t-value=15.834, and  $\rho$ =\*\*\*) between the self-efficacy and perceived behaviour control to accept MM home financing. Therefore, hypotheses (H19) is supported; accepting the direct impact of self-efficacy on perceived behaviour control to accept MM home financing. This result is consistent with the previous studies (Bhattacherjee, 2000; Taylor and Todd, 1995a; Taylor and Todd, 1995b). Accordingly, the finding of this study suggests that the confidence or the efficacy of consumers' to accept MM home financing may affect the perception of consumer's behaviour control and afterwards affect intention to accept the Islamic home financing. Moreover, it is recommended that Islamic banks make sure that assistance is readily offered. There might be an impact on ones' self-confidence when he or she perceives that it is difficult to get assistance when applying for Islamic home financing.

This study validates that self-efficacy effect perceived behaviour control in the Islamic mortgage setting. Whereas, previously no work validated this relationship in a comparative study between self-efficacy and perceived behaviour control in two countries, namely, Malaysia and Pakistan. Thus, perceived behaviour control towards MM home financing can be predicted by self-efficacy in Malaysia and Pakistan.

# 6.3.5 Role of Consumers' Attitude, Subjective Norms, Perceived Behavioural Control and Pricing on Intention to Accept MM Home Financing

The third objective is about the direct impact of the main beliefs that are consumers' attitude, subjective norms, perceived behaviour control and added construct pricing on consumers' intention to accept MM home financing.

This objective is responded by investigating the influence of consumers' attitude, subjective norms, perceived behaviour control and pricing on behaviour intention. In order to address this research question, four hypotheses H2, H3, H6, and H8 were developed.

The results revealed the significance of the path estimate ( $\beta$ =.85, S.E=0.057, t-value=4.533, and  $\rho$ =\*\*\*) between the attitude and consumers' intention to accept MM home financing. Therefore hypotheses (H2) is supported; accepting the direct impact of attitude on intention to accept MM home financing. These findings are consistent with the previous studies (Amin *et al.*, 2014a; Amin *et al.*, 2014; Amin *et al.*, 2013; Lada *et al.*, 2009; Taib *et al.*, 2008; Suh and Han, 2002; Chang and Cheung, 2001; Taylor and Todd, 1995a). Thus, the intention to accept MM home financing in Malaysia and Pakistan can be predicted by the consumers' attitude towards MM. The findings of this study imply that afore consumer initiates using Islamic home financing, for instance, can be a convenience to apply for home financing and other future gains that new home buyer may get from Islamic home financing. Islamic banks also need to take remedial measures timely in order to handle unfavourable attitudes that may obstruct the acceptance of Islamic home financing products. Islamic banks need to continue marketing of such

benefits so that existing consumers of Islamic home financing maintain a positive attitude towards Islamic home financing.

The results reveal the significance of path estimate ( $\beta$ =.83, S.E=0.060, t-value=2.570, and a significance level of  $\rho$ =0.010) between the subjective norm and intention to accept MM home financing. Thus, hypothesis (H3) is accepted; accepting the positive influence of subjective norm on intention to accept MM home financing. Hence, the result of significance of subjective norm with intention to accept MM home financing is consistent with previous studies (Amin *et al.*, 2016; Amin *et al.*, 2014a; Amin *et al.*, 2014; Amin *et al.*, 2013; Taib *et al.*, 2008; Limayem *et al.*, 2000; Venkatesh and Davis, 2000). There are practical implications of the significant positive influence of subjective norms on intention to accept MM home financing. Islamic banks need to find out different ways to promote Islamic home financing through existing users of Islamic home financing. Islamic banks may offer incentives to their current users if they refer their colleagues or peers. It may be effective, this being said that consumers' intention to accept MM home financing is influenced positively by colleagues or peers.

The results demonstrate acceptance of hypothesis (H6) for the direct impact of pricing on the intention to accept MM home financing. Pricing exerts a direct significant negative impact towards acceptance for MM home financing with a path estimate of ( $\beta$  =-.07, S.E =-0.045, t-value =-2.148, and  $\rho$  = .032). This result is consistent with previous literature. This study is therefore consistent with previous literature that pricing has an affect on the intention to accept MM home financing in Malaysia and Pakistan. Thus, Islamic banks need to focus on pricing in order to retain existing consumers and attract potential consumers.

This study validates that pricing negatively affects consumers' intention to accept MM home financing. Whereas, previously there was no study that confirmed

this relationship in a comparative study between pricing and intention to accept MM home financing in two countries. Thus, this study also fills the research gap by testing the pricing variable in the context of Pakistan and extending it in the DTPB theory.

The results supported the hypothesis (H8) for the direct relationship between perceived behaviour control and intention to accept MM home financing. Perceived behaviour control exert a direct significant positive impact towards acceptance for MM home financing with a path estimate of ( $\beta$  =.54, S.E =0.058, t-value =9.223, and a significance level of  $\rho = ***$ ). Behaviour intention is directly influenced by the perceived behaviour control of consumers' in Malaysia and Pakistan. The participants in Pakistan perceive to have more control over their behaviour towards MM home financing acceptance than the participants in Malaysia. The findings of this study is consistent with previous empirical studies (Amin et al., 2014a; Amin et al., 2013; Taib et al., 2008; Limayem et al., 2000; Liao et al., 1999; Harrison et al., 1997; Taylor and Todd 1995; Taylor and Todd, 1995b). For prediction of Intention to accept MM home financing, perceived behaviour control is the strongest predictor. The findings implies that consumers' are expected to involve in Islamic home financing when they believe that they are capable to accept Islamic mortgage. This capability related to the acceptance of Islamic home financing is associated with consumers' perception related to confidence in himself or self-efficacy needed to accept it. It is further stated that Islamic banks need to focus on the decomposed variable of self-efficacy if they want to encourage their consumers' to opt for MM home financing. As discussed earlier, perceived behaviour control in this study is decomposed with self-efficacy. It is worth mentioning here that this relationship was not tested in Islamic mortgage context as well as in comparative study previously.

#### 6.3.6 Attitude's Role as a Mediator

The fourth objective is about the mediating effect of attitude. This objective was responded by investigating the indirect influence of subjective norms, relative advantage, and compatibility on the intention to accept MM home financing. In order to address this research objective, three hypotheses were developed. Hypothesis ten (H10) examines the mediating role of attitude in the relationship between subjective norm and intention to accept MM home financing. This study also investigates the relationship between relative advantage and intention to accept MM home financing through the mediation effect of attitude (H11).

Hypothesis (H12) examined the mediating role of attitude in the relationship between compatibility and intention to accept MM home financing.

These hypotheses were tested with structural equation modelling. The results indicate that attitude positively mediates the relationship between the two constructs. It is found that more the subjective norms towards MM more will be the intention of consumers' to accept MM home financing in Malaysia and Pakistan. These findings are consistent with the previous research (Amin *et al.*, 2013; Amin *et al.*, 2010; Lada *et al.*, 2009). Therefore hypothesis H10 is accepted.

The hypothesis H11 is accepted as the relationship between relative advantage and intention to accept MM home financing is mediated by attitude. Results imply that higher the perceived relative advantage, it will lead to more intention of consumers' to accept MM home financing. These findings are also consistent with past research (Amin *et al.*, 2013; Ismail *et al.*, 2007).

The hypotheses H12 is accepted; results indicate that attitude mediates the relationship between compatibility and consumer's intention to accept MM home
financing in Malaysia and Pakistan. It is found that more the perception of compatibility towards MM more will be the intention of consumers' to accept MM home financing in Malaysia and Pakistan. The result of this study is consistent with the previous research of (Norjaya *et al.*, 2009). Norjaya *et al.* (2009) consider attitude to mediate the relationship between patronage factors and intention. Amin *et al.* (2013) on the other hand reported that the relationship between perceived compatibility and adoption of Islamic mortgage is not mediated through attitude and mentioned it as the limitation of the study. Hence, this study validates that the relationship between perceived compatibility and intention to accept MM home financing is mediated through attitude.

#### 6.3.7 Role of Country on Behavioural Intention

The fifth research objective is about the comparison of behaviour intention of consumers between two countries. The hypotheses H21, H22, and H23 was about the moderating role of the country between main beliefs (*i.e.*, perceived behavioural control, attitude, subjective norm) and behaviour intention of consumers. This objective was met by employing multi-group moderation. The findings show that moderating role of country effects the relationship between subjective norm and intention to accept MM home financing; between consumer's attitude and intention to accept MM home financing, and between perceived behaviour control and intention of consumers' to accept MM home finance. In both countries, attitude, subjective norms predict behaviour intention. In a similar vein, perceived behaviour control also play its role in predicting the behaviour intention of consumers' towards MM home financing in Malaysia and Pakistan. The phenomenon of behaviour intention varies across countries. The behaviour intention literature lacks in the comparative studies in developing countries and marketing strategies developed by

the Islamic banks are not universally applicable, but they need to be designed according to the marketing environment and cultural values of the country.

## 6.4 **RESEARCH IMPLICATION**

This study contributes to the existing literature by providing theoretical, empirical and practical implications.

### 6.4.1 Theoretical Implications

In terms of theoretical implication, this work contributes to a theoretical framework development. Further, the proposed framework can be applied in consumer behaviour studies which are carried out to determine the acceptance of the individual for the Islamic mortgage.

Furthermore, this study adds to a new relationship between pricing and Islamic mortgage acceptance. From the theoretical standpoint, this research introduces new factors that enrich the literature of the Islamic mortgage. The research framework is based on DTPB, which is a pioneering effort to use the theory above in the context of Islamic mortgage acceptance by consumers.

Hence, this study makes an effort to contribute to the scarce literature on Islamic mortgage and further emphasise the decomposition of determinants with the main beliefs. Most of the decomposed variables have never been tested empirically in the context of Islamic mortgage in Pakistan. In the case of Malaysia peer and self-efficacy determinants were not tested in Islamic mortgage study and moderating variable, which is the country is validated for the first time and it opens up a new discussion on the topic. Notably, using DTPB modified framework in the setting of comparative study in two countries, namely, Pakistan and Malaysia. The effects of the determinants mainly in the Islamic mortgage research are scant. Previous studies (Amin *et al.*, 2009; Amin *et al.*, 2013; Amin *et al.*, 2014; Amin *et al.*, 2014; Amin *et al.*, 2016; Amin *et al.*, 2017) were unsuccessful in proposing such constructs, that may have better explained the consumer's acceptance by adding decomposed variables such as peers, self-efficacy, compatibility, relative advantage and also direct relationship between pricing and behaviour intention in their research frameworks.

Furthermore, the attitude was tested as a mediator in the present research. In this study, the relationship between subjective norms and intention to accept Islamic home financing, compatibility, and the relative advantage was mediated through attitude. Hence, this research gap is also covered. This research work will not only benefit practitioners but also researchers who want to structure the theoretical model for determinants, which may be predictors of acceptance.

Previous empirical studies never tested the moderating role of the country in Islamic mortgage setting, and this gap is also filled by the current study introducing country as a moderator in a model. From the author's standpoint, integrated DTPB is considered rich theory among individual model based on previous theories, namely, TRA, IDT, and TPB.

#### 6.4.2 Practical Implications

The conceptual framework introduced in this study is particularly to pave the way for those stakeholders who are related to the Islamic mortgage, which is complied with Islamic principles. In a climate of tough competition between conventional and Islamic banks, it is imperative for the latter to pick up the gauntlet and market its products in such a way that attract as many customers as possible. DTPB theory was useful in explaining the intention to accept MM home financing. Extricating the specific determinants that affect consumers' attitude, perceived behaviour control and subjective norm offer a vibrant understanding of the association among factors and definite effects of these factors on intention. Hence, the findings of this research turn out to be pertinent to practitioners.

The previous sections mentioned practical implications when discussing the results of the hypotheses. Moreover, brief implications may be described. Starting with attitude and its factors, it is found that relative advantage, subjective norms, and compatibility impact attitude significantly. Concerned with subjective norm the decomposed variable peers positively influence subjective norm, and this finding confirms Lau's (2002) study.

Thus, peers can influence consumers' intention to accept MM home financing. It is also crucial for Islamic banks to take into consideration the reference group, *i.e.*, peers or colleagues when marketing its mortgage products. Islamic banks may also use recommendations as a tool to promote MM home financing.

The decomposition of self-efficacy in the model resulted in a positive impact on consumers' perception of difficulty or ease in applying for MM home financing. The managers of Islamic bank must have to ensure that complete information about the product and also related to filing an application documentation including terms and conditions are readily related to Islamic mortgage product are made available to the consumers. Consumers perceive that difficulty in getting information may hamper their acceptance towards an Islamic mortgage product.

The managers of Islamic bank also need to improve the innovative idea of the Islamic mortgage to appeal to their consumers by use of the relative advantage. Few measures in this regards include using financial technology (Fin-Tech) as a means of attracting more customers. Giving a notion that engaging with Islamic mortgage was not as easy as it is today. Islamic bank managers need to realise the advantage of Fin-Tech. In Malaysia, few Islamic banks have already started accepting Islamic mortgage application online through the smart app. Other Islamic banks also need to make use of such an important segment of IT. On the contrary Islamic banks in Pakistan are not practising Fin-Tech advantageously. It is important for managers of Islamic bank to initiate such services in order to receive a positive attitude from their consumers.

It is advisable to managers of Islamic banks to improve the Islamic home financing product compatibility issue. Consumers' satisfaction may vary that is to say the needs of the existing consumers may differ from a potential user of the Islamic mortgage product. Islamic bank manager needs to look into the needs and respect the values of existing as well as future consumers.

For instance, comparing conventional loan if a Muslim consumer wants to engage with Islamic mortgage then he has an expectation that Islamic mortgage is based on teachings of the *Qur'ān* and the *Hadīth*. That might be the reason why that particular Muslim customer is looking for Islamic mortgage. Here managers and policymakers have to play their important role to promote the product of MM home financing product in a way that truly meets the principles forming that product. Furthermore, needs of a consumer change from time to time so it is important to look into product development and innovations deemed necessary in order to retain current consumers and attract potential ones by adjusting the compatibility of a product according to consumers' need.

In the context of MM home financing, all factors turn out to be imperative for acceptance. Perceived behaviour control, attitude, relative advantage, pricing, peers, subjective norm, and self-efficacy are statistically significant. The attitude in this study is found to influence the Islamic home financing acceptance. It is therefore important for Islamic bank managers to alter the unfavourable attitude of the consumer in order to get the ultimate positive attitude before acceptance. Amin *et al.* (2013) mentions that there are Muslims who have an unfavourable attitude towards Islamic banking products. Ultimately such an attitude will hamper the banks' performance (Dar, 2002). Therefore it is essential for the management to use such approaches that may form a positive attitude in the consumers. It is also found in this study that the acceptance of MM home financing is significantly predicted by the subjective norm. It implies that consumers will engage in MM home financing if they find their peers or colleagues support it.

Thus, the Islamic bank managers, therefore, have to develop a socially conducive atmosphere to MM Islamic mortgage product. The findings of the study validate that perceived behavioural control is the most influential determinant of intention to accept MM home financing.

This indicates that the consumer perceives that if it is natural or there is adequate support, then the consumers' will have a strong intention to accept MM home financing. Therefore, managers of Islamic bank need not only to offer ease of access to apply for MM home financing but also support for professional assistance. Pricing of Islamic home financing negatively affects behavioural intention (*i.e.*, intention to accept MM home financing. In order to convince the consumers' Islamic bank managers need to maintain competitive pricing of MM home financing without compromising to the structure of the product, *i.e.*, imitating or using the similar conventional formula-based pricing. Furthermore, if Islamic banks fail to maintain competitive pricing of the Islamic mortgage, then it is imminent that they will not be able to attract more customers.

In this study, attitude is also tested as a mediator, and it mediates the relationship between determinants examined (*e.g.*, compatibility, relative advantage, and subjective norm) and intention to accept Islamic home financing. This finding evidently specifies a viewpoint in which the stated determinants affect the shape of ones' attitudes to using MM home financing, consequently resulting in the acceptance of Islamic home financing.

The findings of this study suggest that in order to maintain consumers' positive attitude towards Islamic mortgage. The Islamic banks need to pay heed to cause and formulate measures to handle unfavourable or bad attitudes that hinder the access of Islamic mortgage products. Favourable consumer attitude towards Islamic mortgage products can be formulated by services advancement through the grievances and critics on Islamic home financing. To this end, the proposed model provides Islamic bank managers with a well-established theoretical tool at the hub of which is the stakeholders' potential behaviour towards the Islamic mortgage.

Examining the effects of such factors as perceived compatibility, perceived relative advantage, peers influence and self-efficacy will provide a window on how to strike a balance between consumers' level of certainty about the services and the probable action they are going to take accordingly. Moreover, having the pricing variable among the constructs of the proposed framework gives Islamic home financing operators a trump card over their competitors that can be utilised in varying ways.

It is worth mentioning here that having a country as a moderator in this study model is believed to help Islamic mortgage operators to accommodate their blueprints to the typical context in which they are working. All in all, it can be fairly said that this study is an endeavour, which may hopefully allow Islamic bank facilitators to set a benchmark for their services and products, particularly home finance, and to develop adequate strategies to gain a broad spectrum of acceptability from its target consumers not only in Malaysia but in Pakistan as well.

### 6.4.3 Methodological Implications

The principal contribution of this study to research methodology lies in the incorporation of main beliefs; perceived behaviour control, attitude, subjective norms and decomposing self-efficacy with perceived behaviour control; decomposing perceived relative advantage, perceived compatibility with attitude; and decomposing peers with subjective norms and simultaneously measured through perceptions by the academic staff of universities. This is opposed to frequent practice where these variables were individually measured. Using the SEM technique in the present research allowed the researcher to incorporate and integrate multiple latent constructs rather than prediction purposes.

To date, research that empirically examined these constructs in Pakistan is minimal or none and in sparse in the context of Malaysia. Another contribution of this study is to research methodology is the validation of all measures through confirmatory factor analysis along with convergent validity and discriminant validity.

# 6.5 LIMITATIONS

The first limitation of this study is mainly for generalisation of the findings. The data were collected from three universities in Klang Valley, Malaysia and three universities in the state of Sindh, Pakistan. The results may not apply to other areas and regions of Malaysia and Pakistan. Nevertheless, organisations across sectors and countries who share the same values and culture may benefit from the findings of this study. Furthermore, there is limitation of generalisability in terms of sampling method used which is purposive sampling. Hence purposive sampling is non probability sampling is used along with multistage sampling, which is type of

probability sampling. Therefore, the findings of this study lacks the generalisability based on sampling method.

Secondly, this research used a cross-sectional study whereby the collection of data was done once at a given period. The third limitation is related to other relevant constructs that might predict consumers' intention to accept MM home financing. The present study is limited in the use of additional constructs, which may capture acceptance of Islamic mortgage. In a similar vein, there are variables that are not considered in this research work due to their incompatibility in Islamic mortgage context as those variables are more towards ICT.

The fourth limitation of this study includes the respondents from three universities each from two regions of Malaysia and Pakistan. These universities may not necessarily capture the responses from the entire regions. Thus, other regions also need to be included.

The last limitation of the study is to consider attitude as a moderator, which is not considered currently. It is mostly observed that when the attitude is more, the attitude of the consumer turns out to be more vital to predict MM home financing acceptance. Albeit limitations in this research, the present study still manages to share an acceptable amount of contribution to the literature with new insight for a better understanding of Islamic mortgage acceptance.

### 6.6 **RECOMMENDATION FOR FUTURE RESEARCH**

The recommendations for future research are presented in light of the limitations that were discussed in the prior section. Concerned with generalisability of the findings the future researchers are encouraged to fill this gap by conducting study not only in two regions of Malaysia and Pakistan but may go beyond this scope and do a cross-culture study in more than two countries. There is also a need to compare two countries from a similar region. For instance, in ASEAN there can be a comparative study between Indonesia and Malaysia. To this end, a study in Middle-east may also be conducted in different Gulf countries. This might also be possible by considering International staff and post-graduate international students as subjects of the research who are associated with varying universities with experience in Islamic banking products. To this end, replicating this study using such participants as a subject and using them as a sampling frame might reveal an enlarged population of Islamic banking users overcoming the concerns of generalisability.

Moreover, it is expected that future studies will undertake experimental and longitudinal research to avoid the issue of causation, improve the authenticity of the constructs to provide a better understanding of the dynamic relationships between variables.

Future researchers may also incorporate additional constructs that may be used to predict the behaviour intention (*i.e.*, intention to accept MM home financing), to mention a few considering, perceived complexity, perceived institutional trust. Furthermore, the decomposition of more antecedents may increase the explanatory power of the proposed model. In a similar vein, the construct of the image may be decomposed with attitude. Subjective norm may add word of mouth and media as an additional antecedent. Perceived behaviour control may decompose facilitating conditions antecedent. Theses variable may capture acceptance of Islamic home financing to a great extent.

As stated earlier that participants in this study were selected from three universities located in Klang Valley in Malaysia and three from Sindh, Pakistan, thus, in order to understand the consumers' acceptance towards MM home financing, the future studies may need to cover other universities in different locations and regions in Malaysia and Pakistan.

Furthermore, researchers may also contribute to the theory development by including attitude as a moderator. In the present study, this relationship is not tested. It is expected that the future researchers will look at the moderating role of attitude towards acceptance of Islamic home financing in order to make new insights relating to an essential part of attitude as a moderator.

### 6.7 CHAPTER SUMMARY

Behaviour intention is predicted to estimate the determinants, which are instrumental in attracting the consumers in any services industry. However, making a good relationship with the consumer is difficult. This study contributes significantly to behaviour intention literature by proposing a model that empirically investigates the consumer's intention to accept MM home financing in two different countries.

This model provides a deeper understanding of consumers' behaviour intention. Although there may be other constructs than those that were incorporated in this model, this study has reinforced the understanding of consumer behaviour intention in the context of Malaysia and Pakistan.

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## LIST OF PUBLICATIONS AND PAPERS PRESENTED

1. Shaikh, I. M., & Noordin, K. (2018). "Customer's Attitude towards Diminishing Partnership Home Financing: A Comparative Study of Malaysia and Pakistan." *Middle East Journal of Business, 13*(3), 24-31. doi: 10.5742/MEJB.2018.93479 (**Published**)

2. Shaikh, I. M., Noordin, K., & Ahmed (2018). "Factors influencing customers' Acceptance towards Diminishing Partnership Home Financing: a study of Pakistan." *Journal of Islamic Economic Studies*, *26*(1). (**Published**)

3. Shaikh, I. M., & Noordin, K. (2019). "Customer's Intention to use Islamic Home Financing in Pakistan: An Extension of Theory of Planned Behaviour. *Middle East Journal of Business, 12*(2), 4-9. (Published)

4. Shaikh, I. M., & Noordin, K. (2018). "Predicting Customers' acceptance towards Islamic home financing Using DTPB theory." *ISRA International Journal of Islamic Finance*. (Under review)

## **Conference** paper

1. Shaikh, I. M., Noordin, K., & Ahmed. Factors Influencing Customers' Acceptance Towards Diminishing Partnership Home Financing: A Study of Pakistan, 8<sup>th</sup> International Conference on Islamic Banking and Finance, Risk Management, Regulation, and Supervision, 20-21 December 2017, Muscat, Sultanate of Oman.

2. Shaikh, I. M., & Noordin, K., Fares, D. Customer's Attitude towards Diminishing Partnership Home Financing: A Comparative Study of Malaysia and Pakistan, Poster Presentation Exhibition (Research) in Conjunction with Minggu Terbuka Akademik (MiTA), 17-24 April, Kuala Lumpur, Malaysia.