

**CUSTOMER ADOPTION OF ISLAMIC BANKING AND  
FINANCE IN GHANA: A STRUCTURAL EQUATION  
MODELLING APPROACH**

**BY**

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## ABSTRACT

The Bank of Ghana, in its efforts to facilitate the introduction of Islamic banking and finance in Ghana, included non-interest banking services in the revised Banks and Specialised Deposit-Taking Institutions Act 930 in 2016. Nevertheless, general misconception about Islamic banking and finance has been a challenge in the adoption of this mode of finance in the country. Consequently, utilising a mixed method approach, this study was designed to explore factors which could improve customer preference and offer new understanding on customer adoption of Islamic banking and finance in the country. The first objective in this study was to examine the impact of key success factors (awareness, perceived risk and product choice) on Islamic banking and finance adoption (IBFA). Next, the study assessed the impact of attitude, perceived behavioural control, relative advantage, religious satisfaction and compatibility on IBFA. Additionally, the study examined the impact of attitude as a mediator in the relationship between key success factors and IBFA. Finally, the study examined the effect of attitude as a mediating variable between subjective norm and IBFA. Utilising the theory of planned behaviour (TPB) and innovation diffusion theory (IDT) together with key success factors, a model was proposed to explore customer adoption in the context of Islamic banking and finance. The model was tested utilising questionnaire data from 1,004 respondents who were bank customers from five different regions in Ghana. The data were analysed using Structural Equation Modelling (SEM). Qualitative data were also collected and analysed to support the interpretation of the quantitative results. The findings disclosed that awareness, religious satisfaction, attitude, perceived behavioural control and compatibility were instrumental in determining customer adoption of Islamic banking and finance. Also, attitude was evidently proven as a significant predictor as well as mediator. In that regard, the relationship between product choice and IBFA, as well as subjective norm and IBFA, were mediated by attitude. The qualitative findings revealed that, in general there was low awareness of Islamic banking and finance in Ghana though majority of bank customers showed interest in adopting the system. The model developed addressed the interrelationship between the factors, thereby providing a better understanding of customer preference. By identifying the drivers of IBFA among potential customers, this study, thus offered valuable insights to managers of Islamic banking and finance institutions to plan and target their products and services more effectively. Policymakers are also equipped with fresh information to formulate new approaches and improve IBFA going forward.

## ملخص البحث

سعيًا إلى تسهيل إدخال الخدمات المصرفية والتمويل الإسلامي في غانا؛ ضَمَّن مصرف غانا خدمات الصيرفة والتمويل الإسلامي في قانون المصارف ومؤسسات الإيداع المتخصصة رقم (930) والمعدل عام 2016م، وعلى الرغم من ذلك؛ يُمثِّل الفهم الخاطئ لتلك الخدمات تحديًا في اعتماد هذا النمط من التمويل في البلاد، وقد صُمِّم هذا البحث لاستكشاف العوامل التي يمكن أن تُحسِّن من تفضيل خدمات الصيرفة والتمويل الإسلامي لدى العملاء، وتُقَدِّم فهمًا جديدًا لآليات اعتمادهم إياها في البلاد، وكان الهدف الأول من هذا البحث دراسة تأثير العوامل الرئيسة (الوعي، والمخاطر المتصورة، واختيار المنتج) في اعتماد خدمات الصيرفة والتمويل الإسلامي، ثم تقييم تأثير الموقف، والسيطرة السلوكية المدركة، والميزة النسبية، والرضا الديني، والتوافق؛ في اعتمادها، كما اختبر البحث تأثير الموقف وسيطًا في العلاقة بين العوامل الرئيسة، والعلاقة بين المعيار الذاتي واعتماد الخدمات، ثم تناول تصورات العملاء عن الصيرفة والتمويل الإسلامي في غانا باستخدام نظريتي السلوك المخطط ونشر الابتكار، وذلك من خلال تطوير أنموذج للتنبؤ باعتماد خدمات الصيرفة والتمويل الإسلامي، واختباره باستخدام بيانات جُمعت من 1004 مستجيبًا من عملاء المصارف في خمس مناطق مختلفة في غانا، وجرى تحليل البيانات باستخدام المعادلات الهيكلية، كما عمد الباحث إلى جمع بيانات نوعية وتحليلها؛ وكشفت النتائج أن الوعي، والرضا الديني، والموقف، ومعتقدات التحكم، والتوافق؛ تُسهم في تحديد اعتماد العملاء خدمات الصيرفة والتمويل الإسلامي، وأن الموقف عامل تنبؤي وسيط في العلاقة بين اعتماد خدمات الصيرفة والتمويل الإسلامي والمعتقدات المعيارية، وكشفت نتائج البيانات النوعية عن ضعف في وعي الصيرفة والتمويل الإسلامي في غانا؛ على الرغم من أن غالبية العملاء أبدوا اهتمامًا باعتماد هذا النظام المصرفي، ومن ثم؛ حدّد الباحث عددًا من التحديات المحتملة للصيرفة والتمويل الإسلامي في غانا، وقدم توصيات لمعالجتها؛ إذ يعالج الأنموذج المطوّر في هذا البحث العلاقات بين عوامل عدة، ويُقدِّم فهمًا أفضل لتفضيلات العملاء، ومن خلال تحديد العوامل المؤثرة في اعتماد خدمات الصيرفة والتمويل الإسلامي؛ يُوفِّر البحث طروحات قيّمة لمديري مؤسسات الصيرفة والتمويل الإسلامي لتخطيط منتجاتهم وخدماتهم تخطيطًا أكثر كفاءة، كما يُزوّد صانعي السياسات بمعلومات جديدة تساعدهم في صياغة مناهج لتطوير صناعة الصيرفة والتمويل الإسلامي في المستقبل.

## APPROVAL PAGE

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## DECLARATION

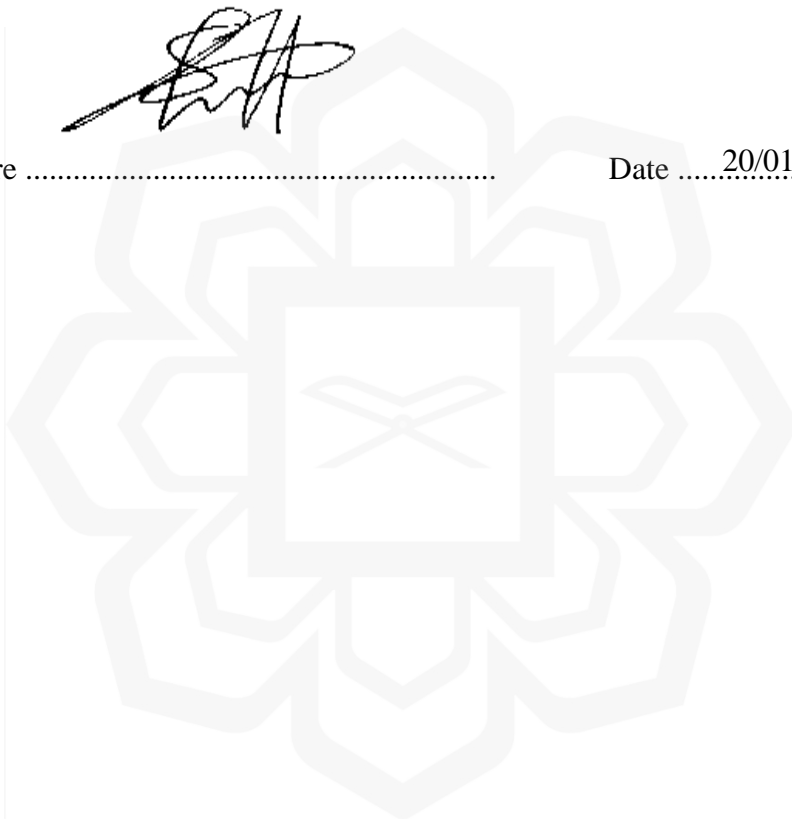
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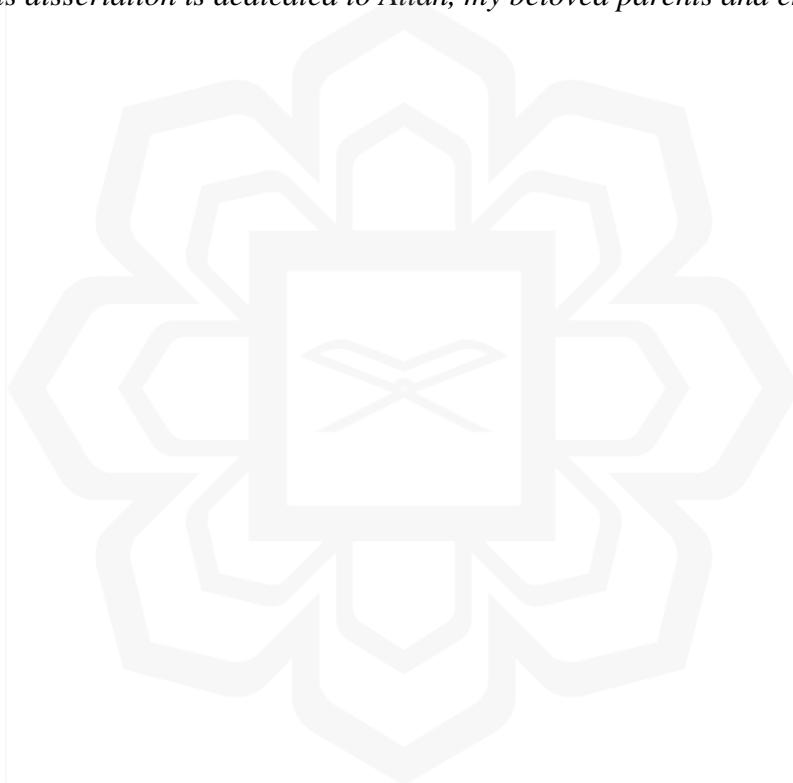
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*This dissertation is dedicated to Allah, my beloved parents and entire family*



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# TABLE OF CONTENTS

<b>Abstract.....</b>	<b>ii</b>
<b>Abstract in Arabic.....</b>	<b>iii</b>
<b>Approval Page .....</b>	<b>iv</b>
<b>Declaration.....</b>	<b>v</b>
<b>Copyright Page.....</b>	<b>vi</b>
<b>Dedication .....</b>	<b>vii</b>
<b>Acknowledgements .....</b>	<b>viii</b>
<b>List of Tables .....</b>	<b>xii</b>
<b>List of Figures.....</b>	<b>xiv</b>
<b>List of Abbreviation.....</b>	<b>xv</b>
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>17</b>
1.1 Background of the Study .....	17
1.2 Problem Statement.....	19
1.3 Motivation of the Study .....	23
1.4 Brief Theoretical Framework .....	24
1.5 Research Objectives .....	25
1.6 Research Questions.....	25
1.7 Research Significance.....	26
1.8 Research Scope.....	27
1.9 Definitions of Variables.....	28
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>32</b>
2.1 Introduction .....	32
2.2 The Economy of Ghana.....	32
2.3 The Need for Islamic Banking and Finance in Ghana.....	33
2.4 Studies on Islamic Banking and Finance Adoption.....	37
2.5 Key Success Factors .....	50
2.5.1 Perceived Risk.....	51
2.5.2 Awareness .....	53
2.5.3 Product Choice.....	55
2.6 Customer Factors .....	57
2.6.1 Religious Satisfaction .....	57
2.6.2 Attitude.....	59
2.6.3 Subjective Norm .....	60
2.6.4 Perceived Behavioural Control .....	62
2.6.5 Relative Advantage .....	63
2.6.6 Compatibility .....	64
2.7 Research Gaps .....	66
2.7.1 Key Success Factors.....	66
2.7.2 Practical-Knowledge Gap .....	67
2.7.3 Mediator .....	68
2.7.4 Different Geographical Locations and Sample Size .....	68
2.8 Theoretical Framework.....	69
2.8.1 Theory of Planned Behaviour (TPB) .....	69

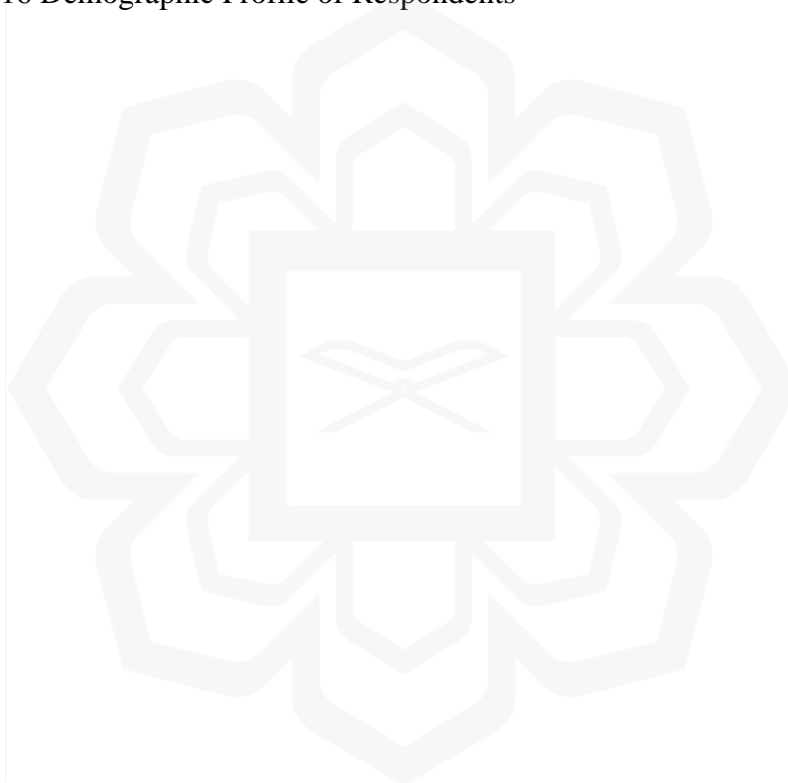
2.8.2 Innovation Diffusion Theory (IDT) .....	71
2.8.3 Integrated Model of Islamic Banking and Finance Adoption.....	73
<b>CHAPTER THREE: DATA AND METHODOLOGY.....</b>	<b>75</b>
3.1 Introduction .....	75
3.2 Philosophical Underpinnings.....	75
3.3 Research Design .....	77
3.4 Quantitative Survey .....	78
3.4.1 Target Population and Sampling Method .....	78
3.4.2 Sampling Size .....	79
3.4.3 Study Area.....	79
3.5 Research Instrument .....	80
3.5.1 Development of Research Instrument.....	80
3.5.2 Measurement Items .....	81
3.5.3 Reliability and Validity of the Measurement Instrument.....	86
3.6 Pilot Study .....	88
3.6.1 Reliability of the Measurement Instruments.....	88
3.7 Data Collection .....	89
3.8 Data Analysis.....	90
3.8.1 Exploratory Factor Analysis .....	91
3.8.2 Confirmatory Factor Analysis.....	92
3.8.3 Structural Equation Modelling (SEM).....	95
3.8.4 Linear Regression .....	97
3.9 Qualitative Data Collection and Analysis .....	97
3.9.1 Sampling Method and Size .....	97
3.9.2 Data Collection Instrument .....	99
3.9.3 Data Analysis .....	100
<b>CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION.....</b>	<b>103</b>
4.1 Introduction .....	103
4.2 Quantitative Data Analysis .....	103
4.2.1 Demographic Profile of Respondents .....	103
4.2.2 Data Coding .....	109
4.2.3 Exploratory Factor Analysis .....	109
4.2.4 Confirmatory Factor Analysis.....	113
4.2.5 Assessment of Validity in Confirmatory Factor Analysis .....	117
4.2.6 Structural Equation Modeling (SEM).....	119
4.2.6.1 Operational Definition of Variables .....	119
4.2.6.2 Specification of the Structural Model.....	121
4.2.6.3 Analysis of the Structural Model.....	122
4.2.6.4 Hypotheses Testing of the Direct Effects .....	124
4.2.6.5 Distinction of RS and PR Results by Religion .....	125
4.2.6.6 Hypotheses Testing of the Mediating Role of Attitude ....	126
4.2.6.7 Summary of Quantitative Findings.....	130
4.3 Qualitative Data Analysis .....	135
4.3.1 Awareness of Islamic banking and finance.....	136
4.3.2 Potential Challenges of Islamic Banking .....	141
4.3.3 Adoption of Islamic banking and finance .....	143

<b>CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION .....</b>	<b>147</b>
5.1 Introduction .....	147
5.2 Research Summary .....	147
5.2.1 Brief Summary, Problem Statement and Objectives of the Study .....	147
5.2.2 Brief Discussion of Findings.....	149
5.2.3 Discussion of the First Objective .....	150
5.2.4 Discussion of the Second Objective.....	153
5.2.5 Discussion of the Third and Fourth Objective .....	155
5.3 Contributions .....	156
5.3.1 Theoretical Contributions .....	156
5.3.2 Methodological Contribution.....	158
5.3.3 Practical Implications.....	159
5.3.3.1 Predictors of Islamic banking and finance .....	159
5.3.3.2 The Mediating Role of Attitude.....	165
5.3.4 Conclusion .....	166
5.3.5 Limitation of the Study .....	168
5.3.6 Recommendations for Future Study .....	169
<b>REFERENCES.....</b>	<b>170</b>
<b>APPENDIX 1: Requirements of Univariate and Multivariate Assumptions ...</b>	<b>193</b>
<b>APPENDIX 2: Factor Analysis.....</b>	<b>197</b>
<b>APPENDIX 3: Steps in the Application of Structural Equation Modelling (SEM) .....</b>	<b>201</b>
<b>APPENDIX 4: Some Rules of Thumb in SEM.....</b>	<b>202</b>
<b>APPENDIX 5: Results of linear regression analysis (MUSLIMS) .....</b>	<b>203</b>
<b>APPENDIX 6: Results of linear regression analysis (NON-MUSLIMS).....</b>	<b>204</b>
<b>APPENDIX 7: Questionnaire .....</b>	<b>205</b>
<b>APPENDIX 8: A Copy of Data Collection Letter .....</b>	<b>211</b>

## LIST OF TABLES

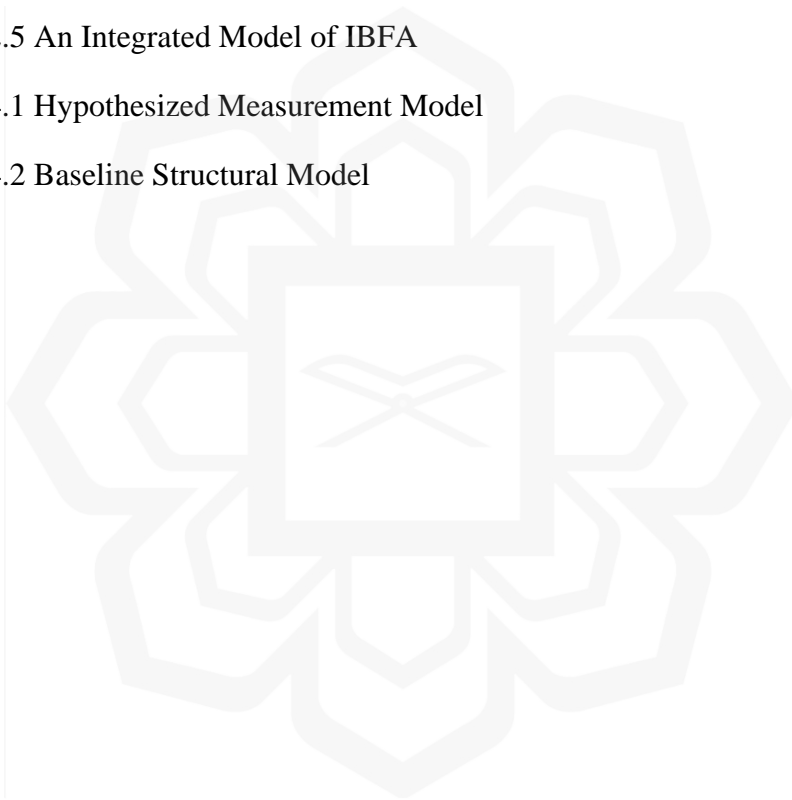
Table 3.1 Philosophical Worldviews (Mixed Method)	77
Table 3.2 Measurement items for IBFA	83
Table 3.3 Product Choice Measurement items	83
Table 3.4 Measurement items for Perceived Risk	83
Table 3.5 Measurement items for Awareness	84
Table 3.6 Subjective Norm Measurement items	84
Table 3.7 Measurement items for Perceived Behavioural Control	84
Table 3.8 Relative Advantage Measurement items	85
Table 3.9 Compatibility Measurement items	85
Table 3.10 Measurement items for Religious Satisfaction	85
Table 3.11 Attitude Measurement items	86
Table 3.12 Reliability Statistics	88
Table 3.13 Fit Indices	93
Table 3.14 Reliability and Validity	94
Table 3.15 Research Objectives, Research Questions, Hypotheses and Method of Analysis	102
Table 4.1 Demographic Profile of Respondents A	106
Table 4.2 Demographic Profile of Respondents B	108
Table 4.3 KMO and Bartlett's Test	110
Table 4.4 Exploratory Factor Analysis	112
Table 4.5 Fit Indices Criteria Compared to Baseline Measurement Model Output	115
Table 4.6 Model Validity Measures	118
Table 4.7 Fit Indices Criteria Compared to Baseline Structural Model Output	123
Table 4.8 Standardized Regression Weights and Significance for each path	125

Table 4.9 Testing A as a Mediator in the relationship between AW and IBFA	127
Table 4.10 Testing A as a Mediator in the relationship between SN and IBFA	128
Table 4.11 Testing A as a Mediator in the relationship between PC and IBFA	128
Table 4.12 Testing A as a Mediator in the relationship between PR and IBFA	129
Table 4.13 Standardised Direct and Indirect Effects - Two Tailed Significance (BC)	130
Table 4.14 Summary of Structural Model Results (Direct Relationships)	131
Table 4.15 Summary of Structural Model Results (Indirect Relationships)	134
Table 4.16 Demographic Profile of Respondents	136



## LIST OF FIGURES

Figure 2.1 Muslim Population in Selected African Countries	36
Figure 2.2 Simplified Theory of Planned Behaviour	71
Figure 2.3 Diffusion of Innovation Theory Model	72
Figure 2.4 Base Model of IBFA	73
Figure 2.5 An Integrated Model of IBFA	74
Figure 4.1 Hypothesized Measurement Model	116
Figure 4.2 Baseline Structural Model	123



## LIST OF ABBREVIATION

A	Attitude
AGI	Association of Ghana Industries
AMOS	Analysis of Moment Structures
ATM	Automated Teller Machine
ATR	Africa Traditional Religion
AVE	Average Variance Extracted
AW	Awareness
BOG	Banks of Ghana
C	Compatibility
CEBR	Centre for Economics and Business Research
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN	Chi-Square Minimum Discrepancy
EFA	Exploratory Factor Analysis
FINSSP	Financial Sector Strategic Plan
GFI	Goodness-Of-Fit Index
GIMF	Ghana Islamic Microfinance
GIPC	Ghana Investment Promotion Centre
HND	Higher National Diploma
IBFA	Islamic Banking and Finance Adoption
ICD	International Corporation for the Development of the Private Sector
ICM	Islamic capital markets
IDT	Innovation Diffusion Theory
IFC	Islamic Finance Council UK
IMF	International Monetary Fund
KMO	Kaiser–Meyer–Olkin
MOF	Ministry of Finance
MSV	Mean Shared Variance
NFI	Normed Fit Index
OIC	Organisation of Islamic Cooperation
OLS	Ordinary Least Square
PBC	Perceived Behavioural Control
PC	Product Choice
PLS	Partial Least Squares
PR	Perceived Risk
PSIA	Profit-Sharing Investment Account
PwC	PricewaterhouseCoopers
RA	Relative Advantage
RMSEA	Root Mean Square Error of Approximation
RS	Religious Satisfaction

SEM	Structural Equation Modelling
SMEs	Small and Medium-Sized Enterprises
SN	Subjective Norm
SPSS	Statistical Package for the Social Sciences
TAM	Technology Acceptance Model
TIB	Theory of Interpersonal Behaviour
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action



# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 BACKGROUND OF THE STUDY**

The conventional financial system has been going through the worst crisis since the 1930s (Rethel, 2011). Since the end of World War II, all over the world there is a prevalent disappointment with the performance and outcomes of the conventional monetary and financial system (Siddiqi, 2002). This has led to the search for an alternative financial system that is ethical, all-inclusive and promotes linkage between the real sector and financial system to spur economic growth and development. Over the years, Islamic banking and finance has evolved as a complement to the current conventional system of finance. The Islamic banking and finance industry has gone through a rapid pace of evolution globally since its commencement. The industry's relative resilience against economic crisis and expected macro and micro contributions to socio-economic development are, fairly recognised across the globe (Salaamgateway, 2020; The City UK Group, 2013). Global Islamic finance assets have increased significantly from about USD150 billion in the 1990s to USD2.88 trillion in 2019 (ICD, 2015; Salaamgateway, 2020; ICD-REFINITIV, 2020).

The Islamic banking and finance industry is one of the fastest growing sectors in the global finance industry (OECD, 2020). With the industry's fundamental characteristics such as the prohibition of speculative activities and excessive leveraging, it has demonstrated resilience during the global financial crisis (OECD, 2020; Khan and Bhatti, 2008). Counting on the existing growth trend, the sector is anticipated to accumulate about USD3.69 trillion in assets by the end of 2024 (Salaamgateway, 2020). To benefit from the opportunities offered by Islamic finance, major global conventional

financial services providers like the Citibank, HSBC, Barclays, Deutsche Bank, Standard Chartered and many others are offering Islamic financial services (The City UK Group, 2013). Citibank for instance has established its Islamic branches in Muslim majority countries such as Bahrain and Sudan (Naser et al. 1999). Institutions of Islamic banking and finance have demonstrated their ability and preparedness to continuously offer new products and services therefore increasing the significance of Islamic finance across many economic sectors with different financing needs. This indicates the industry's competence as an engine of growth (ICD, 2015).

The Islamic finance industry at present is gaining more global integration. Currently, the industry's growth is not only limited to countries with Muslim majority population but rather beyond. It is progressively establishing sound footing in Muslim minority regions such as Europe, the US, sub-Saharan Africa, the Far East, and the Caribbean (ICD, 2015; Thomson Reuters, 2015). For instance, Ireland, Hong Kong, Luxembourg, UK and Singapore are also making efforts to be global hubs for Islamic finance despite the fact that they are Muslim minority countries (Thomson Reuters, 2015; Rethel, 2011). In Africa, South Africa, Kenya, Tanzania and Mauritius are among the Muslim minority countries with Islamic finance institutions (Faye, et al., 2013).

Another Muslim minority country in Africa that is currently yearning to tap the prospects of this growing industry is Ghana. The BOG amended the Banks and Specialised Deposit-Taking Institutions Act 930 in 2016 to allow banking and finance institutions in Ghana to offer Islamic banking and finance services to clients (BOG, 2016). Nevertheless, some obstacles still remain especially concerning customer adoption or readiness of the market for Islamic banking and finance services (PwC, 2014).

Adoption of Islamic banking and finance, in a new jurisdiction such as Ghana, is likely influenced by a number of factors such as government support, legal and regulatory framework, shari'ah compliance considerations, and consumer behaviour factors (Bananuka et al., 2020; Malik et al., 2011; Khan et al., 2015; Mbawuni and Nimako, 2017). The focus in this study is on the consumer behaviour factors utilizing the theory of planned behaviour (TPB) and innovation diffusion theory (IDT), together with key success factors. The key success factors are the essential factors needed in order to make informed decisions to be successful in a given market. In this study they included awareness, product choice and perceived risk (Amin, 2015). This is particularly crucial due to the growing misconception concerning Islamic banking and finance by the general public and this is a challenge in the adoption of this mode of finance in the country (Possumah et al., 2018; Mbawuni and Nimako, 2016; Mbawuni and Nimako, 2018; Klutse, 2015). Accordingly, the present study explores aspects which could boost customer interest and provide new direction on customer adoption of Islamic banking and finance in Ghana.

## **1.2 PROBLEM STATEMENT**

Islamic banking and finance adoption (IBFA) in Ghana is long overdue given the dire need for alternative funding to bridge government funding gap, the need for financial inclusion, rising government debt and high interest rate in the country (MOF, 2019; McTernan and Valen, 2014; Trading Economics, 2019).

Ghana faces a huge funding gap in almost every sector of the economy. In the health sector for instance, the country faces a funding gap of GHC337million in the National Health Insurance Scheme. This problem could impede the operations of the Scheme and leave about 700,000 people without medical care (Davis, 2016). In terms

of infrastructure, the Ghanaian government needs to spend about \$1.2 billion per annum over the next 10 years minimum in order to close the infrastructure funding gap (McTernan and Valen, 2014). Meanwhile the financial market in Ghana is constrained with limited sources of long-term finance to support the funding requirements of the country. Thus, the Government of Ghana is unable to finance the required infrastructure projects from public sector sources alone. The high demand for funding led the Ghanaian government to rely on borrowing from external sources, causing the public debt stock to continuously rise. As at December 2018, the public debt stock in the country stood at GH¢173.1 billion (MOF, 2019). The high level of public debt led to higher interest cost on capital raised on the international market. Consequently, interest rate in the country remains one of the highest in Africa. Currently, the interest rate in Ghana is 16%. This makes Ghana the second country in Africa with a high interest rate according to a ranking by the Trading Economics (Trading Economics, 2019).

The above trend is forcing businesses, especially SMEs, to go bankrupt. The private sector, which is considered the main driver of growth in the Ghanaian context, is unable to borrow money to expand businesses. The high interest rate left individual borrowers and businesses, especially the SMEs, highly indebted. As a result, SMEs and the agriculture sector, the largest sectors of employment in Ghana, can no longer afford to borrow to finance their operations (Sarpong et al., 2013). Recently, Ghanaian authorities embarked on a financial sector clean up leading to the closure of several financial institutions in the country due to their inability to meet the new minimum capital requirement set by the central bank. An estimated 420 institutions were closed by the BoG as a result of this exercise. Among the affected institutions, about 347 were microfinance companies while 39 were microcredit firms. The affected institutions were the principal sources of funding for small and medium-sized enterprises (SMEs)

(Oxford Business Group, 2019). This therefore further limited the sources of funding for SMEs and thus makes it necessary to explore alternative sources such as Islamic banking and finance.

Limited access to long-term finance culminates into shortage of long-term financing to the housing and industrial sectors of the economy. Generally, the high risk embedded in the real sector finance erodes credit extension to the real sector and other remote areas and un-banked communities (IMF, 2011). Due to this situation, the International Monetary Fund (IMF) raised its concern that high interest rate is limiting private sector growth in Ghana and urged the authorities to do more to address the problem (Bax, 2013).

Interest is also deterring devoted Muslims from patronising conventional financial services. Thus, the Muslim population in the country is largely under-served because interest is prohibited in Islam (for example Qur'an, 2:275 - 281) and even Christian and Jewish groups also face similar prohibition according to their scriptures (Vincent, 2014). Islamic banking and finance, though may not get rid of interest entirely in the economy, could serve as an alternative to boost the growth of Islamic microfinance institutions in the country similar to the case of Indonesia and thus offer funding for SMEs (Masyita and Ahmed, 2013). A study by Masyita and Ahmed (2013) for instance reported that Islamic microfinance institutions offer low interest rates and low collateral which are necessary to support the growth of SMEs. Moreover, considering the high interest rate and limited source of funding, Islamic banking and finance arrangements such as qard hasan (interest-free loan) and Sukuk (Islamic bond) could be better options to complement SMEs and government funding respectively. Studies such as Naz and Gulzar (2020), Dusuki (2008), Abduh and Omar (2012), Farahani and Dastan (2013), Lebdaoui and Wild (2016) and Rashid et al. (2017)

demonstrated the contribution of Islamic banking and finance to economic development. For instance, Naz and Gulzar (2020) revealed that Islamic banking and finance contributes to GDP growth in the long run, demonstrating the macro economic impact of Islamic banking and finance on the economy. It is therefore imperative that adopting this system in Ghana could benefit the country in the long run. Nevertheless, in order to adopt Islamic banking and finance in Ghana and to benefit from these arrangements, customer acceptance needs to be critically evaluated so as to ensure readiness of the market since this remains one of the major challenges (Possumah et al., 2018; Mbawuni and Nimako, 2016; Mbawuni and Nimako, 2018; Klutse, 2015).

The BOG in recent years, has developed great interest in Islamic banking and finance and has embarked on various initiatives to facilitate the introduction of full-fledged Islamic banking and finance services in Ghana. As part of these initiatives, the BOG has included non-interest banking services in the revised Banks and Specialised Deposit-Taking Institutions Act 930 in 2016 (BOG, 2016). However, adoption of Islamic banking and finance in Ghana remains a dream yet to become true due to misconceptions held by the general public concerning Islamic banking and finance and its value proposition. Many individuals in Ghana, particularly non-Muslims, perceive Islamic banking and finance as a threat to commit violence and a means to promote Islam (Possumah et al., 2018; Mbawuni and Nimako, 2016; Mbawuni and Nimako, 2018; Klutse, 2015).

The vast majority of bank customers in Ghana are non-Muslims and they have unfavourable attitude towards Islamic banking and finance (Mbawuni and Nimako, 2018). Klutse (2015) disclosed that, non-Muslims, particularly some Christian groups, resist Islamic banking and finance claiming that our society is not matured enough for it and that it could increase religious violence. Some non-Muslims also think that

Islamic banking and finance is exclusively for Muslims and thus they show negative attitude towards it (Yunusa and Nordin, 2015). To confront these misconceptions, there is the need for more information about prospective customers' behaviour and preferences. Although there is a plethora of research on IBFA, very few studies, if any, have provided practical deliberations towards addressing the present challenge in Ghana. Accordingly, this study was designed to explore the issues which could increase customer desire and provide fresh understanding on adoption of Islamic banking and finance in Ghana.

### **1.3 MOTIVATION OF THE STUDY**

A number of authors such as McIver and Naylor (1986), Kotler (1988) and Engel et al. (1993) asserted the need to comprehend and adapt to customer motivation and behaviour since it is absolutely essential for the adoption of a new system. According to Anderson and Srinivasan (2003) if customer acceptance is not given serious attention even a business that is based on a well-designed model will eventually fail. This is so given the fact that customers' attitudes and perceptions can influence their intentions and behaviour towards acceptance of any innovation (Ajzen, 1991; Roger, 2003). Since attitude is dynamic and could gradually transform over time with more customer education and information (Mbawuni and Nimako, 2016), a study about consumer behaviour factors to gain more insight about potential customers' perception and attitudes towards Islamic banking and finance in Ghana is essential. According to a report by PwC, more studies are required to develop a viable proposition for Islamic banking and finance in Ghana since there is no much information especially pertaining to readiness of the market (PwC, 2014). It therefore remains crucial to investigate

consumer behaviour factors in regards to IBFA in the country. This research is an effort to close this gap.

#### **1.4 BRIEF THEORITICAL FRAMEWORK**

The theoretical framework in this research is founded on an integration of various factors of customer adoption based on the theory of planned behaviour (TPB) and innovation diffusion theory (IDT) together with key success factors. This framework is similar to the work of Amin (2015) who utilised the same approach to study about Shari'ah-compliant home financing in Malaysia. The rationale for using this approach is because it has been validated to be an ideal method for consumer behaviour study. The factors of adoption in this research were categorized into key success factors and customer factors. The key success factors are corporate level factors related to Islamic banking and finance institutions. The key success factors included perceived risk, awareness and product choice. On the contrary, customer factors are consumer level factors on which the theories in this study were founded. The customer factors included all the variables in the TPB together with two variables from IDT (compatibility and relative advantage). The TPB expounded the Theory of Reasoned Action (TRA) which was introduced by Fishbein and Ajzen (1975) to determine the association concerning beliefs, attitudes, intentions along with behaviour. The IDT on the other hand, was introduced by Rogers (1995) to expound the adoption process of a new innovation or an idea. The IDT has five main perceived innovation constructs (relative advantage, compatibility, complexity, observability and trialability) which are utilized to determine the adoption rate of an innovation. In the case of this study, two of the factors of the IDT were employed. Religious satisfaction was also incorporated as one of the customer factors in this research. All the factors were used together to develop an integrated