

**IMPACT OF SERVICE QUALITY AND SHARIAH COMPLIANCE ON
CUSTOMERS OF MALAYSIAN ISLAMIC BANKS**

BY

MOHAMED ABUBAKER ELMONTASER

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

Thesis Submitted in Fulfillment of the Requirements

For the Degree of Doctor of Philosophy

Universiti Tun Abdul Razak

SEPTEMBER 2016

VERIFICATION PAGE

I certify that the Thesis Examination Committee met on 26th July, 2016 to conduct the final examination of **Mohamed Abubaker Elmontaser** on his thesis entitled “**Impact of Service Quality and Shariah Compliance on Customers of Malaysian Islamic Banks**” in accordance with the University requirements. The Committee recommended that the candidate be awarded the degree of Doctor of Philosophy. The members of the Thesis Examination Committee are as follows:

Dr. Mohd Saeed Siddiq

Professor
Universiti Tun Abdul Razak
(Chairperson)

Dr. Omaima Eltahir Babikir Mohamed

Assistant Professor
Universiti Tun Abdul Razak
(Internal Examiner)

Dato' Dr. Muhamad Muda

Professor
Universiti Sains Islam Malaysia
(External Examiner)

This thesis was submitted to the Senate of Universiti Tun Abdul Razak and has been accepted as fulfillment of the requirements for the degree of Doctor of Philosophy. The members of the Supervisory Committee are as follows:

Dr. Farhana Newaz Tahmida

Assistant Professor
Universiti Tun Abdul Razak
(Main Supervisor)

Dr. Syed Musa Syed Jaafar Alhabshi

Associate Professor
International Islamic University Malaysia
(Co-Supervisor)

Dean
Graduate School of Business
Universiti Tun Abdul Razak

Date:

UNIVERSITI TUN ABDUL RAZAK

DECLARATION OF COPYRIGHT AND AFFIRMATION OF FAIR USE OF UNPUBLISHED RESEARCH

Copyright @ 2016 by **Mohamed Abubaker Elmontaser**. All rights reserved.

IMPACT OF SERVICE QUALITY AND SHARIAH COMPLIANCE ON CUSTOMERS OF MALAYSIAN ISLAMIC BANKS

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of the copyright holder except as provided below.

1. Any material contained in our derived from this unpublished research may only be used by others in their writing with due acknowledgement.
2. UNIRAZAK or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
3. The UNIRAZAK library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

Affirmed by: **Mohamed Abubaker Elmontaser**

Signature

Date

Abstract of the thesis presented to the Senate of Universiti Tun Abdul Razak in fulfillment of the requirements for the degree of Doctor of Philosophy

IMPACT OF SERVICE QUALITY AND SHARIAH COMPLIANCE ON CUSTOMERS OF MALAYSIAN ISLAMIC BANKS

By
Mohamed Abubaker Elmontaser

ABSTRACT

Malaysia has the most active and developed Islamic banking sector in the East Asian region. This sector is set to grow with both Islamic and non-Islamic banks (dual window system) now offering a range of Shariah compliant financial products. With increasing competition in terms of better services and recent specific requirements for Shariah compliance, the Islamic banking sector is not only expected to provide a higher standard of quality service but also to be more focused on being Shariah compliant. Hence, this study recognizes the need to expand the dimensions of Shariah compliance looking at the impact of both service quality and Shariah compliance in terms of customer satisfaction taking customer satisfaction as a mediator to customer loyalty and customer retention. This research formulates an enhanced model named SCSQ model for service quality and customer satisfaction of Islamic banks in Malaysia. The main purpose was constructing and evaluating a new model named SCSQ model to measure service quality in Islamic banks. The major objective of this quantitative research study was to examine variables with / without the mediating effect (customer satisfaction). Collecting data for this research, a questionnaire based on literature review and developed according to Malaysian's cultural setting. Final sample size for analysis was 339 respondents. Hypotheses were tested using exploratory factor analysis, Pearson correlation, and standard regression analysis. The important findings in this research revealed that mediating effect influence on the relationship between service quality dimensions and Shariah compliance dimensions as independent factors with customer loyalty and customer retention as dependent variables. Hypothesis findings accept all quality service and Shariah compliance dimensions except tangibles dimension for service quality. The improved SCSQ model presented significant results for both service quality and Shariah compliance that explains Islamic banks customer satisfaction with loyalty and retention in Malaysia. Service quality dimensions: Reliability, empathy and Responsiveness/assurance show significant impact on customer satisfaction and a higher impact on customer loyalty and retention respectively. Shariah compliance dimensions: Shariah compliance institution/product and Islamic bank employees' ethical conduct show a significant impact on customer satisfaction and the highest impact on customer loyalty and retention respectively. The findings of this research conclude the significance of Shariah compliance as an independent variable with service quality as well as their positive influence on customer satisfaction as well as customer loyalty and customer retention. Hence the study contributes to the further development of studies in service quality, Shariah compliance, and customer satisfaction with loyalty and retention. The social change implication for this research is to increase customer satisfaction and improve services in Malaysian Islamic banks.

ACKNOWLEDGEMENTS

PhD is a very professional degree. In my view there should be a more elaborate acknowledgement.

First, I will not be able to finish the requirements of my PhD without the help and support of Allah.

Second, I would like to thank the warmly welcome and support of my supervisors; Asst. Prof. Dr. Farhana Tahmida Newaz and Associate Prof. Dr. Syed Musa Bin Syed Jaafar Alhabshi. I will never forget their unfailing generosity and professionalism. Special thanks to internal examiner, Dr. Omaima Elthahir and external examiner, Dr. Mohamed Muda for their efforts to review and improve the thesis.

Thirdly, I would like to acknowledge all the academic staff and administrative staff at the Tun Abdul Razak Universiti for their support and help.

TABLE OF CONTENTS

VERIFICATION PAGE	ii
COPYRIGHT PAGE	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
LIST OF TABLES	xii
LIST OF FIGURES	xv
LIST OF ABBREVIATIONS	xvi
CHAPTER 1: INTRODUCTION	
1.1 Introduction	1
1.2 Background of the Study	3
1.3 Why Malaysian Islamic financial systems?	5
1.4 Purpose of research	6
1.5 Objectives of the research	6
1.6 Problem statement	7
1.7 Research questions	8
1.8 Research Hypothesis	10
1.9 Research Rationale	11
1.10 Expected Contribution of the Study	11
1.11 Research Method	12
1.12 Data Collection	12
1.13 Research Importance	13
1.14 Research limitation	14
1.15 Research layout	14
CHAPTER 2: REVIEW OF SERVICE QUALITY AND CUSTOMER SATISFACTION	
2.1 Introduction	16
2.2 Scope and Highlight on Service Quality (independent variable)	16
2.2.1 Service quality measurement	17
2.2.2 Service Quality Dimensions	18
2.2.3 Theoretical Structure for Service Quality Dimensions	20
2.2.4 Importance of Service Quality Dimensions	23
2.2.5 SERVQUAL Scale	24

2.2.6	SERVPERF Scale	26
2.2.7	Criticism of the SERVQUAL Scale	27
2.2.8	Preference of the SERVPERF Scale	29
2.3	Customer Satisfaction (Mediator Variable)	29
2.3.1	Development of Customer Satisfaction Concepts and Dimensions	31
2.3.2	Measure of Customer Satisfaction	33
2.4	Customer Loyalty (Dependent Variable)	33
2.4.1	Dimension of Customer Loyalty	35
2.5	Customer Retention Concepts and Dimensions (Dependent variable)	36
2.5.1	New Customer or Customer Retention	39
2.6	Relationship between Service quality, Customer Satisfaction, Retention and Loyalty	40
2.6.1	Relationship between Customer Satisfaction and Customer Loyalty	41
2.6.2	Customer Satisfaction Mediates Service Quality and Customer Behavior Intentions	42
2.6.3	Relationship between Customer Satisfaction, Retention, and Loyalty in Banking	43
2.6.4	Relationship between Customer Satisfaction, Service Quality in Banking	45
CHAPTER 3: ISLAMIC BANKS AND SHARIAH COMPLIANCE		
3.1	Introduction	48
3.2	Philosophy of Islamic banking	48
3.3	Islamic Financial System and Islamic Banks	50
3.4	Comparison between Conventional Bank and Islamic Bank	54
3.5	Shariah Compliance (Independent Variable)	55
3.5.1	Shariah Compliance Concepts	56
3.5.2	Importance of Shariah Compliance	57
3.5.3	Compliance with Shariah Requirement	58
3.5.4	Nature of Shariah Compliance	59
3.5.5	Implications from Shariah Non-compliance	59
3.5.6	Islamic banking Principles in Malaysia from Bank Negara Malaysia	60
3.5.7	Shariah Governance Framework for IFIs in Malaysia	61
3.6	Financial environment and regulation	62
3.6.1	The Islamic banking industry in Malaysia	62
3.6.2	Cross-culture considerations	63
3.6.3	Muslims and non-Muslims in Islamic Bank	65

3.7	Studies on customer satisfaction and customer behavior intention in Islamic banks	65
3.7.1	Islamic banks and customer	65
3.7.2	Dimensions of Customer Satisfaction for Islamic Banks	68
3.8	Prior studies on Shariah compliance using Carter model	74
3.8.1	Set for service quality Dimensions in Islamic Banks	75
3.8.2	Shariah compliance dimensions and SCSQ model	76
3.8.2.1	Dimension Shariah compliance institution	77
3.8.3	Comparison between CARTER Model SCSQ model	81

CHAPTER 4: RESEARCH METHODOLOGY

4.1	Introduction	85
4.2	Research Approach	85
4.2.1	Research Philosophy	85
4.2.2	Methodological Approaches to study Shariah compliance Research	86
4.3	Pilot study	87
4.3.1	Reliability analysis	90
4.3.2	Validity Analysis	90
4.3.3	Normality Analysis	93
4.3.4	General comments for pilot study	95
4.4	Research Design	97
4.5	Methodology Instrument	99
4.5.1	Measurement Scale: Service Quality	99
4.5.2	Measurement Scale: Customer Satisfaction	101
4.5.3	Measurement Scale: Customer Retention	102
4.5.4	Measurement Scale: Customer Loyalty	103
4.5.5	Measurement Scale: Shariah compliance	104
4.5.6	Measurement Scale: CARTER model and SCSQ model	105
4.5.7	Summary of Measurement Scales	106
4.6	Model development and research hypotheses	106
4.6.1	The impact of Service Quality to Customer Loyalty and Customer Retention	107
4.6.2	The impact of Shariah compliance to Customer Loyalty and Customer Retention	108
4.6.3	The relationship between Service Quality and Shariah Compliance	108
4.6.4	The impact of Service Quality to Customer Satisfaction	108
4.6.5	The impact of Shariah compliance to Customer Satisfaction	110

4.6.6	The impact of Customer Satisfaction to Customer Loyalty and Customer Retention	111
4.6.7	The relationship between Customer Loyalty with Customer Retention	112
4.6.8	Customer Satisfaction mediates between Service Quality and Customer Loyalty	112
4.6.9	Customer Satisfaction mediates between service quality and Customer Retention	113
4.6.10	Customer Satisfaction mediates between Shariah Compliance and Customer Loyalty	113
4.6.11	Customer Satisfaction mediates between Shariah Compliance and Customer Retention	114
4.6.12	Comparison between CARTER model and SCSQ model	114
4.7	Sampling Design	115
4.8	Data Collection Procedure	116
4.9	Outline of Data Analysis	117

CHAPTER 5: DATA ANALYSIS AND FINDINGS

5.1	Introduction	118
5.2	Main notes for responses	118
5.3	Response to Survey	119
5.4	Screening and Data Preparation	120
5.4.1	Missing Data	121
5.4.2	Outliers	124
5.5	Statistical Assumptions	125
5.5.1	Normality	125
5.5.2	Other assumptions	128
5.6	Factor Analysis	128
5.6.1	Factor Analysis for Independent Variable Service Quality Dimensions	129
5.6.2	Factor analysis for Shariah compliance dimensions	138
5.6.3	Factor Analysis for mediator variable customer satisfaction	140
5.6.4	Factor Analysis for dependent variable customer loyalty	141
5.6.5	Factor Analysis for dependent variable customer retention	142
5.6.6	Summary of Factor Analysis	143
5.7	Reliability and Validity	147
5.7.1	Reliability	148

5.7.2	Validity	149
5.8	Demographic Characteristics of Respondents	156
5.8.1	Social background of the respondents	156
5.8.2	The experiential background of respondents	158
5.8.3	The economic background of respondents	159
5.9	Descriptive statistics	160
5.9.1	Comparison of items and variables using mean range	161
5.9.2	Comparison of constructs and variables using mean value	166
5.10	Analysis of Research Hypotheses	168
5.10.1	The impact of service quality dimensions to customer loyalty	168
5.10.2	The impact of service quality dimensions to customer retention	177
5.10.3	The impact of Shariah compliance dimensions and customer loyalty	181
5.10.4	The impact of Shariah compliance dimensions and customer retention	184
5.10.5	The relationship between service quality and shariah compliance	188
5.10.6	The impact of service quality to customer satisfaction	190
5.10.7	The impact of Shariah compliance to customer satisfaction	194
5.10.8	The impact of customer satisfaction and customer loyalty	197
5.10.9	The impact of customer satisfaction to customer retention	200
5.10.10	The relationship between customer loyalty and customer retention	202
5.10.11	The impact of service quality to customer loyalty with mediate variable	203
5.10.12	The impact of service quality to customer retention with mediate variable	207
5.10.13	The impact of Shariah compliance to customer loyalty with mediate variable	210
5.10.14	The impact of Shariah compliance to customer retention with mediate variable	213
5.10.15	Compare between CARTER model and SCSQ model	217
5.11	The research model	221

CHAPTER 6: DISCUSSION AND IMPLICATIONS		
6.1	Service quality variable	224
6.2	Shariah compliance variable	228
6.3	Customer satisfaction variable (mediator)	230
6.4	Relationships between the same types of variables	234
6.5	Comparison between CARTER model and SCSQ model	235
6.6	Implications	235
 CHAPTER 7: CONCLUSION AND RECOMMENDATION		
7.1	Scope and findings	242
7.2	Limitations of the Research	246
7.3	Recommendations	247
7.4	Conclusions	247
7.5	Proposed Future Research	249
 BIBLIOGRAPHY		250
Appendix A:	Questionnaire form	266
Appendix B:	Shariah concepts in Islamic banking	272
Appendix C:	Comparison between Parasuraman (1988, 1991)	275
Appendix D:	General Requirements of the Shariah Governance Framework	278
Appendix E:	Correlation Matrix for independent variables (SQ and Shariah Compliance)	280
Appendix F:	Measures of Sampling Adequacy (MSA)	281
Appendix G:	Communalities for all variables	282
Appendix H:	Factor analysis for Shariah compliance dimensions	283
Appendix I:	Factor analysis for customer satisfaction items	285
Appendix J:	Factor analysis for customer loyalty items	286
Appendix K:	Factor analysis for customer retention items	287
Appendix L:	Scatterplot for hypothesis (from H2 to H10 and H15)	288
Appendix M:	Normal P-P Plot for hypothesis (from H1 to H14 except H5, H10)	289
Appendix N:	Scatterplot residual for hypothesis (from H1 to H14 except H5, H10)	291

LIST OF TABLES

	Page
2.1 Importance of service quality in many various countries	24
2.2 Definitions of customer loyalty	35
2.3 Transaction approach and relationship approach	36
2.4 Definitions of customer retention	38
3.1 Impact of non-compliance	60
3.2 List of licensed Islamic banks in Malaysia	63
3.3 Summary of criteria for the selection of Islamic banks around the world	70
3.4 Summary of criteria for the selection of Islamic banks in Malaysia	72
3.5 Studies using CARTER Model	75
3.6 Questions Shariah compliance institutions and principle's sources	77
3.7 Questions Shariah Compliance product and services and principle's sources	80
3.8 Questions for Islamic Bank employees' ethical conduct and principle's sources	81
3.9 Comparison between CARTER Model and SCSQ model	82
4.1 Demographic profile of pilot study	89
4.2 Results of reliability analysis	90
4.3 Variables Correlations	90
4.4 Cross Loading	92
4.5 Skewness and Kurtosis results in pilot study	93
4.6 Explains notes of pilot study and the corrections	97
5.1 List of organizations with the link	119
5.2 Summary of the response information	120
5.3 Summary of missing data values	124
5.4 Summary of extreme values	125
5.5 Summary of normality test	128
5.6 Kaiser Meyer Olkin Measure of Sampling Adequacy and Bartlett's Test	132
5.7 Eigenvalues and % of Total Variance Explained of Service Quality Dimensions	134
5.8 FA for service quality dimension after renamed (Rotated Component Matrix)	138
5.9 FA of Shariah Compliance dimensions after renamed (Rotated Component Matrix)	140
5.10 Factor analysis of customer satisfaction (Component Matrix)	141
5.11 Factor analysis of customer loyalty (Component Matrix)	142
5.12 Factor analysis of customer retention (Component Matrix)	143

5.13 Factor analysis results for all variables	145
5.14 Reliability assessment for service quality dimensions	148
5.15 Reliability Assessment for Shariah compliance, customer variables	149
5.16 Correlation Matrix of Service Quality Dimension	151
5.17 Correlation Matrix of Shariah compliance and customer variables	151
5.18 Factor Loading, Communality of service quality items	153
5.19 Factor Loading, Communality of Shariah compliance items	154
5.20 Factor Loading, Communality of Customer Satisfaction Items	155
5.21 Factor Loading, Communality of Customer Loyalty Items	155
5.22 Factor Loading, Communality of Customer Retention Items	156
5.23 Frequency and Percent of gender	157
5.24 Frequency and Percent of customer experience	158
5.25 Frequency and percent of economic background	160
5.26 Descriptive Statistics of independent, mediator and dependent structures	162
5.27 Variables and Descriptions	163
5.28 Explanation of correlation key words	169
5.29 Correlation between service quality dimensions and customer loyalty	171
5.30 Correlation for mediator variables and both independent and dependent variable	173
5.31 Descriptive statistics and correlation between each predictor and customer loyalty	174
5.32 Regression Result of Service quality dimension with customer (H1)	176
5.33 Pearson Correlation between service quality dimensions and customer retention	178
5.34 Regression Result of service quality dimension with customer retention (H2)	179
5.35 Pearson Correlation between Shariah compliance dimensions and customer loyalty	182
5.36 Regression Result of Shariah compliance dimension with customer loyalty (H3)	183
5.37 Pearson Correlation between Shariah compliance dimensions and customer retention	185
5.38 Regression Results of Shariah compliance dimension with customer retention (H4)	186
5.39 Pearson Correlation between service quality dimensions and Shariah compliance	189
5.40 Correlation between service quality dimensions and customer satisfaction	191
5.41 Regression for service quality dimension with customer satisfaction (Hypotheses 6)	192

5.42 Correlation between Shariah compliance dimensions and customer satisfaction	195
5.43 Regression for Shariah compliance dimension with customer satisfaction (H7)	196
5.44 Correlation between customer satisfaction and customer loyalty	198
5.45 Regression for customer satisfaction with customer loyalty (H8)	199
5.46 Pearson Correlation between customer satisfaction and customer retention	200
5.47 Regression Result of customer satisfaction with customer retention (H9)	202
5.48 Pearson Correlation between customer loyalty and customer retention	203
5.49 Partial correlation between service quality and customer loyalty with mediator	205
5.50 Partial correlation between service quality and customer retention with mediator	208
5.51 Partial correlation between Shariah compliance and customer loyalty with mediator	211
5.52 Partial correlation for Shariah compliance and customer retention with mediator	215
5.53 Correlation between both CARTER Model and SCSQ model with variables	219
5.54 Comparison multiple regressions for B and Beta between two models or one model	220
5.55 Comparison of multiple regressions for R values between two models or one model	221
5.56 Main regression results for SCSQ model	222
6.1 Summary of service quality dimensions influence and correlation	227
6.2 Summary of Shariah compliance dimensions influence and correlation	230
6.3 Summary of customer satisfaction influence and correlation	233

LIST OF FIGURES

	Page
2.1 The Gap model	23
3.1 Islamic Financial System: Case of Malaysia	53
3.2 Similarity and differences between Conventional bank and Islamic bank	55
3.3 The sources and roles and decisions for Islamic banks in Malaysia	56
3.4 Logo of Islamic bank in Malaysia	61
3.5 CARTER Model	74
3.6 Shariah Governance Framework Model for IFIs	78
4.1 Conceptual framework of this study	107
4.2 Research framework	115
5.1 Scree plot for component numbers	136
5.2 Comparison of Mean between constructs	167
5.3 Comparison of Mean between variables	167
5.4 Scatterplot to study the relationship between service quality and customer loyalty	170
5.5 The components diagram for the hypothesis 11	206
5.6 Components diagram for the hypothesis 12	209
5.7 Components diagram for the hypothesis 13	212
5.8 Components diagram for the hypothesis 14	216

LIST OF ABBREVIATIONS

PLS	Profit and Loss Sharing
IFIs	Islamic Financial Institutions
WOM	Word-Of-Mouth
IBS	Islamic Banking Scheme
SAC	The Shariah Advisory Council of Bank Negara Malaysia
IFSI	Islamic Financial Services Industry
IIFS	Institutions offering Islamic Financial Services
IFSB	Islamic Financial Services Board
BNM	Bank Negara Malaysia
CFIs	Conventional Financial Institutions
FA	Factor Analysis
EFA	Explanatory Factory Analysis
PCA	Principal Components Analysis
BNM SGF	Bank Negara Malaysia Shariah Governance Framework
SERVQUAL	Service Quality
SERVPERF	Service Performance

CHAPTER 1

INTRODUCTION

1.1 Introduction

The Islamic banking system has gained momentum globally. Presently, there are about 180 Islamic banks and financial institutions working in Asia, Africa, Europe and the USA using more than 8,000 branches with about \$170 billion. Estimates suggest that global Islamic financial services increased at a rate of 10%-15% over the period from 1995 to 2005. Islamic Financial Services Industry (IFSI) assets were worth US\$700 billion in 2005 and grew at an annual growth of 15% until 2010, it is expected that IFSI can grow to US\$1.4 trillion by 2010 and to US\$2.8 trillion by 2015 (Estiri, Hosseini, & Yazdani, 2011). Islamic banking industry is not only limited to the Islamic banks as more and more global banks are showing interest in the Islamic banking system at the same time (Naser, Jamal, & Al-Khatib, 1999).

With the growing importance of the service sector, it is vital for service companies to differentiate themselves from competitors by continuously delivering high quality services (Heskett, 1987; Heskett, James; Sasser; Heskett, James; Hart, Christopher, 1990). By the end of the 20th century, companies found that by focusing only on the enhancement of service quality, it cannot guarantee profitability and beat aggressive competition from domestic as well as international competition. While customer satisfaction is supposed to be based on good service quality, further the really satisfied customers may not stay with the exact same service provider for their lifetime as a result of some other uncontrollable factors resulting in loss in profits (Reichheld F. F., 1993). Together with such findings, the

focus of marketers in addition to academic researchers has slowly shifted from concentrating on improving operational performance to raised order constructs, such as customer loyalty and customer retention, which are considered to contribute to companies' long-term achievement (Reichheld, 1996).

Since the 1990s the issue of customer satisfaction and also customer retention, and their relationship with company financial performance has become the priority for the majority of managers. The shift from transactional individual sale to long term relationship marketing with repeat purchases has refocused customer behavior and profit relationship to interpreting customer behaviors such as profit and organizations have moved closer towards the inter-dependent variable, that is, Profitability (Reichheld & Sasser, 1990). Additionally, the marketing area has increasingly shifted from transactional approach (the significance of an individual sale) to relationship marketing strategy (the significance of long-term relationships and furthermore repeat purchases).

Furthermore, it is generally agreed that satisfaction perceived by the customers in the relationship with the product/service provider may be the vital consideration for retaining them. In brief, satisfied customers will remain longer in association with the organization (Eriksson & Vaghult, 2000).

Adopted by several studies concentrating on the economic and non-economic advantages that companies could earn from retained customers (Morgan & Hunt, 1994; Reichheld, 1996), the need for retaining existing customers has become well-acknowledged between practitioners and academic researchers.

1.2 Background of the Study

Researchers have identified service quality and also customer satisfaction, as a way to obtain profitability and survival. Well known studies and the primary systematic attempts to measure service quality have been highlighted by Parasuraman et al. ((Parasuraman; Berry; Zeithmal, 1993; Parasuraman; Zeithmal; Berry, 1990) and 1985, 1988, 1991,1994). They developed a two-scale instrument known as SERVQUAL, built of a set of five dimensions, which have been consistently ranked by customers to become most essential for service quality.

Service quality is considered an essential issue in the banking industry (Stafford, 1994) and recently, there has been an increase in the number of studies attempting to generate a service quality instrument for Islamic banks. The greater part has utilized SERVQUAL like a beginning, improving and/or adding items to reflect locations and organizations' variations (Othman & Owen, 2003; Jabnoun & Khalifa, 2005).

The CARTER model was the primary model to be developed for the Islamic banking industry. CARTER model has six dimensions made of SERVQUAL plus a new dimension called compliance with Islamic law (Othman & Owen, 2003). Othman & Owen (2003) called for researchers to look at the model's validity and also to measure service quality levels in the Islamic banking industry in various locations.

Regardless of its significant application, the SERVQUAL scale has already been criticized on several conceptual and operational grounds. Some main objections to the scale relate with usage of (P-E) gap scores, length of the questionnaire, predictive power of the

instrument, and validity in the five-dimension structure (Babakus & Boller, 1992; Cronin & Taylor, 1992; Dabholkar, Shepherd, & Thorpe, 2000).

Numerous studies on customer satisfaction, customer retention and customer loyalty have shown the key issues for practitioners to remain competitive in the international marketplace. At the same time, attracting new customers rather than retaining existing ones provides the targeted marketing activities for decades (Reichheld, 1996).

This study has used SERVPERF instead of SERVQUAL to measure the quality (independent variable). Furthermore, instead of using CARTER Model with five questions to study compliance as a dimension for SERVQUAL, the Shariah compliance work has been used as an independent variable to provide an improved new model of Shariah compliance (SCSQ model). It depends on three dimensions (Shariah compliance institution, Shariah compliant product or services and Islamic Bank employees' ethical conduct) with 15 questions. Simultaneously, to clarify customer behavior serious attempt has been made to study customer satisfaction as mediator variable. Additionally, customer retention and customer loyalty will be studied as two dependent variables.

Through quality service using SERVQUAL and customer satisfaction has been discussed extensively in prior literature. This study explores additional factors of Shariah compliance customer retention and customer loyalty to the model using SERVPERF model. The study is expected to provide a more in-depth insight to the phenomenon in Islamic financial sector.

1.3 Why Malaysian Islamic Financial Systems?

Islamic bank was established in Malaysia in 1983. In 1993, commercial banks, merchant banks and finance companies began to offer Islamic banking products and services under the Islamic Banking Scheme (IBS) banks. IBS banks have to separate the funds and activities of the Islamic banking transactions from the conventional banking (BNM, Banking Info, 2009).

This study is located in Malaysia and is focused on Islamic banking. Malaysia is a country with a population of approximately 27 million. This ethnic composition is approximately 60% Malays, 27% Chinese, 7% Indian and 6% composed of about forty other ethnic groups (Leete, 1996). All Malays are Muslims the other citizens are Buddhist, Christian, Hindu and from various other religions. The multicultural and also multi-religious nature of Malaysia has always puzzled researchers, particularly in light of Malaysia's relative economic strength. In the 1980s, the Malaysian government released the first Islamic bank. Since then this Islamic banking and finance industry has not only attracted Muslim customers however non-Muslim customers as well (Muslim, Zaidi, & Fontaine, 2011).

Malaysia runs a dual banking system that contains the conventional and the Islamic banking institutions. Businesses can select the financial choices that best serve their needs. Although Malaysia has progressively liberalized its financial system, the liberalization of the Islamic financial system continues to be at a much more rapid rate with a comprehensive and robust financial infrastructure. The motivation for this can create greater international economic and financial network. Liberalization of the conventional banks has been more gradual to make sure that the financial system promotes balanced

growth while staying steady and sustainable. The strong legal and regulatory framework, as well as the availability of a growing talent pool and expertise in Islamic finance, forms the stable components in the system to satisfy the needs of businesses (BNM, info banking, 2013).

1.4 Purpose of Research

Although numerous articles consider model to measure service quality in Islamic banking like CARTER model. This study constructs and evaluates a new model to measure service quality in Islamic banks named the SCSQ model. This model is composed of service quality and Shari'ah compliance as an independent variable on customer satisfaction as a mediating variable with customer loyalty and retention as a dependent variable.

1.5 Objectives of the Research

This research has objectives, which were carried out in sequence as follows:

1. To examine effects of service quality and Shariah compliance on customer satisfaction in terms of dependent variables customer loyalty and customer retention in Islamic Banking.
2. To determine whether relationship is significant or otherwise between Service quality, Shariah compliance and customer loyalty with customer retention.
3. To examine the mediating effects of customer satisfaction on the relationship of service quality dimensions and Shariah compliance as independent variables and customer loyalty and customer retention as dependent variables.

4. To compare between CARTER model and improved SCSQ model to evaluate service quality for Islamic banks.

1.6 Problem Statement

Primary systematic attempts to measure service quality like conventional banks have been highlighted by Parasuraman et al. (1985, 1988, 1990, 1991, 1993, and 1994). The CARTER model was the primary model to be developed for the Islamic banking industry. Carter model is Parasurman model plus a new dimension “compliance with Islamic law” with 5 questions related with Islamic organization and its product (Othman & Owen, 2003).

Positive correlations among customer satisfaction and retention, loyalty have already been reported in a variety of studies (Parasurman, Berry, & Zeithmal, 1988; Reichheld & Sasser, 1990; Mittal & Kamakura, 2001). Cronin, Brady, and Hult (2000) and Wong and Sohal (2003) proposed that service quality proves a positive relationship with a quantity of behavioral intentions (customer loyalty and customer retention), either straight or through the mediating impact of satisfaction

Abdullrahim (2010) in his study on Islamic banks in UK; the respondents in his study showed items like closing for Friday prayer time, banks having prayer rooms, Muslim Female staff wearing hijab and banks having separate departments for women (Abdullrahim, Najat, 2010). In Malaysia the prescription of Shari’ah Governance Framework and the requirement to comply as specified in Islamic Financial Services Act for Institutions offering Islamic financial services (IIFS) (BNM, 2013). The Cater model

has a gap because it includes questions related with employee's conduct, because it focuses on the Islamic organization of its product.

The need to expand the dimensions of Shari'ah compliance to include all dimensions related as well as separate variables as a result of the adoption of BNM Shari'ah governance framework that emphasizes end to end compliance. In addition, it extends the impact of both service quality and Shari'ah compliance as independent variables to customer satisfaction as mediator variables, customer loyalty and retention as dependent variables. It needs an independent Shari'ah compliance factor in addition to the service quality variables, customer satisfactions, customer loyalty and customer retention with each other. It can be named SCSQ model.

The problem statement constructs and evaluates model to measure service quality in Malaysian Islamic banking.

1.7 Research Questions

Though various efforts of Islamic Banks to improve financial performance with improved quality service and customer satisfaction specific issues on significance of Shariah compliance have yet to be addressed:

Q1: Does service quality have influence on customer loyalty?

Q2: Does service quality have influence on customer retention?

Q3: Does Shariah compliance have influence on customer loyalty?

Q4: Does Shariah compliance have influence on customer retention?

Q5: Does service quality have relationship with Shariah compliance?

Q6: Does service quality have influence on customer satisfaction?

Q7: Does Shariah compliance have influence on customer satisfaction?

Q8: Does customer satisfaction have influence on customer loyalty?

Q9: Does customer satisfaction have influence on customer retention?

Q10: Does customer loyalty have relationship with customer retention?

Q11: Does customer satisfaction mediate between Service quality and customer loyalty?

Q12: Does customer satisfaction mediate between Service quality and customer retention?

Q13: Does customer satisfaction mediate between Shariah compliance and customer loyalty?

Q14: Does customer satisfaction mediate between Shariah compliance and customer retention?

Q15: Does SCSQ model's explanatory power has different from CARTER model on aspects of Shariah compliance?

This study proposes the relevant constructs to consider Shariah compliance in service quality; customer satisfaction is further analyzed in terms of customer loyalty and customer. Based on the previous studies and the particular gaps recognized from literature review, a conceptual model specifying the relationships between these constructs will then

become constructed. The results of this research would add more clarity to the understanding of relationships between those constructs that are essential for Islamic banks' long-term achievement.

1.8 Research Hypothesis

From questions of this study, hypothesis can be formulated as follows:

H1: Service quality has influence on customer loyalty.

H2: Service quality has influence on customer retention.

H3: Shariah compliance has influence on customer loyalty.

H4: Shariah compliance has influence on customer retention.

H5: Service quality has relationship with Shariah compliance

H6: Service quality has influence on customer satisfaction.

H7: Shariah compliance has influence on customer satisfaction.

H8: Customer satisfaction has influence on customer loyalty.

H9: Customer satisfaction has influence on customer retention.

H10: Customer loyalty has relationship with customer retention.

H11: Customer satisfaction mediates between Service quality and customer loyalty.

H12: Customer satisfaction mediates between Service quality and customer retention.

H13: Customer satisfaction mediates between Shariah compliance and customer loyalty.

H14: Customer satisfaction mediates between Shariah compliance and customer retention.

H15: SCSQ model's explanatory power has different from CARTER model on aspects of Shariah compliance.

1.9 Research Rationale

This research is designed, to improve a new model SCSQ to fill the gap of CARTER model. This new model measures service quality in Malaysian Islamic banks. It composes of service quality, Shariah compliance as variable, customer satisfaction, customer loyalty and customer retention. It gives a complete view for weak and strong points for their activity. It is hoped that Islamic bank managers will probably be able to utilize the new model to assess and grow their services and satisfy their customers.

1.10 Expected Contribution of the Study

The expected contribution of this study is as follows:

Firstly, from the theoretical perspective, the current study could enhance the understanding of the relevant factors which influence customer's satisfaction for Islamic banking, to be loyal with a specific product/service provider. In the current study, it highlights the future customers be presumed to receive better services with high satisfaction, higher loyalty and higher retention.

Secondly, although increasing service quality has long been considered an important indicator for increasing customer satisfaction in Islamic banking. The New model will try

to measure service quality in Islamic banking by the SCSQ model which constructs and evaluates this study.

Thirdly, managerial issues provided by the respondents are of more importance for practitioners. Those issues would not only help practitioners understand what their valuable customers think but it can also help researchers discover theoretical gaps for further research.

1.11 Research Method

Quantitative research is adopted for hypotheses testing to refine measurement model. Hence the questionnaire was constructed following previous studies about Islamic banks. All questions have high reliability to develop an understanding of Shariah compliance and service quality that have impact on the customer satisfaction of Islamic banks with customer loyalty and customer retention.

1.12 Data Collection

As mentioned out above, the data has been collected for the research as follows:

Following a pilot study which was distributed to students of Tun Abdul Razak University, the final questionnaires distributed to Muslims and Non-Muslims staff and students in Malaysian universities and as external customer to the Islamic banks. To avoid bias, questionnaire has been prepared based on the prevailing literature of the subject. It contains the four parts; first one Part A is related to the demographic detail of the respondents like gender, age, usage of Islamic banking products. Part B concerns the feedback of Islamic Bank services and customer perception while Part C provides feedback on compliance with

Shariah law, and part D customer satisfaction customer loyalty and customer retention. In this questionnaire we use a five-point Likert scale ranging from “Strongly Agree 5” to “Strongly Disagree 1”. Electronic link has been used to collect the data from Malaysian Bank customers.

1.13 Research Importance

For the researcher’s knowledge, previous studies have developed measurement scales concerned with quality in the Islamic banking. This research established the most significant items and dimensions from the customer service quality, Shariah compliance and customer satisfaction study on Islamic banking. Therefore, this research is important in the following manner:

First, to help Islamic bank managers, mainly because managers should be aware of the most important items and dimensions to improve ways of providing good service to their customers, and achieving customers’ satisfaction. This will enable Islamic banks to work more effectively in response to their customers’ needs.

Second, this study is important to academics and researchers in service quality, as it gives further empirical evidence on the determinants of service quality.

Third, Both Muslims and Non-Muslims patronize Islamic banks for various reasons. Prior studies indicate that religiosity is an important factor for Muslims whilst non-Muslims expect higher return from profit sharing deposits. Hence such variation of expectations may impact on customer satisfaction as well as loyalty and retention.

Fourth, in Malaysia the prescription of Shariah Governance Framework and the requirement to comply as specified in Islamic Financial Services Act for Institutions offering Islamic financial services (IIFS) are special to this jurisdiction and hence is expected to have a significant impact to this study.

1.14 Research Limitation

Islamic banks in Malaysia maybe have a unique environment; this makes the generalization of the study results to other Islamic banks in different location settings challenging without adapting the model to make it fit the particular setting. At the same time, convenience sample has been used in this study. It is difficult to generalize the results. However, different customer culture, economic environments and regulations should be taken in consideration as limitation of this study.

1.15 Research Layout

The study is arranged in **seven** chapters as follows:

Chapter 1, briefly provides an introduction to the research, it discusses the main aims and objectives of the research, the research logic, method, and importance, and the structure of the thesis. The purpose of this chapter is to set out the main research targets and to justify the research objectives.

Chapter 2 reviews the existing related literature on service quality, customer satisfaction, customer loyalty and customer retention. The purpose of the chapter is to explain the preference for service performance as measurement scale and specify the relevant dimensions for service quality and customer satisfaction for this thesis. It is the first part of literature review.

Chapter 3 reviews the existing related literature on Islamic banking. The purpose of the chapter is to discuss the pertinent features of Islamic banking system and Shariah compliance requirement as the setting of the research. It provides an understanding and reviews the literature of Islamic banking, Shariah compliance in Malaysia and in other jurisdictions. It is the second part of literature review.

Chapter 4, the research methodology is employed to specify the research method intended to attain the objectives of the research is discussed. The methods that have used and how data were collected are specified and described accordingly. The chapter also postulates the research hypotheses; specifies the population and sampling method of the research. The research questionnaire used to test the research hypotheses has also been discussed.

Chapter 5 Data analysis presents and discusses the results of the questionnaire. It begins with description of the participants and the results of the discussion in themes and provides details about data collection and data analysis procedures. Presents finding and results from empirical analysis investigating the relationships between the constructs.

Chapter 6 includes findings and various implications. Chapter 7 includes recommendation, conclusions and various implications. In addition, limitations of the current study and suggestions for future research are also provided

CHAPTER 2

REVIEW OF SERVICE QUALITY AND CUSTOMER SATISFACTION

2.1 Introduction

Service quality is considered an essential issue in the banking industry and recently, there has been an increase in the number of studies attempting to generate a service quality instrument for Islamic banks. Numerous studies have identified customer satisfaction, customer retention and customer loyalty as key issues for institutions to be competitive in the international marketplace. At the same time, attracting new customers rather than retaining existing ones has been the target of marketing activities for decades.

This chapter reviews the existing related literature; this is to give as much background as possible regarding the service quality and its antecedents such as definition, how to measure and various dimensions. In addition, it provides an understanding, how to measure, dimensions for customer satisfaction, customer loyalty and customer retention. It reviews the existing related literature for these terms which concern with customer.

2.2 Scope and Highlight on Service Quality

As a general rule developed economies have become services oriented rather than goods oriented, service quality requires a notable place in the marketing-management literature. Service quality is often defined as the customer's impression of the actual relative inferiority/superiority of the service provider and its services (Rust & Oliver, 1994) and it is often considered similar for the customer's overall attitude towards company (Parasurman, Berry, & Zeithaml, 1988; Zeithaml, Berry, & Parasuraman, 1988; Bitner, 1990).

Researchers have attempted to conceptualize and also measure service quality as well as clarify its relation towards the overall performance of companies and organizations.

One common denominator of study on service quality concludes that, due to the fact services are intangible, heterogeneous, and their “production” and “consumption” tend to be generally inseparable, the process utilized by customers to assess service quality is remarkably complex and can't be easily identified. The ideas of services are considered both by means of the outcome and the production and delivery process are frequently approved. Gronroos (1982) considers services as products needing, with a large extent, the consumer's involvement in the whole process of production and also consumption; when consumers compare their expectations concerning the service using with what they in reality receive. The consequence of this comparison is perceived service quality (Parasuraman et al., 1985, 1988). Gronroos (1982) suggests that the consumers' expectations are influenced by marketing actions, external impact and word-of-mouth (WOM). He identifies two types of service quality; “technical”, linked to what the customer receives from a service and also “functional”, connected with how the service is actually delivered.

2.2.1 Service Quality Measurement

Primary efforts in defining and measuring service quality are generated mainly in the goods field, a firm foundation for research work in the region was done during the mid-eighties by Parasuraman, Zeithaml and Berry (1985). These initial researchers undoubtedly mentioned that the idea of quality popular in the goods field just isn't extendable for the services field. Being naturally and basically intangible, heterogeneous, perishable, as well as entailing

simultaneousness and inseparability of production with consumption, services require a distinct framework with regard to quality explication and also measurement. Compared to the goods sector exactly where tangible cues can be found to allow consumers to evaluate product quality, quality in the actual service context will be explicated in conditions of parameters which mostly arrive within the domain with ‘experience’ and ‘credence’ properties and therefore are hard to measure as well (Parasuraman, Berry, & Zeithaml, 1985; Zeithaml & Bitner, 2001).

One main contribution of Parasuraman, Zeithaml and Berry (1988) was to give a brief definition of service quality. They identified service quality as ‘a worldwide judgment, or even attitude, of the superiority of the actual service’, and explicated it concerning evaluations of the results (i.e., what the customer receives from service) and means of service work (i.e., the manner through which service is actually delivered). In line using the propositions put forward by Gronroos (1982) and Smith and Houston (1982), Parasuraman, Zeithaml and Berry (1985, 1988) who posited and also operational service quality like a difference among consumer expectations of ‘what they want’ and their perceptions regarding ‘what they get.’ Depending on this conceptualization and operationalization, they suggested a service quality measurement scale known as ‘SERVQUAL.

2.2.2 Service Quality Dimensions

Early conceptualizations (e.g., (Gronroos, 1982; Gronroos, 1984); Parasuraman et al.(1985) demonstrated that perceived SERVQUAL has been based on the disconfirmation paradigm where SERVQUAL was obviously a comparison between consumers’ expectations and their perceptions of the service they received. Together with the disconfirmation paradigm

towards the measurement of SERVQUAL, Gronroos (1984) designed The Nordic Model. He recognized two SERVQUAL dimensions. The first dimension was technical quality which described the outcome on the service performance or even what the customer received from the service experience. The other dimension was functional quality that was the subjective perception of how the service has been delivered.

An original SERVQUAL instrument determined ten components of service quality. Additionally study was carried out by Parasuraman et al. (1988). In the most frequently used version (Parasuraman et al., 1988), service quality can be calculated as the gap between customer expectations and perceptions. The 22 items on this instrument are categorized directly into five dimensions: *reliability* that is the ability to do the service within an accurate and dependable way; *tangibles* that refers for the appearance of physical factors for example equipment, facilities and personnel; *empathy* that involves providing individual attention and also care to customers; *responsiveness* that is the willingness to supply help with prompt service to customers; and assurance which refers towards the knowledge and *courtesy* involving employees and their capability to convey trust and confidence. Four or five items are utilized to measure each dimension and the instrument is administered double in various forms, so that both customer expectations and perceptions can be measured individually. Reliability analysis for the instrument demonstrated an alpha coefficient scale ranging from 0.87 to 0.90 along the different service sectors that were analyzed. By rephrasing the items measuring expectations, the instrument was further refined by Parasuraman et al. (1991).

2.2.3 Theoretical Structure for Service Quality Dimensions

Numerous researchers and scholars on quality have identified the need to build up valid and distinct measures of service quality in the last several decades. Gronroos (1984) attempted to explain in his model of service quality exactly how customers perceived service quality depending on three points. First, functional quality or how the service is conducted and delivered (related to the outcome of the service experience), second, creating the image of the organization during buyer-seller interactions (a reflection of the image of the service organization), last but not least the overall perception of quality as a function of the customers' assessment of the service (concerned with the process of service delivery). In his 1988 work, he designed five key dimensions of service quality as shown below: 1- professionalism and skills; 2- reputation and credibility; 3- behavior and attitudes; 4- accessibility and flexibility; and 5- reliability and trustworthiness.

On the other hand, the most popular assessments tools of service quality are SERVQUAL, an instrument created by the marketing research team of Parasuraman, Berry and Zeithaml (1985, 1988, 1990, 1991, 1993, and 1994). They started their work with qualitative research, that proposed 10 dimensions of service quality (reliability; responsiveness; competence; access; courtesy; communication; credibility; security; understanding/knowing the customer and finally tangibles) and also by means of several qualitative researches, they developed a set of five dimensions (Tangibles, Reliability, Responsiveness, Assurance and Empathy) that have been consistently ranked by customers and have become important for service quality, no matter which service industry. They developed a 22-item instrument to measure customers' expectations and perceptions (E and

P) of the five dimensions. The measurement is definitely managed by utilizing two forms one to measure expectation and the other to measure perception.

The fundamental assumption underlying the SERVQUAL scale is the fact that carrying out below expectation (receiving a negative score) creates a perception of low service quality, while exceeding expectations (receiving a positive score) creates a perception of high service quality. Consequently, perceived service quality would be the result of the customer's evaluation of expected service with the service received.

They recognized the variations between customers' expectations and perceptions using three probable scenarios to define exactly how service quality is perceived by customer: 1- Expectations of service quality tend to be realized (quality exceeds expectations) $PS > EX$ or $PS - EX > 0$ 2- Expectations of service quality are generally met (quality is acceptable) $PS = EX$ or $PS - EX = 0$ 3- Expectations of service quality are certainly not met (quality is unacceptable or not less than satisfactory) $PS < EX$ or $PS - EX < 0$

The technique of Parasuraman presents the customer's interesting expectations of performance on the service dimensions, noticing performance and later developing performance perceptions. Therefore, the SERVQUAL instrument shows the core of exactly what service quality may indicate, particularly a comparison to excellence in service by customers.

Additionally, their model identifies five possibilities for quality failure, or exactly what are named "Gaps", which are perceived like a process for the design of a service. Figure 2.1 displays this model and precisely how management can build an understanding of customer expectations and be sure which dimension of the service is created and operated to satisfy

customer's expectation and quality standards. The gap model in figure 2.1 illustrates the four banking breakdowns (gaps) that lead to gap five, namely the conflict between the external customer's perceptions and expectations. Four gaps remain in the manner of delivering a service perceived simply by customers as being of good quality:

- i. Gap one: Customer expectations – management's perceptions.
- ii. Gap two: Management's perceptions – service quality specifications.
- iii. Gap three: Service quality specifications – service delivery.
- iv. Gap four: Service delivery – external communications.
- v. Gap five: Perceived service gap.

Gap five is basic measure of service quality from the customer's perspective. It is the distinction among perceived and expected levels of service. The SERVQUAL instrument has been commonly utilized since the mid-eighties, however it's also been frequently commonly criticized by numerous researchers. Also Cronin and Taylor (Cronin & Taylor, 1992; Cronin & Taylor, 1994) criticize Parasuraman work for their doubt to define perceived service quality in attitudinal terms. They designed their model in 1992 and operated a measurement model depending on performance measure of service quality (SERVPERF). They also tested this model in four industries (banking, pest control, dry cleaning and fast food) and the findings indicated that SERVPERF explained more of the difference in an overall measure of service quality as compared to SERVQUAL.

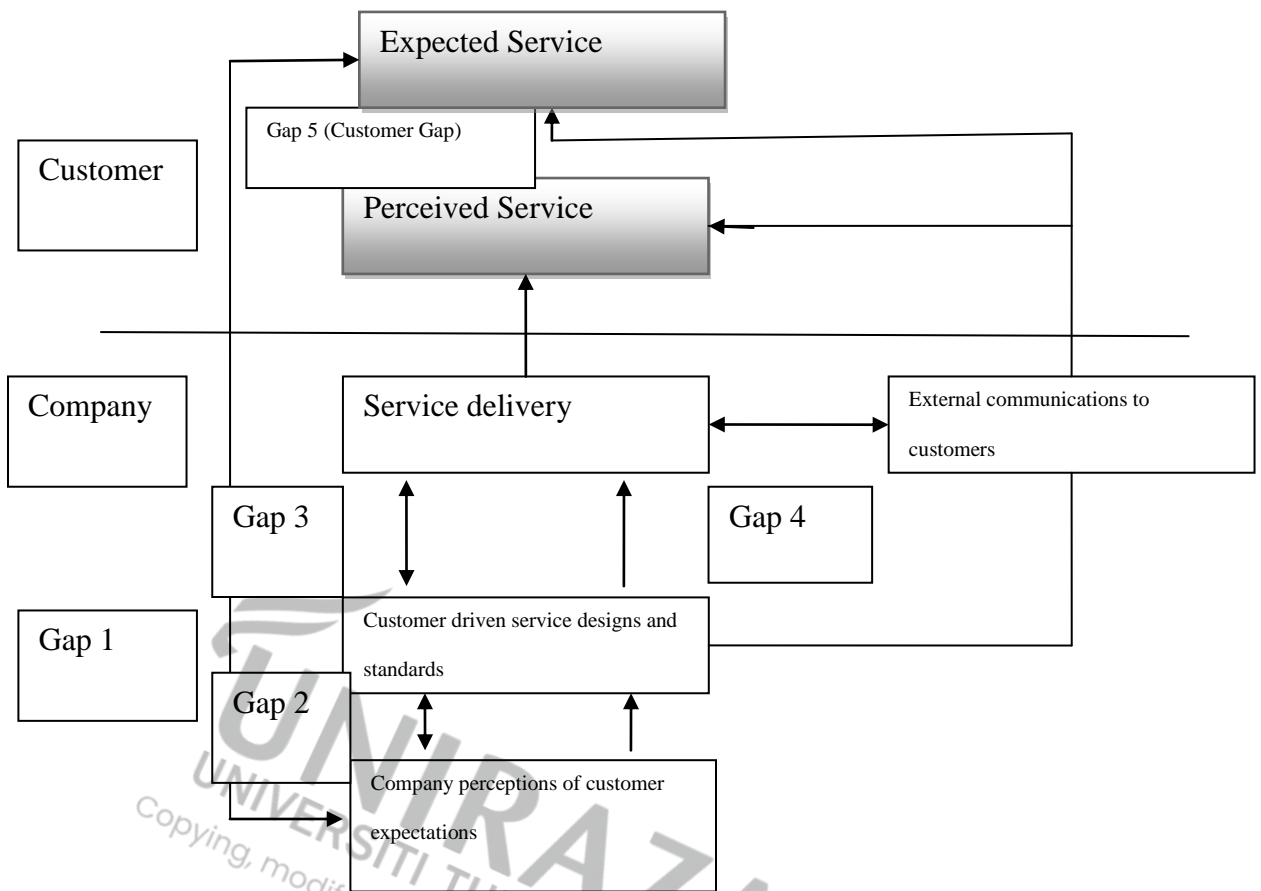


Figure 2-1 The Gap model

Source: Parasuraman, Zeithaml, and Berry, 1985, pp.44

2.2.4 Importance of Service Quality Dimensions

There are many studies related with importance of service quality dimensions around the world, table 2.1 summaries them.

The significantly different order of the dimensions takes into consideration the truth that the significance of the dimensions should be assessed for each and every study on service quality conducted in a country and for the particular industry during that time. In the banking sector particular consideration should distinguish if the banking system is conventional or Islamic.

Table 2-1 Importance of service quality in many various countries

Author	Country	Results
(Parasurman, Berry, & Zeithmal, 1988)	USA	reliability as the most important dimension followed by assurance, tangibles, responsiveness and empathy
(Kwan & Hee, 1994)	Singapore	responsiveness and reliability as most important and tangibles as the least important
(Dotchin & Oakland, 1994)	UK	assurance, tangibles, reliability, responsiveness and finally empathy
(Newman & Cowling, 1996)	UK	reliability, assurance and responsiveness to be the three most important and tangibles to be least valued by customers
(Yavas, Bilgin, & Shemwell, 1997)	Turkey	tangibles, responsiveness and empathy to be significant predictors of consumer satisfaction
(Angur, Natarajan, & Jahera, 1999)	India	reliability and responsiveness were the most important followed by empathy, tangibles and very last came assurance
(Lasser, Manolis, & Winsor, 2002)	USA and South America	empathy was found to be significantly and positively related to overall satisfaction
(Newman, 2001)	UK	responsiveness, empathy and assurance are critical in service marketing provided reliability of service delivery is satisfactory
(Wang, Lo, & Hui, 2003)	China	assurance and responsiveness were found to be the two most important drivers of overall service quality and tangibles and reliability to be most significant drivers of overall product quality
(Beerli, Martin, & Quintana, 2004)	Spain	reliability, responsiveness and assurance to be the most important followed by empathy and then tangibles
(Yavas, Benkenstein, & Stuhldreier, 2005)	Germany	Reliability and responsiveness are positively related to satisfaction. Tangibles and empathy were found to influence consumer commitment and positive WOM
(Arasli, Katircioglu, & Mehtap-Smadi, 2005)	Cyprus	assurance dimension had largest influence on customer satisfaction
(Najjar & Bishu, 2006)	USA	responsiveness and reliability to be most important and directly related to overall service quality
(Tahir & Abu Bakar, 2007)	Malaysia	responsiveness is to be most important followed by reliability, tangibles, assurance and empathy

Adopted from: (Sangeetha, 2011)

2.2.5 SERVQUAL Scale

The foundation for the SERVQUAL scale is actually the particular gap model suggested by Parasuraman, Zeithaml and Berry (1985, 1988). With root base in disconfirmation paradigm, the particular gap model recognizes which satisfaction is related to the size and direction of disconfirmation of an individual's experiences his/her primary expectations

(Churchill & Surprenant, 1982; Parasuraman, Berry, & Zeithmal, 1985). As being a gap as well as difference between customer 'expectations' and 'perceptions,' service quality can be regarded as lying along a continuum ranging from 'ideal quality' to 'totally unacceptable quality,' with some points along the continuum representing satisfactory quality. Parasuraman, Zeithaml and Berry (1988) held that whenever perceived or experienced service is less compared to expected service, it implies less than satisfactory service quality. However, when perceived service can be less than expected service, the most obvious inference is the fact that service quality is more than satisfactory.

Parasuraman, Zeithaml and Berry (1988) posited while a negative conflict among perceptions and expectations 'performance-gap' since they call it leads to dissatisfaction, a positive discrepancy causes consumer delight.

Depending on their empirical work, they recognized a set of 22 variables/items going five different dimensions of service quality. Given that these people run service quality as being a gap between customer's expectations and perceptions of performance on these variables, their service quality measurement scale is comprised of the total of 44 items (22 for expectations in addition to 22 for perceptions). Customers' responses with their expectations and perceptions are acquired on a 7-point Likert scale and tend to be compared to arrive at (P-E) gap scores. The bigger (more positive) the perception minus expectation score, the higher can be perceived to become the level of service quality. In an equation form, their operation of service quality can be expressed as follows

Equation 2.1 Equation form for SERVQUAL

$$SQ_i = \sum_{j=1}^k (P_{ij} - E_{ij})$$

Where

SQ_i = perceived service quality of individual 'i'

K = number of attributes / items

P = perception of individual 'i' with respect to performance of service firm on attribute 'j'

E = service quality expectation for attribute 'j' that is the relevant norm for individual 'i'

2.2.6 SERVPERF Scale

Cronin and Taylor (1992) were among the group of researchers which leveled highest criticism on the SERVQUAL scale. They questioned the actual conceptual foundation of the SERVQUAL scale and also believe it is confusing with regard to service satisfaction.

They, as a result, opined that expectation (E) part of SERVQUAL is to be removed and instead performance (P) part alone be taken. They recommended what is known as the 'SERVPERF' scale. In addition to theoretical arguments, Cronin and Taylor (1992) provided empirical evidence across four industries (namely banks, pest control, dry cleaning, and fast food) to confirm the superiority of their 'performance-only' instrument over disconfirmation-dependent SERVQUAL scale.

As being an alternative of the SERVQUAL scale and containing perceived performance element alone, 'performance only' scale is actually composed of only 22 items. A higher

perceived performance means higher service quality. In equation form, it could be expressed as:

Equation 2.2 Equation form for SERVPERF

$$SQ_i = \sum_{j=1}^k P_{ij}$$

Where

SQ_i = perceived service quality of individual 'i '

K = number of attributes / items

P = perception of individual 'i ' with respect to performance of service firm on attribute 'j '

2.2.7 Criticism of the SERVQUAL Scale

Regardless of its considerable application, the SERVQUAL scale has been criticized on several conceptual and operational grounds. Some main objections contrary to the scale relate with usage of (P-E) gap scores, length of the questionnaire, predictive power of the instrument, and validity in the five-dimension structure (e.g., Babakus and Boller, 1992; Cronin and Taylor, 1992).

Numerous issues have already been raised with regard to utilization of (P-E) gap scores, i.e., disconfirmation model. Several studies have found a poor fit between service quality as measured through Parasuraman, Zeithaml and Berry's (1988) scale and service quality measured directly by using a single-item scale (e.g., Babakus and Boller, 1992; (Babakus; Mangold, 1989); (Carman, 1990). Although using gap scores is without effort desirable and

also conceptually practical, the capability of these scores to offer extra information in addition to already contained in the actual perception component of service quality scale is under doubt (Babakus & Boller, 1992). Directing to conceptual, theoretical, and measurement problems linked to the disconfirmation model, a (P-E) gap of magnitude '-1' can be generated in six ways: P=1, E=2; P=2, E=3; P=3, E=4; P=4, E=5; P=5, E=6 and also P=6, E=7 and these linked gaps cannot be interpreted as implying equal perceived service quality shortfalls (Teas, 1993; Teas, 1994). In the same vein, the empirical study found variation scores having psychometric problems and, as a result, cautioned up against the using (P-E) scores (Peter, Churchill, & Brown, 1993).

Validity of (P-E) measurement framework has also come under attack because of difficulties with the conceptualization and measurement of expectation component of the SERVQUAL scale. While perception (P) is definable and also measurable in an easy manner as the consumer's opinion about service has experience, expectation (E) is subject to several interpretations and has been operational in a different way by different authors/researchers (e.g., Babakus and Inhofe, 1991; Brown and Swartz, 1989; Dabholkar et al., 2000; (Gronroos, 1990); Teas, 1993, 1994). Initially, Parasuraman, Zeithaml and Berry (1985, 1988) defined expectation near on the lines of Miller (1977) as 'desires or wants of consumers,' i.e., exactly what they feel a service provider need to offer rather than would certainly offer. This conceptualization was based on the reasoning that the word 'expectation' has been utilized differently in service quality literature compared with the customer satisfaction literature where it is defined as a prediction of future events, i.e., exactly what customers sense a service provider would certainly offer. Parasuraman, Berry

and Zeithaml (1990) labeled this ‘should be’ expectation equally ‘normative expectation,’ and posited it as becoming much like ‘ideal expectation’ (Parasuraman; Berry; Zeithmal, 1991).

Later on, recognizing the problem with this interpretation, they themselves suggested a modified expectation (E^*) measure, i.e., what the customer would expect coming from ‘excellent’ service (Parasuraman, Berry, & Zeithmal, 1994).

2.2.8 Preference of the SERVPERF Scale

It is due to the ambiguity of the expectation concept that several researchers like Babakus and Boller (1992), (Bolton & Drew, 1991), and Carman (1990) pressured the need for making a methodologically more precise scale. The SERVPERF scale — developed by Cronin and Taylor (1992) is considered one of the important alternatives of the SERVQUAL scale. For, getting based on the perception component alone, it has become conceptually and methodologically posited as a much better scale compared to SERVQUAL scale. However, from all above criticism notes against SERVQUAL, in this study, SERVPERF will be used.

2.3 Customer Satisfaction

Oliver (1980) discussed that customer satisfaction is a complete meeting of customer expectations of products and services. When the perceived performance meets customers’ expectations of services, they are satisfied. When it does not, they are dissatisfied (Oliver, 1997). Based on this theory, expectations tend to be influenced by the previous customer

experiences with products and services, and the customers need to have experienced a service (Brunner, Markus, & Klaus, 2008).

Whenever customers tend to be satisfied with the services provided, the customer's attitude towards the organization is improved, and this kind of attitude will then impact the consumers' satisfaction with the company (Andreassen & Lindestad, 1998). At the same time, satisfied customers will become more likely to repurchase subsequent products and services (Cronin & Taylor, 1992; Rust & Zahorik, 1993).

Churchill and Surprenant (1982) determine customer satisfaction as an outcome of purchase and use resulting from the buyers' comparison with the returns and costs of the purchase in relation to the expected consequences (Churchill & Surprenant, 1982). Customer satisfaction is looked as an emotional response, which results from a cognitive process of evaluating the service received versus the costs of receiving the service (Westbrook, 1981). Customer satisfaction can often be defined as the customers' post-purchase comparing between pre-purchase expectation and performance received (Zeithaml; Berry; Parasuraman, 1993).

Customer satisfaction has been defined as comparison process between full meeting, outcome of purchase or post-purchase on one side and customer expectations, the rewards, costs and expected of the purchase or pre-purchase expectation on the other side.

We can generalize that customer satisfaction is in comparison with customer expectation and customer perception. Customers are satisfied when perceived service is equal to or

more than their expectation, and unsatisfied when perceived service is less than their expectation.

2.3.1 Development of Customer Satisfaction Concepts and Dimensions

During the early 1970s some important improvements in theory and also research on consumer satisfaction have been expressed by various studies such as (Olshavsky & Miller, 1972). Major theoretical as well as empirical investigations during the 1970s supported the idea that “satisfaction is related to the size and direction of disconfirmation experiences, where disconfirmation experience is related to the person’s initial expectations” (Churchill & Surprenant, 1982).

Satisfaction, conceptually, may be regarded as an outcome of purchase and use that is the outcome of the customer’s comparison of the rewards and costs involved in acquiring any product or service experience in relation to the expected outcomes, while, within operational terms, satisfaction is just like the attitude whereas it is usually evaluated as the gathered satisfaction experiences with the various attributes of the product (Churchill & Surprenant, 1982).

Within the 1980s, adding an emotional response to the experiences supplied by related particular products or services purchased (Westbrook & Reilly, 1983) set up a new dimension to the research in customer satisfaction.

Through the 1990s and also at the start of the year 2000 covered with a model built about “confirmation/disconfirmation” paradigm to explain customer satisfaction (Davis & Heineke, 1998; Woodruff, Clemons, Schumann, Gardial, & Bruns, 1991). Here,

satisfaction, or dissatisfaction is determined from the difference between customer expectations of the product or service and their really perceived performance. If customer expectations are met, the actual result is satisfactory and otherwise, dissatisfaction occurs (Szymanski & Henard, 2001; Davis & Heineke, 1998).

Lately, Oliver (1997) in his book, "Satisfaction: A Behavioral Perspective on the Consumer" described customer satisfaction as: . . . satisfaction is the consumer's fulfillment response. It is a judgment that a product/service features, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of with under-or over fulfillment (Oliver, 1997).

During the entire development phase of research in customer satisfaction, one question stays almost disregarded with some exceptions. That is certainly whether "customer satisfaction" differs for products and services or it is identical? One more-related question is what measures, direct or indirect, must be used to completely conceptualize and measure the behavioral components of customer satisfaction caused from consumption experience (Malhotra, Francis, Ugald, & Imad, 1994)

Several researchers (Boulding, Kalra, Staelin, & Zeithaml, 1993; Mittal; Baldasare, 1996) analyzed customer satisfaction using multiple behavioral measures. Moreover, numerous studies on customer satisfaction with specific reference to financial services also reflect the lack of literature about customer satisfaction generally services and created little effort to define several particular measures of customer satisfaction analysis because of their experiences of using financial services.

2.3.2 Measure of Customer Satisfaction

Nevertheless, Cronin and Taylor (1992) identified and also measured customer satisfaction like a one-item scale which requests for the customer's overall feeling for an organization. By utilizing a single-item scale to measure customer satisfaction, Cronin and Taylor's approach does not perform justice towards the richness of the construct. Rather than single-item measurement, additional studies have highlighted the multi-faceted nature of customer satisfaction and used multiple item scales to be able to measure it. Bitner and Hubbert (1994) used four items to measure customers' overall satisfaction with a particular service provider. They show the concept of experience satisfaction, and devised a nine-item scale to be able to measure it. Five factors in order to measure customer satisfaction: (1) core service or service product; (2) human component of service delivery; (3) systematization of service delivery: non-human element; (4) tangibles of service—services capes; and (5) social responsibility (Sureshchandar, Rajendran, & Anantharaman, 2002). Briefly, the multi-dimensional nature of customer satisfaction has already been combined with global measures that view overall satisfaction as a function of satisfaction with multiple experiences or encounters with the particular service providers.

2.4 Customer Loyalty

Customer loyalty, as Jones and Sasser (1995) reported, is the feeling of attachment to or affection for a company's people, products or services. Customer loyalty has also been defined as an attitude and as behavioral loyalty. Behavioral loyalty is customers' intention to repurchase the product/service (Hallowell, 1996). Therefore, as a behavior, customer

loyalty has become measured as the customers' replicate purchase probability (Rajshekhar & Moberg, 1997).

Loyalty as an attitude will be the consumers' relatively enduring efficient orientation for any product, store or service (Parasuraman et al., 1988) From the service managing literature, loyalty is principally defined based on the behavioral view and various loyalty studies had been operational behaviorally.

Customers repurchase intentions in the banking sector means the customer's intention to repurchase the service from the same bank. Thus, the behavioral element of measure customer loyalty is centered on the customers' stated purchase behavior, i.e., their tendency to obtain again.

From the marketing literature, various works on the wide range of terms explain loyalty and methods to measure it. Terms used interchangeably in business consist of loyalty, customer retention, and also switching behavior. To this list related terms include: relationship strength and continuance commitment (Shemwell, Cronin, & Bullard, 1994). There is furthermore the lack of variance between measures of customer loyalty and related factors for example customer satisfaction. Andreassen and Lindestad (1998) defined loyalty as "an intended behavior caused by the service and operational loyalty as a repurchase intention and willingness to provide positive WOM".

Cronin et al. (2000) and Dabholkar et al. (2000) also considered repurchase probability and WOM as the two proxies for customer loyalty.

Table 2-2 Definitions of customer loyalty

Author(s)	Definition
(Jones & Sasser, 1995)	is the feeling of attachment to or affection for a company's people, products or services
(Hallowell, 1996)	customers' intention to repurchase the product/service
(Parasurman, Berry, & Zeithmal, 1988)	an attitude the consumers' relatively endure with regard to efficient orientation for any product, store or service
(Andreassen & Lindestad, 1998)	an intended behavior caused by the service and operational loyalty as a repurchase intention and willingness to provide positive WOM
(Cronin, Brady, & Hult, 2000; Dabholkar, Shepherd, & Thorpe, 2000)	considered repurchase probability and WOM as the two proxies for customer loyalty

2.4.1 Dimension of Customer Loyalty

Earlier definitions conceptualized loyalty to be a behavioral outcome – normally repurchase or changing intentions e.g.(Jacoby & Chestnut, 1978). Since loyalty research developed, two-dimensional conceptualizations involve both repurchase behavior and attitudinal tendencies towards the provider e.g. (Dick & Basu, 1994). Recently, three-dimensional conceptualizations have been proposed in which loyalty includes a behavioral, attitudinal, plus a cognitive component - the last option reflecting consumers' brand beliefs and also special consideration to service provider e.g. (Bloemer, Ruyter, & Wetzels, 1999). On the other hand, Reichheld (2003) has argued that it is possible for several service organizations to sufficiently assess loyalty only using one measure – “willingness to recommend”. He proposes that for many of the organizations he examined, this one indicator of loyalty was a powerful predictor of an organizations' growth rate. Basically, his results indicate a uni-dimensional conceptualization of loyalty (Reichheld, 2003).

For this study we follow only proxy to describe customer's loyalty as willingness to recommend or WOM.

2.5 Customer Retention Concepts and Dimensions (Dependent variable)

From the 1990s the topic of customer satisfaction and also customer retention, and their relationship with company financial performance has become the core of attention for most managers. By interpreting customer behaviors such as retention of profit, organizations move closer towards the inter-dependent variable Profitability (Reichheld & Sasser, 1990; Reichheld, Markey, & Hopton, 2000). Additionally, the marketing field has more and more shifted from transactional approach (the value of an individual sale) to relationship marketing strategy (the value of long-term relationships and also repeat purchases). Table 2.2 presents the shift from transactional marketing to relationship marketing. More essential, relationship marketing acknowledges which existing and new customers require different strategies.

Table 2-3 Transaction approach and relationship approach

Characteristics	Transactions focus	Relationships focus
Focus	Obtaining new customers	Customer retention
Orientation	Service features	Customer value
Timescale	Short	Long
Customer service	Little emphasis	High emphasis
Customer commitment	Limited	High
Customer contact	Limited	High
Quality	An operations concern	The concern of all

Adopted from (Peck, Adrian, Christopher, & Clark, 2000), p. 44

Retention and defection can be like two sides of the same coin. Retention rate can be explained as the average probability that the customer repurchases product/service from the same organization. The defection or churning rate is explained as the average probability that a customer switches or defects from the organization to another organization. Furthermore, customer retention is not the same as customer loyalty. Customer retention rate is measured on a period-by-period basis and also it is utilized as an indicator of customer switching behavior as well as intention, while customer loyalty has a lot more powerful theoretical meaning.

When a customer is loyal toward a service or a brand, he or she has a positive emotional or psychological disposition towards this brand. Customers might continue to purchase a particular brand however this may be purely outside of suitability. In cases like this, a customer may become retained, but not actually stay loyal to the product or service.

Zeithaml (2000) mentioned that customer retention consists of two important components, namely repurchase intention and repurchase behavior. While these components tend to be closely related, understanding factors which can affect repurchase intention must be more essential than just focusing on repurchase behavior. In order to more completely address the essence of customer retention.

Ford (2001) defined customer retention “ the number of customer doing business with a firm at the end of a financial year, expressed as presentage of those who were active customers at the beginning of the year”.

Francis (2011) defined customer retention “ the maintenance of continuous trading relationships with customers over the long term”.

In this study, research adopted concept of customer retention as mentioned in the last definition “the maintenance of continuous trading relationships with customers doing business over the long term”. Customer retention has been measured depending on customers ' perceptions of repurchase intention. Being familiar with customers' perception of purchase intention could help predict future purchasing behavior(Taylor & Backer, 1994). The dimension for retention in this study will be repurchase intention. At the same time in this study, customer behaviors intention included customer retention and customer loyalty.

Table 2-4 Definitions of customer retention

Author(s)	Definition or concepts
(Zeithmal, 2000)	Customer retention consists of two important components, namely repurchase intention and repurchase behavior. While these components tend to be closely related, understanding factors which can affect repurchase intention must be more essential than just focusing on repurchase behavior. In order to more completely address the essence of customer retention
(Ford, 2001)	the number of customer doing business with a firm at the end of a financial year, expressed as presentage of those who were active customers at the beginning of the year
(Francis, 2011)	the maintenance of continuous trading relationships with customers over the long term

2.5.1 New Customer or Customer Retention

Reducing customer switching rates is usually profitable to organizations. Research agrees with that retaining customers is an increasingly profitable strategy than acquisition of new customers (Fornell & Wernerfelt, 1988).

The financial influence of customer retention evaluated according to two assumptions. First, acquiring new customers is more expensive compared to retaining existing customers because it involves advertising, promotion and begin-up operating expenses (Anderson ; Sullivan, 1990; Reichheld & Sasser, 1990). New customers, consequently, will probably be unprofitable for a period of time after acquisition. Second, existing customers are more likely to generate more profit to organizations through cross-selling and WOM. A customer that retain with company minimum 10 years is definitely on average three times more profitable compared to a customer with 5 years customer history(Rose, 1990).

In accordance to the literature, customer loyalty is essential to banks and to everyone the firms with an established customer base such as banks. While the net return on investments with mature markets can be much larger for retention strategies compared to strategies to attract new customers(Zeithaml, Berry, & Parasuraman, 1996).There tend to be claims whether it is more expensive to gain a new customer rather than retain an existing one. Loyalty starts a series of economic outcomes and the net return on invested capital for the companies might be much higher for retention strategies compared to strategies to attract new customers.

2.6 Relationship between Service quality, Customer Satisfaction, Retention and Loyalty

Developed economies are experiencing similar improvements in the external environment while, in several developing economies, moves in direction of privatization and economic liberalization have raised competition between local players and opened markets to the foreign competitors. The result of this increased competition is the fact that several financial institutions have focused on increasing customer satisfaction and customer retention by means of improved quality of their services (Levesque & McDougall, 1996; File & Prince, 1992). Perceived e-service quality positively influences over-all e-satisfaction with online services of islamic banks. Moreover, perceived online service quality enhances customer e-satisfaction and e-loyalty (Butt & Aftab, 2013). . On their study in Malaysia, tangible positively influence customer satisfaction in an islamic banking. As well, customer satisfaction strongly influence customer loyalty (Kashif, Shukran, & Sarifuddin, 2015).

Customer satisfaction (the whole meeting of one's expectations) has been an essential concept in modern marketing and in research relevant to buyer behavior. It is commonly argued that when customers tend to be satisfied with a particular product or service after its use, then they will likely engage in a replicate purchase and try line extensions (East, 1997). Satisfied customers are additionally likely to inform others of their favorable experiences and thus engage in positive word of mouth advertising (Richens, 1983; File & Prince, 1992).

Dissatisfied customers, on the other hand, are likely to switch brands and engage with negative word of mouth advertising. The significance of customer satisfaction and customer retention in strategy improvement for a "market oriented" and also "customer focused" organization thus cannot be underestimated (Kohli & Jaworski, 1990). Customer satisfaction can often be described as the key of success in the present very competitive world of business (Naser, Jamal, & Al-Khatib, 1999).

Service suppliers generally consider customer loyalty as a significant way to obtain competitive advantage. Improved customer loyalty in service firms has been proven to increase profitability simply by several extant studies examining the connection between customer loyalty and its antecedents (Aydin & Ozer, 2005; Cronin, Brady, & Hult, 2000).

2.6.1 Relationship between Customer Satisfaction and Customer Loyalty

Customer satisfaction has already been the topic of particular interest in the past decade (Oliver, Richard, 1996). On the other hand, traditional approaches for measuring customer satisfaction have become insufficient for estimating the level of satisfaction (Oliver, 1980). Most measuring instruments tend to be non-sensitive to the truth that a customer's voice has a wide spectrum (Abdullah, Al-Nasser, & Husain, 2000). Furthermore, traditional approaches for customer satisfaction do not provide an extensive way to measure the range of perceptions, which may possibly affect a customer's future behavior (Oliver, 1998).

Hence, marketing academia has shown a high interest within the relationship between customer satisfaction and its impact on loyal customer and also operational performance of companies (Dick & Basu, 1994; Fornell, Johnson, Anderson, Cha, & Bryant, 1996). The

reviewed literature proposed that customer loyalty is an attitudinal concept showing value, trust, and commitment within the organization-customer relationship. Satisfaction has been proposed to be one of the antecedents of customer loyalty (Buttle & Burton, 2002).

On the other hand, satisfied customers may not necessarily be loyal to a specific company (Cronin & Taylor, 1992; Fomell, 1992). Stratigos (1999) argued that "loyal customers will go to the mat for their solution of choice." The statement suggested that loyal customer might produce positive word of mouth referrals for their preferred stores. Additionally, there might be an emotional connection between the organization and its loyal customers (Stratigos, 1999). Dependent on the individual-level model of customer satisfaction proposed through Oliver (1980), numerous studies have shown discussed and/or noticed a strong link between customer satisfaction and customer loyalty (Anderson & Sullivan, 1993; Boulding, Kalra, Staelin, & Zeithaml, 1993). Other researchers using their studies concluded that satisfaction is a leading factor determining loyalty (Bitner, 1990; Oliver, Richard L; Linda, Gerald, 1981). These studies tend to support Reichheld's (1993) argument that customer satisfaction is not a replacement for customer loyalty, while customer satisfaction and customer loyalty are unarguably closely-related.

2.6.2 Customer Satisfaction Mediates Service Quality and Customer Behavior Intentions

Cronin, Brady, and Hult (2000) and Wong and Sohal (2003) proposed that service quality proves a positive relationship with a quantity of behavioral intentions, either straight or through the mediating impact of satisfaction. This research according to Caruana (2002), gives support to the controversy that customer satisfaction performs a mediating role inside

the organization between service quality and service loyalty. Trust and satisfaction play different mediating role in the relationships between service attributes, customer retention, and cross buying (Liu & Wu, 2007).

2.6.3 Relationship between Customer Satisfaction, Retention, and Loyalty in Banking

Within the banking context, it is accepted that service quality and customer satisfaction play an important role in improving the long-term relationship between customers and also the banks. Customer satisfaction has been proven to be the better predictor of customer loyalty (Cronin, Brady, & Hult, 2000; Bontis, Booker, & Serenko, 2007).

Additionally, satisfied customers tend to be more likely to take part in a long-term relationship with their bank (Cronin, Brady, & Hult, 2000; Boulding, Kalra, Staelin, & Zeithaml, 1993; Fornell, Johnson, Anderson, Cha, & Bryant, 1996). At the same time, unsatisfied customers have a tendency to stop their use of a financial service provider (Allerd & Addams, 2000), customers switch their particular financial institutions (Gerrard & Cunningham, 2004) create negative word of mouth and express their negative impact with other customers (Caruana, 2002; Newman, 2001). While Haron et al. (1994) mention, friends, neighbors and family members have a great impact on potential customers in terms of making decisions to patronize a financial institution (Haron, Ahmed, & Planisek, 1994).

Loyalty is behaviorally stated by retention (Bansal & Taylor, 1999) and emotionally (Ranaweera & Prabhu, 2003), by WOM (WOM); the extent to which customers are going to inform others on service situations which have provided them satisfaction (Soderlund, 1998).

Positive correlations among customer satisfaction and retention, loyalty and WOM have already been reported in a variety of studies (Parasurman, Berry, & Zeithmal, 1988; Reichheld & Sasser, 1990; Mittal & Kamakura, 2001).

Financial service suppliers, around the world, have recognized that a continuous customer satisfaction program is the most successful method of retaining customers and, therefore, reduces the need for investments for attracting a new one (Buzzell & Gale, 1987).

In banking, from the customer's perspective, customer satisfaction immediately impacts on purchase intentions while, from the viewpoint of management, it considerably influences profitability (Lee & Hwan, 2005). Zeithaml, Berry, & Parasuraman, (1996) suggest that by enhancing the quality of services, the favorable behavioral intentions of customers tend to be increased. They mention that after customers praise a company, choose it against others, improve the volume of their purchases or knowingly spend more for its products and/or services, they actually have a relationship with the company.

East et al. (2008) define WOM as "informal advice passed between customers". Studies have shown that there is a powerful theoretical support that relates customer satisfaction, customer retention and customer loyalty (East, Hammond, & Lomax, 2008). Word of mouth behavior from loyal, satisfied customers decreases the cost of attracting new customers as well as enhances the business reputation, while negative word of mouth from dis-satisfied customers, has the completely opposite effect (Danaher & Rust, 1996). Based on the service management and marketing literature, there are a limited number of empirical

research studies that examine the relationship between customer satisfaction, customer retention and customer loyalty (Hallowell, 1996; Storbacka, Strandvik, & Grönroos, 1994)

2.6.4 Relationship between Customer Satisfaction, Service Quality in Banking

Ennew and Binks (1996) explored the bond between service quality, customer relationships and customer loyalty inside the banking sector. They looked at the factors influencing customer retention and the extent that these were influenced through service quality.

The results demonstrated that service quality is a key factor, which contributes to an organization's capability to retain loyal customers and therefore, leads to improved organizational performance.

The link between service quality and also customer retention studied in banking. The results showed that service quality is linked to the stated intention to remain doing business with the bank (Kangis & Zhang, 2000).

Harris and Goode (2004) accept that financial institutions need to fulfill the needs of their customer in order to retain them as loyal to organization; these customers would like to spend much more to be able to obtain high quality products and services. Greater spending of the customer can certainly produce more profits to the organization. Quality services increase the sales and reduce the cost to attract more customers (Griffin, 1995). One of the effective strategies to maintain the customer loyal with the actual service organization including Islamic banking is through the provision of high quality services toward customer (Wong & Sohal, 2003).

Customer satisfaction can be interpreted as a general evaluation of service quality attributes or service attribute performance (Boulding, Kalra, Staelin, & Zeithaml, 1993; Fornell, Johnson, Anderson, Cha, & Bryant, 1996). Several studies mention the relationship between two constructs of service attribute performance and overall customer satisfaction (Anderson & Sullivan, 1993; Mittal, Ross, & Baldasare, 1998). It is argued that the relationship in many instances is nonlinear and asymmetric. Furthermore, there is a strong relationship among customer satisfaction and customer future intentions (e.g. retention) and also profitability (Anderson & Sullivan, 1993; Oliver, 1980).

In brief, a conceptual relationship of customer satisfaction, customer loyalty and customer retention can be expressed as follows:

- Customer is satisfied to be loyal- Customer is satisfied to be retained
- Loyal customer is evidenced with being word of mouth
- Customer retention is evidenced from repeat purchase behavior

In the current study, customer retention and customer loyalty are considered distinct concepts to differentiate customer satisfaction". Customer satisfaction with loyalty (word of mouth: tell others positively) and Customer satisfaction with retention (continuous purchase for bank service). A future customer has been achieved when he has high satisfaction, high loyalty and high retention.

Oliver (1980) discussed that customer satisfaction is a complete meeting of customer expectations of products and services. When the perceived performance meets customers'

expectations of services, they are satisfied. When it does not, they are dissatisfied (Oliver, 1997). Based on this theory, expectations tended to be influenced by the previous customer experiences with products and services. The customers need to have experienced a service (Brunner, Markus, & Klaus, 2008). Based on the relevant expectation confirmation theory (perceived performance meets customers' expectations of services, the customers are satisfied. When it does not, they are dissatisfied). Expectation confirmation theory is the underpinning theory for this study.

Chapter Summary

From the existing debate and service quality literature, this research has adapted SERVPERF to study a service quality measurement model for the Islamic banking industry using the important requirements to measure customer satisfaction with customer loyalty and customer retention. Studies emphasize that service quality plays a big role for customer satisfaction. Overall, a number of studies in financial service quality, mainly from the banking sector have been reviewed and a set of dimensions have been derived from them in order to develop a service quality model that can be applied to banks sector.

The chapter started with an overview of the literature on service quality and its measurement. The chapter then moved on to study customer satisfaction and its antecedents, explaining the relationship of customer satisfaction with customer loyalty and customer retention. The next step is to link them with Islamic banking and Shariah compliance. To do this, next chapter discusses the construct of Islamic banking and Shariah compliance with customer satisfaction.

CHAPTER 3

ISLAMIC BANKS AND SHARIAH COMPLIANCE

3.1 Introduction

The essential requirement of regulation for all Islamic financial institutions (IFIs) including Islamic arise from the need for their Shariah compliance, which strictly forbids usury, or what is called in Arabic, Riba. Thus, Islamic banks and financial institutions use a number of means of financing to derive returns for their investors, not depositors, based on transactions associated in one form or another with tangible assets (each transaction is backed up with an asset). The returns must not in any way be guaranteed if they are to be in full concordance with the tenets of Shariah.

This chapter reviews the existing related literature; this is to give as much background as possible regarding the Islamic banking system as the setting of the research. It provides an understanding of Islamic banking philosophy and principles. This chapter also reviews the literature and history of Islamic banking and Shariah compliance in Malaysia. Then, it provides a summary about Islamic banking globally around the world. Conceptual framework and research framework incorporating Shariah compliance is discussed in this chapter. The chapter concludes with a brief summary.

3.2 Philosophy of Islamic Banking

Various Islamic banking literatures state that although Islamic banks perform mainly similar features to that of conventional banks, their approach is distinctly different. To

demonstrate, several of the noticeable features of Islamic banking and finance that turn it into distinctive and unique from its conventional alternatives consist of and are as follows:

First, Islamic banking target for a simply, fair and well balanced society as vision by the Islamic economics (Warde, 2000). As a result of that, the various prohibitions - e.g. usury, gambling, excessive risks, etc. - tend to provide benefits to everyone concerned in market transactions and to promote social harmony (Ahmad, 2000; Chapra, 2000). For instance, the wide-spread practices of usury in the conventional banking system involve unfairness to the borrowers because the usury on their loans needs to be paid regardless of the outcomes of their business. Likewise, usury-bearing contracts are usually unfair to the lenders especially when their returns on deposits, which are already channeled by the banks to the business people, don't commensurate with the true performance of the investment (Iqbal & Molyneux, 2005).

Second, Islamic banking is definitely built upon the principle of brotherhood and cooperation, which means a system of equity sharing, risk sharing and also stake taking. It encourages sharing and cooperation between the supplier of funds (investor) and also the consumer of funds (entrepreneur) (Ahmad, 2000; Iqbal & Molyneux, 2005).

Third, like a system grounded on ethical and also moral framework of the Islamic law of Shariah, Islamic banking is additionally characterized by ethical norms and social obligations (Ahmad, 2000; Warde, 2000). There is a moral filter depending on the definitions of halal (permissible) along with haram (prohibited and also undesirable) working at various levels, building the sense of right and wrong of entrepreneur and organization, marketing a positive social environment for society, and supplying an

appropriate legal framework (Chapra, 1992). Islamic banks are unable to finance any project that conflict with the ethical value system of Islam like financing a brewery factory, a casino, a night club or any other activity obviously prohibited by means of Islam or known to become harmful to society (Ahmad, 2000).

3.3 Islamic Financial System and Islamic Banks

Islamic banking products and services compete for conventional banking customers. Islamic banks have accepted the significance of service quality to keep customer and also to attract the new one within this competitive environment (Wang, Lo, & Hui, 2003). During last two three decades, it has been observed that Islamic banking is growing globally. Therefore, from the growth of this industry, customer satisfaction has become important aspect and area of research (Holliday, 1996).

Islamic banking operations are based on Islamic law (Shariah) particular reference to fiqhmuamalat (Islamic rules on transactions). The principles and practices of fiqhmuamalat are based on the primary sources of Quran and the Sunnah as well as other juristic methods of Islamic law such as consensus among Shariahscholars (ijma'), analogy(qiyas) which relate to scholarly reasoning (ijtihad)(Kamali, 1991).(BNM, Banking Info, 2009)

Through the last few decades, Islamic banking system grew not only in Islamic countries but throughout Western countries such as UK and France (Rehman, 2012). Islamic banks are regarded as a usury free system based on Profit and Loss Sharing (PLS) principles. Islamic banks do definitely not pay usury on customers' deposit accounts. Alternatively, customers' funds are placed in profit-sharing investment accounts (PSIA). Through this kind of arrangement, the income to the bank's customers are their particular pro-rata shares

of the returns concerning the assets in which their funds are invested, and whenever these returns are negative so are the returns to the customers. The bank is authorized a contractually arranged share of positive returns (profits) as reward for its act as asset manager; however, once the returns are zero or negative, the bank gains no earnings but does not share in any kind of loss (Archer, 2006). Islamic finance has successfully made its way in to the mainstream financial system due to the fact its beginning a few decades ago (Lee & Ullah, 2007).

Currently more than 300 IFIs are managing an overall total of US\$800 billion (Khan & Bhatti, 2008). The Islamic finance industry become a preferred destination not only to the Muslims but furthermore to the non-Muslims specifically in this time of economic crisis in which it has come to be noticeable that the Islamic finance industry has continued to be undamaged from complicated brunt (Yeates, 2008). According to Yeates (2008), Islamic banking is increasing at a typical rate of 15 % per year and is forecasted to exceed US\$1 trillion in assets through 2010.

During the last three decades, numerous researches on bank marketing have focused on individual customers of commercial banks. This spot has been of specific focus on bank marketing researchers in the USA, Canada, European countries, Far East, and Gulf area among Asian countries (Idris & Almahmid, 1997).

Estimates report that international Islamic financial services increased at a rate of 10%-15% more in the period from 1995 to 2005. IFSI assets were worth US\$700 billion in 2005 and also experienced an annual growth of 15% until 2010, the IFSI increased to US\$1.4 trillion by 2010 and to US\$2.8 trillion by 2015 (Metawa & Almassawi, 1998).

There are 1.57 billion Muslims of all age groups residing on this planet nowadays which represent 23 percent of an estimated 2009 world population of 6.8 billion. Although Muslims are located on all five continents, more than 60 percent of the global Muslim population is in Asia and about 20 percent is in the Middle East and North Africa (Estiri, Hosseini, & Yazdani, 2011).

Increasingly, large international conventional banks are interested in the Islamic banking system at the same time to make certain market share. For instance, Citibank has made branches in countries such as Bahrain and Sudan according to Islamic Shariah principles. Additionally, HSBC launched its Islamic banking operation in 2003 named HSBC Amanah which is currentlytime operational in 12 Islamic countries. Leading international banks are keen on Islamic banking operation mainly because Muslims form one-fifth of the whole world population. Muslim population growth rate is also accounted for in various emerging countries like China, India, Malaysia, Singapore and Turkey which have large Muslims communities (Estiri, Hosseini, & Yazdani, 2011).

Tajudin (2013) mentions that during the last 10 years, the IFSI has encountered extraordinary growth as evidenced by the more and more extending diversity of IFIs, product range and also capabilities, resources infrastructure across the whole Islamic financial system. As the Islamic financial system is able to do all functions related to finance for example fund mobilization and reallocation, asset allocation, payment & settlement services, remittance services, risk mitigation & transformation, among many more, the IFSI includes 5 major segments:

- i. Islamic banking (retail/consumer banking, commercial banking, SME banking, corporate banking, investment banking, treasury, wealth management/private banking, etc.)
- ii. Islamic interbank or money market
- iii. Islamic capital market (equity market, Sukuk market, derivatives market)
- iv. Islamic insurance/re-insurance or Takaful/re-Takaful
- v. Islamic asset management/fund management

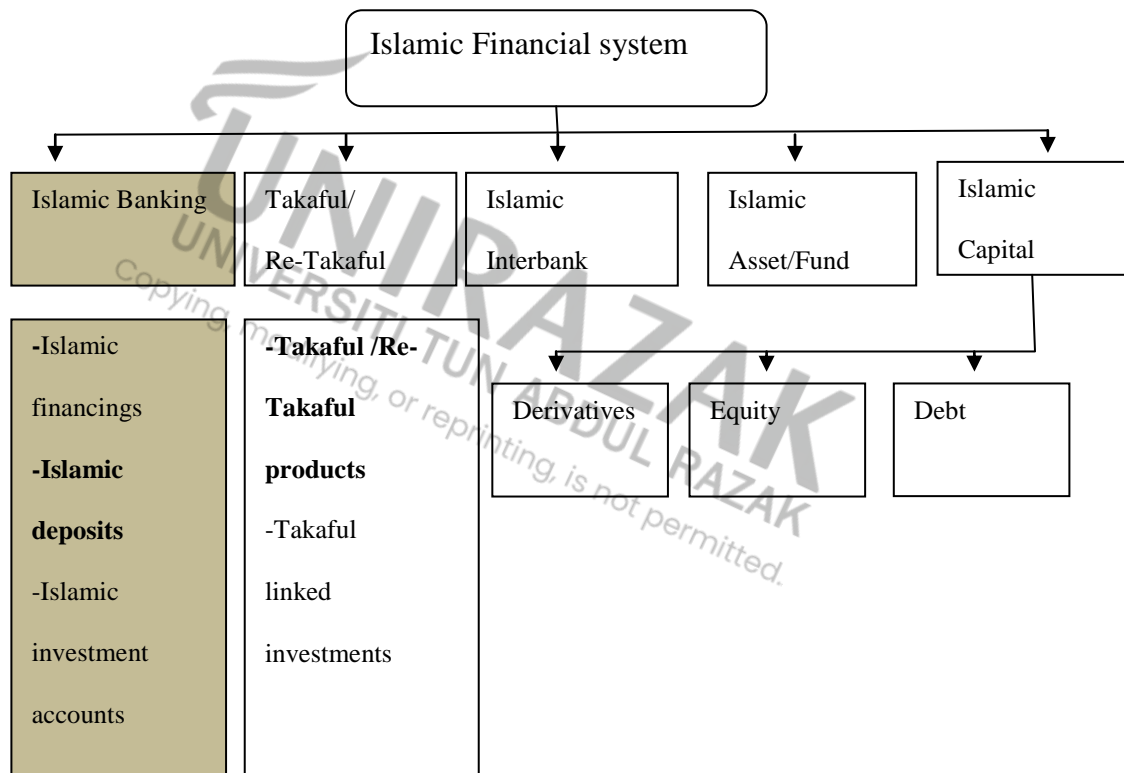


Figure 3-1 Islamic Financial System: Case of Malaysia

Source: (Tajudin, 2013)

This study focuses only on Islamic banking one branch from Islamic financial system which includes: Islamic financings, Islamic deposits and Islamic investment accounts.

3.4 Comparison between Conventional Bank and Islamic Bank

While there are distinct features between Islamic banks and conventional banks, there are several similarities between the two in terms of offering complementary products and services (Naser & Moutinho, 1997). For instance, all banking facilities such as saving accounts, current accounts, credit cards, and additional products and services can be found in Islamic banks and also conventional banks (Naser & Pendlebury, 1997; Naser, Jamal, & Al-Khatib, 1999).

The main difference between Islamic and conventional banking is that Islamic banking complies with the Shariah rulings. Islamic banking has to avoid activities such as riba' or Gharar (excessive uncertainty). For instance, rather than charging usury on financing given out, Islamic banks provide financing primarily based on Musyarakah and can share any profit and loss (BNM, Banking Info, 2009).

UNIVERSITI TUN ABDUL RAZAK
UNIRAZAK
Copying, modifying, or reprinting, is not permitted.

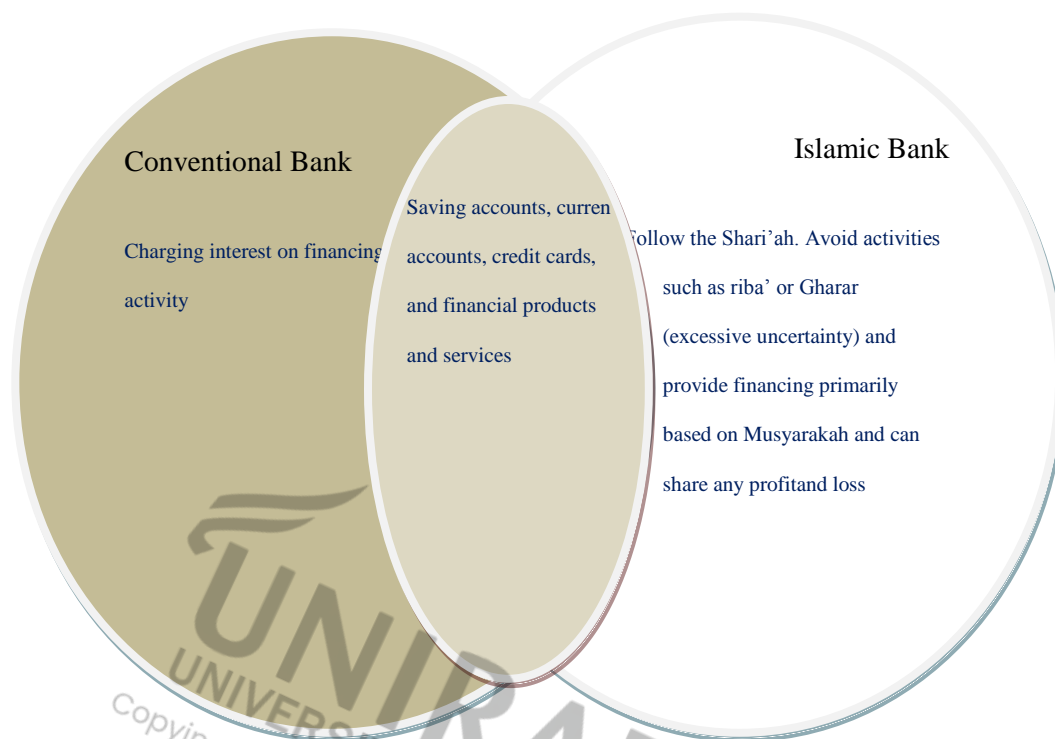


Figure 3-2 Similarity and differences between Conventional bank and Islamic bank

Adopted from the text

3.5 Shariah Compliance (Independent Variable)

This research in Malaysia considers integral Shariah concepts and principles from law and studies which are adopted in Malaysia and other Islamic countries. Also, information continues to be collected from Negara bank bulletins or websites. Negara Bank is working as a central bank of Islamic banks in Malaysia.

3.5.1 Shariah Compliance Concepts

AAOIFI (Accounting and Auditing Organization for IFIs) defines Shariah compliance as “compliance with Shariah principles and rulings based on the Quran and Sunnah as well as AAOIFI Standards, fatwa’s and resolutions by established academy and councils”.

Islamic Financial Services Board (IFSB) defines Shariah Governance System as follows:

“Shariah Governance System” refers to the set of institutional and organizational arrangements through which an IIFS ensures that there is effective independent oversight of Sharia compliance over each of the following structures and processes” (BNM, 2013)

“Shariah compliant refers to compliance to Shariah rulings and decisions issued by the Shariah Advisory Council of Bank Negara Malaysia (SAC) and Shariah Committee of the IFI respectively”(BNM, 2013).

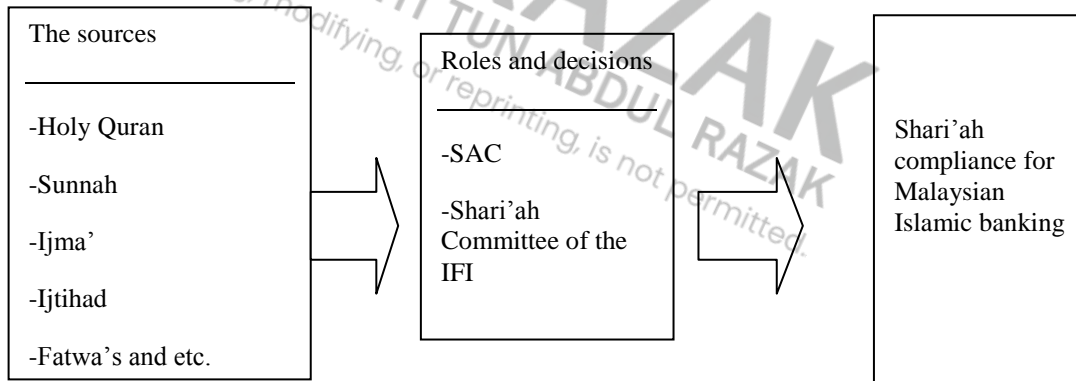


Figure 3-3the sources and roles and decisions for Islamic banks in Malaysia

Adopted from above definitions

3.5.2 Importance of Shariah Compliance

Islamic banks have to know that customers tend to stop their relationship as a result of dissatisfaction or simply attractive products provided by their/other conventional banks competitor. Consequently, Islamic banks have to better examine the drivers of their market identity, and then merge the relevant promotion appeals into their customer communications so that they can generate a deep connection with their customers. (Amin, Isa, & Fontaine, 2013)

Despite the fact that Shariah compliance is the important factor for customers, they also expect other criteria such as service quality, friendliness, tangible aspects, convenience, safety of funds, and reputation.

It is impossible to believe that (IFIs) perform exactly the same functions as the Conventional Financial Institutions (CFIs) and consequently the same bank selection criteria are similarly appropriate to IFIs. In fact, the Islamic banking industry is dependent on its own group of principles which is important for an IFI to comply with those principles. Since the latest flow in the Islamic banking industry got its push from the demand for Shariah compliant banking products (Lee and Ullah, 2007), non-compliance with the Shariah principles in their operations will cause negatively, leading to the loss of depositors and investors' confidence. While Erol and El-Bdour (1989) propose that religion is not an important bank selection criterion, there is enough empirical evidence which supports the notion that Shariah compliance is essential for IFIs' customers also at the expense of some return (Gerrard & Cunningham, 1997; Naser, Jamal, & Al-Khatib, 1999). Gerrard and Cunningham (1997) found that 62.1 % of Singaporean Muslims would

maintain their deposits with an Islamic bank also if it does not offer sufficient or suitable returns because of their (86.3 %) belief which usury-free banking can result in much better welfare of the society. In addition they found that 41.4 % of the Muslims will deposit their abnormal earnings in an Islamic bank as against 6.2 % non-Muslims who would do the same. Metawa and Almosawi (1998) found that Shariah-compliance is the most important bank selection factor for Bahraini customers. On the other hand, friends' and relatives' recommend playing the main role in Islamic bank selection (Hegazy, 1995). Some other scientific studies (Erol, Kaynak, & El-Bdour, 1990; Haron, Ahmed, & Planisek, 1994).

Metawa and Almosawi (1998) carried out a study on the banking behavior of Islamic banks' customers in Bahrain and gathered data from 300 respondents. They attained to the result which half of the participants possessed their accounts with Islamic banks for more than six years and also were pleased with the banks' products and services and particularly the personnel working in the banks. It becomes an obvious indication that customers are satisfied with their Islamic banks. Likewise, the study of Naser et al. (1999) exposed despite the fact that most of the IFIs' customers were extremely satisfied with their banks; they still retained accounts in CFIs because their Islamic banks were unable to provide them full satisfaction in terms of products, services, convenience, etc.

3.5.3 Compliance with Shariah Requirement

Islamic Banking Act defines "Islamic banking business" as banking business whose aims and operations do not involve any element which is not approved by Islam. The Shariah specifications that need to be complied with by the Bank can be divided into: firstly, the crucial legal rulings of al-Qur'an, al-Sunnah and Ijma'. Secondary, the rulings from the

Ijtihad (Shariah decision making) of the Shariah regulatory councils i.e. SAC of Bank Negara Malaysia (BNM), Shariah Advisory Council of Securities Commission (SeC) on capital matters), the Bank's internal Shariah Committee (SC) and any other internationally recognized bodies (Muamalat, 2013).

3.5.4 Nature of Shariah Compliance

Commonly, Shariah compliance can be classified as follows: first, compliance with religious principles which relates to the act of the Bank's personnel in observing the Shariah principles. Second, compliance with contractual obligation that relates to the obligation of the Bank in satisfying the contractual specifications and the principles linked with them. Third, compliance with ethical values and needs refer to the act of the Bank's personnel in abiding with moral and ethical values (Muamalat, 2013).

3.5.5 Implications from Shariah Non-Compliance

The Bank's failure in compliance with the Shariahrules and principles of the al-Qur'an and al-Sunnah and determined by the SC members through their exercise of Ijtihad will lead to various implications, as depicts in table 3.1

Table 3-1 Impact of non-compliance

Non-Financial impact	Financial impact
It is contrary to the orders of Allah	Contravene the procedures of Section 3 (5) (a) and Section 4 of the Islamic Banking Act 1983, that on confidence is likely to an excellent and governed by revocation of permit.
An obstacle from Allah's true blessing (barakah).	The non-compliance to Shariah needs nearly some extent may void the 'aqad and might make the contract relating to the financial institution and also the customer as null and void. The revenue created from such deal shall not be accepted as the Bank's eligible earnings. It might tantamount to Capital Adequacy Ratio (CAR) influence. The non-compliance of Shariah can cause non-recognition of revenue and erosion of investment capital. Therefore, in case of Shariah non-compliance, BNM may possibly demand a higher capital cost because they consider fit to look after Shariah non-compliance risk of any particular bank. The financial influences will not directly risk and stain the Bank's business reputation as an Islamic bank.

Adopted from (Muamalat, 2013)

3.5.6 Islamic Banking Principles in Malaysia from Bank Negara Malaysia

Islamic banks and also IBS banks have in built Shariah Committees to guide all of them on Shariah issues and also to ascertain that they operate in a manner that is in line with the Shariah. In addition, the advice of the Shariah is taken (BNM, Banking Info, 2009)

Advisory Council which is the highest Shariah body set up at Bank Negara Malaysia is normally discussed to ensure uniformity in views and practices. The members of the Shariah Committees and also the Shariah Advisory Council are academicians and Shariah professionals in Islamic banking and finance. Shariah principles in Islamic banking released from Negara Bank in appendix B (BNM, Banking Info, 2009).

Islamic banking is for everyone irrespective of their religious beliefs. Islamic banking products and services are available at any bank which has the Islamic banking logo shown below (BNM, Banking Info, 2009).



Figure 3-4 Logo of Islamic bank in Malaysia

3.5.7 Shariah Governance Framework for IFIs in Malaysia

The Negara Bank of Malaysia has produced the Shariah governance framework for IFIs with the main goal of improving the role of the board, the Shariah Committee and also the management in terms of Shariah issues, which includes improving the Shariah compliance and study functions focused on the achievement of a Shariah based working environment. Extensive compliance with Shariah principles provides confidence to individuals and the financial markets on the reliability of Islamic finance businesses. Bank Negara Malaysia (the Bank) ensures the overall Islamic financial system is operating in accordance with Shariah rules which are to be performed by using centralized Shariah advisory body at the Bank and also an internal Shariah Committee made in each respective Islamic financial institution (IFI). SAC is a body founded under section 51 of the Central Bank of Malaysia Act 2009 that guarantee the advice related to Islamic law on any financial problem and issues a ruling on reference related to it, and also to recommend the Bank and the IFI involved on any Shariah issues in relation to Islamic financial businesses, actions or transactions. At the industry level, the internal Shariah Committee in counseling the particular IFIs on Shariah issues was extra deliberated in the Guidelines on the Governance of Shariah Committee for the IFIs issued in 2004 (BNM, 2013).

3.6 Financial Environment and Regulation

3.6.1 The Islamic Banking Industry in Malaysia

This study is based in Malaysia and is focused on Islamic banking. Malaysia is an Asian country with a population of 27 million. This ethnic composition is approximately 60% Malays, 27% Chinese, 7% Indian and 6% is about forty other ethnic groups (Leete, 1996). All Malays are Muslims and the other citizens are Buddhist, Christian, Hindu and from various other religions. The multicultural and also multi-religious nature of Malaysia has always tricked researchers, particularly in light of Malaysia's relative economic strength. In the 1980s, the Malaysian government released the first Islamic bank. Since then this Islamic banking and finance industry has not only attracted Muslim customers (that had been expected) however non-Muslim customers (which were unexpected) as well (Muslim, Zaidi, & Fontaine, 2011).

Islamic banking is carried out on the basis of Islamic principles particularly the prohibition of giving or taking usury (Siddiqui, 1992). A dual-window bank is a bank that has two windows under the same roof, one for conventional or traditional banking operations and another for usury-free transactions (Warde, 2000). In Malaysia, conventional banks can offer Islamic banking services and products within the dual-window concept (BNM, 2008).

The initial Malaysian Islamic bank, 'Bank Islam Malaysia Berhad', a full-fledged Islamic bank was established in 1983 under the Banking Act 1983. Furthermore, some foreign banks have established Islamic banking subsidiaries that provide Islamic products through the use of Islamic windows in various parts of the world.

Currently, there are twelve full-fledged Islamic banking institutions and eight dual-window banks operating in Malaysia together with the local full-fledged Islamic banks, local and foreign dual-window banks (BNM, 2008). Table 3.2 gives licensed Islamic Banking Institutions in Malaysia (BNM, 2008)

Table 3-2 List of licensed Islamic banks in Malaysia

Name	Ownership
Affin Islamic Bank Berhad	Local
Alliance Islamic Bank Berhad	Local
AmIslamic Bank Berhad	Local
Bank Islam Malaysia Berhad	Local
Bank Mumalat Malaysia Berhad	Local
CIMB Islamic Bank Berhad	Local
Hong Leong Islamic Bank Berhad	Local
RHB Islamic Bank Berhad	Local
Asian Finance Bank Berhad	Foreign
HSBC Amanah Malaysia Berhad	Foreign
Kuwait Finance House (Malaysia) Berhad	Foreign
OCBC Al-Amin Bank Berhad	Foreign
Standard Chartered Saadiq Berhad	Foreign
Al Rajhi Banking	Foreign
Public Islamic Bank Berhad	Local
Maybank Islamic Berhad	Local

Source: (Malaysia, Banking Info, 2009)

3.6.2 Cross-Culture Considerations

An important fact to know the Islamic banking industry in Malaysia is to recognize the role of culture and religion. A popular definition of culture is ‘the collective programming of the

mind that differentiates one group with another'. Commonly, culture is usually analyzed at two levels: the visible level (such as food, clothing, writing, architecture, etc.) and the invisible level that focuses on cultural values. An article has observed that various individuals' lots of people in Malaysia have a tendency to focus on visible variations of culture (Fontaine & Richardson, 2003).

People believe that, in a multicultural society like Malaysia, there are different cultures. It is believed that: (1) every ethnic group has one culture. (2) Every ethnic group has a culture that is certainly different from other ethnic groups. (3) Religion is a significant component in culture. Researchers, however, tend to concentrate on the invisible aspect, namely cultural values. There are numerous cultural groups in Malaysia, and these different groups share similar cultural values (Fontaine & Richardson, 2005). Culture is frequently confused with ethnicity.

Such a simplified analysis can become misleading. All Malaysians tend to be socialized to be part of a multicultural society. Fontaine and Richardson (2003) proposed that several Malaysians are bicultural. Biculturalism is when individuals identify with more than one culture.

Benet-Martinez et al. (2002) describe that bicultural individuals possess two cultural schemas and also react to them based on cultural cues. In which sense, even though it can be probable that non-Muslim customers have little desire for the religious obligations which Muslim customers face, non-Muslim customers can agree to Islamic banks on the

premise that, as Malaysians, they have been socialized to take the cultural values of other Malaysians (Benet-Martinez, Leu, Lee, & Morris, 2002).

3.6.3 Muslims and Non-Muslims in Islamic Bank

Haron et al. (1994) studied the favor behavior of Muslim and non-Muslim customers in Malaysia, using t-test and factor analysis. Their results indicate that the main factor of Islamic banks' selection was fast and efficient service that was ranked second by non-Muslims. Additionally, friendliness of bank personnel was viewed as the most significant factor by non-Muslims, and was ranked third by Muslim customers.

While prior research has attempted to examine the link among customer satisfaction and customer loyalty in the banking sector, there is really lack of research in this field with regard to Islamic banking. A study on Bank Islam Malaysia Berhad reported that 70 – 80% of the banks' trade and also business financing are with non-Muslim clients (Ngui, 2004).

3.7 Studies on Customer Satisfaction and Customer Behavior Intention in Islamic Banks

3.7.1 Islamic Banks and Customer

As soon as competition heightens and when banks begin to offer more or less similar products and services, it is the customer's satisfaction which influences the performance of an Islamic bank and can determine its competitiveness and success. Therefore it is timely to evaluate the degree of customer satisfaction towards Islamic banks operating in Islamic countries. In this kind of context, several questions are usually raised. For example, in a country where most of the population is Muslim and where equally Islamic as well as conventional banks operate, ``what are the main factors that motivate customers to deal

with either an Islamic bank or a conventional bank or both?"; and "to what extent customers are satisfied with their banks?" (Naser, Jamal, & Al-Khatib, 1999).

Islamic banking is a rapidly growing phenomenon around the world nowadays. Islamic banking provides numerous products and services in competition with the conventional banking. Islamic banks have regarded the significance of service quality to maintain the current customers and also to attract the new ones within this competitive environment (Wang, Lo, & Hui, 2003). Throughout last two three decades, it has been noticed that Islamic banking is growing worldwide. Thus, with the development of this industry, customer satisfaction has become important aspect of research (Holliday, 1996).

Throughout the last few decades, Islamic banking industry is growing not just in Islamic countries but also in Western countries such as UK and France. Islamic banking industry faces severe competition with conventional banking industry because conventional banking system has powerful roots and this system is preferred among people. To maintain the strong position in the market, Islamic banks require enhancing their service quality issues to satisfy the customers. Islamic banking is looking to offer high quality products and services to retain the loyalty of their customers and also to attract more customers (Rehman, 2012).

Financial institutions have to fulfill the requirements of their customer so that it can retain them as loyal towards organization; this customer would like to spend more so as to obtain high quality products and services (Harris & Goode, 2004). Greater spending of the customer can easily generate more profits for the business. Quality services improve the sales and reduce the cost to attract additional customers (Griffin, 1995). Wong and Sohal

(2003) suggest that one of the successful strategies to maintain the customer loyalty with the service business including Islamic banking is by means of providing high quality services to the customer.

Although previous research has attempted to examine the link between customer satisfaction and customer loyalty in the banking industry, there is a lack of research in this area in relation to Islamic banking. Haron, Ahmed, and Planisek (1994) reported that 12% of the Muslim and 32% of the particular non-Muslim customers think that the Islamic bank is made for Muslims customers only. This specific evidence pointed out that Islamic banks in Malaysia are widely approved by non-Muslim customers. The acceptance of Islamic banks by non-Muslim customers is a phenomenon that needs to be better understood.

This evidence indicates that Islamic banks in Malaysia are widely accepted by non-Muslim customers. The use of Islamic banks by non-Muslim customers is a phenomenon that needs to be better understood. Therefore, this study examines the role of customer satisfaction in enhancing customer loyalty and retention for both Muslim and non-Muslim customers in the Malaysian Islamic banking industry.

The Islamic banking industries are extremely competitive and it is vital for Islamic banks to continue to study the changing behavior, attitude and perceptions of their customers particularly in the retail sector that comprises the main part of the banking business (Metawa & Almosawi, 1998). To judge how well their banks are meeting customer requirements, bank service managers usually utilize measurements of service quality and customer satisfaction (Dabholkar, Dayle, & Joseph, 1996). Consequently, service quality and also customer satisfaction have obtained much attention from service marketers and

academic researchers (Spreng & Mackoy, 1996). Furthermore, service quality and also customer satisfaction, have become essential for marketing theory and practice, as numerous researchers have mentioned their relationship to attractive consumer outcomes (Spreng & Mackoy, 1996; Zeithaml & Bitner, 1996; Taylor, 1997).

The majority of services, which includes banking services, have helped in understanding customers. Growing expectations from banking services have guided managers to get customer focused, that in return has resulted in the introduction of customer care attempts in order to enhance the quality of services provided.

3.7.2 Dimensions of Customer Satisfaction for Islamic Banks

Firstly, it is important to study banking selection criteria for Islamic banks to know and recognize which factor is adopted for customer preference. Secondly, study dimensions of customer satisfaction which are mentioned in prior conventional banks studies are referred and accordingly either adopted or adapted. Thirdly, this study proposes dimensions for both Islamic and conventional banks.

3.7.2.1 Studies about Islamic Banking Selection Criteria

The most popular claim, Islamic banks become reflections of Islamic-compatible formulation that the clients themselves respect and believe. Previous empirical studies found that religious motivation is not the single criterion for the selection of Islamic banking institutions or services. Many of the banking patronage studies identify a number of factors, such as cost and benefits, service delivery (fast and efficient), size and reputation of the bank, convenience (location and ample parking), and friendliness of bank personnel, as

either equally if not more important criteria for the customers in selecting a particular Islamic bank.

Table 3.3 describes, patronage studies on Islamic banking have so far largely focused on the combination of various religious, reputation, commercial, service satisfaction, staff, confidentiality and convenience factors. In one of the earliest banking selection criteria studies on Islamic banking, the most important criteria considered by the customers are provision of Timely and efficient services, bank's reputation and image, and confidentiality, they also observe that religious motivation is not a primary criterion for the selection of Islamic banking services in Jordan(Erol & El-Bdour, 1989).

Their findings are disputed by later researchers like Metawa and Almassawi (1998) and Naser et al. (1999) who assert that adherence to Islamic tenets is the main motivating factor for customers to patronize Islamic banks in Bahrain and Jordan respectively. Nevertheless, these writers also affirm that other factors like bank's name and image, confidentiality, friends and family influences and provision of quality services are equally important for customers when making decision on their choice of bank (Metawa & Almassawi, 1998; Naser, Jamal, & Al-Khatib, 1999).

Study in Jordan carried out the customer satisfaction and preferences in Islamic banking. Their findings reveals that a majority of respondents have shown a high degree of satisfaction towards different factors and aspects of Islamic banking, for instance, Islamic bank's name and image, customer confidentiality, customer-client interaction, and actual physical aspects like {the internal layout, suitability of furniture, the architectural design of the bank(Masood & Bora, 2009).

The study of Wan Ahmed et al. (2008) is important for two major reasons. The first applies to the issue of the degree of religiosity as well as effect on the choice of bank. The authors show that the most religious customers (i.e. those people whose religiosity index is definitely high) are more likely to choose an Islamic bank to improve finance or as a holder with their deposits. The second concerns the effect of the degree of religiosity on the determinants of credit choice criteria (Wan Ahmed, Ab Rahman, Ali, & Seman, 2008). Factors religious beliefs, and social pressure & norms contributes probably the most whereas cost benefit analysis advertising influence contributes the lowest in shaping the attitude of the customers for the acceptance of Islamic banking (Amin, Kashif, 2016).

Table 3-3 Summary of criteria for the selection of Islamic banks around the world

FACTOR	Erol and El-Bdour (1989)	Metawa and Almosawi (1998)	Naser et al. (1999)	Gerrard and Cunningham (1997)	Masood and Bora (2009)
Location of the study	Jordan	Bahrain	Jordan	Singapore	Jordan
Religious factor		√	√		
Cost /benefits (e.g. return on deposits, investments, etc.)	√	√	√	√	
Service delivery (provision of fast and efficient service)	√		√	√	√
Size and reputation	√			√	
Staff factors (competence and courtesy of bank staff)			√		√
Convenience (location, ample parking space interior comfort)	√	√	√	√	√
Confidentiality	√		√	√	√
Friends and relative influence	√	√	√	√	
Mass media advertising	√			√	

Adopted from (Dusuki & Abdullah, 2007)

3.7.2.2 Malaysian Studies about Banking Selection Criteria

Nevertheless, studies on banking selection criteria of Islamic banks in Malaysia remain scarce. Previous research is limited in scope either due to limited sample size or restrictive in representation. Research by Ahmad and Haron (2002) for instance, although limited in scope as its sample was only based on 45 corporate users of financial services, reports that the majority emphasize religious as well as other factors like cost/benefit, service delivery, reputation and location in patronizing Islamic banks.

As for Kader (1993, 1995) and Haron et al. (1994), their sample was limited in a sense that they were collected from a single location or area. For example, in (Kader, 1993; Kader, 1995), the survey was confined to one location in Kuala Lumpur. Similarly in Haron et al. (1994), the sample was drawn from three Northern towns namely: AlorSetar, Sungai Petani and Kangar. Hence the results of these studies should be treated with caution particularly with regards to the limited number of sample responses used and limited location where the sample was drawn in expert studies.

In Malaysian Islamic banking institutions, fast and efficient service, friendliness of bank personnel, confidentiality and transaction speed have been the important criteria with which Malaysian customers have rated their satisfaction of their banks' services (Muslim & Zaidi, 2005; Haron, Ahmed, & Planisek, 1994).

Dusuki and Abdullah (2007) conducted their research based on a sample taken from Malaysian Islamic bank customers. The most important fact revealed by that study is that customer satisfaction often depends on the quality of services provided by Islamic banks. The quality of services includes factors like treating customers with courtesy and respect;

staff ability to convey trust and confidence; efficiency and effectiveness in handling any transaction; and knowledgeable and preparedness in providing solutions and answers concerning Islamic bank's products and services.

Table 3-4 Summary of criteria for the selection of Islamic banks in Malaysia

Factor/ Literature	(Ahmad; Haron, 2002)	Kader (1993, 1995)	Haron et al. (1994)	(Muslim & Zaidi, 2005)	(Dusuki & Abdullah, 2007)
Religious factor		√			
Cost /benefits (e.g. return on deposits, investments, etc.)	√		√	√	
Service delivery (provision of fast and efficient service)	√	√	√	√	√
Size and reputation	√	√	√	√	
Staff factors (competence and courtesy of bank staff)	√		√	√	√
Convenience (location, ample parking space interior comfort)	√	√	√	√	
Confidentiality					√
Friends and relative influence		√	√	√	
Mass media advertising		√	√	√	√

Adopted from (Dusuki & Abdullah, 2007)

In summary, previous results suggest that Islamic banks must not rely solely on religious factors as a strategy to obtain customers' loyalty but they should also emphasize providing quality and efficient product and services.

As it can be inferred from the above studies, the Islamic aspect or the conformity of Islamic banks with the Shariah law is not the only factor that motivates customers to select and adopt the Islamic banking services in Malaysia, and it may not only be a reason for them but still an important reason especially for Muslims.

3.7.2.3 Studies about Dimensions of Customer Satisfaction for Conventional Banks

There are some researchers, such as (Boulding, Kalra, Staelin, & Zeithaml, 1993; Mittal; Baldasare, 1996) who analyzed customer satisfaction using multiple behavioral measures. Furthermore, various studies on customer satisfaction with particular reference to financial services also reflect the inherited deficiency of literature about customer satisfaction in general services and made little effort to define some specific measures of customer satisfaction analysis for their experiences of using financial services. In this study, customer satisfaction will be studied by overall questions as follows:

Customer satisfaction (*the comparison between the reward and cost for purchase*)

- i. I am satisfied with employee's response and prompt services
- ii. I am satisfied with bank financial services advice
- iii. I am satisfied with banking products and services provided by my bank
- iv. I am satisfied with financial product information which is provided to me
- v. I am satisfied with availability of ATM outlets

3.8 Prior Studies on Shariah Compliance using Carter Model

Parasuraman et al. (1988) have evolved a model called SERVQUAL, using the five dimensional models which can be also used by the commercial banking institutions.

SERVQUAL model was in line with the products and services of the organization, its culture, technology, and environment. CARTER model is developed by (Othman & Owen, 2002). Othman's model (2003) is based on six dimensions of the service quality. CARTER model is very popular in previous studies on Islamic banks. Othman (2003) has linked service quality with satisfaction and devotion of customer. He is of the view that satisfied consumer is committed with the business and customer loyalty will assist in measuring the performance of the business. Foundation of CARTER model is five dimensions of SERVQUAL and a new dimension has been added called "compliance with Shariah" which is a significant dimension to be included in the model of Islamic banks. Customer satisfaction will probably be achieved by means of high service quality and good professional behavior that result in decreasing the customer erosion (Leeds, 1992).

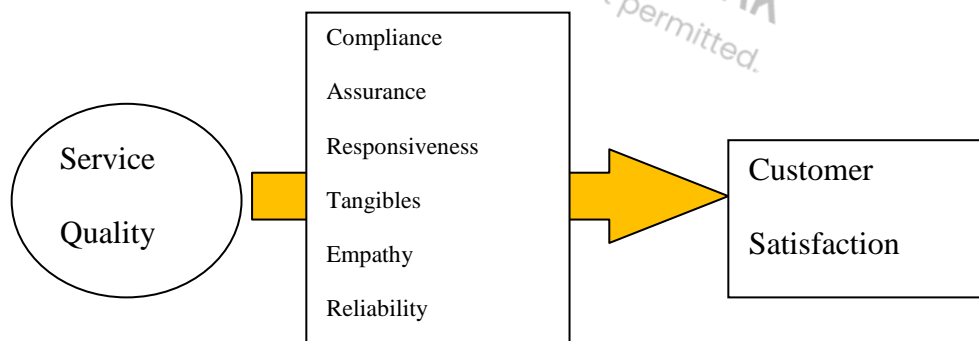


Figure 3-5 CARTER Model

Adopted from (Rehman, 2012)

3.8.1 Set for Service Quality Dimensions in Islamic Banks

Othman (2003) called researchers to evaluate the model's validity as well as to measure overall service quality levels in the Islamic banking in several locations.

Othman and Owen established CARTER model that used SERVQUAL dimensions in Islamic banks. New studies in service quality must be based on the five dimensions to be appropriate for each industry by recommending or analyzing new dimensions. And added new dimension called "Compliance with Islamic law" to Parasuraman's five dimensions. Therefore, the next dimensions compliance, assurance, reliability, tangibles, empathy, and responsiveness (CARTER) were conceptualized as a proposed framework for that study. Compliance (1-5 items), Assurance (items 6-10), Reliability (items 11-14), Tangibles (items 15-19), Empathy (items 20-28), Responsiveness (items 29-33)

Table 3-5 Studies using CARTER Model

Author	Country	Sector	Tool and importance
(Othman & Owen, 2003)	Kuwait	Islamic bank	Weighted SERVQUAL and also developed CARTER model
(Shafie, Azmi, & Haron, 2004)	Malaysia	Islamic banks	A duplication study to CARTER model to evaluate customer satisfaction in Malaysia Islamic bank. Their result was that CARTER is appropriate to measure service quality in Islamic Banking
(Ciptono & Soviyanti, 2007)	Indonesia	Islamic banks	Adapted CARTER model to measure service quality in Islamic banking resulted in eight dimensions with 32 items. The dimensions are CARTER dimension+ competence and knowing the customer

3.8.2 Shariah Compliance Dimensions and SCSQ Model

Othman (2003) who developed CARTER to measure service quality in Islamic banking institutions. CARTER is a model based on the five SERVQUAL dimensions together with new dimension named “Compliance with Islamic law” which is suitable for the Islamic banking. This dimension contains items as following:

- i. run on Islamic law and principles
- ii. absolutely no interest paid or obtained on savings and loans
- iii. provision of Islamic products and services
- iv. provision of free interest loans
- v. Provision of profit sharing investment products

Carter model focuses on institutes or Islamic banking service or the product if with/without interest in general.

CARTER (is the first letter of Compliance, Assurance, Responsiveness, Tangibles, Empathy, and Reliability) about this new model which suggest in this study can be SCSQ model because this study separate Compliance from other dimensions of CARTER model.

CARTER model consist items across six dimensions, which are Compliance, Assurance, Reliability, Tangibles, Empathy, and also Responsiveness. To get the best of the researcher knowledge CARTER is probably the most well-known model in the course of Islamic banking industry and it has been followed in several future studies on Islamic banks in different countries e.g. (Shafie, Azmi, & Haron, 2004; Ciptono & Soviyanti, 2007). These

studies on service quality during Islamic banks have in contrast been performed in eastern and mainly, Muslim-based countries. .

Rehman (2012) makes use of three questions as carter model for Shariah compliance dimension: “Compliance with Shariah law”,” Several products and services in banking”, “Confidence in bank’s Shariah advisor”.

3.8.2.1 Dimension Shariah Compliance Institution

Figure 3.5 illustrates a model structure of roles, functions and reporting relationships of key organs in the IFI’s Shariah governance framework

From these principles, which concern with the responsibility of IFI and Shariah committee?

These principles concern with implementation and maintenance of Shariah compliance within the institute. The questions and the source of questions which are related with Shariah compliance institute are as follows in the table 3.7:

Table 3-6 Questions Shariah compliance institutions and principle’s sources

Statement	Sources
i. The bank’s media (website, bulletins) corporate information present proper information on Islamic Banking principles and requirements	Bank Negara Malaysia Shariah Governance Framework (BNM SGF) Principle 1
ii. The bank shows concern for your interest in Islamic financial products and services	BNM SGF Principle 1; BNM SGF Principle 2
iii. The bank assures you that your banking transactions are Shariah compliant	BNM SGF Principle 1; BNM SGF Principle 7
iv. The bank’s facilities are visually appealing and consistent with Islamic culture.	BNM SGF Principle 1; BNM SGF Principle 6
v. The bank has consistently being attentive to ensure your banking needs and is Shariah compliant.	BNM SGF Principle 1; BNM SGF Principle 2

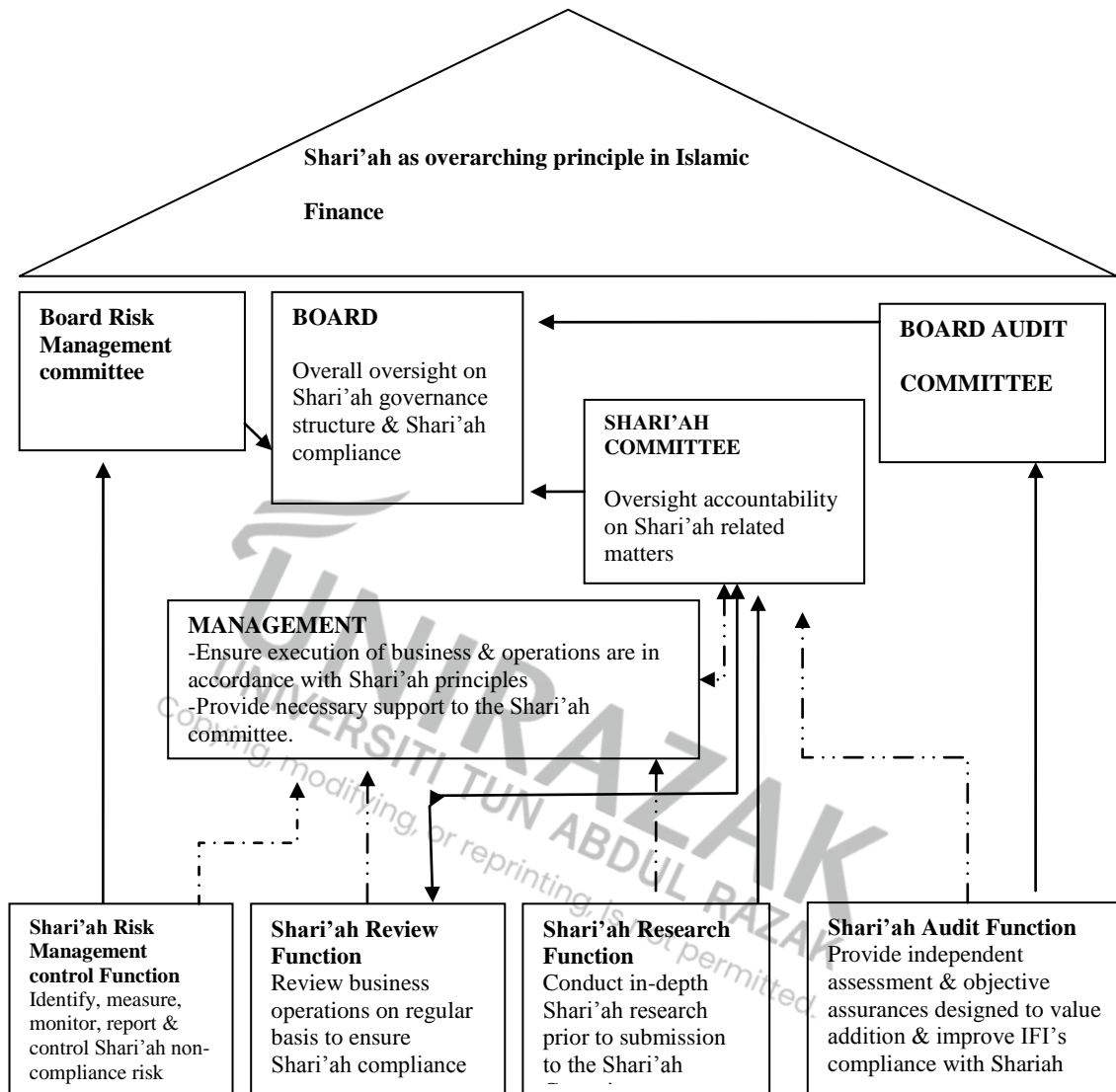


Figure 3-6 Shariah Governance Framework Model for IFIs

Source: (BNM, 2013, p. 8)

The **IFI** shall establish specialized reporting channel(s) associated with the key functions to guarantee that the reporting on Shariah matters is implemented effectively and on a timely manner. From this aspect, the Shariah Committee shall functionally report to the board of directors. The Shariah review function shall report at the same time to the Shariah

Committee and management, and the Shariah audit findings shall be reported to the Board Audit Committee and Shariah Committee.

All Shariah non-compliance events have to be reported to the board of the IFI and the bank. Figure 3.6 shows a model structure of roles, functions and reporting relationships of key organs in the IFI's Shariah governance framework.

3.8.2.2 Dimension Shariah Compliance Product and Services

One of the main deliverables of any IFI is the offering of Shariah compliant financial products which satisfy the demand of the customers. Normally the IFI must make sure that the product development process is comprehensive and powerful to reduce possibilities of the product to be invalidated on Shariah reasons. The IFI must recognize that controlling a Shariah-based institution needs to be a continuous process, and also it needs the IFI to have in place enough and appropriate measures, including risk-mitigating instruments that can address Shariah non-compliance cases. Consequently, the IFI is expected to refer all Shariah issues related to final product development design and process to the Shariah Committee. The requirement for a decision must be made in an extensive manner for effective consultation by the Shariah Committee. This will describe the process involved, documents used and other necessary information. All new products should be certified by the Shariah Committee and should be supported by the relevant fiqh literature, evidence and reasoning. There shall be rigorous consultation process among the Shariah Committee in addition to detailed overview of the legal contracts and other documents relevant to the products. Product improvement covers both pre-product approvals (i.e. process of product

structuring and developing prior to introduction to the market) and post-product approval process (i.e. process after the product has been offered to the customers and transactions have been carried out) (BNM, 2013).

The questions and the source of questions which are related with Shariah compliance product and services are as follows in table 3.8:

Table 3-7 Questions Shariah Compliance product and services and principle's sources

Statement	Sources
i. Shariah compliant product features are adequately explained to you	BNM SGF Principle 1; BNM SGF Principle 2
ii. Shariah principles are made simple and easy for you to understand.	BNM SGF Principle 1
iii. Bank always provides assurance about Shariah product endorsement to you.	BNM SGF Principle 1; BNM SGF Principle 3
iv. Bank is responsive to clarify any ambiguity of product Shariah feature or benefits to you.	BNM SGF Principle 1; BNM SGF Principle 3
v. Services rendered by the banks met your expectations of Shariah compliant services.	BNM SGF Principle 1; BNM SGF Principle 3

3.8.2.3 Dimension Islamic Bank Employees' Ethical Conduct

Abdullrahim (2010) in his study on Islamic banks in UK, the respondents to that study showed gaps between customers' expectations and perceptions in four items as follow:

- i. Closing for Friday prayer time
- ii. Banks having prayer rooms
- iii. Muslim Female staff wearing hijab

- iv. Banks having separate departments for women.

The Islamic banks should care for Islamic behavior. I will be more precise for Islamic Bank employees' ethical conduct. The questions and the source of questions related with bank's employees should be obligations which mention the ethical features for Shariah Committee in Islamic bank as follows in table 3.9.

Table 3-8 Questions for Islamic Bank employees' ethical conduct and principle's sources

Statement	Sources
i. The bank employees conduct are proper and observant of Islamic ethical values	BNM SGF Principle 1; BNM SGF Principle 6
ii. Proper and modest employee dress codes are observed during your banking visits	BNM SGF Principle 1; BNM SGF Principle 6
iii. The bank employees are supportive of your concerns to ensure Shariah compliant banking transactions	BNM SGF Principle 1; BNM SGF Principle 7
iv. The bank employees are transparent in all dealings with your Islamic banking needs	BNM SGF Principle 1; BNM SGF Principle 2
v. Courteous and well-mannered employees do attract me to the Islamic banking services	BNM SGF Principle 1; BNM SGF Principle 6

3.8.3 Comparison between CARTER Model SCSQ Model

CARTER model: the name is composed of the first letter of dimensions. One variable called service quality which consists of items across six dimensions, which are, Parasuraman model five dimensions (1988) Assurance, Reliability, Tangibles, Empathy,

Responsiveness plus Compliance with 5 questions. At the same time, it composes customer variable.

SCSQ model: the name composes of the first letter of Shariah compliance and service quality. Service quality as an independent variable consists of Parasuraman model five dimensions (1991) Assurance, Reliability, Tangibles, Empathy, and Responsiveness. Another independent variable is Shari'ah compliance which is divided into three dimensions with 15 questions: Shari'ah compliance institution; Shari'ah compliance products and services; and Islamic Bank employees' ethical conduct. 15 questions were prepared from Malaysian government's obligations for Shari'ah compliance. At the same time, it composes of customer satisfaction variable as a mediator variable, and two dependent variables which are customer loyalty and customer retention.

In general, a comparison between CARTER model and SCSQ model as shown in table (3-9):

Table 3-9 Comparison between CARTER Model and SCSQ model

No.	Item	CARTER model	SCSQ model (C+ARTER model)
1	Article	Othman, A., & Owen,(2003). Adopting and measuring customer service quality in Islamic Banks: A Case Study In Kuwait Finance House. International Journal of Islamic Financial Services Vol. 3. No. 1.	This study
2	Sample size	360	339
3	Type of data	Qualitative data	Quantitative data
4	Data Collection methods:	Interview	Questionnaire distributed by electronic link using electronic link by Google docs program.
5	Likert scale	(1) not important, (2) somewhat not important, (3) neutral, (4)	(1) Strongly disagree (2) disagree (3) Neutral (4) agree (5) strongly

		somewhat important and (5) very important	agree
6	Scale	SERVQUAL scale “expectation and perceptions”	SERVPERF model only perceptions
7	Underpinning theory	expectancy disconfirmation (Expectation confirmation theory)	expectancy disconfirmation (Expectation confirmation theory)
8	Purpose of model	model to measure SQ in Islamic bank	model to measure SQ in Islamic bank
9	Dimension of original model	Add a new dimension called “compliance with Islamic law items 1-5” to Parasuraman’s five dimensions (Items 6-10 Assurance, items 11-14 Reliability, items 15-19 Tangibles, items 20-28 Empathy and items 29-33 Responsiveness) for customer satisfaction 3 questions after that categorical questions.	Start with categorical questions items 1-11 Parasuraman’s five (items 12-15 Tangibles, items 16-20 Reliability, items 21-24 Responsiveness, Items 25-28 Assurance and items 29-33 Empathy) add Carter question for compliance items 34-38, a new variable called “Shari’ah Compliance” which have 3 Dimensions “ items 39-43 Shari’ah compliance institution, items 44-48 Shari’ah Compliance product and services And items 49-53 Islamic Bank employees’ ethical conduct” Items 54-58 Customer satisfaction, items 59-64 Customer loyalty, items 65-71 customer loyalty.
10	Factor Analysis	Without factor analysis	Explanatory factor analysis
11	Dimensions after factor analysis	No factor analysis become same dimensions	With Parasuraman’s five (Tangibles, Reliability, Responsiveness, Assurance (mixed become confidence) and Empathy) add a new variable called “Shari’ah Compliance” which have 3 dimensions “Shari’ah compliance institution, Shari’ah Compliance product and services (mixed become compliance) And Islamic Bank employees’ ethical conduct” become ethics
12	Type of data	Qualitative data	Quantitative data
13	Data analysis	Qualitative analysis which uses average importance, percentages, items rank, alpha, dimensions rank, weight of items and dimensions	Quantitative analysis which use correlation coefficient, regression, Cronbach’s alpha, normality validity, partial correlation...etc.

Chapter Summary

This research has adapted a new model SCSQ instead of CARTER model to develop Shariah measurement model for the Islamic banking industry. It has become clear that carter model and their items are subject to change from this study to another new model which consists of three dimensions with 15 questions, instead of one dimension and 5 questions. Studies emphasize Shariah compliance as an important factor in Islamic banks to get customer satisfaction. Overall, a number of studies in financial service quality, mainly from the banking sector have been reviewed in order to develop a SCSQ model that can be applied to Islamic banks.

The chapter started with an overview of the literature on Islamic banking around the world with special focus on Malaysia for this study. The chapter then moved on to study Shariah compliance and its antecedents. The next chapter will discuss the research methodology employed.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

This chapter discusses the methodology of this study which includes the research philosophy, sample, sample size and measures used in the research to study Shariah compliance and service quality on customer satisfaction with retention and loyalty for Islamic banks. Furthermore, this study adopts quantitative method using survey to determine the relationships of variables in Islamic banks.

4.2 Research Approach

This section covers research philosophy and also their link to study methodology then describes several potential methodological approaches to study Shariah compliance research before presenting the ultimate study approach.

4.2.1 Research Philosophy

The goal of this research is to examine the impact of Shariah compliance and the service quality on customer satisfaction with customer loyalty and customer retention. To achieve this, a good objectivist perspective using a quantitative research approach has been considered most appropriate, with the researcher assuming the role of an objective analyst, gradually making detached analysis of data collected within a clearly value-free manner with the assumption.

This research promises to test a set of causal relationships among variables and also to draw conclusions at first from the hypotheses set then from the research propositions that can make this approach suitable. A range of methods are offered to the researcher wishing to undertake quantitative research.

4.2.2 Methodological Approaches to study Shariah Compliance Research

The objectivist perspectives are considered and quantitative methods are applied accordingly. There are two major types of quantitative research design: experimental designs and also non-experimental designs (Muijs, 2004). A survey is the kind of quantitative research design which is most appropriate and usually used to investigate questions such as these in the literature (Bitner, 1990; Lee, Garbarino, & Lerman, 2007).

The survey is likely to be the dominant data collection tool in marketing and also management research, mainly because many different types of information, including attitudinal, motivational, behavioral, and perceptive aspects, are usually collected this way that cannot be collected by other means (such as observation) (Gill & Johnson, 2009; Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009). Furthermore, surveys are a good way of gathering data from a large number of people relatively easily (Saunders, Philip, & Thornhil, 2009). Survey research designs can be flexible and can consequently appear in a various forms, but all tend to be characterized by the collection of data using standard questionnaire forms given by telephone or face-to-face, by postal pencil-and-paper questionnaires, or increasingly by using web-based and email forms (Saunders, Philip, & Thornhil, 2009).

Surveys usually are considered to have superior generalizability and for that reason greater external reliability because they are normally standardized and provide actual marketing exchanges (David & Sutton, 2004; Sarantakos, 2005). Additionally, they do not seek to manipulate variables, surveys can be utilized to examine a larger group of variables and so researchers wishing to test complicated models with numerous factors commonly use a survey approach (Bryman & Bell, 2007). On the other hand, even if they are well designed, surveys are not without disadvantages. Normally cited is the fact that they can depend on subjects' motivation, honesty, memory, and capability to respond (Bryman & Bell, 2007; Krosnick, 1999). Even more essential is that researchers using the survey approach are unable to manage external factors (Gill & Johnson, 2009).

Like several research methods, surveys and experiments have strengths and as there is usually no one 'correct' approach for a given problem, the method of data analysis ought to be determined by the nature with the research question and the way by which data tend to be collected (Robson, 2002).

Due to this research, an experimental design was chosen as this approach much better facilitates a persuading test of the hypotheses set out in the prior chapter and "is more likely than other methods to demonstrate a relatively unambiguous connection between cause and effect" (Coolican, 2009).

4.3 Pilot Study

Piloting and pre-testing questions is actually desirable, however, not only to do with trying to make sure that the survey questions work well; piloting also has a role of making sure

that the research instrument as a total functions well (Bryman & Bell, 2003). Bryman and Bell also state that pilot studies may be important in relation to research depending on self-completion questionnaires. This research pilot study has been conducted with the cooperation of (30) randomly selected students in Tun Abdul Razak universiti. All of them are Islamic bank account holders. The respondents' demographic descriptions were as follows: Islamic bank account holders were found to be more than one year 96.5%. For age of respondents about 83 % between 21-45 years, 14 were female and 16 were male. In terms of education, Islamic bank account holders have Bachelor or above degrees about 93.3%. All respondents are Muslims except one respondent. The pilot study was applied to test the questionnaire items in terms of clarity, layout, length and time, before distribution. As a consequence of the pilot test, the questionnaire phrases were simplified and some questionnaire items were clarified more. Furthermore, the Likert scale measurement names needed to be simplified and rearrange some questions. Table 4.1 describes demographic profile of pilot study.

Table 4-1 Demographic profile of pilot study

Character	Items	Frequency	Percent
Gender	Male	16	53.3
	Female	14	46.7
	Total	30	100.0
Age	21-45 years	25	83.3
	more than 45	5	16.7
Period as customer of Bank	less than 1 year	1	3.3
	1-2 years	3	10.0
	2-3 years	3	10.0
	4-5 years	6	20.0
	More than 5 years	17	56.7
Nationality	Local	16	53.3
	Foreign	14	46.7
	Total	30	100.0
Ethnic group	Malay	15	50.0
	Chinese	1	3.3
	Arabic	14	46.7
Academic Qualification	High school	2	6.7
	Bachelor	4	13.3
	Master	19	63.3
	Ph. D	5	16.7
Religion	Muslim	29	96.7
	Non-Muslim	1	3.3
Retail financing related products	Personal financing	22	73.3
	Vehicle financing	4	13.3
	Property financing	4	13.3
Current Deposits	Mudarabah	7	23.3
	Non Mudarabah	6	20.0
	Saving Mudarabah	8	26.7
	Saving Non-Mudarabah	9	30.0
	Total	30	100.0
Annual income	Less than 24000	12	40.0
	more than 24000	8	26.7
	more than 60000	10	33.3

4.3.1 Reliability Analysis

The table 3.1 presents the reliability analysis for all parts of questionnaire. Results show acceptable reliability; the alpha values of most the measures have been greater than 0.7, the cut off recommended by Nunnally (1978) for the basic research.

Table 4-2 Results of reliability analysis

Item	Cronbach's alpha
Service quality	0.965
Tangibles	0.827
Reliability	0.913
Responsiveness	0.873
Assurance	0.87
Empathy	0.941
Shariah Compliance	0.967
Shariah compliance institution	0.896
Shariah compliance product and services	0.955
Islamic bank employees ethical conduct	0.921
Customer satisfaction	0.919
Customer loyalty	0.864
Customer retention	0.94

4.3.2 Validity Analysis

Confirmatory factor analysis (validity analysis) for pilot study

Table 4-3 Variables Correlations

Variable	Composite Reliability	AVE	SQ	SHA	CS	CL	CR
1.SQ	0.97	0.65	.81				
2.Shariah Compliance	0.97	0.69	.79	.83			
3.CS	0.94	0.76	.72	.80	.87		
4.CL	0.91	0.68	.70	.64	.64	.82	
5.CR	0.96	0.78	.74	.61	.69	.86	.88

Note. Average Variance Extracted = AVE; Square root of the AVE on the diagonal
Construct Validity is determined by Convergent Validity and Discriminate Validity.

Construct Validity is confirmed only when Convergent Validity and Discriminate Validity are established.

Convergent validity is evidenced when AVE value is greater than .5 since the explained variance is greater than the variance caused by the measurement error (Bagozzi & Yi, 1988). Refer to the table (4.3). From the results all variable have AVE greater than 0.5 so they show convergent validity. The variance explained by the items converges towards the assumed variable.

For discriminate validity, two conditions need to be met which are:

1- Applying the Fornell-Larcker criterion. According to the criterion, the square root of the AVE of the constructs must be higher than the maximum correlation among the constructs (Fornell & Larcker, 1981). Refer to the table (4.3), highlighted in yellow. From results the maximum correlation 0.86 higher than square root of AVE (0.81, 0.83, 0.82).

2- Examining the loadings between items and factors (Gefen & Straub, 2005). The loadings of the items on their assumed construct must be higher than the cross-loadings. From table below all questions have loaded on assumed variable except two questions no. 29, 54)

Table 4-4 Cross Loading

Q. No.	item	CL	CR	CS	SQ	ShariahComp
11	TG11	0.50	0.48	0.59	0.72	0.51
12	TG12	0.40	0.48	0.27	0.58	0.22
13	TG13	0.60	0.59	0.51	0.82	0.60
14	TG14	0.39	0.32	0.50	0.70	0.55
15	TG15	0.30	0.30	0.41	0.64	0.51
16	RL16	0.42	0.58	0.67	0.77	0.56
17	RL17	0.51	0.64	0.64	0.88	0.66
18	RL18	0.59	0.56	0.60	0.87	0.66
19	RL19	0.54	0.57	0.56	0.89	0.61
20	RE20	0.48	0.49	0.39	0.78	0.53
21	RE21	0.56	0.59	0.49	0.83	0.69
22	RE22	0.39	0.42	0.43	0.76	0.47
23	AS23	0.80	0.75	0.65	0.93	0.80
24	AS24	0.79	0.83	0.75	0.82	0.70
26	EM26	0.74	0.77	0.69	0.88	0.86
27	EM27	0.69	0.73	0.68	0.84	0.81
28	EM28	0.62	0.63	0.66	0.83	0.73
29	SI29	0.61	0.69	0.70	0.88	0.73
30	SI30	0.60	0.52	0.60	0.72	0.82
31	SI31	0.45	0.44	0.49	0.63	0.77
32	SI32	0.64	0.67	0.69	0.77	0.80
33	SI33	0.54	0.38	0.58	0.61	0.85
34	SP34	0.52	0.46	0.62	0.63	0.84
35	SP35	0.51	0.52	0.69	0.72	0.90
36	SP36	0.40	0.44	0.68	0.56	0.85
37	SP37	0.67	0.61	0.75	0.71	0.91
38	SP38	0.48	0.48	0.70	0.70	0.92
39	SE39	0.63	0.62	0.67	0.62	0.87
40	SE40	0.58	0.55	0.72	0.66	0.86
41	SE41	0.42	0.28	0.62	0.44	0.70
42	SE42	0.52	0.41	0.68	0.60	0.88
43	SE43	0.39	0.42	0.69	0.56	0.70
44	CS44	0.45	0.38	0.81	0.53	0.76
45	CS45	0.57	0.58	0.85	0.56	0.68
46	CS46	0.63	0.65	0.92	0.73	0.79
47	CS47	0.62	0.71	0.94	0.64	0.66
48	CS48	0.51	0.67	0.85	0.68	0.63

49	CL49	0.70	0.68	0.54	0.66	0.45
50	CL50	0.79	0.55	0.58	0.52	0.67
51	CL51	0.88	0.77	0.41	0.59	0.46
52	CL52	0.88	0.79	0.51	0.55	0.55
53	CL53	0.87	0.77	0.55	0.56	0.48
54	CR54	0.90	0.75	0.62	0.55	0.59
55	CR55	0.73	0.93	0.64	0.66	0.53
56	CR56	0.71	0.94	0.63	0.67	0.50
57	CR57	0.77	0.95	0.65	0.60	0.50
58	CR58	0.81	0.87	0.55	0.72	0.52
59	CR59	0.62	0.85	0.57	0.71	0.57

4.3.3 Normality Analysis

A common rule-of-thumb of acceptable ranges is from (+1 to -1 to +3 to -3), depending on the degree of confidence applied to the study (Garson, 2008). Interpreting Skewness and Kurtosis value involves dividing the value by their respective standard errors, and then checking to see if they fall within an acceptable distribution.

Skewness value greater than 2 or less than -2 should be transformed (Tabachnick & Fidell, 2007).

Table 4-5 Skewness and Kurtosis results in pilot study

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Tangible11	-1.194	.427	2.072	.833
Tangible12	-.656	.427	-.247	.833
Tangible13	-1.414	.434	2.473	.845
Tangible14	-.800	.427	.521	.833
Tangible15	-.819	.427	.427	.833
Reliability16	-.797	.434	2.126	.845
Reliability17	-1.447	.427	2.127	.833
Reliability18	-1.078	.427	.780	.833
Reliability19	-1.501	.427	2.751	.833

Respons20	-1.523	.427	2.004	.833
Respons21	-.962	.427	.673	.833
Respons22	-.969	.427	.435	.833
Assuranc23	-1.380	.427	2.411	.833
Assuranc24	-.417	.427	-.108	.833
Empathy26	-.757	.427	-.186	.833
Empathy27	-.633	.427	.215	.833
Empathy28	-1.014	.427	.565	.833
ShIns29	-1.707	.427	3.835	.833
ShIns30	-.432	.427	-.655	.833
ShIns31	.110	.427	-.662	.833
ShIns32	-.841	.427	.321	.833
ShIns33	-.754	.427	-.156	.833
ShProd34	-.328	.427	-.728	.833
ShProd35	-.406	.427	-.864	.833
ShProd36	-.295	.427	-1.089	.833
ShProd37	-.581	.427	-.580	.833
ShProd38	-.426	.427	-.355	.833
ShEth39	-.285	.427	-.644	.833
ShEth40	-.125	.427	-.980	.833
ShEth41	-.448	.427	-.711	.833
ShEth42	-.580	.427	-.463	.833
ShEth43	-.338	.427	-.510	.833
CS44	-.676	.427	.607	.833
CS45	-.812	.427	.090	.833
CS46	-.948	.427	1.000	.833
CS47	-.577	.427	-.519	.833
CS48	-.266	.427	-1.010	.833
CL49	-1.205	.434	1.187	.845
CL50	-.712	.427	-.266	.833
CL51	-.538	.427	-.476	.833
CL52	-.510	.434	-.745	.845
CL53	-.639	.434	-.629	.845
CR54	-.256	.434	-1.187	.845
CR55	-.135	.427	-1.210	.833
CR56	-.262	.427	-.768	.833
CR57	.010	.427	-.927	.833
CR58	-.538	.427	-.476	.833

CR59	-0.709	.427	.143	.833
Maximize	.110	.434	3.835	.845
Minimize	-1.707	.427	-1.210	.833

Notes about the results of normality analysis:

For Skewness: There is not any value more than (-2 to 2)

All values between -1 to 1 except no. 11,13,17,18,19,20,23,28, 29 and 49

For Kurtosis: There are many values more than (-2 to 2) question no. 11, 13, 16, 17, 19, 20, 23, 29 . All values between (-1 to 1) except questions no. 36, 48, 49, 54, 55 but not more than (-2 to 2)

4.3.4 General Comments for Pilot Study

The pilot study was done to make sure that the survey questions work well; piloting also has a role of making sure that the research instrument functions well clause (4.3) pilot study. This research pilot study has been conducted with the cooperation of (30) randomly selected students in Tun Abdul Razak university. Table 4.1 describes the demographic profile of the pilot study.

From the pilot study, researcher has obtained very important notes which can be summarized as follows:

Clause 4.3.1 reliability analysis, to study reliability using SPSS program click on all of the individual items that make up the scale e.g. service quality variables, all items for tangible, reliability, assurance, empathy, and responsiveness will give cronbach's alpha for service quality variable. For one dimension click on all individual items that make up the scale e.g. tangible dimension by using all of its items. It will give cronbach's alpha for tangible

dimension. Despite reliability analysis, it has got more than 0.7 for all items of the questionnaire which means high reliability.

On the other side, validity analysis assumed construct must be higher than the cross-loadings except for two questions no. 29, 54). Questions no. 29, 54 should be corrected. Clause 4.3.2 Validity Analysis takes part using Confirmatory factor analysis for pilot study. Convergent validity and discriminate validity. Clause 4.3.3 Normality Analysis has been done. This table (4.4) generated by confirmatory factor analysis which was done in the pilot study. It is a cross loading part. It gives loading for all items on all variables. From the all items work well and get the highest loading in their variables i.e. first item TG11 which have got 0.72 for its variable service quality compare with other variables. Only two items 29 and 54 don't have the highest loading for their variable. It has to change these items no. (2) It needs more explanation because Q29 and Q54 don't get the highest loading for their variable. There are two notes for this comparison questionnaire between Parasuraman 1988 and 1991; Questionnaire was improved in 1991 by removing negative statements as well as clarity in the questionnaire items. Comparison between Questionnaire items which were adopted with Parasuraman (1988, 1991) is available in Appendix C.

The pilot study used for perception questions (SERVPERF) from Pooja Mengi (2009). Categorical questions 10 items. Service quality dimensions 17 items, Shariah compliance (15 items), customer satisfaction (5 items), customer loyalty (6 items) and customer retention (6 items), totally 69 items (Mengi, Pooja, 2009). After the pilot study notes there was concern with skewness and kurtosis for questions that did not satisfy the final questionnaire. Questionnaire (Appendix A) Categorical questions 11 items. Service quality

dimensions 22 items (Parasuraman 1991) instead of Pooja Mengi questions, Carter model questions 5 item, Shariah compliance (15 items), customer satisfaction (5 items), customer loyalty (6 items) and customer retention (7 items), totally 71 items.

All questions related to Shariah compliance are tested and have got high reliability validity and normality except question no. 29. Furthermore, it is needed to add questions for compliance dimension from CARTER Model to compare with SCSQ model. Finally, choose customer friendly five Likert scale instead of seven Likert scale as feedback of the pilot study. Tables 4.6 Explains notes of the pilot study and the corrections.

Table 4-6: Explains notes of pilot study and the corrections

Note	Original	Adjustments
Q29	The bank's brochures and corporate information present proper information on Islamic Banking.	The bank's media (website, bulletins) corporate information present proper information on Islamic Banking. which summarized as "provides proper banking product disclosure"
Q54	I will continue with this bank for its excellent services.	I have favourable Islamic banking experience to share on this bank. Q65
SERVPERF	SERVPERF from Pooja Mengi (2009)	Modified the perception part of SERVQUAL (SERVPERF) Parasuraman (1991)
Carter Model	Without questions for Compliance dimension for the Carter model	Compliance dimension for Carter Model take part items (34-38)
Likert Scale	Seven Likert scale	Five Likert scale

4.4 Research Design

To achieve the previously mentioned research objectives, the data for this research has been collected through questionnaire. 50 journal articles included in that paper are country specific surveys. That indicates how vital it is to apply a survey method for customer related studies. Factor analysis to test the reliability of outcomes, hypothesis testing

according to aims, etc. the quality of applying statistical methods, representing the final results and interpreting the results differ among the studies(Astrom, 2013).

.There are also standard methods of structuring the surveys and testing the answers, such as the use of Likert scales with points dependent on the questions and aims. The instrument was well prepared with English language intended for Malaysian respondents with English language as second language in this country and other foreigners which are usually familiar with this language. The questionnaire has been examined in Pilot study and the respondents stated their opinions about phrasing and wording on the questionnaire. This research is composed of three parts in this research: Part A contains questions the about personal information of the respondents such as gender, age, etc. Part B includes SERVPERF model to analyze customer perceptions. It uses the modified Parasuraman et al. (1991) questionnaire. These dimensions were tangibles, reliability, responsiveness, assurance and empathy. Measuring the following dimensions as in Parasuraman study: tangibles: (4) items, Reliability: (5) items, Responsiveness: (4) items assurance: (4) items, and empathy: (5) items. Total is 22 items. Part C consists of items that measure compliance with Shariah divided into 3 dimensions (Shariah compliance institute (5) items, Shariah compliance product or services (5) items and Islamic Bank employees' ethical conduct (5) items. At the same time Part D study customer satisfaction (5) items, customer loyalty (5) items and customer retention (6) items. A five-point Likert scale ranging from “Strongly Disagree 1” to “Strongly Agree 5” was adapted to measure feedback of this questionnaire. Statistical Package for Social Science (SPSS) program will be used to analyze the data set. A frequency distribution was utilized to describe the sample. The mean and standard

deviations of the attributes were also computed. Finally, acceptable statistics tools were used to get targets of this study. This research adopts a quantitative approach by having an objective of testing the hypotheses and propositions shown in this thesis.

4.5 Methodology Instrument

Previous study give techniques, models help to determine correct and suitable measurement scales. Scales are very important to measure all variables in this study included service quality, shariah compliance, customer satisfaction, customer loyalty, and customer retention. They need to determine carefully the scale to measure them. Furthermore, compare between CARTER model and SCSQ model take part in this study.

4.5.1 Measurement Scale: Service Quality

From the literature review, previous studies and clauses 2.2.5 SERVQUAL scale, 2.2.6 SERVPERF scale, 2.2.7 Criticism of the SERVQUAL scale, and 2.2.8 Preference of the SERVPERF scale. This study uses the SERVPERF scale. Both SERVQUAL and SERVPERF have used ARTER (Assurance, Reliability, Tangible, Empathy and Responsiveness), and the foundation for the SERVQUAL scale is actually the particular gap model suggested by Parasuraman, Zeithaml and Berry (1985, 1988). Service quality measurement scale is comprised of the total of 44 items (22 for expectations in addition to 22 for perceptions). Customers' responses with their expectations and perceptions are acquired on a 7-point Likert scale and tend to be compared to arrive at (P-E) gap scores. The bigger (more positive) the perception minus expectation scores, the higher it can be perceived to become the level of service quality.

Cronin and Taylor (1992) were among the group of researchers who leveled highest criticism on the SERVQUAL scale. Expectation (E) part of SERVQUAL is to be removed and instead performance (P) part alone be taken. 'Performance only' scale is actually composed of only 22 items. A higher perceived performance means higher service quality.

CARTER model had used SERVQUAL with only 3 questions related with customer satisfaction and my study SCSQ model uses SERVPERF with 5 questions related with customer satisfaction, 6 questions for customer loyalty and 7 questions for customer retention which was tested before with good reliability and validity clause (4.5.2 to 4.5.4).

SERVQUAL or SERVPERF can be a measurement for customer satisfaction? “In SERVQUAL measurement, Perception minus Expectation (P - E) is the measure of Service quality and if it is negative it indicates “dissatisfaction” and if positive it indicates “satisfaction”, whereas, in SERVPERF Perception alone is the measure of Service quality. So, comparing these two scales for outcome needs the formation of a common platform or yardstick of measurement. This is because there is no dissatisfaction in SERVPERF but it may indicate a low level of satisfaction, whereas, a negative score is an indication of dissatisfaction in SERVQUAL. Hence, dissatisfaction is considered as per the SERVQUAL metric. The two metrics differ in their outcomes (Rodrigues, Barkur, Varambally, & Motlagh, 2011). SERVQUAL and SERVPERF constitute two major service quality measurement scales. SERVQUAL and SERVPERF as being the two most widely advocated and applied service quality scales (Jain & Gupta, 2004). “Customer satisfaction with services or perception of service quality can be viewed as confirmation or disconfirmation of customer expectations of a service offer.

The proponents of the gap model have based their researches on disconfirmation paradigm which maintains that satisfaction is related to the size and direction of the disconfirmation experience where disconfirmation is related to the person's initial expectations" (Jain & Gupta, 2004). Finally, SERVQUAL and SERPERV don't measure customer satisfaction as explained above. Previous studies like (Othman & Owen, 2003) which use SERVQUAL questionnaires have 3 questions for customer satisfaction. Clause SQ and customer satisfaction as separate variables as shown in figure (2).

(Amin, Muslim; Isa, Zaidi, 2008) Use SERVQUAL and CARTER model. At the same time that study uses customer satisfaction as separate variables with 3 questions for the customer satisfaction page. The hypothesis research model has both service quality and customer satisfaction variables as clear in figure (1). Service quality and customer satisfaction should not be on the same scale by SERPERF as described in the framework for previous studies (Othman & Owen, 2003) (Amin, Muslim; Isa, Zaidi, 2008). Questions for service quality scale presents in Appendix A part B:

4.5.2 Measurement Scale: Customer Satisfaction

The scale for measuring customer satisfaction has been developed by Taylor and Baker (1994) designed four Likert-type items ranging from "I" (strongly disagree) to "T" (strongly agree) were utilized to measure the degree that a consumer is pleased about the whole consumption experience performed by ' Only five out of 13 items in the original scale have been linked to customer loyalty. Due to this study follow up study of previous studies conducted by Muslim, Zaidi, & Fontaine (2011) and (Hoq, Sultana, & Amin, 2008), these studies use exactly the same 3 questions and tested in Islamic banks. Final results reflected

acceptable reliability; the alpha values of all the measures were greater than 0.7, the cut off recommended by Nunnally (1978) for the basic research. It is 0.885 and 0.893 at the same time validity obtained 0.73 and 0.75. Hence, the reliability analysis and validity predicted the trustworthiness of the data obtained from the questionnaires. Then added two questions around the pervious questions related with information and ATM outlets. Questions for customer satisfaction scale presents in Appendix A part D.

4.5.3 Measurement Scale: Customer Retention

In this particular study, customer retention has been measured depending on customers' perceptions of repurchase intention. Taylor and Baker (1994) proposed that being familiar with customers' perception of purchase intention could help predict future purchasing behavior. The purchase intention scale has been manufactured by Taylor and Baker (1994) containing three Likert-type items influenced by the study of Cronin and Taylor (1992), Bitner (1990), and Bolton and Drew (1991). These Likert-type items ranged from "I" (strongly disagree) to "T" (strongly agree). In the original study, the purchase intention scale measured the probability that no matter if a consumer will choose a specific product/service provider so when the product/service is required after the experience of purchasing particular products/services. Simply, this scale measured the repurchase intention of customers. Depending on the definition of customer retention arguing which retention is more than an attitudinal isolation of the product/company measuring repurchase intention could recognize the potential of repeated purchasing behaviors of customers in the future. This study carried out study performed for Islamic banks by Hoq, Sultana, & Amin, (2008), which utilized 3 questions and tested within Islamic banks. Results show acceptable

reliability; the alpha values of most the measures have been greater than 0.7, the cut off recommended by Nunnally (1978) for the basic research. It is 0.802 at the same time validity have acquired 0.58 therefore, the reliability analysis and validity predicted the trustworthiness of the data obtained from the questionnaires. Then added three questions around the pervious questions related with next services, preference and next year choice. Questions for customer retention scale presents Appendix A part D.

4.5.4 Measurement Scale: Customer Loyalty

For measuring customer loyalty was developed by Zeithaml and colleagues (1996) After investigating the meaning and elements of service quality, these researchers have recently been more interested in the impact of service quality on behavioral consequences demonstrated by customers in the marketplace. Zeithaml and colleagues (1996) gathered data from mailing lists of customers generated by four companies' databases including a computer manufacturer a retail chain, an automobile insurer, and a life insurer. Using these 13 Likert-type items ranging from "1" (not at all likely) to "7" (extremely likely), a total 12,470 questionnaires were sent out with 3069 completed questionnaires returned. Coefficient alphas of .93, .94, .94, and .93 for the four companies, respectively, were reported by the researchers the results indicated excellent internal consistency of this scale. The validity of the scale was not explicitly examined by the authors. However, the exploratory factor analysis with oblique factor rotation, conducted by these authors using collected data from four companies for the items, revealed that those items tended to load together for each data set. For this study follow up study of previous studies conducted by Hoq, Sultana, & Amin, (2008) and Muslim, Zaidi, & Fontaine (2011), both these studies

used the same 4 questions and tested in Islamic banks. Results reflected acceptable reliability; the alpha values of all the measures were greater than 0.7, the cut off recommended by Nunnally (1978) for the basic research. It is 0.931 and 0.931 at the same time validity has got 0.78 and` 0.78. Hence, the reliability analysis and validity predicted the trustworthiness of the data obtained from the questionnaires. Then added a question around the pervious questions related with colleagues. Questions for customer loyalty scale presents in Appendix A part D.

4.5.5 Measurement Scale: Shariah Compliance

In this particular study 15 questions are used for Shariah compliance instead of 5 which were used in CARTER model for all dimensions as follows:

- i. Shariah compliance institution: questions related with awareness, and compliance with Shariah law as an institution (Islamic bank).
- ii. Shariah compliance product and services. Questions related with promotion and explanation of products or services and their compliance with Shariah law.
- iii. Islamic Bank employees' ethical conduct: questions related with bank's employees how customers feel them as a team for Islamic bank.

Expanded CARTER Model with a new model named SCSQ under three dimensions of compliance of Shariah law (Shariah compliance institute 5 items, Shariah compliance product or services 5 items and Islamic Bank employees' ethical conduct 5 items). This is one contribution of this study to attempt new questions for compliance of Shariah law questions for Shariah compliance scale presents in Appendix A part C.(BNM, 2013).

4.5.6 Measurement Scale: CARTER Model and SCSQ Model

Both models CARTER model and SCSQ model used Parasuraman model. CARTER model add a new dimension called “items 1-5 Compliance with Islamic law” to Parasuraman’s five dimensions (Items 6-10 Assurance , items 11-14 Reliability, items 15-19 Tangibles, , items 20-28 Empathy and items 29-33 Responsiveness) for customer satisfaction 3 questions after that categorical questions(Othman & Owen, 2003).

In this study, SCSQ model start with categorical questions items 1-11 Parasuraman’s five like CARTER model (items 12-15 Tangibles, items 16-20 Reliability, items 21-24 Responsiveness, Items 25-28 Assurance and items 29-33 Empathy)) add compliance dimension from CARTER model 34-38, a new variable called “Shari’ah Compliance” which have 3 dimensions “items 39-43 Shari’ah compliance institution, items 44-48 Shari’ah Compliance product and services And items 49-53 Islamic Bank employees’ ethical conduct” Items 54-58 Customer satisfaction, items 59-64 Customer loyalty, items 65-71 customer retention.

This is one contribution of this study to attempt new questions for Shariah compliance scale from Shariah governance framework in Appendix A first part of C. Both models are in the same questionnaire which compares between them easily. Adding compliance dimension for CARTER model (5 questions) to the questionnaire items 34-38. This study uses quantitative analysis. To compare between them are clause (5.10.15 that compares between CARTER model and SCSQ model hypothesis 15).

4.5.7 Summary of Measurement Scales

With the information about the measurement scales provided in the above sections, the instrument used in studies which engaged in Islamic banks. However, there are still several issues about the instrument which must be addressed.

First of all, from the original studies, different Likert scales were used to measure the construct mentioned above; five-point Likert-type items have been used.

In this study we use SERVPERF which studies only customer perception to measure service quality which was used in this study for reducing the mental load of the respondents as well as the necessary time for filling in the questionnaire.

In addition, Islamic studies are used as a resource for customer satisfaction, loyalty and retention questions. At the same time attempt to improvise to adopt model that consider additional questions related to the three dimensions for compliance with Shariah law.

Finally, in the part A of the questionnaire, items were included to collect demographic information about the respondents including gender, age, etc. These items aimed at adding the understanding of the respondents participating in this study.

4.6 Model Development and Research Hypotheses

Depending on the theoretical knowledge of the constructs reviewed in the literature review, the following sections will discuss the suggested relationships between those constructs. Hypotheses are related with the relationships among different constructs provided at the end of every section. Based on reviews of the literature in the context as mentioned in chapter two and three, the conceptual framework of the study can be displayed as figure

(4.1) shown. The model clarifies the mediator variable of customer satisfaction between service quality (as independent variable) and customer loyalty and retention (as dependent variable). At the same time, the model clarifies the mediator variable of customer satisfaction between Shariah compliance (as independent variable) and customer loyalty and retention (as dependent variable).

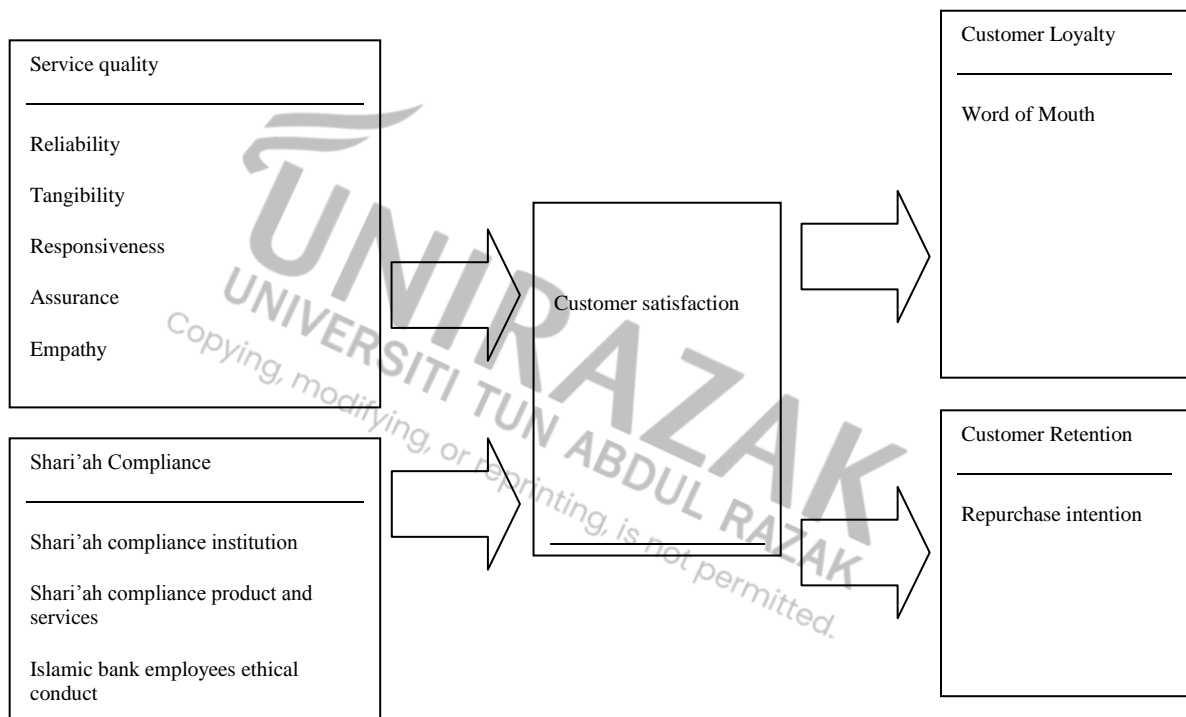


Figure 4-1 Conceptual framework of this study

4.6.1 The Impact of Service Quality to Customer Loyalty and Customer Retention

The hypothesis concerning the relationship between Service Quality from one side loyalty and retention on the other side is proposed as follows:

H1: Service quality has influence on customer loyalty.

H2: Service quality has influence on customer retention.

4.6.2 The Impact of Shariah Compliance to Customer Loyalty and Customer Retention

The hypothesis concerning the relationship between Shariah Compliance from one side loyalty and retention on the other side is proposed as follows:

H3: Shariah compliance has influence on customer loyalty.

H4: Shariah compliance has influence on customer retention.

4.6.3 The Relationship between Service Quality and Shariah Compliance

The hypothesis concerning the relationship between service quality from one side Shariah compliance on the other side is proposed as follows:

H5: Service quality has relationship with Shariah compliance

4.6.4 The Impact of Service Quality to Customer Satisfaction

Service quality and customer satisfaction tend to be inarguably two core concepts in the center of the marketing theory and practice (Spreng & Mackoy, 1996). Nowadays, with increased competition and deliverance of high quality services will get customers to be satisfied, and has become the answer to gain a sustainable competitive advantage (Shemwell, Yavas, & Bilgin, 1998).

Zeithaml (1988), from a different perspective, extended the idea of product quality and advised that service quality might be viewed as "the customer's assessment of the overall excellence or superiority of the service". Parasuraman and colleagues (1985, 1988) argued that a customer's assessment of service quality depends on the gap between his/her expectations and perceptions of the particular service performance levels (the P-E model). These authors suggested a model of service quality which consists of five dimensions;

those dimensions are purported to represent customers' Perceptions of service quality including: tangibles, reliability, responsiveness, assurance, and empathy. Every service quality dimension can be quantified by the variances between expectations and perceptions of service performance (Parasuraman et al. 1988). By maximizing the variations among a customer's perception and expectation, service quality of a certain company could be improved and customer satisfaction would be also increased.

In the competitive marketplace where product quality is getting similar, growth in service quality appears to be much more significant for increasing customer satisfaction than decades ago (Parasuraman et al. 1985), while customer satisfaction may not be enough for creating long term benefits for organizations. Depending on the above discussion and prior studies on investigation of the relationship among service quality and also customer satisfaction, it is definitely concluded that customer satisfaction may be affected by means of customers' perceptions of service quality. For confirming the presence of this relationship the initial hypothesis of this study is formulated as follows:

Researchers and quality scholars have recognized the requirement to develop valid and different measures of service quality given the increase in service in the most recent decades.

In this study, researcher used SERVPERF instead of SERVQUAL. Instead of CARTER Model we improve a new model (SCSQ) of Shariah compliance (Shariah compliance institute, Shariah compliance product or services and Islamic Bank employees' ethical

conduct). For studying the existence of this relationship the hypotheses of this study is formulated as follows:

H6: Service quality has influence on customer satisfaction.

H6.a Tangibles service has influence on customer satisfaction.

H6.b Reliable service has influence on customer satisfaction.

H6.c Responsive service has influence on customer satisfaction.

H6.d Service assurance has influence on customer satisfaction.

H6.e Service empathy has influence on customer satisfaction.

4.6.5 The Impact of Shariah Compliance to Customer Satisfaction

Othman (2003) developed CARTER to measure service quality in Islamic banking institutions. CARTER is a model based on the five SERVQUAL dimensions together with a new dimension named “Compliance with Islamic law” which is suitable for the Islamic banking. This model, add 3 questions to the questionnaire to study customer satisfaction

Shafie et al. (2004) and Ciptono and Soviyanti (2007) followed the CARTER model in their studies on Islamic banking institutions in various other Muslim countries with varied customer background views and behavior. Those studies discovered Shariah compliance to be the major dimension for Muslim people.

Finally, this study use the same five questions related with Shariah compliance institution which were used in CARTER model and improved it to be 15 questions related with three dimensions (Shariah compliance institution, Shariah Compliance product and services,

Islamic Bank employees' ethical conduct) can compare between two models by using CARTER model or SCSQ model and analysis between two to determine which model work more than another. The hypothesis about the relationship between Shariah compliance and customer satisfaction is proposed as follows:

H7: Shariah compliance has influence on customer satisfaction.

H7.a Shariah compliance institution has influence on customer satisfaction.

H7.b Shariah Compliance product has influence on customer satisfaction.

H7.c Shariah compliant employees' conduct has influence on customer satisfaction.

4.6.6 The Impact of Customer Satisfaction to Customer Loyalty and Customer Retention

We can summaries the relation between customer satisfaction, Customer Loyalty and Customer Retention in these points:

Numerous studies have shown that there exists a strong theoretical support which relates customer satisfaction, customer retention and customer loyalty. Strong relationship is between customer satisfaction and customer future intentions (loyalty and retention) and also profitability. Customer satisfaction works as mediating attitude among service quality attributes in addition to customer behaviors intention (retention and loyalty).

In this study the relationship between customer satisfaction, Customer Retention and Customer Loyalty is examined to determine customer satisfaction supported by customer behavioral intentions (Customer Loyalty and Customer Retention). Briefly, for increasing customer loyalty and customer retention to a product, a service, or a company,

organizations have to meet their customers in advance. The hypothesis concerning the relationship between customer satisfaction from one side loyalty and retention on the side is proposed as follows:

H8: Customer satisfaction has influence on customer loyalty.

H9: Customer satisfaction has influence on customer retention.

4.6.7 The Relationship between Customer Loyalty with Customer Retention

The hypothesis concerning the relationship between customer loyalty from one side customer retention on the other side is proposed as follows:

H10: Customer loyalty has relationship on customer retention.

4.6.8 Customer Satisfaction Mediates between Service Quality and Customer Loyalty

H11: Customer satisfaction mediates the relationship between Service quality and customer loyalty.

H11.a: Customer satisfaction mediates the relationship between tangibility and customer loyalty

H11.b: Customer satisfaction mediates the relationship between reliability and customer loyalty

H11.c: Customer satisfaction mediates the relationship between responsiveness and customer loyalty

H11.d: Customer satisfaction mediates the relationship between assurance and customer loyalty

H11.e: Customer satisfaction mediates the relationship between empathy and customer loyalty

4.6.9 Customer Satisfaction Mediates between Service Quality and Customer Retention

H12: Customer satisfaction mediates the relationship between Service quality and customer retention.

H12.a: Customer satisfaction mediates the relationship between tangibility and customer retention

H12.b: Customer satisfaction mediates the relationship between reliability and customer retention

H12.c: Customer satisfaction mediates the relationship between responsiveness and customer retention

H12.d: Customer satisfaction mediates the relationship between assurance and customer retention

H12.e: Customer satisfaction mediates the relationship between empathy and customer retention

4.6.10 Customer Satisfaction Mediates between Shariah Compliance and C. Loyalty

H13: Customer satisfaction mediates the relationship between Shariah compliance and customer loyalty

H13.a: Customer satisfaction mediates the relationship between Shariah compliance institution and customer loyalty

H13.b: Customer satisfaction does not mediate the relationship between Shariah Compliance product and services and customer loyalty

H13.c: Customer satisfaction mediates the relationship between Islamic Bank employees' ethical conduct and customer loyalty

4.6.11 Customer Satisfaction Mediates between Shariah Compliance and C. Retention

H14: Customer satisfaction mediates the relationship between Shariah compliance and customer retention

H14.a: Customer satisfaction mediates the relationship between Shariah compliance institution and customer retention

H14.b: Customer satisfaction mediates the relationship between Shariah Compliance product and services and customer retention

H14.c: Customer satisfaction mediates the relationship between Islamic Bank employees' ethical conduct and customer retention

4.6.12 Comparison between CARTER Model and SCSQ Model

This hypothesis compares validity significant for all CARTER items and SCSQ items that have appeared in both important items' weights and percentages. At the same time, it suggests SCSQ model unique measures that might be used by Islamic banks and to test whether they are valid or not.

H15: SCSQ model's explanatory power has different from CARTER model on aspects of Shariah compliance?

From prior literature review research framework is proposed as follows:

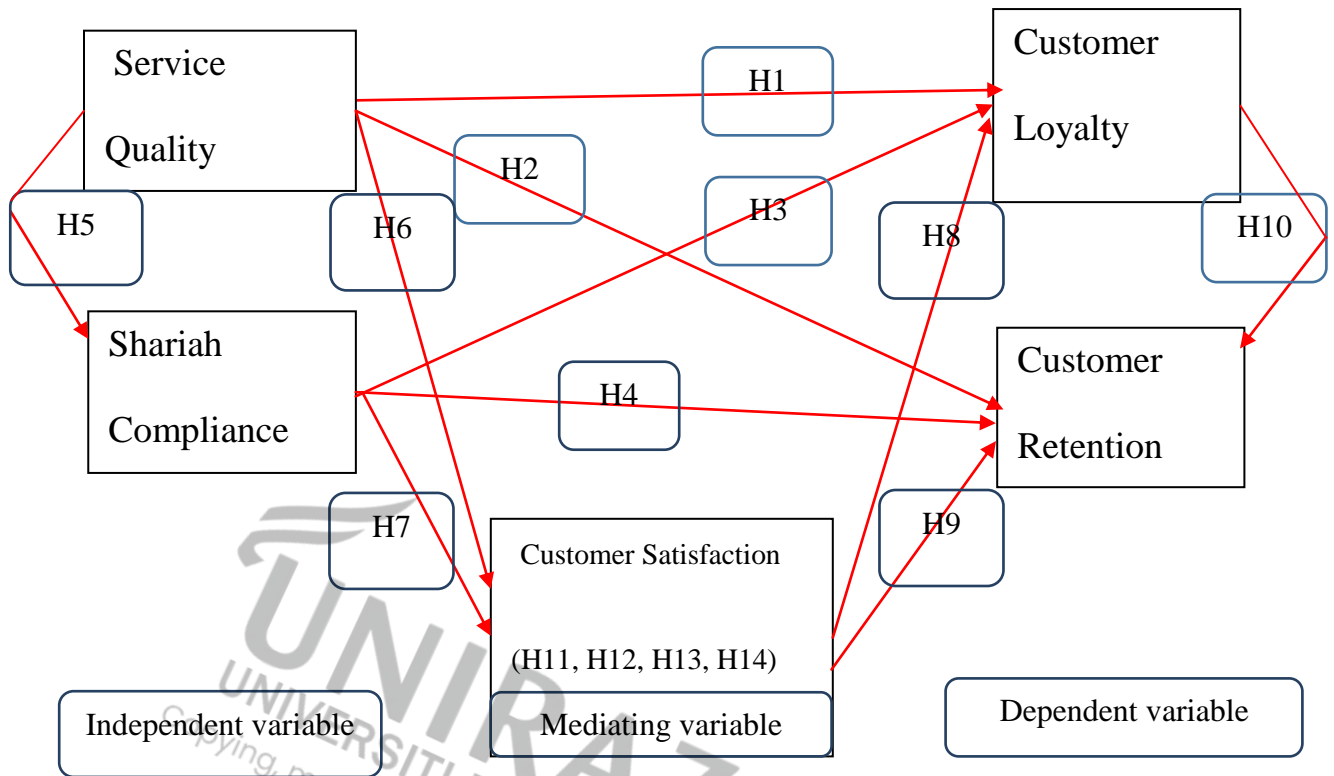


Figure 4-2 Research framework

4.7 Sampling Design

The choice of sample is directed to Malaysian respondents who are customers of Islamic bank from Islamic institutions including higher learning institution and socio-economic agencies who understand the nature and purpose of Islamic bank. Non-Muslims customers have also been included.

Convenient representative sample is chosen from the specified institutions and targets customers who are expected to be familiar with Shariah compliance.

For the purpose of this study, a cross-sectional study will be used (collect information from a given sample of the population at only one point in time. Also, selected individuals will be asked to respond to a set of standardized and structured questions about what they think, feel and do).

Sample size will be more (300) for Muslims/Non-Muslims which has Islamic bank account. Respondents were approached in a convenient manner targeted on particular segments.

Generally in social science research, researchers are advocated to use non-probability sampling named purposive sample, because it is necessary to obtain information from specific target groups which have two major types' judgment sampling and quota sampling. This study will use convenient/purposive sampling; because a limited number or category of people has the information that is discussed (Sekaran & Bougie, 2010).

4.8 Data Collection Procedure

The researcher examined carefully the Islamic banking customers. For participants, it was decided that the survey's sample would be drawn from customers. The survey for the research shown in this study will be conducted with Malaysians institutes. Muslims and Non-Muslims students of Islamic Malaysian universities will be the respondents who know about Islamic banks and can evaluate them. Sample size will be more (300) for Muslims and Non-Muslims which have Islamic bank accounts. The survey will take place in 2015 using electronic link. The sample were chosen as non - probability sample using purposive samples.

4.9 Outline of Data Analysis

Step (1) Screening and preparing data (missing data- outliers- Normality)

Step (2) Factor analysis

Step (3) reliability – validity – Descriptive analysis

Step (4) Hypotheses testing:

Correlation – partial correlation - multivariate regression analysis

Possible models for study

$$Y1 = a + B1X1 + B2X2 + \dots + Bn Xn$$

$$Y2 = a + B1X1 + B2X2 + \dots + Bn Xn$$

Y1 (customer loyalty) Y2 (customer retention)

Chapter Summary

The chapter started with research philosophy. The chapter then moved on to determine measurements, pilot study, the research model data collection procedure, the sample and its size. The next chapter will be the data analysis.

CHAPTER 5

DATA ANALYSIS AND FINDINGS

5.1 Introduction

This chapter discusses the data analysis of this study which includes the response to survey, screening, data preparation and statistical assumptions. In the next step, the reliability and validity of the designed tools was tested. Factor analysis has been done using exploratory factor analysis. So that the demographic characteristics of the participants can be understood, descriptive statistics analysis was used to interpret the data. Furthermore, for analyzing the contextualized relationships among variables, Pearson product correlation was utilized. Subsequently, multiple regressions were used to examine and assess the hypothesis.

5.2 Main Notes for Responses

Questionnaire participants are specific for both Muslims and Non-Muslims customers with an account in Islamic bank. Survey questionnaire was distributed to both educational and Islamic financial institutions so that the participants would be familiar with the meaning of Islamic finance.

The population of this research consisted of the customers of Islamic banks in Malaysia. Fifteen (15) organizations which included educational institutes and Islamic banks were included as mentioned in details in table 5. 1. In the total respondents of 369 the completed responses were received for 339 questionnaires which were considered for data analysis.

Next, the data were analyzed by using the (SPSS) Version 21 to recognize whether there is any difference between the topic under the research (Customer satisfaction will vary depending on the relationship between service quality and Shariah compliance from one side and customer loyalty and customer retention from the other side).

Table 5-1 List of organizations with the link

No.	Organization	CLASSIFICATION
1	School of Business UniversitiTeknologi Mara (UiTM)	UNIVERSITY
2	Bank Muamalat Malaysia Bread	BANK
3	UUM	UNIVERSITY
4	MNRB Holdings Berhad	FINANCIAL SERVICE
5	Takaful IkhlasBerhad	FINANCIAL SERVICE
6	Kulliyyah of Islamic Revealed Knowledge and Human Sciences	UNIVERSITY
7	Ahmad Ibrahim Kulliyyah of Laws	UNIVERSITY
8	Maybank ISLAMIC	BANK
9	MUFG; Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	FINANCIAL SERVICE
10	Maybank Islamic	BANK
11	IiiBF	UNIVERSITY
12	SME Bank Malaysia	Bank

5.3 Response to Survey

A total of 339 from 369 respondents' responses were completed. With multiple e-mails forwarding internet survey link, response rate could not be determined. The questionnaire link has been used with the help of Google docs. The link is <https://docs.google.com/forms/d/16R5RX0XJeYyRXrPODA7Rh7Vxmr3Un-h3q9Jde53iClw/viewform>

As a result of security systems requirements in organizations, selected members of the institution facilitated the distribution or e-mail survey link within each organization. Though direct communication was made to several respondents, most respondents were available from indirect channels via representatives from selected organizations. Links usually have got 10% - 20% response rate as compared with manually distribution which received 30%-40% response rate. The response information is summarized in Table 5.2.

Table 5-2 Summary of the response information

Statement	
Questionnaires received	369
Unfilled	10
Deleted for standard deviation = 0	23
Completed questionnaire without missing data	294
With missing data (1) item and treated by mean value	31
With missing data (2) item and treated by mean value	9
With missing data (3) item and treated by mean value	5
Usable Response for analysis data	339

5.4 Screening and Data Preparation

Questionnaire response data should always be screened to make sure that the data is reliable, and valid for testing. Tabachnic and Fidell (2007) summarized the techniques of screening or validating the data just before analysis as follows: Accuracy with that data have been entered into the data file, missing data, outliers, assumptions of multivariate such as linearity and homoscedasticity and multicollinearity are considered important. Another procedure is conversions of the variables to bring them into compliance with requirements of analysis. Finally, perfect correlations among variables can threaten a multivariate analysis.

In this research, 369 questionnaires were discharged using Excel program. Firstly it was determined whether there were any cases or participants those did not respond completely. As Gaskin (2012) suggested this procedure was done by transforming the data to Excel, by using function (=COUNTBLANK) number of (10) responses found unfilled were removed from the sample. Another procedure as Gaskin (2012) advised is “unengaged” responses who respond with exactly the same value for each single question for example (someone

answered all questions by 3, 3, 3, 3, 3.... or 1, 2, 3, 4, 5). This action was conducted in this research by Excel by searching for standard deviation value equal (0) using function (=STDEV) these values were deleted (23 case in this study) because these are considered to be of no use (all questions have the same answer). After conducting these processes only 339 responses were found to be reliable.

Pallant, Julie (2011) summarized the procedures of screening the data as follows: Step1, checking for errors: check each of your data for scores which are out of range. Step2, finding and correcting the errors: finding where this error occurred and correcting or deleting the value

5.4.1 Missing Data

It is very important to look at the data file for missing data. Running descriptive statistics determined what percentage of values was missing for each of the variables. The consideration for missing values is random, or regardless of whether there is some systematic style for example, numerous women over 30 years of age are unable to answer the question about their age (Pallant, 2011). The presence of missing data is more likely to cause problems such as drawing a misleading conclusion and limiting the generalizability of the research findings (Musil, Warner, Yobes, & Jones, 2002). Within this consider, two features should be taken into account while handling missing data: (1) how much data is missing; and (2) whether the patterns of missing data are random or systematic (Musil et al., 2002).

Regarding the first issue, some researchers have proposed that five to ten percent of missing data on a variable may be considered small (Cohen & Cohen, 1983). Tabachnic and Fidell (2007) mentioned that if only a few data points say 5% or less, are missing in a random way from a large data set, the issues are less critical and almost any means of handling missing values makes similar result. However, if significant amount of data is missing from a small to moderately sized data, the issue can be very serious. However, there are no firms recommendations on how much missing data can be tolerated for a sample of given size (Tabachnic & Fidell, 2007 p. 63). If the missing data is really a lot of the data this can lead to various problems; e. g., inability to calculate the estimated model. EFA, CFA, and path models require a certain minimum number of data points to compute estimates. Missing data will show systematic bias because respondents may not have answered certain questions in the survey because of a widespread cause such as poor formulation, sensitivity etc.(Gaskin, 2012).

There are numerous imputation options for example, Hair et al. (2010) referred that only valid data should be used; just use valid cases or variables and imputation need not be made. In SPSS: exclude pair wise (variable), list wise (case); use known replacement values; match missing values with similar case's value; use calculated replacement values; use variable mean, median, or mode; regression based on known relationships. If it seems sensible, impute the missing values. This should only be done for continuous or interval data (like age or Likert scale responses) and not for categorical data (like gender). If the dataset is large or sufficient, do not use the answers that had missing values for that

variable. This may lead to a bias if the number of missing answers is greater than 10% (Gaskin, 2012).

The other issues related to the pattern of the missing data include: (1) Missing Completely At Random (MCAR), (2) Missing At Random (MAR), or (3) Missing Not At Random (MNAR) non-ignorable (Tabachnic & Fidell, 2007).

In this study, the pattern of missing data could be designated as MCAR in that no specific relationship could be found between missing data and other data in the data set. For current research commonly with Likert-type data, researchers have recommended median or median substitution like mean to deal with missing data due to the fact that can be used if the number of missing data points is very small (below 5%) like in this study and the missing pattern is MCAR (Kline, 1998).

This study uses link which has got very little missing data compared with manual data collection. Only 31 cases were with 1 missing data, 9 cases with two missing data and 5 cases with three missing data, so totally there were 45 cases with missing data. Researcher used mean value of other respondents of these questions to replace these missing data. By other meaning, match missing value with similar case's value. The missing data values are summarized in Table 5.3.

Table 5-3 Summary of missing data values

Statement	
Completed questionnaire without missing data	294
With missing data (1) item and treated by mean value	31
With missing data (2) item and treated by mean value	9
With missing data (3) item and treated by mean value	5
Usable Response for analysis data	339

5.4.2 Outliers

Outliers values which are considerably lower or higher than the other values in the data set can have a remarkable effect on the correlation coefficient, especially in small samples (Pallant, 2011). Outliers can affect the results by pulling the mean away from the median. Outliers also affect distributional assumptions and sometimes reflect false or wrongly recognized responses. Multivariate outliers talk about sets of data points (tuples) that not fit the standard sets of correlations showed by the other data points in the dataset according to the causal model (Hair et al. 2010; (Gaskin, 2011)).

While this study case, on a 5-point Likert scale, there is no such point as an outlier. You should check if those outliers were paying attention (Gaskin, 2011). Applying scale data (like strongly disagree to strongly agree on a 5 Likert scale). In this study we used link for collecting data which saved data from mistakes. The link has automatically produced data which can be used for data analysis program like SPSS program. The link produces data without manual data entry typographical errors. By using extreme values table 5.4 outliers were avoided, all values between maximum (5) and minimum (1).

Table 5-4 Summary of extreme values

Variables	Highest	Lowest
Service Quality	5	2
- Tangibles	5	2
- Reliability	5	2
- Responsiveness	5	1
- Assurance	5	2
- Empathy	5	1
Shariah Compliance	5	2
- Institution	5	2
- Product and services	5	2
- Employees' ethical conduct	5	1
Carter questions	5	2
Carter Model (Carter questions plus Service quality)	5	2
Carter+ Model (Shariah compliance plus Service quality)	5	2
Customer Satisfaction	5	1
Customer Loyalty	5	1
Customer Retention	5	1

5.5 Statistical Assumptions

Purpose of data screening is making sure that the data satisfies the main statistical assumptions for multivariate data analysis. Statistical assumptions underlie most univariate and multivariate statistical tests. Special importance to multivariate analyses is the assumptions of normality, linearity, and homoscedasticity and multicollinearity. If one or more of these assumptions are violated, the statistical results may become biased or distorted (Hair et al., 1998; Tabachnick & Fidell, 2007).

5.5.1 Normality

Prior to formulating the measurement model, the data was explored using SPSS 21.0. The purpose was to identify any variables that might have violated the assumption of normality.

This was considered important because to apply multivariate analysis the data are expected to be normally distributed.

“Normality of variables is assessed by either statistical or graphical method. Two components of normality are skewness and kurtosis. Skewness has to do with the symmetry of the distribution; a skewed variable is a variable whose mean is not in the center of the distribution. Kurtosis has to do with the peaked-ness of distribution; a distribution is either too peak (with short, thick tails) or too flat (with long, thin tails)” (Tabachnic & Fidell, 2007).

Tabachnic and Fidell (2007) also mentioned that a variable can offer significant skewness, kurtosis, or both. When distribution is normal, the value of skewness and kurtosis are zero. When there is positive skewness, there's a pileup of cases to the left and the right tail is too long; with negative skewness, there is a pileup of case to the right and the left tail is too long. Kurtosis value above zero show a distribution which is too peaked with short, thick tails and kurtosis value below zero indicate a distribution that is too flat (also with many cases in the tails) (Tabachnic & Fidell, 2007). Relaxed rule criteria; Skewness greater than 1 is positive (right) skewed; Skewness less than -1 is negative (left) skewed; Skewness between -1 and 1 is fine. Strict rule: Skewness greater than $3 \times \text{Std. error}$ is Skewed, Same for Kurtosis (Gaskin 2012).

Several scales and measures used in the social sciences have results that are skewed, either positively or negatively. This does not necessarily show a problem with the scale, but instead shows the actual nature of the construct being tested. Life satisfaction measures, for

example, tend to be negatively skewed, with most of the people being fairly happy with their lot in life. Clinical measures of anxiety or depression are often positively skewed in the general population, with most people recording relatively few indicators of these problems. Several authors in this field recommend that, with skewed data, the statistically 'transformed' results are quite common in the social sciences. On the other hand, it is tough to find which variables are not normally distributed. Scores may be skewed to the left or right or alternatively, arranged in a rectangular shape. The normality of the data can be additionally evaluated by examining the histograms, expected normal probability plots and dettered expected probability plots (Tabachnic & Fidell, 2007).

While there isn't clear cut-off points suggesting when data would not be considered normally distributed. Skewness value greater than 2 or less than -2 should be transformed (Tabachnic and Fidell, 2007). Interpreting skewness and kurtosis value consists of dividing the value by their respective standard errors, and then checking to see if they fall within an acceptable distribution.

As shown in Table 5.5, all variables are insignificant violations of the assumptions of normality or acceptable ranges dependent on the previous discussion. For skewness, maximum and positive value is 0. 235, minimum and negative skewness value is -1. 140. For kurtosis, maximum and positive value is 2. 081, minimum and negative value is -0. 691.

Table 5-5 Summary of normality test

Items	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Service quality	339	2	5	3.45	.581	-.150	.132	-.132	.264
<i>Tangibles</i>	339	2	5	3.54	.626	-.381	.132	.606	.264
<i>Reliability</i>	339	2	5	3.39	.671	-.029	.132	-.089	.264
<i>Responsiveness</i>	339	1	5	3.44	.709	-.545	.132	.586	.264
<i>Assurance</i>	339	2	5	3.58	.724	-.216	.132	-.158	.264
<i>Empathy</i>	339	1	5	3.34	.649	-.177	.132	-.262	.264
Carter questions	339	2	5	3.72	.700	.235	.132	-.474	.264
Carter model*	339	2	5	3.50	.520	-.324	.132	.005	.264
Shariah compliance	339	2	5	3.53	.683	-.450	.132	-.300	.264
<i>Institution</i>	339	2	5	3.69	.726	-.338	.132	-.067	.264
<i>Product and services</i>	339	2	5	3.49	.764	-.148	.132	-.691	.264
<i>Employees' ethical conduct</i>	339	1	5	3.40	.735	-.799	.132	.481	.264
SCSQ model**	339	2	5	3.48	.546	-.443	.132	-.136	.264
Customer satisfaction	339	1	5	3.34	.722	-.502	.132	.369	.264
Customer loyalty	339	1	5	3.76	.728	-.907	.132	2.081	.264
Customer retention	339	1	5	3.58	.819	-1.140	.132	1.510	.264

Bold font is variable and *Italic font is dimension*

* Service quality with CARTER Model questions

** Service quality with Shariah Compliance

5.5.2 Other Assumptions

The assumptions of normality, linearity, and homoscedasticity and multicollinearity will be discussed in this chapter concerned with the hypotheses testing.

5.6 Factor Analysis

A number of arguments exist for limited use of components analysis in support of a real factor analysis method (MacCallum & Tucker, 1991; Mulaik, 1990; Snook & Gorsuch, 1989). Others disagree, and point out either that there is almost no difference between Principal Components (PCA) and Factor Analysis (FA), or that PCA is much better (Velicer & Jackson, 1990; Pallant, 2011).

The main reason for EFA is to reach “a more ungenerous conceptual understanding of a few measured variables by finding out the number and nature of common factors required to account for the pattern of correlations among the measured variables” and “to identify a set of latent constructs, fundamental a battery of measured variables” (Fabrigar, Wegener, MacCallum, & Strahan, 1999). Stevens (1996) admits a preference for PCA and provides a number of causes for it. He suggests that it is psychometrically sound and easier mathematically, and it prevents some of the possible difficulties with ‘factor indeterminacy’ related to factor analysis (Stevens 1996). Tabachnick and Fidell (2007), within their review of PCA and FA, conclude: “If you are interested in a theoretical solution uncontaminated by unique and error variability ... FA is your choice. On the other hand, you simply want an empirical summary of the data set, PCA is the better choice” (Tabachnick and Fidell, 2007).

FA has been used to measure the validity of each variable. These variables include the dimensions of independent variable service quality: reliability, responsiveness, tangibles, assurance and empathy. Other independent variables of Shariah compliance: Shariah compliance institution, product and services and employees' ethical conduct. Customer satisfaction is a mediator variable. From the other side, customer loyalty and customer retention are dependent variables.

5.6.1 Factor Analysis for Independent Variable Service Quality Dimensions

5.6.1.1 Sample Size:

While sample size is essential in factor analysis, there are numerous opinions, and many guidelines are cited in the literature (Hair et al, 1995; Tabachnick & Fidell, 2007). Hair et al (1995) mentioned that sample sizes should be 100 or larger. Likewise, sample size is at least 100 to be contained in the principle component analysis(Hatcher, 1994). As a result, the sample size of 339 cases obtained (as soon as the adjustments) satisfied this requirement for factor analysis.

5.6.1.2 Correlation Matrix

Visible testing of the correlation matrix is useful to prospect which items might cluster in future factor analysis. If the observed variables are correlated one to the other, they may very well share common factors and the data set satisfies an assumption of appropriateness for factor analysis. Henson and Roberts (2006) remarked that a correlation matrix is most popular among researchers. Tabachnick and Fidell (2007) recommended examining the correlation matrix (often named Factorability of R) for correlation coefficients over 0.30. If no correlations go above 0.30, then the researcher should reexamine whether factor analysis is the suitable statistical method to use (Hair et al, 1995; Tabachnick & Fidell, 2007). The correlation matrix of this study showed that, except for a few cases, most coefficients ranged from .30 to 0.9 (See Appendix E). Therefore, the data in this study met the requirement for factor analysis (Pett, 2003).

4.6.1.3 Sampling Adequacy

There are many methods to diagnose sampling adequacy: Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy for the data collection; KMO evaluate for each individual

variable; and Bartlett's test of sphericity (Bartlett 1954, 1970, 1974). These are talked about as follows:

5.6.1.4 Measures of Sampling Adequacy (MSA)

The MSA shows exactly how powerfully an item is correlated with other items in the matrix. KMO measures (Measures of Sampling Adequacy) for individual variables come with the diagonals of the anti-image correlation matrix. The MSAs of service quality dimensions in this research data ranged from 0.772 to 0.931, which were optimal (“Meritorious”) based on Kaiser’s (1974) criteria. This indicated that the correlation matrix was factorable. As well, the MSAs of Shariah compliance dimensions in this research data ranged from 0.836 to 0.955, which were optimal (“Meritorious”) according to Kaiser’s (1974) criteria. This indicated that the correlation matrix was factorable too (see Appendix F).

5.6.1.5 The KMO Test

The KMO test measures sampling adequacy by contrasting the degree of the calculated correlation coefficients to the degree of the partial correlation coefficients. The KMO index ranges from 0 to 1, with 0.6 recommended as the lowest value for a good factor analysis (Tabachnick & Fidell 2007). KMO measures the observed correlation coefficients to the partial correlation coefficient. Small values for the KMO show problems with sampling. KMO value 0.90 is the best; below 0.50 is unacceptable. In this study, KMO value is 0.824 which means acceptable for service quality dimensions as shown in the Table 5.6 as follows:

Table 5-6 Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824
Bartlett's Test of Sphericity	Approx. Chi-Square	5909.316
	df	1770
	Sig.	0.000

5.6.1.6 Bartlett's Test of Sphericity

This kind of test can determine whether items in the correlation matrix are correlated just with themselves and not with each other. The Bartlett's Test of Sphericity should be significant ($p < 0.05$) for factor analysis to be appropriate (Hair et al, 1995; Tabachnick and Fidell, 2007). Within this study, Bartlett's test of sphericity is statistically significant i. e. ($p < 0.05$). Consequently, the data was suitable for factor analysis (Pettet al., 2003). Results are shown in Table 5.6.

5.6.1.7 Communalities

The communality is the proportion of every variable's variance that is accounted for by the main components analysis and will also be expressed as a percentage. Communalities provide information about the amount of variance in each item, small value (e. g. lower than 0.3) could show which items does not fit well with the other items in its components. Communalities for all variables were documented (Appendix G). In this study, all variables communalities are not less than 0.3 (Pallant, 2011).

5.6.1.8 Extract the Factor for Service Quality Dimensions

The most used technique of extracting factors is called a PCA (Hotelling, 1933). Thompson (2004) observed that principle component analysis PCA is the default technique in several statistical programs, and so, is most often used in EFA. Factor extraction consists of determining the smallest number of factors that can be used to represent the interrelationships among the group of variables. There are several techniques that can be used to identify (extract) the number of fundamental factors or dimensions. One of the most used approaches is PCA (Pallant, 2011).

You can find two main ways to rotation, resulting in either orthogonal (uncorrelated) or oblique (correlated) factor solutions. Based on Tabachnick and Fidell (2007), orthogonal rotation results in solutions which are simpler to interpret and to document; on the other hand, the researcher can assume (usually incorrectly) that the actual constructs are independent (not correlated). From the two broad categories of rotational approaches there are various techniques given by SPSS. Essentially the most widely used orthogonal method is the Varimax method, which tries to minimize the number of variables which have high loadings on every factor.

This kind of analysis can determine how effectively the factor explains the variation. The purpose here is to recognize the linear combination of variables which takes into account the highest amount of common variance. As shown in Table 5.7, the first factor accounts for the maximum number of common variance (50.765), that represent an Eigenvalue of (11.168). The second component determined accounts for the second biggest number of variance in the data and is unrelated with the first principal component and many others.

Every subsequent factor clarifies part of remaining variance until a point is achieved (an

Eigenvalue of 1) exactly where it is usually mentioned that the factors don't contribute to the model. At this time, those factors having Eigenvalue above 1 represent the number of factors necessary to explain the underlying dimensions of the data. It can be shown in Table 5.7 four Factors for IVs could possibly be extracted in this study.

Table 5-7 Eigenvalues and % of Total Variance Explained of Service Quality Dimensions

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.168	50.765	50.765	11.168	50.765	50.765	5.102	23.189	23.189
2	1.553	7.058	57.823	1.553	7.058	57.823	4.570	20.773	43.962
3	1.213	5.516	63.338	1.213	5.516	63.338	3.183	14.466	58.428
4	1.158	5.263	68.601	1.158	5.263	68.601	2.238	10.173	68.601
5	.923	4.196	72.797						
6	.798	3.628	76.424						
7	.687	3.123	79.547						
8	.599	2.723	82.270						
9	.561	2.551	84.821						
10	.521	2.366	87.188						
11	.412	1.871	89.059						
12	.401	1.821	90.880						
13	.385	1.749	92.630						
14	.309	1.403	94.032						
15	.277	1.260	95.293						
16	.225	1.021	96.314						
17	.198	.900	97.214						
18	.182	.828	98.042						
19	.148	.674	98.716						
20	.129	.587	99.303						
21	.099	.451	99.754						
22	.054	.246	100.000						

Extraction Method: Principal Component Analysis.

5.6.1.9 Cumulative Percentage of Variance and Eigenvalue > 1 Rule

Based on Hair et al (1995) in the natural sciences, factors must be stopped whenever at least 95% of the variance is explained. Within the humanities, the explained variance is

normally as little as 50-60 %. ((Hair, Anderson, Tatham, & Black, 1995; Pett, 2003). in this study the actual result (see Table 5. 7) shows that a cumulative percentage of variance of 68. 60 % and an overall of 4 components (factors) consist of IVs having an eigenvalue > 1 , and all extracted components were explained more than 5% of the total variance. It meets the criteria of measurement.

5. 6. 1. 10 Scree Plot

The Scree Test was given its name by Cattell (1966) due to the Scree Test graphical presentation that has visual similarities to the rock debris (Scree) at the foot of a mountain. It is also widespread to judge the scree plot to view how many factors to include in a model. The scree plot is graphical representation of the incremental variance accounted for by each factor in the model. As shown in Figure 5.1, while is seen at the place that the scree plot starts to level off. Any factors which are in the level area of the scree plot may need to be omitted from the model. Figure 5.1 shows the place where a scree plot can be in conflict with the eigenvalue cutoff, as well as exactly where it may be suitable to include factors with an Eigenvalue of lowers than 1.

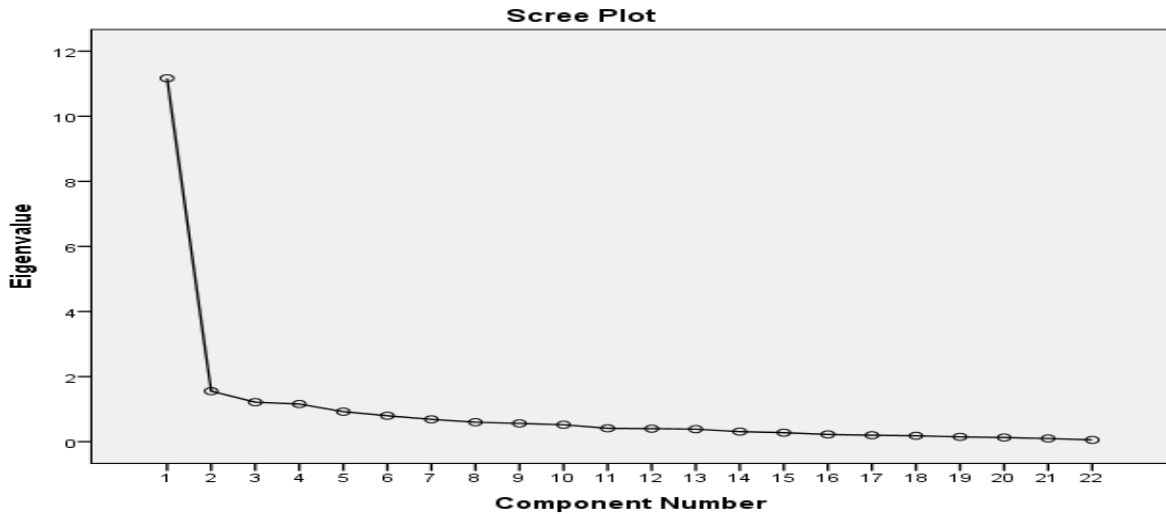


Figure 5-1 Scree plot for component numbers

Within this study, as Figure 5.1 scree plot showed the examination of the Scree plot and eigenvalues generated a departure from linearity coinciding with four factors result (eigenvalue more than 1). Consequently this Scree Test shows that the data needs to be analyzed for four factors. Collectively components 1 to 4 account for 68.60 % of the total variance. It shall retain only the four components.

5. 6.1.11 Rotated Component Matrix for Forced Extraction

The final solution is practical; Rotated Component Matrix shows what seems to be simple structure. Last but not least, by eliminating those items with loading values have less than 0. 5 or close cross-loadings, four factors structure with 18 items was extracted as the greatest fit for independent variables service quality in this study as described in Table 5.8. The Cut-off point for factor loading is arbitrary and its degree also varies by research context. For instance, loadings of less than 0.4 are considered weak, more than 0.6 strong and in any other case moderate. For dichotomous items, on the other hand, a loading of

0.45 is regarded as high but for Likert scales 0.6 is high (Garson, 2005). In this study, therefore, 0.5 was used as a cut-off point for factor loading.

All items were loaded strongly on each relevant factor (8 items on the first, 4 items on the second factor, 4 items on the third factor and 2 items on the fourth factor). Service quality dimensions also absorbed four dimensions (Responsiveness/assurance, Reliability, Empathy and Tangibles) rather than (Reliability, Responsiveness, Assurance, Empathy and Tangibles) in the original research model. Table 5.8 described four factors of renamed dimensions and its items. The first component or factor was reshown Responsiveness/assurance which included responsiveness and assurance, the second is same reliability the third factor is same empathy factor and finally, the fourth is same tangibles factor (total of 18 items instead of 22 items).

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

Table 5-8FAfor service quality dimension after renamed (Rotated Component Matrix)

Dimension	item	symbol	Component			
			1 Responsiveness/assur ance	2 Reliabilit y	3 Empath y	4 Tangibl es
Responsive ness/assura nce	Reliable information update to customer query	Resp1	.549		.401	
	Prompt customer response	Resp2	.516	.332	.371	
	Assistance rendered willingly	Resp3	.674	.552		
	Adequate attention to request.	Resp4	.709	.473	.304	
Reliability	Customer confidentiality observed	Ass1	.640	.338		
	Secured banking privacy	Ass2	.680			.456
	Courteous Bank Employees	Ass3	.672	.515		
	Adequate response on request	Ass4	.691	.455		
Empathy	Bank's promised delivery	Relb1		.725		
	Bank's caring solution	Relb2		.831		
	Bank's first time right advice	Relb3	.485	.579		
	The bank timely service	Relb4	.454	.536	.318	
Tangibles	Customized services	Amp1	.486	.321	.507	
	Convenient operating hours	Amp2			.836	
	Personalized attention	Amp3	.321		.734	
	Attend to customer needs	Amp5	.472	.332	.558	
Reliability	The bank's state of the art technology	Tang1				.783
	The bank's visually appealing premises	Tang2				.805

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 7 iterations.

5.6.2 Factor Analysis for Shariah Compliance Dimensions

Identical procedures of factor analysis were done for the other independent variables Shariah compliance and its dimensions which include Shariah compliance institution,

Shariah Compliance product and services and Islamic Bank employees' ethical conduct. In the same way, PCA with Varimax rotation was used to identify the factors underlying the items that represent Shariah compliance dimensions. The result is shown in Table 5.9. Eigenvalues are more than 1.00 just for two components and 67.48 % of variance is explained. The KMO was found to become 0.906 going above 0.6 with significant Bartlett's test showing the factorability of the dimensions. Furthermore most of items had correlation above (0.3). Communalities give information about simply how much of variance in each item is explained, low value (e. g. less than 0.3) could show that the item does not fit well with the other items in its components. Shariah compliance items don't have variance less than 0.3 (See Appendix H).

The factor loadings of the items on the extracted factors mentioned that there were two factors underlying the construct. They are compliance factor which includes both (Shariah compliance institute and Shariah compliance product and services) and lastly, Islamic Bank employees' ethical conduct. All main loadings are greater than 0.60 that shows the validity of the measurement instruments. Items measuring the other items were all taken out because of their low loadings to any factor. Factor analysis of Shariah Compliance dimensions after renamed are shown in Table 5.9.

Table 5-9FA of Shariah Compliance dimensions after renamed (Rotated Component Matrix)

Variable	dimension	Item	symbol	Component	
				1. compliance	2. Islamic bank employees' ethical conduct
Shariah	1.compliance	Provides proper banking product disclosure	SCI1	.591	
Compliance		Care for Shariah requirements for products and services	SCI2	.747	.311
		Gives assurance that your banking transactions are Shariah compliant	SCI3	.821	
		Facilities are visually appealing and consistent with Islamic values	SCI4	.635	.405
		Attend to ensure your banking needs are Shariah compliant	SCI5	.852	
		Shariah compliant product features are adequately explained to you	SCP1	.737	.395
2. Islamic bank employees' ethical conduct		Use customer friendly Islamic terms in banking	SCP2	.682	.323
		Assures bank product compliance is certified	SCP3	.764	
		Response to clarify bank product Shariah compliant feature	SCP4	.852	
		Services rendered met your expectations of Shariah compliant services	SCP5	.794	.341
	Employees conduct are proper and observant of Islamic ethical values	SCE1	.499	.650	
	Adopt proper and modest employee dress codes in banking	SCE2		.890	
	Employee are courteous and well-mannered in Islamic banking services	SCE5	.462	.654	
		Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 3 iterations.			

5.6.3 Factor Analysis for Mediator Variable Customer Satisfaction

The same procedures of factor analysis were then conducted for the moderator variables customer satisfaction. Similarly, PCA with Varimax rotation was employed to identify the factors underlying the items representing customer satisfaction. The result was shown in Table 5.10. Only one component's Eigenvalues are greater than 1.00 and 68.73 % of variance is explained. The KMO was found to be .824 exceeding 0.6 with significant Bartlett's test was significant indicating the factorability of the dimensions. In addition all items had correlation above (0.3) with down (0.3) only for two items Communalities give

information about how much variance in each item is explained. Customer satisfaction items have only item (CS5) less than 0.3 which is removed from factor items (See Appendix I).

The factor loadings of the items on the extracted factors indicated that there was only one component means one factor underlying the construct. All main loadings are higher than 0.60 only one with 0.52, which indicates the validity of the measurement instruments. Factor analysis of customer satisfaction is shown in Table 5.10.

Table 5-10 Factor analysis of customer satisfaction (Component Matrix)

Item	symbol	component 1
I am satisfied with employee's response and prompt services	CS1	.917
I am satisfied with bank financial services advice	CS2	.937
I am satisfied with banking products and services provided by my bank	CS3	.805
I am satisfied with financial product information which is provided to me	CS4	.895

Extraction Method: Principal Component Analysis.
 a. 1 component extracted.

5.6.4 Factor Analysis for Dependent Variable Customer Loyalty

The same procedures of factor analysis were then conducted for the dependent variable customer loyalty. Similarly, PCA with Varimax rotation was employed to identify the factors underlying the items representing customer loyalty. The result is shown in Table 5.11. Only one component's Eigenvalues are greater than 1.00 and 67.39 % of variance is explained. The KMO was found to be .858 exceeding 0.6 with significant Bartlett's test indicating the factorability of the variable. In addition all of items had correlation above

(0.3). Communalities give information about how much of variance in each item is explained. Customer loyalty items don't have less than 0.3 (See Appendix J).

The factor loadings of the items on the extracted factors indicated that there was only one component (one factor) underlying the construct. All main loadings are higher than 0.60, which indicates the validity of the measurement instruments. Factor analysis of customer loyalty is shown in Table 5.11.

Table 5-11 Factor analysis of customer loyalty (Component Matrix)

item	symbol	component 1
I am inclined to say positive things about Islamic bank to other people	CL1	.728
I have favorable Islamic banking experience to share on this bank	CL2	.774
I will recommend family and relatives to do business with Islamic banks	CL3	.902
I will recommend the bank to someone who seeks advice	CL4	.828
I will suggest Islamic banks services to other customers	CL5	.845
I will encourage fellow colleagues to use the services of the bank	CL6	.838

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

5.6.5 Factor Analysis for Dependent Variable Customer Retention

The same procedures of factor analysis were then conducted for the dependent variable customer retention. Similarly, PCA with Varimax rotation was employed to identify the factors underlying the items representing customer retention. The result is shown in Table 5.12. Only one component's Eigenvalues are greater than 1.00 and 82.51 % of variance is explained. The KMO was found to be .924 exceeding 0.6 with significant Bartlett's test

indicating the factorability of the factor. In addition all of items had correlation above (0.3). Communalities give information about how much of variance in each item is explained. Customer retention items don't have less than 0.3 (See Appendix K).

The factor loadings of the items on the extracted factors indicated that there was only one component (one factor) underlying the construct. All main loadings are higher than 0.60, which indicates the validity of the measurement instruments. Factor analysis of customer retention is shown in Table 5.12.

Table 5-12 Factor analysis of customer retention (Component Matrix)

item	symbol	component 1
I have favorable Islamic banking experience to share on this bank.	CR1	.897
I will continue with this bank for paying good returns	CR2	.867
I will continue with this bank for the flexible choice of products and services	CR3	.900
I look forward to the next service offered by the bank.	CR4	.884
My prior banking experience has influenced me to prefer this bank.	CR5	.899
In the next year, if I need banking services I will select this bank	CR6	.929
I am confident that my bank	CR7	.978

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

5.6.6 Summary of Factor Analysis

A PCA was individually operated for all variables which included independent variable service quality: reliability, tangibles, confidence and empathy factor. The other independent variable Shari'ah compliance: compliance, ethics factors. Customer satisfaction is mediator variable. From the other side, customer loyalty and customer retention are dependent

variables. For independent variables 18 items that represented service quality dimensions with 339 respondents the suitability of PCA was assessed prior to analysis. Checkup for the correlation matrix showed almost all of variables had correlation coefficients greater than 0.3. All KMO measure are greater than 0.5 classifications of “acceptable” to “meritorious” according to the Kaiser (1974). Bartlett’s Test of Sphericity was statistically significant ($p < 0.0005$) indicating data was likely factorable.

The ultimate solution of PCA revealed factors which had values greater than one for components of service quality. Shari’ah compliance has two components. At the same time one component for customer satisfaction, one component for customer loyalty and one component for customer retention. These factors are described in details in table 5.13.

The explanatory factor analysis doesn’t need replicate the same factors. This corresponds to numerous earlier studies, which arrived at different factor solutions. Even Parasuraman et al. (1991) could not confirm the factor structure in their revision of the SERVQUAL scale because of high intercorrelations among the dimensions and factor loading of items.

In Reimer & Kuehn (2005) the study that merges the dimensions reliability, assurance, empathy, and responsiveness to become one factor which named it intangibles at the same mix servicescape and tangibles became one factor which named it tangibles/servicescape.

In this study, merging the two dimensions of shariah compliance, shariah compliance institution and Shari'ah Compliance product and services become one factor which is named compliance; Islamic Bank employees' ethical conduct is renamed as ethical dimension. At the same time, merging service quality dimensions, responsiveness and assurance to be one factor which is named confidence.

To remove misconception factor compliance, shariah compliance institutions, and Shari'ah Compliance product as one factor renamed Shariah compliance institution/product. Factor 2 stays with its original name Islamic Bank employees' ethical conduct. At the same time, merging service quality dimensions responsiveness and assurance to be one factor named responsiveness/assurance.

Table 5-13 Factor analysis results for all variables

Variable	Dimension	symbol	items
Service quality	Responsiveness/assurance	Resp1	Relevant information provided in response to customer queries
		Resp2	Prompt response to customer
		Resp3	Assistance rendered willingly
		Resp4	Adequate attention to request
	Reliability	Ass1	Customer confidentiality observed
		Ass2	Secured banking privacy
		Ass3	Courteous bank employees
		Ass4	Adequate response to request
	Empathy	Relb1	Promised delivery
		Relb2	Caring solution
		Relb3	Bank's Good advise
		Relb4	Timely service
	Tangibles	Amp1	Customized services
		Amp2	Convenient operating hours
		Amp3	Personalized attention.
		Tangibles	Amp5
Tang1			State of the art technology
		Tang2	Visually appealing premises

Shariah compliance	Shariah compliance institution/product	SCI1	Provides proper banking product disclosure	
		SCI2	Care for Shari'ah requirements for products and services	
		SCI3	Gives assurance that your banking transactions are Shari'ah compliant	
		SCI4	Facilities are visually appealing and consistent with Islamic values	
		SCI5	Attend to ensure your banking needs are Shari'ah compliant	
		SCP1	Shari'ah compliant product features are adequately explained to you	
		SCP2	Uses customer friendly Islamic terms in banking	
		SCP3	Assures bank product compliance is certified	
		SCP4	Response to clarify bank product Shari'ah compliant features	
		SCP5	Services rendered meet your expectations of Shari'ah compliant services	
		Islamic bank employees' ethical conduct	SCE1	Employees conduct are proper and observant of Islamic ethical values
			SCE2	Adoption of proper and modest employee dress codes in banking.
			SCE5	Employee are courteous and well-mannered in Islamic banking services
		Customer Satisfaction	CS1	I am satisfied with employees responses and prompt services
			CS2	I am satisfied with bank financial services advice
CS3	I am satisfied with banking products and services provided by my bank			
CS4	I am satisfied with financial product information which is provided to me			
Customer loyalty	CL1	I am inclined to say positive things about Islamic banks to other people		
	CL2	I have favorable Islamic banking experiences to share		
	CL3	I will recommend family and relatives to do business with Islamic banks		
	CL4	I will recommend my bank to someone who seeks advice		
	CL6	I will encourage fellow colleagues to use the services of my bank		
	Customer retention	CR2	I will continue with this bank for paying good returns	
CR3		I will continue with my bank for the flexible choice of products and services		
CR4		I look forward to the next services offered by my bank.		

CR5	My prior banking experience has influenced me to prefer my bank.
CR6	In the next year, if I need banking services I will select my bank
CR7	I am confident with my bank

5.7 Reliability and Validity

The development of reliable as well as valid measures is needed for any study. In accordance with Churchill (1979), Hair et al. (1998) and Nunnally (1978) measurement quality is a significant issue and has been addressed in the literature. This study model contains five variables. The majority of the items used in this study were designed from previous studies that documented their reliability and validity like customer items or service quality items, but some items were not utilized before such as Shariah compliance items, so there was no assurance that the instrument would perform acceptability. Factor analysis is a statistical technique that was used to examine that the items in a scale were tapping exactly the same construct and to obtain extra insights in the meaningfulness of the scale (Hair et al 1998).

As outlined by Sekaran and Bougie (2010) Exploratory factor analysis was utilized to measure the validity of the instrument. EFA is used to look for the number of factors and discover items that are indicators of each variable. EFA was first used to measure the validity of every variable. These variables include the dimensions of service quality, Shariah compliance dimensions, customer satisfaction, customer loyalty and customer retention.

5.7.1 Reliability

In order to measure the inter-item consistency of the reliability, Cronbach's alpha was applied as recommended by researchers (Hair et al, 2010 and Sekaran&Bougie 2010). On the other hand, Churchill (1979) explains coefficient alpha (Cronbach, 1951) as the recommended measure of the internal consistency of a set of items. Parasuraman et al (1988) used Churchill's paradigm (see (Churchill, 1979)) for the development of SERVQUAL and report 'high' coefficient alphas for the five dimensions. These resulted from analyses of data for each of service organizations, i. e. a bank, Credit Card Company, repair and Maintenance Company and Long Distance Telephone Company. Coefficient alpha values ranged from 0.52 to 0.64 for tangibles; 0.74 to 0.84 for reliability; 0.69 to 0.76 for responsiveness; 0.80 to 0.87 for assurance and 0.71 to 0.80 for empathy. Replication studies also reported high reliabilities for these dimensions (Babakus; Mangold, 1989).

Table 5-14 Reliability assessment for service quality dimensions

Construct	Cronbach's Alpha
Responsiveness/assurance	.914
Reliability	.853
Empathy	.805
Tangibles	.713

The reliability of measurement tools in the current study was evaluated using Cronbach's alpha values. These values are shown as in Table 5.14 which concern with service quality dimensions. These values range from 0.713 to 0.914, more than the cut off value 0.70 confining the reliability of the instrument used as recommended by researchers (Hair, 2010; (Nunnally, 1978); Payne, 1993). Other variables and dimensions used Cronbach's alpha values to calculate reliability in the current research. These values range from 0.766 to 0.964, greater than the cut off value 0.70. This means the reliability of the measurement

tools for Shariah compliance, customer satisfaction, customer loyalty and customer retention. These values are shown in Table 5.15:

Table 5-15 Reliability Assessment for Shariah compliance, customer variables

Variable	Construct	Cronbach's Alpha
Shariah compliance	Shariah compliance institution/product	.939
	Islamic bank employees' ethical conduct	.766
Customer satisfaction		.87
Customer loyalty		.878
Customer retention		.964

5.7.2 Validity

To study validity, one can use convergent validity or discriminant validity. At the same time, one can study validity by using measure validity from factor loading and communality. All these ways are discussed as follows:

4.7.2.1 The Convergent Validity and Discriminant Validity

Construct validity was founded by doing factor analysis by Varimax rotation for instruments. Construct validity testifies to how effectively the results extracted from the use of the measure fit the theories around that the test is designed (Sekaran&Bougie, 2010). Construct validity can be examined quantitatively by calculating its correlation with measures of other constructs that one would expect to be powerfully linked to the attitude, and measures of construct that one would not expected to be closely tied to the attitude (Parasuraman,1991). Construct validity can be assessed through convergent construct and discriminant validity. Convergent and discriminant validity are both regarded as subcategories and subtypes of construct validity. The main thing to identify is that they

work together whenever one can demonstrate that, you have evidence for construct validity. However, none alone is enough for establishing construct validity.

Carmines and Zeller (1979) pointed out that discriminant validity is achieved when items are loaded powerfully on each related factor, thus the factor analysis can be fulfilling the requirement of convergent and discriminant validity.

Gaski and Nevin (1985) remarked that if the correlation of two rubrics of different assessments was smaller than their individual Cronbach's alpha, the two rubrics have discriminant validity. The correlation of any two factors of this research is smaller than the correlation of its Cronbach's alpha. This shows good discriminant analysis validity and constructs validity.

With this study convergent validity was assessed by the high correlation between the dimensions of service quality. All the correlation coefficients in table 5.16 are significant ($p < 0.01$). This result supports the convergent validity of measurement instruments. The discriminant validity was examined by contrasting the correlation coefficients and Cronbach's alpha values. The off-diagonal elements in this table are the correlation coefficients between dimensions of service quality. All the correlation coefficients are lower than the Cronbach's alpha values on the diagonal. In addition, the 95% confidence interval of all correlation coefficients was evaluated. None of them contained the absolute value of 1.0. This implies the discriminant validity of the instruments (Kerlinger, 1986).

Table 5-16 Correlation Matrix of Service Quality Dimension

Factor	Responsiveness/assurance	Reliability	Empathy	Tangibles
Responsiveness/assurance	0.914 ^a			
Reliability	.735 ^{**}	0.853 ^a		
Empathy	.679 ^{**}	.582 ^{**}	0.805 ^a	
Tangibles	.335 ^{**}	.364 ^{**}	.142 ^{**}	0.713 ^a

** . Correlation is significant at the 0.01 level (2-tailed).

(a) The diagonal elements are Cronbach's Alpha values.

Moreover, for other variables which are Shariah compliance, customer satisfaction, customer loyalty and customer retention, all the correlation coefficients in Table 5.17 are significant ($p < 0.01$). This result supports the convergent validity of measurement instruments. The discriminant validity was examined by comparing the correlation coefficients and Cronbach's alpha values. The off-diagonal elements in this table are the correlation coefficients between dimensions of Shariah compliance and customer variables. All the correlation coefficients are lower than the Cronbach's alpha values on the diagonal. Additionally, the 95% confidence interval of all correlation coefficients was evaluated. Not one of them includes the absolute value of 1. 0. This suggests the discriminant validity of the instruments.

Table 5-17 Correlation Matrix of Shariah compliance and customer variables

Factor	Shariah compliance institution/product	Islamic bank employees' ethical conduct	Customer satisfaction	Customer loyalty	Customer retention
Shariah compliance institution/product	0.939 ^a				
Islamic bank employees' ethical conduct	.687 ^{**}	0.766 ^a			
Customer satisfaction	.700 ^{**}	.593 ^{**}	0.878 ^a		
Customer loyalty	.551 ^{**}	.383 ^{**}	.773 ^{**}	0.878 ^a	
Customer retention	.624 ^{**}	.518 ^{**}	.811 ^{**}	.758 ^{**}	0.964 ^a

** . Correlation is significant at the 0.01 level (2-tailed).

(a) The diagonal elements are Cronbach's Alpha values.

Correlation matrix can be used in this research to show the strength of relationship among the variables considered in the questionnaire. The correlation coefficients between the variables were lower than 0.9, showing that the data was not impacted by a collinearity problem (Hair et al., 1998). These correlations are also additional evidence of validity and reliability of measurement scales utilized in this study (Barclay et al., 1995; Hair et al., 1998).

5.7.2.2 Measure Validity Using Factor Loading, Communality for Customer Variables

For independent variable service quality, overall items were tested with 22-items; a factor analysis was carried out. The principal component method extracted four factors. Four items were removed and became 18 items. All loading value more than 0.5.

The total variance explained is approximately 68.601 %, much higher than 60.0 %. Eigenvalues were higher than 1.0 for four components. The Cronbach's alpha reliability score for the Responsiveness/assurance, reliability, empathy and Tangibles are 0.914, 0.853, 0.805 and 0.713 respectively, greater than the cut off value of 0.70. This result gives sufficient evidence of the reliability and the validity of the measurement instruments for service quality. Each of these statistics is shown in Table 5.18.

Table 5-18 Factor Loading, Communalities of service quality items

symbol	Communalities	Factor loading
Resp1	.580	0.549
Resp2	.562	0.516
Resp3	.834	0.674
Resp4	.821	0.709
Ass1	.594	0.64
Ass2	.684	0.68
Ass3	.743	0.672
Ass4	.783	0.691
Relb1	.689	0.725
Relb2	.835	0.831
Relb3	.645	0.579
Relb4	.605	0.536
Amp1	.596	0.507
Amp2	.747	0.836
Amp3	.717	0.734
Amp5	.652	0.558
Tang1	.685	0.783
Tang2	.727	0.805

For independent variable Shariah compliance, overall items were measured with 15 items; a factor analysis was carried out. The main component method extracted two factors. Two items were removed and became 13 items. All loading values were more than 0.5. Communalities provide information about how much of variance in each item is explained, low value (e. g. less than 0. 3) suggests that the item does not fit well with the other items in its components. Items don't have variance lower than 0. 3.

The total variance explained is about 67.487%, greater than 60.0 %. Eigenvalues were higher than 1.0 for two components. The Cronbach's alpha reliability score for the compliance and Islamic bank employees' ethical conduct are 0.939 and 0.766 respectively, greater than the cut off value of 0.70. This result gives enough evidence of the reliability

and the validity of the measurement instruments for service quality. All these statistics are shown in table 5.19.

Table 5-19 Factor Loading, Communalities of Shariah compliance items

item	Communalities	Factor loading
SCI1	.386	0.591
SCI2	.654	0.747
SCI3	.716	0.821
SCI4	.567	0.635
SCI5	.766	0.852
SCP1	.699	0.737
SCP2	.570	0.682
SCP3	.610	0.764
SCP4	.812	0.852
SCP5	.746	0.794
SCE1	.672	0.65
SCE2	.792	0.89
SCE5	.641	0.654

For mediator variables customer satisfaction, overall items were tested with a 4-item. Due to the fact there were no pre-determined domains among the items testing overall satisfaction, a factor analysis was conducted. As expected, the principal component method extracted only one factor, meaning that the scale was unifactorial. No items were removed since they did not have loading value less than 0.4. All loading value were greater than 0.5.

The total variance explained is approximately 68.738%, higher than 60.0 %. Eigenvalues were higher than 1.0 which equal 3.437 only for one component. The Cronbach's alpha reliability score for the scale was 0.878, higher than the cut off value of 0.70. This result gives adequate evidence of the reliability and the validity of the measurement instruments for customer satisfaction. These statistics are shown in table 5.20.

Table 5-20 Factor Loading, Communalities of Customer Satisfaction Items

item	Communalities	Factor loading
CS1	.840	0.917
CS2	.878	0.937
CS3	.648	0.805
CS4	.801	0.895

With regard to dependent variable customer loyalty, overall items was tested with a 6-item.

Since there were no pre-determined domains among the items measuring overall satisfaction, a factor analysis was carried out. As expected, the principal component method extracted only one factor, meaning that the scale was unifactorial. No items were removed since they did not have loading value less 0.4. All loading values were greater than 0.7.

The total variance explained is approximately 67.398%, higher than 60.0%. Eigenvalues were higher than 1.0 which equaled 4.044 only for one component. The Cronbach's alpha reliability score for the scale was 0.900, more than the cut off value of 0.70. This outcome gives enough proof of the reliability and also the validity of the measurement instruments for customer loyalty. All these statistics were shown in Table 5. 21.

Table 5-21 Factor Loading, Communalities of Customer Loyalty Items

item	Communalities	Factor loading
CL1	.529	.728
CL2	.599	.774
CL3	.813	.902
CL4	.685	.828
CL6	.703	.838

For dependent variable customer retention, overall items were tested with a 7-item. Given that there were no pre-determined domains among the items testing overall satisfaction, a factor analysis was done. As expected, the principal component method extracted only one

factor, which means that the scale was unifactorial. No items were erased because they did not have loading value less 0.4. All loading values were more than 0.8.

The total variance explained is about 82.512%, greater than 60.0 %. Eigenvalues were greater than 1.0 that equaled 5.776 just for one component. The Cronbach's alpha reliability score for the scale was 0.964, above the cut off value of 0. 70. This result gives enough proof of the reliability and the validity of the measurement instruments for customer loyalty. All these statistics are shown in Table 5. 20.

Table 5-22 Factor Loading, Communalities of Customer Retention Items

Item	Communalities	Factor loading
CR1	.804	.897
CR2	.753	.867
CR3	.810	.900
CR4	.782	.884
CR5	.808	.899
CR6	.863	.929
CR7	.957	.978

5.8 Demographic Characteristics of Respondents

This particular part presents the statistical responses to the demographic questions. The eleven demographic questions addressed the variables of gender, age, education, experience with Islamic banks, income and etc. The 369 responses obtained by the link, after screening data, sample size became 339 (91. 8%).

5.8.1 Social Background of the Respondents

With regard to gender, 149 (44%) participants were female compared to 190 (56%) male participants. These statistics present quite fair estimation between male and female. Frequency and percent of all social items are presented in Table 5.23.

Table 5-23 Frequency and Percent of gender

Item	Type	Frequency	Percent
Gender	Female	149	44.0
	Male	190	56.0
Age	20 less than 40 years	203	59.9
	40 and less than 60 years	136	40.1
Nationality	Malaysian	260	76.7
	Non-Malaysian	79	23.3
Ethnic Groups	Malay	260	76.7
	Arab	74	21.8
	Thai	2	.6
	Indonesian	1	.3
	Others	2	.6
Religious	Muslim	339	100.0

For Age, the majority of respondents (40.1 %) were aged 40 years and less than 60 years, followed by (59.9 %) participants falling within the age ranging between 20 and less than 40 years.

For nationality, 260 (76.7 %) participants were Malaysian compared to 79 (23.3 %) participants who were of Non-Malaysian descent.

For ethnic groups, 260 (76.7 %) participants were Malay compared to 74 (21.8 %) participants were Arab and 2 Thai, one from Indonesian and 2 did not mention their ethnic group.

For religion, all respondents are Muslims, researcher planned to have Non-Muslims too, because Islamic banks don't concern only with Muslims opinions.

5.8.2 The Experiential Background of Respondents

Regarding customer experience only 37.2 % of respondents had previous experience of more than ten years with Islamic banking. Around 25.1 % respondents had experience between 5 years and less than 10 years. 26.5 % respondents had experience between 2 years and less than 5 years. While over 11.2 % of sample had experience less than 2 years. This may indicate that 62.3 % of respondents had experience more than 5 years which gives a good indicator about the sample. In other meaning, they had long experience with Islamic banking service. Frequency and percent of experiential background are presented in Table 5.24.

Table 5-24 Frequency and Percent of customer experience

item	Type	Frequency	Percent
Customer Experience	10 years and more	126	37.2
	5 years and less than 10 years	85	25.1
	2 years and less than 5 years	90	26.5
	less than 2 year	38	11.2
Academic qualification	Bachelor / Professional	154	45.4
	Post graduate (Master / PhD)	128	37.8
	Diploma	40	11.8
	High school	17	5.0
Social States	Non-bank financial institution employee	137	40.4
	University student	91	26.5
	Bank employee	60	17.7
	Academic staff	45	13.3
	University employee	6	1.8
Exposure to Islamic finance	Formal Qualification	102	30.1
	In-house programs	79	23.3
	Seminars / Workshops	69	20.4
	None	68	20.1
	readings	13	3.8
	Current student	6	1.8
	Mouth to mouth. experience of the market	2	.6

For education level of the respondents, (45.4 %) completed their Bachelor's degree or professional, whereas (37.8 %) of participants had postgraduate (Master / PhD). (11.8%) of participants had Diploma. Only 17 respondents about (5%) completed high school. From the data, about 83.2 % were educated people (bachelor or postgraduate) which give a good indicator about the sample. Therefore, they are well aware about the topic of this study Islamic banking service.

For career descriptions or social state of the respondents, (59.9 %) were employed with banking or non-banking sector, whereas (40.1 %) were academic staff or students in the university. Both supported the target of this study.

For exposure to Islamic finance, none of participants possessed knowledge 20.1 %, whereas (6.2 %) have little knowledge gained by different ways. Knowledge of Islamic finance of the respondents, (73.8 %) was high which included formal qualification (30.1%), in house programs (23.3%) and seminars / workshops (20.4 %) which give a good indicator about the sample. They are well aware about the topic of this study Islamic banking service.

5.8.3 The Economic Background of Respondents

It is a clear condition in this study that the respondent should have an Islamic bank account. As shown in table 5.25 all respondents have Islamic account (current / saving, investment or both). 26.5% have both types, 64.6% have only current deposit account and 8.8 % have investment deposit account only.

Table 5-25 Frequency and percent of economic background

item	type	Frequency	Percent
Islamic Account Type	Both	90	26.5
	Islamic current deposit account only	219	64.6
	Islamic investment deposit account only	30	8.8
Annual Income	Less than RM 36,000	93	27.4
	RM 36,000 and less than RM 50,000	112	33.0
	RM 50,000 and less than RM 100,000	81	23.9
	RM 100,000 or more	53	15.6

For annual income, essential percentage (27.4 %) of respondents reported that their annual income was less than RM 36000. Followed by (33%) of respondents who had annual income RM 36,000 and less than RM 50,000. While (23.9 %) of sample their annual income is within RM 50,000 and less than RM 100,000. About (15.6 %) of respondents had annual income RM 100,000 or more.

5.9 Descriptive Statistics

Before doing the hypothesis testing, a descriptive statistics for variables was applied, the first part comprised of questions related to demographics, the second part of the questionnaire asked respondents to reflect on their opinions regarding service quality that they received in Islamic banks. The second part asked the respondents about Shariah compliance for Islamic banks. Lastly the fourth part asked respondent's opinion about their satisfaction, loyalty and retention. Each question of questionnaire of five variables was organized by five point of Likert scale. For normality, Skewness value greater than 2 or less than -2 should be transformed (Tabachnic and Fidell, 2007). As shown in Table 5.5, all the variables do not show violations of the assumptions of normality or acceptable ranges

depending on the pervious discussion. For skewness, maximum and positive value is 0.156, minimum and negative skewness value is -1.129. For kurtosis, maximum and positive value is 1.470, minimum and negative value is -0.698. One item (CL5) was removed because of its high kurtosis (2.762).

5.9.1 Comparison of Items and Variables Using Mean Range

Table 5.32 and 5.33 provide the list of 49 items used in this study which represent four service quality dimensions, two factors for Shariah compliance dimensions and one factor for customer satisfaction and one for customer loyalty, finally one factor for customer retention. The descriptive statistics of the each of these variables are presented. The results show the mean value, standard deviation, minimum, maximum, skewness and kurtosis.

For all variables, the mean scores ranged from 3.230 to 3.912. In the first level, Customer loyalty variable has mean value more than other variables. Respondents were like to recommend and encourage Islamic bank which ranged from 3.791 to 3.912 (CL6, CL3). In the second level, Shariah compliance variable compliance dimension. Respondents trust that Islamic bank care and assure for Shariah compliance ranged from 3.729 to 3.740 (SCI3, SCI1, SCP3, SCI2) and all these items concerning with bank transactions and services are compatible with Shariah. In the third level, customer retention has got high mean values from 3.596 to 3.643 (CR4, CR3, CR2, CR7). Respondents will continue their activity with this Islamic bank. In fourth level, service quality variable tangibles dimension. Tangibles has got high mean values ranging from 3.516 to 3.676 (Tang1, Tang2) which implies similarity regarding physical aspects for Islamic bank.

On the other hand, the three lowest ranked items are related to customer satisfaction which

has got range from 3.322 to 3.381 (CS1, CS2, CS3, CS4). All those questions are related with satisfaction degree for product and services, advices, prompt service and information of Islamic bank. Respondents are not satisfied with the same level of their loyalty for Islamic banking.

Table 5-26 Descriptive Statistics of independent, mediator and dependent structures

item	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Tang1	339	1.0	5.0	3.516	.7748	-.628	.250	.487	.495
Tang2	339	2.0	5.0	3.676	.7621	-.224	.132	-.233	.264
Relb1	339	1.0	5.0	3.407	.9788	-.585	.132	.165	.264
Relb2	339	1.0	5.0	3.381	.9513	-.141	.132	-.599	.264
Relb3	339	2.0	5.0	3.360	.7771	-.153	.132	-.561	.264
Relb4	339	2.0	5.0	3.360	.8106	-.210	.132	-.698	.264
Resp1	339	1.0	5.0	3.501	.7971	-.516	.132	.097	.264
Resp2	339	1.0	5.0	3.398	.8859	-.999	.132	.894	.264
Resp3	339	1.0	5.0	3.451	.8668	-.603	.132	.350	.264
Resp4	339	1.0	5.0	3.428	.8548	-.688	.132	.344	.264
Ass1	339	1.0	5.0	3.578	.8333	-.651	.132	.423	.264
Ass2	339	1.0	5.0	3.767	.8679	-.677	.132	.680	.264
Ass3	339	1.0	5.0	3.537	.8361	-.026	.132	-.414	.264
Ass4	339	1.0	5.0	3.442	.8764	-.460	.132	-.086	.264
Amp1	339	1.0	5.0	3.501	.8475	-.547	.132	.388	.264
Amp2	339	1.0	5.0	3.342	.9426	-.326	.132	.079	.264
Amp3	339	1.0	5.0	3.230	.8321	-.298	.132	.301	.264
Amp5	339	1.0	5.0	3.360	.7996	-.286	.132	.518	.264
SCI1	339	1.0	5.0	3.735	.8533	-.669	.132	.745	.264
SCI2	339	1.0	5.0	3.740	.9656	-.908	.132	.825	.264
SCI3	339	1.0	5.0	3.729	.8988	-.447	.132	-.049	.264
SCI4	339	1.0	5.0	3.590	.7957	-.581	.132	.520	.264
SCI5	339	1.0	5.0	3.658	.8742	-.398	.132	.014	.264
SCP1	339	1.0	5.0	3.304	.9258	-.415	.132	-.059	.264
SCP2	339	1.0	5.0	3.437	.9474	-.782	.132	.484	.264
SCP3	339	2.0	5.0	3.737	.7411	.156	.132	-.660	.264
SCP4	339	1.0	5.0	3.516	.8849	-.307	.132	-.220	.264

SCP5	339	1.0	5.0	3.478	.9111	-.595	.132	.509	.264
SCE1	339	1.0	5.0	3.401	.9812	-.742	.132	.062	.264
SCE2	339	1.0	5.0	3.392	.8476	-.847	.132	.466	.264
SCE5	339	1.0	5.0	3.404	.9096	-.508	.132	.333	.264
CS1	339	1.0	5.0	3.322	.8599	-.671	.132	.138	.264
CS2	339	1.0	5.0	3.351	.7093	-.514	.132	.507	.264
CS3	339	1.0	5.0	3.369	.8853	-.536	.132	.547	.264
CS4	339	1.0	5.0	3.381	.8283	-.369	.132	-.036	.264
CL1	339	1.0	5.0	3.708	.9200	-.604	.132	.579	.264
CL2	339	1.0	5.0	3.525	.8294	-.643	.132	.910	.264
CL3	339	1.0	5.0	3.912	.8692	-.698	.132	.643	.264
CL4	339	1.0	5.0	3.714	.9596	-.532	.132	-.203	.264
CL6	339	1.0	5.0	3.791	.7847	-.610	.132	1.171	.264
CR1	339	1.0	5.0	3.581	.8575	-.778	.132	.849	.264
CR2	339	1.0	5.0	3.608	.9147	-.636	.132	.590	.264
CR3	339	1.0	5.0	3.599	.8895	-1.024	.132	1.198	.264
CR4	339	1.0	5.0	3.596	.9321	-.679	.132	.444	.264
CR5	339	1.0	5.0	3.463	.8942	-.975	.132	1.011	.264
CR6	339	1.0	5.0	3.584	.9674	-.861	.132	.551	.264
CR7	339	1.0	5.0	3.643	.8631	-1.129	.132	1.470	.264

Table 5-27 Variables and Descriptions

Variable	Dimension	symbol	items	Mean	the rank of items	Average of dimension
Service quality	Responsiveness/assurance	Resp1	Relevant information provided in response to customer queries	3.50	23	3.51
		Resp2	Prompt response to customer	3.40	34	
		Resp3	Assistance rendered willingly	3.45	27	
		Resp4	Adequate attention to request	3.43	30	
		Ass1	Customer confidentiality observed	3.58	18	
		Ass2	Secured banking privacy	3.77	3	
		Ass3	Courteous bank employees	3.54	19	
		Ass4	Adequate response to request	3.44	28	

Shariah compliance	Reliability	Relb1	Promised delivery	3.41	31		
		Relb2	Caring solution	3.38	36		
		Relb3	Bank's Good advise	3.36	39		
		Relb4	Timely service	3.36	40	3.38	
	Empathy	Amp1	Customized services	3.50	24		
		Amp2	Convenient operating hours	3.34	43		
		Amp3	Personalized attention.	3.23	46		
	Tangibles	Amp5	Attend to customer needs	3.36	41	3.36	
		Tang1	State of the art technology	3.52	21		
	Shariah compliance	Shariah compliance institution/product	Tang2	Visually appealing premises	3.68	10	3.60
			SCI1	Provides proper banking product disclosure	3.74	6	
			SCI2	Care for Shari'ah requirements for products and services	3.74	4	
			SCI3	Gives assurance that your banking transactions are Shari'ah compliant	3.73	7	
			SCI4	Facilities are visually appealing and consistent with Islamic values	3.59	16	
			SCI5	Attend to ensure your banking needs are Shari'ah compliant	3.66	11	
SCP1			Shari'ah compliant product features are adequately explained to you	3.30	45		
SCP2			Uses customer friendly Islamic terms in banking	3.44	29		
SCP3			Assures bank product compliance is certified	3.74	5		
SCP4			Response to clarify bank product Shari'ah compliant features	3.52	22		
SCP5			Services rendered meet your expectations of Shari'ah compliant services	3.48	25	3.59	
	Islamic bank employees' ethical conduct	SCE1	Employees conduct are proper and observant of Islamic ethical values	3.40	33		

	SCE2	Adoption of proper and modest employee dress codes in banking.	3.39	35	
	SCE5	Employee are courteous and well-mannered in Islamic banking services	3.40	32	3.40
Customer Satisfaction	CS1	I am satisfied with employees responses and prompt services	3.32	44	
	CS2	I am satisfied with bank financial services advice	3.35	42	
	CS3	I am satisfied with banking products and services provided by my bank	3.37	38	
	CS4	I am satisfied with financial product information which is provided to me	3.38	37	3.36
Customer loyalty	CL1	I am inclined to say positive things about Islamic banks to other people	3.71	9	
	CL2	I have favorable Islamic banking experiences to share	3.53	20	
	CL3	I will recommend family and relatives to do business with Islamic banks	3.91	1	
	CL4	I will recommend my bank to someone who seeks advice	3.71	8	
	CL6	I will encourage fellow colleagues to use the services of my bank	3.79	2	3.73
Customer retention	CR2	I will continue with this bank for paying good returns	3.61	13	
	CR3	I will continue with my bank for the flexible choice of products and services	3.60	14	
	CR4	I look forward to the next services offered by my bank.	3.60	15	
	CR5	My prior banking experience has influenced me to prefer my bank.	3.46	26	

CR6	In the next year, if I need banking services I will select my bank	3.58	17	
CR7	I am confident with my bank	3.64	12	3.58

5.9.2 Comparison of Constructs and Variables Using Mean Value

Figure 5.2 provides a comparison of mean value of the eight constructs. The parameters illustrate the rank for service quality dimensions the first one is for tangibles (Physical factors) with the highest mean value (mean 3.596); Responsiveness/assurance (Willingness to assist and capability to convey trust and confidence) with mean value 3.513, reliability (accurate and dependable) with mean value 3.377 and empathy (care to customer) with mean value 3.358. For Shariah compliance the rank of Shariah compliance dimensions are compliance (compliant with Shariah) with mean value 3.592 then Islamic Bank employees' ethical conduct with mean value 3.399. For customer satisfaction (the comparison between the reward and cost for purchase) with mean value 3.356, customer loyalty (recommend to others) with mean value 3.730 and customer retention (continuous trading relationships) with mean value 3.582.

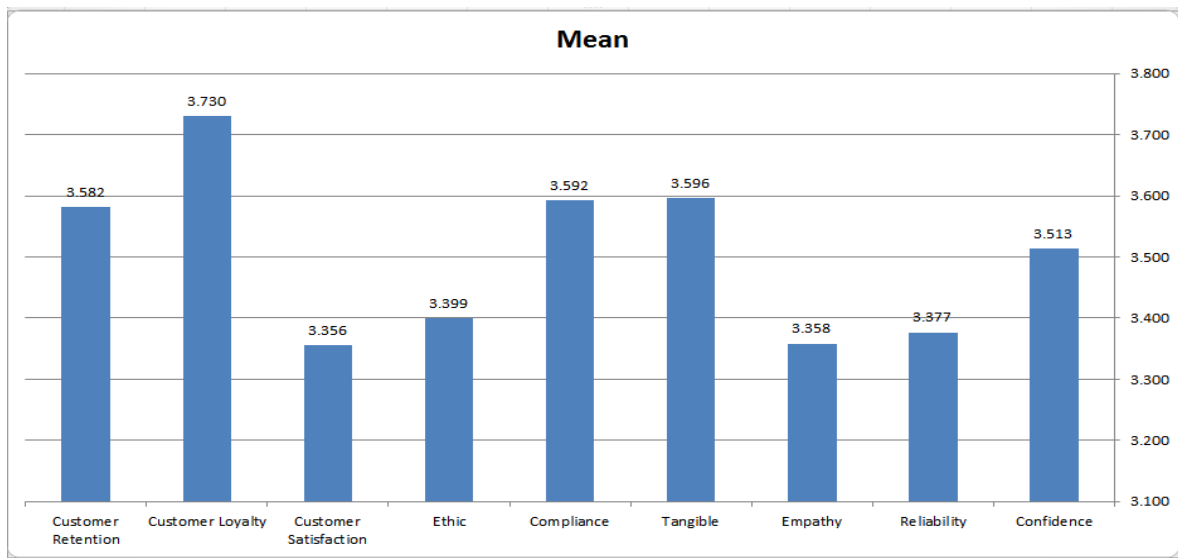


Figure 5-2 Comparison of Mean between constructs

Figure 5.3 provides a comparison of mean values for variables. In the first rank is customer loyalty and customer retention comes in the second rank. Shariah compliance is in third rank then service quality and finally customer satisfaction is ranked fifth.

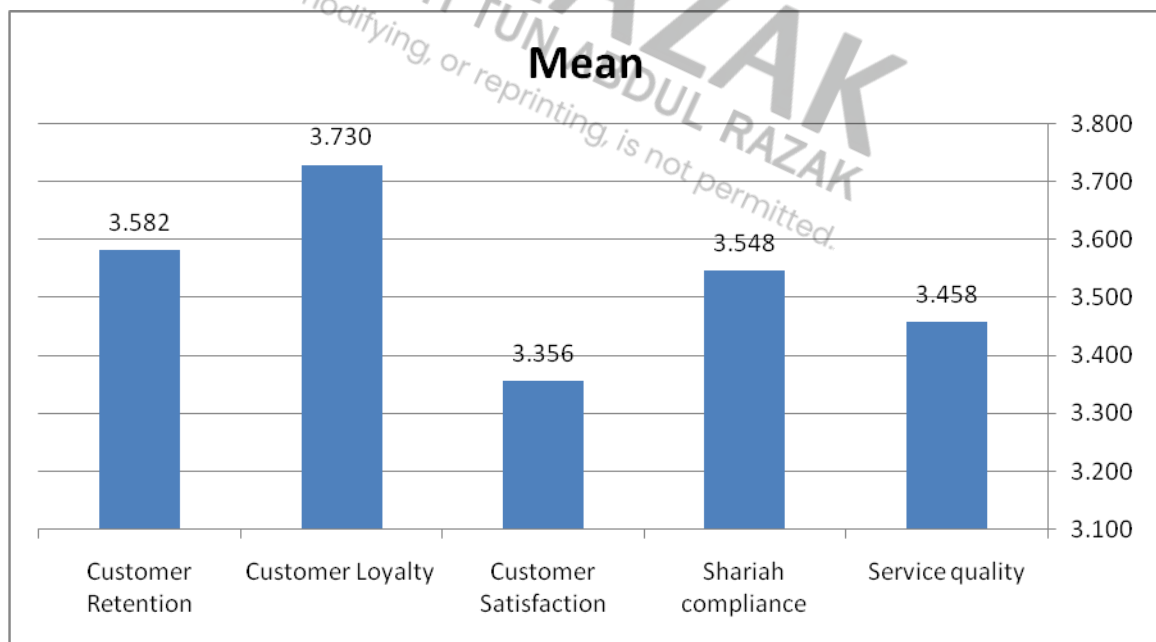


Figure 5-3 Comparison of Mean between variables

5.10 Analysis of Research Hypotheses

This kind of research is built to examine the role of customer satisfaction as a mediator variable in the relationship between service quality dimensions and Shariah compliance as independent variable and customer loyalty and customer retention as dependent variables. On the other hand, as mentioned in previous chapters, one objective of this study is to explore whether customer satisfaction will change this relationship. Within this research, default α of 0.05 are used to determine the level of significance.

5.10.1 The Impact of Service Quality Dimensions to Customer Loyalty.

H₀ Service quality does not have influence on customer loyalty.

H₁: Service quality has influence on customer loyalty.

H_{1.a} Tangibles service has influence on customer loyalty.

H_{1.b} Reliable service has influence on customer loyalty.

H_{1.c} Responsiveness/assurance service has influence on customer loyalty.

H_{1.d} Service empathy has influence on customer loyalty.

Prior to testing of the hypothesis one correlation between service quality dimensions and customer loyalty was applied. To know whether two variables are not related to each other or they are related, at the same time, to know a strong relationship between two variables or a weak relationship and the type of the direction of the relationship. Table 5.28 presents the explanation of these key words.

Table 5-28Explanation of correlation key words.

Value	Explanation
Close to 1	There is a strong relationship between two variables.
Close to 0	There is a weak relationship between two variables
Positive (+)	As one variable increases in value, the second variable also increases in value. This is called a positive correlation
Negative (-)	As one variable increases in value, the second variable decreases in value. This is called a negative correlation.

Pallant (2011) proposed the following guidelines: Small correlation $r=0.10$ to 0.29 , medium $r=0.3$ to 0.49 and large $r=0.5$ to 1.0 .

Previous to carrying out a correlation analysis, it may be beneficial to generate a scatterplot. This allows one to pay attention to violation of the assumptions of linearity and homoscedasticity. Assessment of the scatterplots also gives a better idea of the character of the relationship between the variables (Pallant, 2011).

The result generated for scatterplot is shown in Figure 5.4 as follows:

- Points neatly arranged in a tight cigar form which implies very good correlation.
- one could possibly sketch a straight line from the main cluster line which implies linear relationship.
- The design of cluster is derived from one end towards other which implies homoscedasticity.
- The relationship is an up trend which shows a positive relationship.

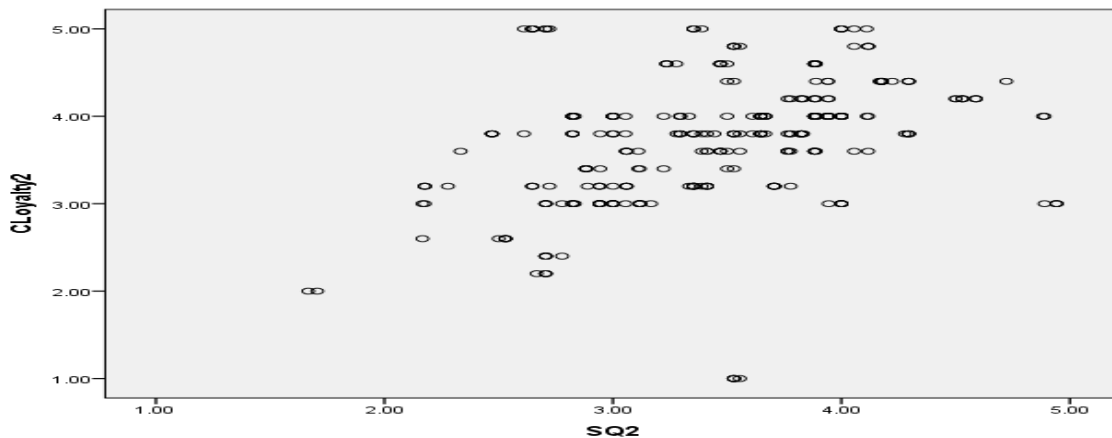


Figure 5-4 Scatterplot to study the relationship between service quality and customer loyalty

As a way to assess the linear connection between the independent variables and dependent variable, the Pearson correlation was carried out. As shown in Table 5. 29, at the bivariate level, there is a statistically significant and positive relationship between service quality dimensions and customer loyalty where r was from 0.206 and 0.445, $p < .01$.

Generally, there was positive correlation between each of service quality dimensions and customer loyalty. Increases in each of service quality dimensions were correlated with increases in levels of customer loyalty. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed). Furthermore, results demonstrated that there was no negative relationship between variables.

Table 5-29 Correlation between service quality dimensions and customer loyalty

scale		Responsiveness/assurance	Reliability	Empathy	Tangibles	Customer loyalty
Responsiveness/assurance	Pearson Correlation	1	.735**	.679**	.335**	.243**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	339	339	339	339	339
Reliability	Pearson Correlation	.735**	1	.582**	.364**	.445**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	339	339	339	339	339
Empathy	Pearson Correlation	.679**	.582**	1	.142**	.299**
	Sig. (2-tailed)	.000	.000		.009	.000
	N	339	339	339	339	339
Tangibles	Pearson Correlation	.335**	.364**	.142**	1	.206**
	Sig. (2-tailed)	.000	.000	.009		.000
	N	339	339	339	339	339
Customer loyalty	Pearson Correlation	.243**	.445**	.299**	.206**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	339	339	339	339	339

** . Correlation is significant at the 0.01 level (2-tailed).

Furthermore, reliability dimension had the greatest correlation with customer loyalty ($r = 0.445$, $p < .01$) followed by empathy ($r = .299$, $p < .01$), Responsiveness/assurance and tangibles were their correlation ($r = .243$, $p < .01$), and ($r = .206$, $p < .01$) respectively. In addition, the results also indicated that the relationship between all the independent variables service quality (empathy, Responsiveness/assurance, reliability and tangibles) was found to be statistically positively significant correlated (r was between (.206 and

.445) at the same time, no correlations between independent variables was above 0.9 which meant no multicollinearity.

The results showed the highest correlation exists among the constructs of Responsiveness/assurance (willingness to assist and capability to convey trust) and reliability (accurate and dependable) which are 73.5%, showing that the development of confidence helps to create a good reliability. So we can say that at 1% level of significant, the correlation between Responsiveness/assurance and reliability is significant and is the strongest correlation among these dimensions. The weakest correlation is between empathy and tangibles which is 14.2%. However, the correlation among all the service quality constructs is positive and the p-value among these variables is 0.000 indicating a significant correlation among them at 0.01 α level of significant.

For mediator variable customer satisfaction, it is positively significant to service quality dimensions and customer loyalty. These relationships are presented in Table (5.30). For customer satisfaction the highest significant positive correlation was with reliability and empathy dimensions ($r = .559$, $r = .492$, $p < .01$) respectively, while the correlation was in relationship between Responsiveness/assurance, tangibles respectively ($r = .425$ and $.222$). In addition the correlation within customer loyalty was almost large correlation at $P < .01$ ($r = .778$). More details are summarized in table 5.30.

Table 5-30 Correlation for mediator variables and both independent and dependent variable

Scale	Responsiveness/assurance	Reliability	Empathy	Tangibles	Customer satisfaction	Customer loyalty
Responsiveness/assurance	1					
Reliability	.735**	1				
Empathy	.679**	.582**	1			
Tangibles	.335**	.364**	.142**	1		
Customer satisfaction	.425**	.559**	.492**	.222**	1	
Customer loyalty	.243**	.445**	.299**	.206**	.778**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the other hand, the hypotheses were analyzed by making use of multiple regression analysis to assess how well a set of predictors expected customer loyalty. Testing the assumptions had been done. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; therefore, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers, normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals. The normal probability plot (P-P) of regression standardized residual is reasonably straight diagonal line from bottom left to top right as shown in appendix M. The scatterplot of the standardized residuals is roughly rectangularity distributed with most of the scores concentrated in the center as shown in appendix N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and a set of independent variables. The predictors were four service quality dimensions which included tangibles, reliability,

Responsiveness/assurance and empathy, while the dependent variable was customer loyalty. The linear combination of all service quality dimensions was significantly related to customer loyalty, $F(4, 334) = 25.503, p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, R , is a measure of the strength of the association between the independent (explanatory) variables and the one dependent (prediction) variable. The strength of the association is measured by the sample multiple correlation Coefficient, R . R can be any value from 0 to +1. The closer R is to one, the stronger the linear association is. If R equals zero, then there is no linear association between the dependent variable and the independent variables. In H_1 , R was 0.484. Investigating the service quality and customer loyalty relationship in similar ways ranged between 0.206 and 0.445. The squared multiple correlations which explained how much of variance in the dependent variable is explained by the model. It is) 0.234 in this research. The descriptive statistics and bivariate correlation between each predictor and overall customer loyalty is presented in Table 5.31.

Table 5-31 Descriptive statistics and correlation between each predictor and customer loyalty

Independent variable	Mean	Std. Deviation	correlation between each predictor and customer loyalty
Responsiveness/assurance	3.5129	.67367	.243
Reliability	3.3768	.73641	.445
Empathy	3.3584	.68090	.299
Tangibles	3.6578	.74143	.206

Based on coefficient result, all of the independent variables are building statistically significant contribution to the customer loyalty, while dimension of tangibles came out as an insignificant determinant of customer loyalty. The relationships between dimensions of

independent variables with dependent variables are presented in Table 5.32. More specific about coefficients, beta values are illustrated as sub-hypothesis tests below:

H1.a Tangibles service has influence on customer loyalty.

The sub-hypothesis was considered a relationship between tangibles dimension and customer loyalty. The calculated t-value is 1.678 and sig =.094 (Beta= .088, $p > .05$), which exceeded the significant level of .05. Hence, the null hypothesis was accepted, and the finding indicates that the relationship between tangibles and customer loyalty was not supported, although Pearson correlation matrix results small correlation which indicated there is a positive correlation between tangibles and customer loyalty ($r = .206$, $p < 0.01$) but in regression case the p value $> .05$.

Tangibles dimension (the bank's state of the art technology and visually appealing premises) has small correlation and does not influence the independent variable customer loyalty. In current stage for Islamic banks, physical aspects which concern with technology and visual appealing premises are not serving to customer loyalty. Decision makers should care for these physical aspects to gain customer loyalty.

H1.b Reliability service has influence on customer loyalty.

The second sub-hypothesis focused on whether there was a relationship between reliability dimension and customer loyalty. The calculated t-value is 7.155 and (Beta = .524, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. In addition, this makes the strongest contribution to the customer loyalty Thus; the result indicates that the relationship between reliability dimension and customer loyalty was supported.

H1.c Responsiveness/assurance service has influence on customer loyalty.

As Table (5-32) shows that the first sub hypothesis t-value is -3.673 and (Beta = -.296, $p < .05$) the null hypothesis was rejected and the alternative hypothesis was accepted. In addition, this makes the strongest contribution to the customer loyalty Thus; the result indicates that the relationship between Responsiveness/assurance dimension and customer loyalty was supported.

H1.d Empathy service has influence on customer loyalty.

The fourth sub- hypothesis1 was considered a relationship between Empathy dimension and customer loyalty. The calculated t-value is 2.717 and (Beta = .182, $p < 0.05$) below the significant level of 0.05, and represent the third strongest contribution. Hence the null hypothesis was rejected and the result indicates that the relationship between Empathy and customer loyalty was supported.

Table 5-32 Regression Result of Service quality dimension with customer (H1)

Hypotheses link with customer loyalty	Hypotheses	B	Beta	t-value	sig
Responsiveness/assurance	H1.a	-.315	-.296	-3.673	.000
Reliability	H1.b	.511	.524	7.155	.000
Empathy	H1.c	.192	.182	2.717	.007
Tangibles	H1.d	.085	.088	1.678	.094

Therefore, multiple regression result suggests those who received Responsiveness/assurance, reliability and more empathy are likely to be more loyal.

5.10.2 The Impact of Service Quality Dimensions to Customer Retention:

H2.0: Service quality does not have influence on customer retention.

H2: Service quality has influence on customer retention.

H2.a Tangibles service has influence on customer retention.

H2.b Reliable service has influence on customer retention.

H2.c Responsiveness/assurance service has influence on customer retention.

H2.d Empathy service has influence on customer retention.

The result generated for scatterplot is demonstrated in appendix L. It is emphasized that there is positive correlation. As well as, it is linear relationship and homoscedasticity. In order to figure out the linear association between each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.33, at the bivariate level, there was a statistically significant and positive relationship between service quality dimensions and customer retention where r was between 0.122, $p < .05$ and .615, $p < .01$.

On the whole, there was a positive correlation between each of service quality dimensions and customer retention. Increases in each of service quality dimensions were correlated with increases in levels of customer retention. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed) except only one correlation coefficient at 0.05α level (2-tailed). Furthermore results found that there was no negative relationship between variables.

More specifically reliability dimension had the highest correlation with customer retention ($r = 0.615, p < .01$) followed by empathy ($r = .466, p < .01$), Responsiveness/assurance and Tangibles (small correlation) with their correlation ($r = .394, p < .01$), and ($r = .122, p < .05$) respectively. In addition, the results also indicated that the relationship between all the independent variables service quality (empathy, Responsiveness/assurance, reliability and tangibles) was found to be statistically positively significant correlated.

Table 5-33 Pearson Correlation between service quality dimensions and customer retention

scale	Responsiveness/assurance	Reliability	Empathy	Tangibles	Customer retention
Responsiveness/assurance	1				
Reliability	.735**	1			
Empathy	.679**	.582**	1		
Tangibles	.335**	.364**	.142**	1	
Customer retention	.394**	.615**	.466**	.122*	1

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors expected customer retention. Examining the assumptions was performed. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, outcomes have not violated the multicollinearity assumption. With regard to other assumptions, results have not violated assumptions concerned with outliers, normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technic was utilized to analyze the linear relationship between a single dependent variable and a group of independent variables. The predictors were four

service quality dimensions which included tangibles, reliability, Responsiveness/assurance and empathy, while the dependent variable was customer retention. The linear combination of all service quality dimensions were significantly related to customer retention, $F(4, 334) = 62.372$, $p = .000$ at 0.05 alpha levels). The Sample Multiple Correlation Coefficient, in this H2, R was 0.654. The squared multiple correlations (R^2) are 0.234 within this study. The descriptive statistics and regression results are shown in Table 5.34.

Table 5-34 Regression Result of service quality dimension with customer retention (H2)

scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	Sig
Responsiveness/assurance	3.5129	0.67367	H2.a	-.307	-.252	-3.624	.000
Reliability	3.3768	0.73641	H2.b	.759	.682	10.774	.000
Empathy	3.3584	0.6809	H2.c	.302	.251	4.332	.000
Tangibles	3.6578	0.74143	H2.d	-.086	-.078	-1.715	.087

The relationships between dimensions of independent variables with dependent variables are shown in Table 5.34. More certainty about coefficients, beta values is highlighted as sub-hypothesis tests below:

H2.a Tangibles service has influence on customer retention.

The first sub-hypothesis was considered a relationship between tangibles dimension and customer retention. The calculated t-value is -1.715 and sig = .087 (Beta = -.078, $p > .05$), which exceeds the significant level of .05. Hence, the null hypothesis was accepted, and the finding indicates that the relationship between tangibles and customer retention was not supported, although Pearson correlation matrix results small correlation which indicated there is a positive correlation between tangibles and customer retention ($r = .122$, $p < 0.05$) but in regression case the p value $> .05$.

Tangibles dimension (the bank's state of the art technology and visually appealing premises) has small correlation and does not influence the independent variable customer retention. In current stage for Islamic banks the physical aspects which concern with technology and visual appealing premises are not serving towards customer retention (customer likes to continuous using the service). Decision makers should care for these physical aspects to gain customer retention.

H2.b Reliability service has influence on customer retention.

The second sub-hypothesis focused on whether there was a relationship between reliability dimension and customer retention. The calculated t-value is 10.774 and (Beta = .682, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between reliability dimension and customer retention was supported.

H2.c Responsiveness/assurance service has influence on customer retention.

As Table (5-34) shows that the third sub hypothesis focused on relationship between Responsiveness/assurance dimension and customer retention and t-value is -3.624 and (Beta = -.252, $p < .05$) the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Responsiveness/assurance dimension and customer retention was supported.

H2.d Empathy service has influence on customer retention.

The fourth sub-hypothesis focused on whether there exist relationships between empathy dimension and customer retention. The calculated t-value is 4.332 and (Beta = .251, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between empathy dimension and customer retention was supported.

Therefore, multiple regression result suggests those who received Responsiveness/assurance, reliability and more empathy will likely to have greater customer retention.

5.10.3 The Impact of Shariah Compliance Dimensions and Customer Loyalty:

H3.0: Shariah compliance does not have influence on customer loyalty.

H3: Shariah compliance has influence on customer loyalty.

H3.a: Shariah compliance institution/product dimension has influence on customer loyalty.

H3.b: Islamic bank employees' ethical conduct dimension has influence on customer loyalty.

The result produced for scatterplot is demonstrated in appendix L. It emphasizes the relation that is positive correlation. Furthermore, it is linear relationship and homoscedasticity. In order to figure out the linear association among the independent variable and dependent variables, the Pearson correlation was carried out. As demonstrated in Table 5.35, at the bivariate level, there was a statistically significant and positive relationship between Shariah compliance dimensions and customer loyalty where r was between (.408 and .555, $p < .01$).

On the whole, there was positive correlation between each of Shariah compliance dimensions and customer loyalty. Increases each of Shariah compliance dimensions were correlated with increases in levels of customer loyalty. All correlation coefficients between variables were statistically significant at 0.01 α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables.

Much more especially Shariah compliance institution/product dimension had the highest correlation with customer loyalty ($r = 0.555, p < .01$) followed by Islamic bank employees' ethical conduct dimension ($r = .408, p < .01$). Moreover, the results also point out that the relationship between the entire independent variables Shariah compliance dimension (Shariah compliance institution/product and Islamic bank employees' ethical conduct) were found to be statistically positively significant correlated.

Table 5-35 Pearson Correlation between Shariah compliance dimensions and customer loyalty

scale	Shariah compliance institution/product	Islamic bank employees' ethical conduct	Customer loyalty
Shariah compliance institution/product	1		
Islamic bank employees' ethical conduct	.687**	1	
Customer loyalty	.555**	.408**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors predicted customer loyalty. Checking the assumptions had been performed. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers,

normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and a set of independent variables. The predictors were two Shariah compliance dimensions which included Shariah compliance institution/product and Islamic bank employees' ethical conduct, while the dependent variable was customer loyalty. The linear combination of all Shariah compliance dimensions were significantly related to customer loyalty, $F(2, 336) = 75.116, p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, in this H3, R was 0.556. The squared multiple correlations (R^2) are 0.309 in this research. The descriptive statistics and regression results are shown in Table 5.36.

Table 5-36 Regression Result of Shariah compliance dimension with customer loyalty (H3)

scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	sig
Shariah compliance institution/product	3.5923	.70840	H3.a	.527	.520	8.328	.000
Islamic bank employees' ethical conduct	3.3992	.75451	H3.b	.048	.051	.811	.418

More specifically about coefficients, beta values are illustrated as sub-hypothesis tests below:

H3.a: Shariah compliance institution/product dimension has influence on customer loyalty.

The first sub-hypothesis was considered a relationship between Shariah compliance institution/product dimension and customer loyalty. The calculated t-value is 8.328 and sig

=.000 (Beta= .520, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Shariah compliance institution/product dimension and customer loyalty was supported.

H3.b: Islamic bank employees' ethical conduct dimension has influence on customer loyalty.

The second sub-hypothesis focused on whether there was a relationship between Islamic bank employees' ethical conduct dimension and customer loyalty. The calculated t-value is .811 and (Beta = .051, $p > .05$), sig is 0.418. Hence, the null hypothesis was accepted, and the finding indicates that the relationship between Islamic bank employees' ethical conduct dimension and customer loyalty was not supported.

Subsequently, multiple regression result suggests those who trust and received high compliance with Shariah services will be more loyal.

5.10.4 The Impact of Shariah Compliance Dimensions and Customer Retention:

H4.0: Shariah compliance does not have influence on customer retention.

H4: Shariah compliance has influence on customer retention.

H4.a: Shariah compliance institution/product dimension has influence on customer retention.

H4.b: Islamic bank employees' ethical conduct dimension has influence on customer retention.

The result produced for scatterplot is demonstrated in appendix L. It is evident that the relation is a positive correlation. Furthermore, it is linear relationship and homoscedasticity.

In order to compute the linear association between the each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.37, at the bivariate level, there was a statistically significant and positive relationship between Shariah compliance dimensions and customer retention where r was between (.518 and .624, $p < .01$).

On the whole, there was positive correlation between each of Shariah compliance dimensions and customer retention. Increases in each of Shariah compliance dimensions were correlated with increases in levels of customer retention. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables.

Furthermore especially Shariah compliance institution/product dimension had the highest correlation with customer retention ($r = 0.624$, $p < .01$) followed by Islamic bank employees' ethical conduct dimension ($r = .518$, $p < .01$). Moreover, the results also point out that the relationship between the entire independent variables Shariah Shariah compliance institution/product dimension (compliance and Islamic bank employees' ethical conduct) were found to be statistically positively and significantly correlated.

Table 5-37 Pearson Correlation between Shariah compliance dimensions and customer retention

scale	Shariah compliance institution/product	Islamic bank employees' ethical conduct	Customer retention
Shariah compliance institution/product	1	.	
Islamic bank employees' ethical conduct	.687**	1	
Customer retention	.624**	.518**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors predicted customer retention. Checking the assumptions had been performed. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers, normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and a set of independent variables. The predictors were two Shariah compliance dimensions which included Shariah compliance institution/product and Islamic bank employees' ethical conduct, while the dependent variable was customer retention. The linear combination of all Shariah compliance dimensions were significantly related to customer retention, $F(2, 336) = 114.179, p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, in this H4, R was 0.636. The squared multiple correlations (R^2) were 0.405 in this research. The descriptive statistics and regression results are shown in Table 5.38.

Table 5-38 Regression Results of Shariah compliance dimension with customer retention (H4)

scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	sig
Shariah compliance institution/product	3.5923	.70840	H4.a	.587	.507	8.758	.000
Islamic bank employees' ethical conduct	3.3992	.75451	H4.b	.184	.170	2.929	.004

More specifically about coefficients, beta values are illustrated as sub-hypothesis tests below:

H4.a: Shariah compliance institution/product dimension has influence on customer retention.

The first sub-hypothesis was considered a relationship between Shariah compliance institution/product dimension and customer retention. The calculated t-value is 8.758 and sig =.000 (Beta= .507, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Shariah compliance institution/product dimension and customer retention was supported.

H4.b: Islamic bank employees' ethical conduct dimension has influence on customer retention.

The second sub-hypothesis focused on whether there was a relationship between Islamic bank employees' ethical conduct dimension and customer retention. The calculated t-value is 2.929 and (Beta = .170, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Islamic bank employees' ethical conduct dimension and customer retention was supported.

Subsequently, multiple regression result suggests those who trust and received high compliance with Shariah services. Furthermore, have got Islamic bank employees' ethical conduct from employees there will be more retention.

5.10.5 The Relationship between Service Quality and Shariah Compliance

H5.0: Service quality does not have relationship on Shariah compliance

H5: Service quality has relationship on Shariah compliance

This hypothesis was not analyzed by making use of multiple regression analysis. It is not the case of independent variable and dependent variable. They are independent variables. Correlation analysis can be used. The result produced for scatterplot is demonstrated in appendix L. It is clear that the relation is a positive correlation. Furthermore, it is linear relationship and homoscedasticity. In order to compute the linear association between the each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.39, at the bivariate level, there was a statistically significant and positive relationship between service quality dimensions (empathy, Responsiveness/assurance, reliability and tangibles) and Shariah compliance dimensions (Shariah compliance institution/product and Islamic bank employees' ethical conduct).

On the whole, increases in each of Shariah service quality dimensions were correlated with increases in levels of Shariah compliance. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed). Only one item correlate between tangibles and Shariah compliance institution/product was statistically significant at 0.05α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables. Pallant (2011) suggested the following guidelines : Small correlation $r=0.10$ to 0.29 , medium $r=0.3$ to 0.49 and large $r=0.5$ to 1.0 .

Further especially the empathy dimension had first and large correlation to Shariah compliance institution/product dimension ($r = 0.543$, $p < .01$) followed by Islamic bank

employees' ethical conduct dimension ($r = .513, p < .01$). Reliability dimension had second and medium correlation to Shariah compliance institution/product dimension ($r = 0.460, p < .01$) followed by Islamic bank employees' ethical conduct dimension ($r = .472, p < .01$). Responsiveness/assurance dimension had third and medium correlation to Shariah compliance institution/product dimension ($r = 0.371, p < .01$) followed by Islamic bank employees' ethical conduct dimension ($r = .491, p < .01$). Tangibles dimension had fourth and small correlation to Shariah compliance institution/product dimension ($r = 0.112, p < .05$) followed by Islamic bank employees' ethical conduct dimension ($r = .177, p < .01$). Moreover, the results also point out that the relationship between the entire independent variables service quality dimension was found to be statistically positively and significantly correlated with Shariah compliance dimensions.

Table 5-39 Pearson Correlation between service quality dimensions and Shariah compliance

scale	Responsiveness/assurance	Reliability	Empathy	Tangibles	Shariah compliance institution/product	Islamic bank employees' ethical conduct
Responsiveness/assurance	1					
Reliability	.735**	1				
Empathy	.679**	.582**	1			
Tangibles	.335**	.364**	.142**	1		
Shariah compliance institution/product	.371**	.460**	.543**	.112*	1	
Islamic bank employees' ethical conduct	.491**	.472**	.513**	.177**	.687**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The hypothesis considered a positive relationship between service quality dimensions and Shariah compliance dimension. The null hypothesis was rejected and the alternative

hypothesis was accepted. The result indicates strongest contribution that the relationship between service quality dimensions and Shariah compliance dimensions was supported.

5.10.6 The Impact of Service Quality to Customer Satisfaction:

H6.0: Service quality does not have influence on customer satisfaction

H6: Service quality has influence on customer satisfaction.

H6.a Tangibles service has influence on customer satisfaction.

H6.b Reliable service has influence on customer satisfaction.

H6.c Responsiveness/assurance service has influence on customer satisfaction.

H6.d Empathy service has influence on customer satisfaction.

The result produced for scatterplot is demonstrated in appendix L. It is evident that the relation is positive correlation. Furthermore, it is linear relationship and homoscedasticity. In order to compute the linear association between each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.40, at the bivariate level, there was a statistically significant and positive relationship between service quality dimensions and customer satisfaction where r was between (.222 and .559, $p < .01$).

On the whole, there was positive correlation between each of service quality dimensions and customer satisfaction. Increases in each of service quality dimensions were correlated with increases in levels of customer satisfaction. All correlation coefficients between

variables were statistically significant at 0.01 α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables.

Much more especially reliability dimension had the highest correlation to customer satisfaction ($r = 0.559$, $p < .01$) followed by empathy ($r = .492$, $p < .01$), Responsiveness/assurance and Tangibles were their correlation ($r = .425$, $p < .01$), and ($r = .222$, $p < .01$) respectively. Moreover, the results also point out that the relationship between all the independent variables service quality (empathy, Responsiveness/assurance, reliability and tangibles) was found to be statistically positively and significantly correlated.

Table 5-40 Correlation between service quality dimensions and customer satisfaction

scale	Responsiveness/assurance	Reliability	Empathy	Tangibles	customer satisfaction
Responsiveness/assurance	1				
Reliability	.735**	1			
Empathy	.679**	.582**	1		
Tangibles	.335**	.364**	.142**	1	
customer satisfaction	.425**	.559**	.492**	.222**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors predicted customer satisfaction. Checking the assumptions was performed. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers,

normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and a set of independent variables. The predictors were four service quality dimensions which included tangibles, reliability, Responsiveness/assurance and empathy, while the dependent variable was customer satisfaction. The linear combination of all service quality dimensions was significantly related to customer satisfaction, $F(4, 334) = 47.773$, $p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, in this H2, R was 0.603. The squared multiple correlations (R^2) are 0.364 in this research. The descriptive statistics and regression results are shown in Table 5.41.

Table 5-41 Regression for service quality dimension with customer satisfaction (Hypotheses 6)

scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	sig
Responsiveness/assurance	3.5129	.67367	H6.a	-.158	-.150	-2.051	.041
Reliability	3.3768	.73641	H6.b	.446	.464	6.957	.000
Empathy	3.3584	.68090	H6.c	.328	.315	5.164	.000
Tangibles	3.6578	.74143	H6.d	.056	.059	1.234	.218

More specific about coefficients, beta is illustrated as sub-hypothesis tests below:

H6.a Tangibles service has influence on customer satisfaction.

The first sub-hypothesis was considered a relationship between tangibles dimension and customer satisfaction. The calculated t-value is 1.234 and sig =.218 (Beta= 0.059, $p > .05$),

which exceeded the significant level of .05. Hence, the null hypothesis was accepted, and the finding indicates that the relationship between tangibles and customer satisfaction was not supported, although Pearson correlation matrix shows small correlation which points out there is a positive correlation between tangibles and customer satisfaction ($r = .222$, $p < 0.05$) but in regression case the p value $> .05$.

H6.b Reliability service has influence on customer satisfaction.

The second sub-hypothesis focused on whether there was a relationship between reliability dimension and customer satisfaction. The calculated t-value is 6.957 and (Beta = .464, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between reliability dimension and customer satisfaction was supported.

H6.c Responsiveness/assurance service has influence on customer satisfaction.

As Table (5-41) shows that the third sub hypothesis focused on relationship between Responsiveness/assurance dimension and customer satisfaction and t-value was 2.051 and (Beta = -.150, $p < .05$) the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Responsiveness/assurance dimension and customer satisfaction was supported.

H6.d Empathy service has influence on customer satisfaction.

The fourth sub-hypothesis focused on whether there was a relationship between empathy dimension and customer satisfaction. The calculated t-value was 5.164 and (Beta = .315,

$p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between empathy dimension and customer satisfaction was supported.

Subsequently, multiple regression result suggests those who received good feeling Responsiveness/assurance, reliability and more empathy will exhibit more customer satisfaction.

5.10.7 The Impact of Shariah Compliance to Customer Satisfaction

H7.0: Shariah compliance does not have influence on customer satisfaction.

H7: Shariah compliance has influence on customer satisfaction.

H7.a: Shariah compliance institution/product dimension has influence on customer satisfaction.

H7.b: Islamic bank employees' ethical conduct dimension has influence on customer satisfaction.

The result produced for scatterplot is demonstrated in appendix L. It emphasizes that the relation is positive correlation. Furthermore, it is linear relationship and homoscedasticity.

In order to compute the linear association between the each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.42, at the bivariate level, there was a statistically significant and positive relationship between Shariah compliance dimensions and customer satisfaction where r was between (.593 and .700, $p < .01$).

On the whole, there was positive correlation between each of Shariah compliance dimensions and customer satisfaction. Increases in each of Shariah compliance dimensions were correlated with increases in levels of customer satisfaction. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables.

Much more especially Shariah compliance institution/product dimension had the highest correlation to customer satisfaction ($r = 0.700, p < .01$) followed by Islamic bank employees' ethical conduct dimension ($r = .593, p < .01$). Moreover, the results also point out that the relationship between the entire independent variables Shariah compliance dimension (Shariah compliance institution/product and Islamic bank employees' ethical conduct) was found to be statistically positively and significantly correlated.

Table 5-42 Correlation between Shariah compliance dimensions and customer satisfaction

scale	customer satisfaction	Islamic bank employees' ethical conduct	Shariah compliance institution/product
customer satisfaction	1		
Islamic bank employees' ethical conduct	.593**	1	
Shariah compliance institution/product	.700**	.687**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors predicted customer satisfaction. Checking the assumptions had been performed. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers,

normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and a set of independent variables. The predictors were two Shariah compliance dimensions which included Shariah compliance institution/product and Islamic bank employees' ethical conduct, while the dependent variable was customer satisfaction. The linear combination of all Shariah compliance dimensions was significantly related to customer satisfaction, $F(2, 336) = 177.462$, $p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, in this H4, R was 0.717. The squared multiple correlations (R^2) are 0.514 in this research. The descriptive statistics and regression result is shown in Table 5.43.

Table 5-43 Regression for Shariah compliance dimension with customer satisfaction (H7)

scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	sig
Shariah compliance institution/product	3.5923	.70840	H7.a	.553	.553	10.568	.000
Islamic bank employees' ethical conduct	3.3992	.75451	H7.b	.200	.213	4.070	.000

More specifically about coefficients, beta is illustrated as sub-hypothesis tests below:

H7.a: Shariah compliance institution/product dimension has influence on customer satisfaction.

The first sub-hypothesis was considered a relationship between Shariah compliance institution/product dimension and customer satisfaction. The calculated t-value was 10.568

and sig =.000 (Beta= .553, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Shariah compliance institution/product dimension and customer satisfaction was supported.

H7.b: Islamic bank employees' ethical conduct dimension has influence on customer satisfaction.

The second sub-hypothesis focused on whether there was a relationship between Islamic bank employees' ethical conduct dimension and customer satisfaction. The calculated t-value was 4.070 and (Beta = .213, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between Islamic bank employees' ethical conduct dimension and customer satisfaction was supported.

Subsequently, multiple regression result suggests those who trust and received high compliance with Shariah services. Furthermore, receiving Islamic bank employees' ethical conduct from employees will be more satisfied.

5.10.8 The Impact of Customer Satisfaction and Customer Loyalty

H8.0: Customer satisfaction does not have influence on customer loyalty.

H8: Customer satisfaction has influence on customer loyalty.

The result produced for scatterplot is demonstrated in appendix L. It is emphasized that the relation is a positive correlation. Furthermore, it is linear relationship and

homoscedasticity. In order to compute the linear association between the each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.44, at the bivariate level, there was a statistically significant and positive relationship between customer satisfaction and customer loyalty where r was 0.778, $p < .01$).

On the whole, there was positive correlation between customer satisfaction and customer loyalty. Increases in each of customer satisfaction were correlated with increases in levels of customer loyalty. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables.

Much more especially customer satisfaction had correlation to customer loyalty ($r = 0.778$, $p < .01$). Moreover, the results also point out that the relationship between independent variable customer satisfaction was found to be statistically positively and significantly correlated with dependent variable customer loyalty.

Table 5-44 Correlation between customer satisfaction and customer loyalty

scale	customer satisfaction	customer loyalty
customer satisfaction	1	.778**
customer loyalty	.778**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors predicted customer loyalty. Checking the assumptions had been performed. For multicollinearity, two values are given: Tolerance

and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers, normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and an independent variable. The predictors were customer satisfaction, while the dependent variable was customer loyalty. The linear combination of customer satisfaction was significantly related to customer satisfaction, $F(1, 337) = 516.368$, $p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, in this H4, R was 0.778. The squared multiple correlations (R^2) are 0.604 in this research. The descriptive statistics and regression results are shown in Table 5.45.

Table 5-45 Regression for customer satisfaction with customer loyalty (H8)

Scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	sig
Customer Satisfaction	3.3535	.70754	H8	.789	.778	22.724	.000

More specifically about coefficients, beta values are illustrated as hypothesis tests below:

H8: customer satisfaction has influence on customer loyalty.

The hypothesis considered a relationship between customer satisfaction and customer loyalty. The calculated t-value was 22.724 and sig =.000 (Beta= .778, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates

strongest contribution that the relationship between customer satisfaction and customer loyalty was supported.

Subsequently, multiple regression result suggests those who are satisfied with Islamic bank service become have loyal to this bank.

5.10.9 The Impact of Customer Satisfaction to Customer Retention:

H9.0: Customer satisfaction does not have influence on customer retention.

H9: Customer satisfaction has influence on customer retention.

The result produced for scatterplot is demonstrated in appendix L. It is emphasized that the relation is positive correlation. Furthermore, it is linear relationship and homoscedasticity. In order to compute the linear association between the each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.46, at the bivariate level, there was a statistically significant and positive relationship between customer satisfaction and customer retention where r was .811, $p < .01$.

Table 5-46 Pearson Correlation between customer satisfaction and customer retention

Scale	Customer satisfaction	Customer retention
customer satisfaction	1	
customer retention	.811**	1

** . Correlation is significant at the 0.01 level (2-tailed).

On the whole, there was positive correlation between customer satisfaction and customer retention. Increases in each of customer satisfaction were correlated with increases in levels of customer retention. All correlation coefficients between variables were statistically significant at 0.01α level (2-tailed). Moreover results demonstrated that there was no negative relationship between variables.

Much more especially customer satisfaction was correlated to customer retention ($r = 0.778$, $p < .01$). Moreover, the results also point out that the relationship between independent variable customer satisfaction was found to be statistically positively and significantly correlated with dependent variable customer retention.

On the other hand the hypotheses were analyzed by making use of multiple regression analysis to evaluate how well a set of predictors predicted customer retention. Checking the assumptions had been performed. For multicollinearity, two values are given: Tolerance and VIF. Tolerance value less than 1.0 or VIF value of above 10 from table labeled Coefficients; consequently, results have not violated the multicollinearity assumption. For other assumptions, results have not violated assumptions concerned with outliers, normality, linearity, homoscedasticity and independence of residuals by using plot (P-P) and scatterplot of the standardized residuals as demonstrated in appendix M, N.

Multiple linear regression technique was used to examine the linear relationship between a single dependent variable and independent variable. The predictors were customer satisfaction, while the dependent variable was customer retention. The linear combination of customer satisfaction was significantly related to customer satisfaction, $F(1, 337) = 648.594$, $p = .000$ at .05 alpha levels). The Sample Multiple Correlation Coefficient, in this H4, R was 0.811. The squared multiple correlations (R^2) are 0.658 in this research. The descriptive statistics and regression results are shown in Table 5.47.

Table 5-47 Regression Result of customer satisfaction with customer retention (H9)

Scale	Mean	Std. Deviation	Hypothesis	B	Beta	t-value	sig
Customer Satisfaction	3.3535	.70754	H9	.939	.811	25.468	.000

More specifically about coefficients, beta values are illustrated as hypothesis tests below:

H9: customer satisfaction has influence on customer retention.

The hypothesis considered a relationship between customer satisfaction and customer retention. The calculated t-value was 25.468 and sig =.000 (Beta= .811, $p < .05$), the null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between customer satisfaction and customer retention was supported.

Subsequently, multiple regression results suggest those who are satisfied with Islamic bank can be retained by Islamic bank.

5.10.10 The Relationship between Customer Loyalty and Customer Retention:

H10.0: customer loyalty does not have a relationship on Customer retention

H10: customer loyalty has a relationship on Customer retention

This hypothesis was not analyzed by making use of multiple regression analysis. It is not the case of an independent variable and a dependent variable. They are dependent variables.

Correlation analysis can be used. The result produced for scatterplot is demonstrated in appendix L. It is emphasized that the relation is a positive correlation. Furthermore, it is linear relationship and homoscedasticity. In order to compute the linear association

between each of independent variable and dependent variable, the Pearson correlation was carried out. As demonstrated in Table 5.48, at the bivariate level, there was a statistically significant and positive relationship between customer loyalty and customer retention.

On the whole, increases in each of customer loyalty were correlated with increases in levels of customer retention. Correlation coefficients between variables were statistically significant at 0.01 α level (2-tailed. Moreover results demonstrated that there was no negative relationship between variables.

Much more customer loyalty had large correlation with customer retention ($r = 0.768$, $p < .01$) Moreover, the results also point out that the relationship between customer loyalty and customer retention was found to be statistically positively and significantly correlated.

Table 5-48 Pearson Correlation between customer loyalty and customer retention

scale	customer retention	customer loyalty
customer retention	1	
customer loyalty	.768**	1

** . Correlation is significant at the 0.01 level (2-tailed).

The hypothesis considered a positive relationship between customer loyalty and customer retention. The null hypothesis was rejected and the alternative hypothesis was accepted. The result indicates strongest contribution that the relationship between customer loyalty and customer retention was supported.

5.10.11 theImpact of Service Quality toCustomer Loyalty with Mediate Variable:

H11.0: Customer satisfaction does not mediate the relationship between Service quality and customer loyalty.

H11: Customer satisfaction mediates the relationship between Service quality and customer loyalty.

To study this hypothesis, researcher used two ways: firstly by using partial correlation and secondly by using results of hypotheses which composed this hypothesis.

Firstly, by using partial correlation that allowed controlling for an additional variable. This is usually a variable that one suspect might be influencing your two variables of interest. By removing the influence of this confounding variable or contaminating variable then one can get a clearer and more accurate indication regarding the relationship between the two variables (Pallant, 2011). In this hypothesis which contains mediate variable will use partial correlation to determine this influence of customer satisfaction as mediator variable. The table (5-49) describes results of partial correlation between service quality dimensions and customer loyalty with mediate variable.

Table 5-49 Partial correlation between service quality and customer loyalty with mediator

Control Variables	scale	Responsiveness/assurance	Reliability	Empathy	Tangibles	Customer Loyalty	Customer Satisfaction
-none ^a	Responsiveness/assurance	1.000					
	Reliability	.735	1.000				
	Empathy	.679	.582	1.000			
	Tangibles	.335	.364	.142	1.000		
	Customer Loyalty	.243	.445	.299	.206	1.000	
	Significance (2-tailed)	.000	.000	.000	.000		.000
	Customer Satisfaction	.425	.559	.492	.222	.778	1.000
Customer Satisfaction	Responsiveness/assurance	1.000					
	Reliability	.663	1.000				
	Empathy	.596	.425	1.000			
	Tangibles	.273	.297	.038	1.000		
	Customer Loyalty	-.154	.020	-.153	.053	1.000	
	Significance (2-tailed)	.005	.721	.005	.330		
	changes of correlation						
	Responsiveness/assurance	.000					
	Reliability	0.072	.000				
	Empathy	0.083	0.157	0.000			
	Tangibles	0.062	0.067	0.104	0.000		
	Customer Loyalty	0.397	0.425	0.452	0.152	0.000	

a. Cells contain zero-order (Pearson) correlations.

From the table, there was a strong positive relationship between service quality dimension and customer loyalty from 0.206 to 445 with sig ($p < 0.05$). After controlling the mediate variable customer satisfaction the correlation coefficient changed between them from -0.154 to 0.053 with sig ($p > 0.05$) for both reliability and tangibles dimension which changed from supported to unsupported between them. The size of reducing is of the correlation

between service quality dimension and customer loyalty which ranged from 0.152 to 0.542. The result gives clear statically significant for mediate variable role between them. This hypothesis Customer satisfaction significantly mediates the relationship between Service quality and customer loyalty was accepted and mostly supported.

Secondly, by using results of hypotheses which composed with this hypothesis?

This hypothesis consists of three hypotheses as described in figure 5.5:

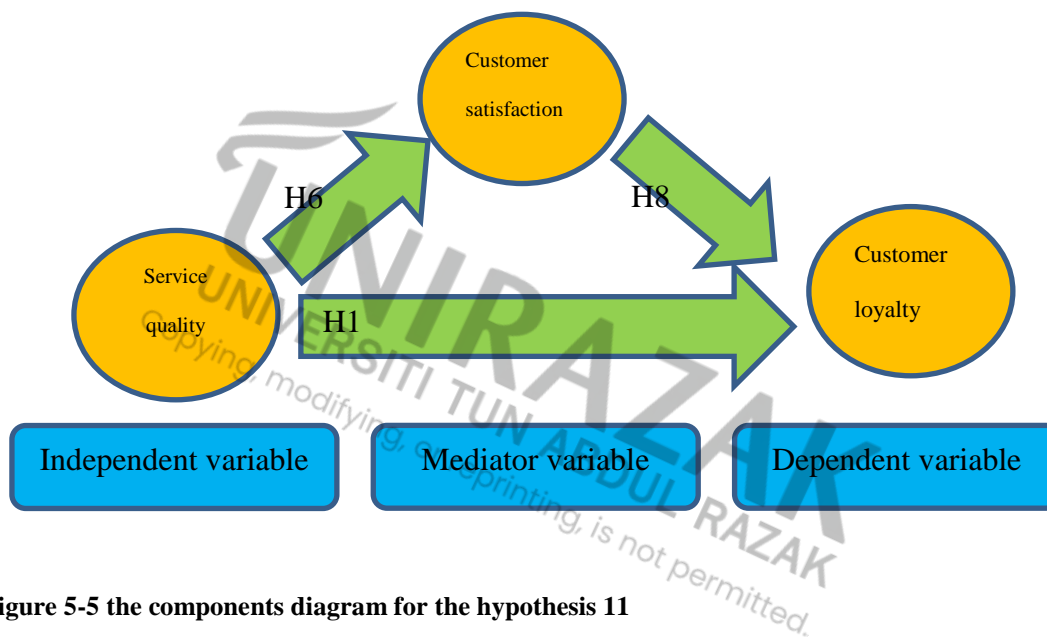


Figure 5-5 the components diagram for the hypothesis 11

From results which have performed for H1, H6 and H8. It can be summarized as follows:

-From multiple regressions for H1 “Service quality has significant influence on customer loyalty”.The result indicates strongest contribution that the relationships between service quality dimension (Responsiveness/assurance, Reliability and empathy) have significant influence on customer loyalty except tangibles dimension. This hypothesis has been mostly supported.

-From multiple regressions for H6 “Service quality has significant influence on customer satisfaction”.The result indicates strongest contribution that the relationships between servicequality

dimension (Responsiveness/assurance, Reliability and empathy) have significant influence on customer satisfaction except tangibles dimension. This hypothesis has been mostly supported.

-From multiple regressions for H8 “Customer satisfaction has significant influence on customer loyalty”. The result indicates strongest contribution that the relationships between customer satisfactions have significant influence on customer loyalty. This hypothesis has been fully supported.

This hypothesis Customer satisfaction significantly mediates the relationship between Service quality and customer loyalty has been accepted and mostly supported.

On the whole comment for both ways: using partial correlation or second way using hypotheses results, this hypothesis has been accepted and supported.

5.10.12 The Impact of Service Quality to Customer Retention with Mediate Variable:

H12.0: Customer satisfaction does not mediate the relationship between Service quality and customer retention.

H12: Customer satisfaction mediates the relationship between Service quality and customer retention.

To study this hypothesis, researcher used two ways: firstly by using partial correlation and secondly by using results of hypotheses which composed this hypothesis.

Firstly, by using partial correlation that allowed controlling for an additional variable. In this hypothesis which contains mediate variable partial correlation was used to determine this influence on customer satisfaction as mediator variable. The table (5-50) describes results of partial correlation between service quality dimensions and customer retention with mediate variable.

Table 5-50 Partial correlation between service quality and customer retention with mediator

Control Variables		Responsiveness/assurance	Reliability	Empathy	Tangibles	Customer Retention	Customer Satisfaction
-none ^a	Responsiveness/assurance	1.000					
	Reliability	.735	1.000				
	Empathy	.679	.582	1.000			
	Tangibles	.335	.364	.142	1.000		
	Customer Retention	.394	.615	.466	.122	1.000	
	Significance (2-tailed)	.000	.000	.000	.025		.000
	Customer Satisfaction	.425	.559	.492	.222	.811	1.000
Customer Satisfaction	Responsiveness/assurance	1.000					
	Reliability	.663	1.000				
	Empathy	.596	.425	1.000			
	Tangibles	.273	.297	.038	1.000		
	Customer Retention	.093	.333	.131	-.103	1.000	
	Significance (2-tailed)	.089	.000	.016	.059		
changes of correlation	Responsiveness/assurance						
	Reliability	.072					
	Empathy	.083	.157				
	Tangibles	.062	.067	.104			
	Customer Retention	.301	.282	.335	.225		

From the table, there was a strong positive relationship between service quality dimension and customer retention from 0.122 to 615 with sig ($p < 0.05$). After controlling the mediate variable customer satisfaction the correlation coefficient changed between them from -0.103 to 0.333 with sig ($p > 0.05$) for both Responsiveness/assurance and tangibles dimension which changed from supported to unsupported between them. The size of reducing is of the correlation between service quality dimension and customer retention

which ranged from 0.225 to 0.335. The result gives clear statically significant for mediate variable role between them. This hypothesis Customer satisfaction significantly mediates the relationship between Service quality and customer retention has been accepted and mostly supported.

Secondly, by using results of hypotheses which composed with this hypothesis?

This hypothesis consists of three hypotheses as described in figure 5.6:

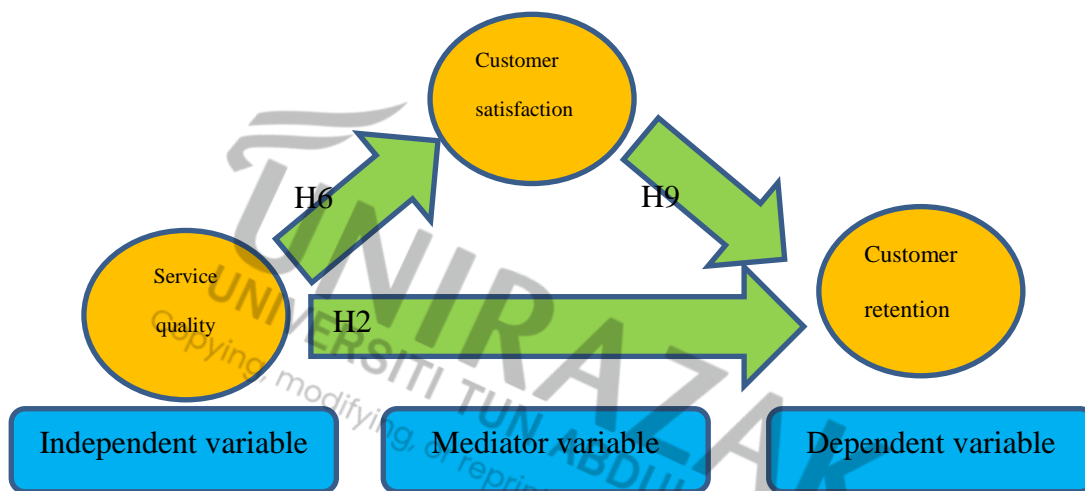


Figure 5-6 Components diagram for the hypothesis 12

From results which have been performed for H2, H6 and H9. It can be summarized as follows:

-From multiple regressions for H1 “Service quality has significant influence on customer retention”.

The result indicates strongest contribution that the relationships between service quality dimension

(Responsiveness/assurance, reliability and empathy) have significant influence on customer retention except tangibles dimension. This hypothesis has been mostly supported.

-From multiple regressions for H6 “Service quality has significant influence on customer satisfaction”. The result indicates strongest contribution that the relationships between service quality dimension (Responsiveness/assurance, reliability and empathy) have significant influence on customer satisfaction except tangibles dimension. This hypothesis has mostly been supported.

-From multiple regressions for H9 “Customer satisfaction has significant influence on customer retention”. The result indicates strongest contribution that the relationships between customer satisfactions have significant influence on customer retention. This hypothesis has been fully supported.

This hypothesis Customer satisfaction significantly mediates the relationship between Service quality and customer retention has been accepted and mostly supported.

On the whole comment for both ways: using partial correlation or second way using hypotheses results, this hypothesis has been accepted and supported.

5.10.13 The Impact of Shariah Compliance to Customer Loyalty with Mediate Variable:

H13.0: Customer satisfaction does not mediate the relationship between Shariah compliance and customer loyalty.

H13: Customer satisfaction mediates the relationship between Shariah compliance and customer loyalty.

To study this hypothesis, researcher used two ways: firstly by using partial correlation and secondly, by using results of hypotheses which composed this hypothesis.

Firstly, by using partial correlation that allowed controlling for an additional variable. In this hypothesis which contains mediate variable partial correlation was used to determine this influence of customer satisfaction as mediator variable. The table (5-51) describes results of partial correlation between Shariah compliance dimensions and customer loyalty with mediate variable.

Table 5-51 Partial correlation between Shariah compliance and customer loyalty with mediator

Control Variables		Shariah compliance institution/product	Islamic bank employees' ethical conduct	Customer Loyalty	Customer Satisfaction
-none ^a	Shariah compliance institution/product	1.000			.700
	Islamic bank employees' ethical conduct	.687	1.000		.593
	Customer Loyalty	.555	.408	1.000	.778
	Significance (2-tailed)	.000	.000		.000
	Customer Satisfaction	.700	.593	.778	1.000
Customer Satisfaction	Shariah compliance institution/product	1.000			
	Islamic bank employees' ethical conduct	.473	1.000		
	Customer Loyalty	.023	.106	1.000	
	Significance (2-tailed)	.675	.051		
	changes of correlation				
	Shariah compliance institution/product				
	Islamic bank employees' ethical conduct	.214			
	Customer Loyalty	.532	.514		

From the table, there was a strong positive relationship between Shariah compliance dimensions and customer loyalty which ranged from 0.408 to 0.555 with sig ($p < 0.05$). After controlling the mediate variable customer satisfaction the correlation coefficient

changed ranged between them from -0.106 to 0.023 with sig ($p > 0.05$) for both Shariah compliance institution/product and Islamic bank employees' ethical conduct dimension which changed from supported to unsupported between them. The size of reducing is of the correlation between Shariah compliance dimensions and customer loyalty which ranged from 0.514 to 0.532. The result gives clear statically significance for mediate variable role between them. This hypothesis Customer satisfaction significantly mediates the relationship between Shariah compliance and customer loyalty has been accepted and mostly supported.

Secondly, by using results of hypotheses which composed with this hypothesis?

This hypothesis consists of three hypotheses as described in figure 5.7:

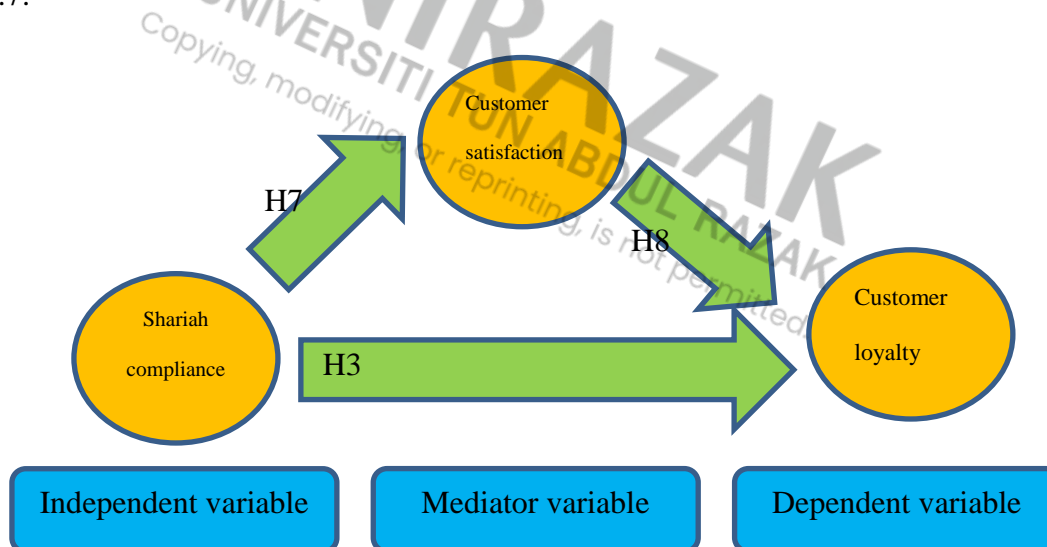


Figure 5-7 Components diagram for the hypothesis 13

From results which have been performed for H3, H7 and H8. It can be summarized as follows:

-From multiple regressions for H3 “Shariah compliance has significant influence on customer loyalty”. The result indicates strongest contribution that the relationships between Shariah compliance dimensions have significant influence on customer loyalty only for Shariah compliance institution/product dimension but Islamic bank employees’ ethical conduct dimension is not supported. This hypothesis has been partially supported.

-From multiple regressions for H7 “Shariah compliance has significant influence on customer satisfaction”. The result indicates strongest contribution that the relationships between Shariah compliance dimensions have significant influence on customer loyalty for both Shariah compliance institution/product dimension and Islamic bank employees’ ethical conduct dimension. This hypothesis has been fully supported.

-From multiple regressions for H8 “Customer satisfaction has significant influence on customer loyalty”. The result indicates strongest contribution that the relationships between customer satisfactions have significant influence on customer loyalty. This hypothesis has been fully supported.

This hypothesis Customer satisfaction significantly mediates the relationship between Shariah compliance and customer loyalty has been accepted and mostly supported.

On the whole comment for both ways: using partial correlation or second way using hypotheses results, this hypothesis has been accepted and supported.

5.10.14 The Impact of Shariah Compliance to Customer Retention with Mediate Variable

H14.0: Customer satisfaction does not mediate the relationship between Shariah compliance and customer retention.

H14: Customer satisfaction mediates the relationship between Shariah compliance and customer retention.

To study this hypothesis, researcher used two ways: firstly by using partial correlation and secondly by using results of hypotheses which composed this hypothesis.

Firstly, by using partial correlation that allowed controlling for an additional variable. In this hypothesis which contains mediate variable will use partial correlation to determine this influence of customer satisfaction as mediator variable. The table (5.52) describes results of partial correlation between Shariah compliance dimensions and customer retention with mediate variable.

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

Table 5-52 Partial correlation for Shariah compliance and customer retention with mediator

Control Variables	Scale	Shariah compliance institution/product	Islamic bank employees' ethical conduct	Customer Retention	Customer Satisfaction
-none ^a	Shariah compliance institution/product	1.000			.700
	Islamic bank employees' ethical conduct	.687	1.000		.593
	Customer Retention	.624	.518	1.000	.811
	Significance (2-tailed)	.000	.000		.000
	Customer Satisfaction	.700	.593	.811	1.000
Customer Satisfaction	Shariah compliance institution/product	1.000			
	Islamic bank employees' ethical conduct	.473	1.000		.079
	Customer Retention	.135	.079	1.000	
	Significance (2-tailed)	.013	.149		
changes of correlation	Shariah compliance institution/product				
	Islamic bank employees' ethical conduct	.214			
	Customer Retention	.489	.440		

From the table, there was a strong positive relationship between Shariah compliance dimensions and customer retention which ranged from 0.518 to 0.624 with sig ($p < 0.05$). After controlling the mediate variable customer satisfaction the correlation coefficient changed and ranged between them from 0.079 to 0.135 with sig ($p > 0.05$) for Islamic bank employees' ethical conduct dimension which changed from supported to unsupported between them. However, sig. ($p < 0.05$) for Shariah compliance institution/product dimension was ($p < 0.05$). The size of reducing is of the correlation between Shariah compliance dimensions and customer retention which ranged from 0.440 to 0.489. The

result gives clear statically significance for mediate variable role between them. This hypothesis Customer satisfaction significantly mediates the relationship between Shariah compliance and customer retention has been accepted and mostly supported.

Secondly, by using results of hypotheses which composed with this hypothesis?

This hypothesis consists of three hypotheses as described in figure 5.8:

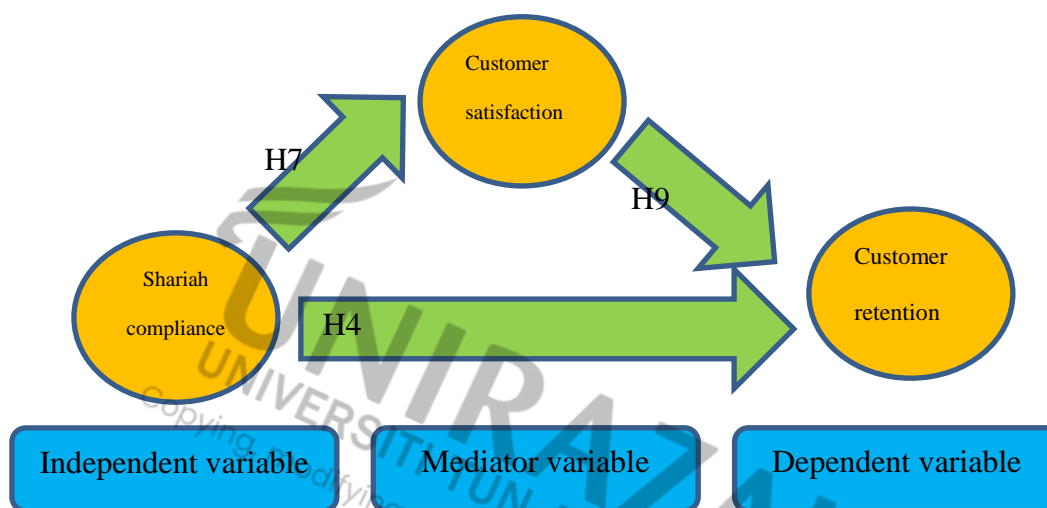


Figure 5-8 Components diagram for the hypothesis 14

From results which have performed for H4, H7 and H9. It can be summarized as follows:

-From multiple regressions for H4 “Shariah compliance has significant influence on customer retention”. The result indicates strongest contribution that the relationships between Shariah compliance dimensions have significant influence on customer retention. Both Shariah compliance institution/product dimension and Islamic bank employees’ ethical conduct dimension are supported. This hypothesis has been fully supported.

-From multiple regressions for H7 “Shariah compliance has significant influence on customer satisfaction”. The result indicates strongest contribution that the relationships between

Shariah compliance dimensions have significant influence on customer retention for both Shariah compliance institution/product dimension and Islamic bank employees' ethical conduct dimension. This hypothesis has been fully supported.

-From multiple regressions for H9 "Customer satisfaction has significant influence on customer retention". The result indicates strongest contribution that the relationships between customer satisfactions have significant influence on customer retention. This hypothesis has been fully supported.

This hypothesis Customer satisfaction significantly mediates the relationship between Shariah compliance and customer retention has been accepted and fully supported.

On the whole comment for both ways: using partial correlation or second way using hypotheses results, this hypothesis has been accepted and supported.

5.10.15 Compare between CARTER Model and SCSQ Model

H15.0: SCSQ model's explanatory power does not have different from CARTER model on aspects of Shariah compliance.

H15: SCSQ model's explanatory power has different from CARTER model on aspects of Shariah compliance.

As shown in Table 5.48 both CARTER and SCSQ models have been compared. CARTER model contains service quality dimensions (18 questions) and compliance questions (5 questions) which were prepared and established from original article for CARTER Model. However, SCSQ model contains service quality dimensions (same 18 questions for CARTER model) and Shariah compliance dimensions (13 questions). At the bivariate level,

there was a statistically significant and positive relationship between both model and variables.

The results showed that the largest correlation exists between the CARTER Model and SCSQ model which is 94.7 %; we can say that at 1% level of significance, the correlation between CARTER Model and SCSQ model is significant and the strongest correlation exists among these variables. It is multicollinearity phenomena. It should study their items and roles as one model. Both of them can play the same role to evaluate service quality for Islamic banks.

Comparing with SCSQ model, the results showed in table 5.53 that model the highest correlation which exists among CARTER model with service quality dimensions (, Responsiveness/assurance, reliability, empathy and tangibles) .912, .843, 0.806 and 0.379 respectively. Comparing with CARTER model, the results showed that in model the highest correlation exists among SCSQ model with Shariah compliance dimensions (Shariah compliance institution/product and Islamic bank employees' ethical conduct) 0.816 and 0.764 respectively. At the same time, the results showed that in the model the highest correlation exists among SCSQ model with customer satisfaction, customer loyalty and customer retention 0.708, 0.509 and 0.656 respectively.

Table 5-53 Correlation between both CARTER Model and SCSQ model with variables

Scale	CARTER Model	SCSQ model
Responsiveness/assurance	.912**	.807**
Reliability	.843**	.790**
Empathy	.806**	.795**
Tangibles	.379**	.321**
Shariah compliance institution/product	.630**	.816**
Islamic bank employees' ethical conduct	.602**	.764**
Customer satisfaction	.601**	.708**
Customer loyalty	.459**	.509**
Customer retention	.587**	.656**
CARTER Model	1	.947**
SCSQ model		1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Regression for both CARTER model and SCSQ model

The hypothesis was tested by using multiple regression analysis for evaluation. CARTER model consists of four service quality dimensions which included tangibles, reliability, Responsiveness/assurance and empathy, Carter questions and mediator. SCSQ model consists of four service quality dimensions which included tangibles, reliability, Responsiveness/assurance and empathy; Shariah compliance dimensions that included Shariah compliance institution/product dimension and Islamic bank employees' ethical conduct dimension and mediator. As shown in table 5.54 values of B and Beta are more positive for SCSQ model as compared with CARTER model. At the same time, values of B

Table 5-55 Comparison of multiple regressions for R values between two models or one model

Scale		As two model					As one model					
		R	R Square	Adjusted R Square	F	F Sig.	Scale	R	R Square	Adjusted R Square	F	F Sig.
CARTER Model	Customer loyatly	.830 ^a	.688	.683	122.163	.000 ^b	Customer Loyalty	.851 ^a	.724	.717	108.036	.000 ^b
	Customer retention	.854 ^a	.729	.724	148.639	.000 ^b						
C+ARTER model	Customer loyatly	.796 ^a	.633	.626	81.702	.000 ^b						
	Customer retention	.849 ^a	.721	.715	122.413	.000 ^b	Customer Retention	.855 ^a	.730	.724	111.771	.000 ^b

5.11 The Research Model

The research model for this study is SCSQ model. The researcher chooses this model depending on statistics analysis which was explained in last chapter (5).

Fit model, it is clear that the model has F sig <0.01 for both customer loyalty and customer retention. This means the model is a good fit. As shown in table 5.56.

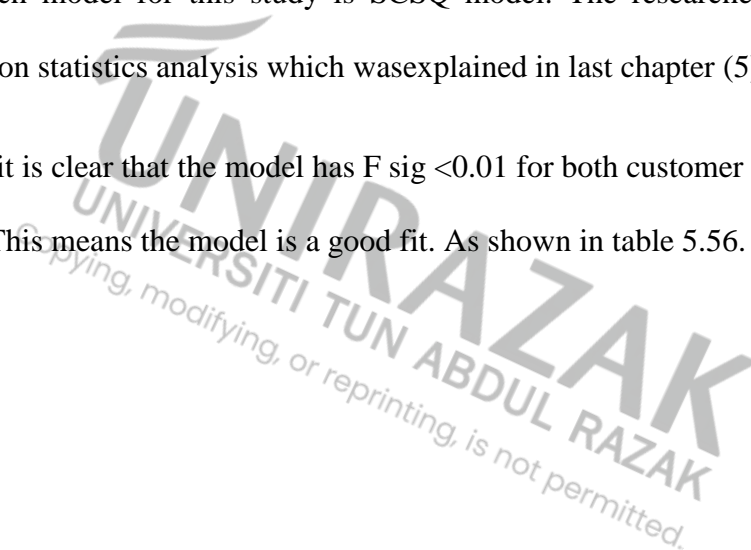


Table 5-56 Main regression results forSCSQ model

Scale	Customer Loyalty			Customer Retention		
	B	Beta	Sig.	B	Beta	Sig.
Constant	1.219		.000	.465		.008
Responsiveness/assurance	-.161	-.151	.010	-.177	-.145	.004
Reliability	.147	.151	.006	.405	.364	.000
Empathy	-.088	-.084	.100	.021	.017	.699
Tangibles	.044	.045	.216	-.127	-.115	.000
Shariah compliance institution/product	.100	.098	.076	.071	.061	.204
Islamic bank employees' ethical conduct	-.072	-.076	.125	.009	.008	.851
Customer Satisfaction	.776	.765	.000	.740	.639	.000
R	.796 ^a			.849 ^a		
R Square	.633			.721		
Adjusted R Square	.626			.715		
F	81.70			122.41		
F Sig.	.000 ^b			.000 ^b		

From table 5.56, it can produce regression equations describe this model as follow:

Regression equation for customer loyalty:

$$Y = a + B1X1 + B2X2 + \dots + Bn Xn$$

$$\text{Customer loyalty (Y)} = 1.219 - 0.161(X1) + 0.147 (X2) - 0.088 (X3) + 0.044 (X4) + 0.100(X5) - 0.072(X6) + 0.776(X7)$$

X1(Responsiveness/assurance), X2 (reliability), X3 (empathy), X4 (tangibles), X5 (Shariah compliance institution/product), X6(Islamic bank employees' ethical conduct) and X7 (customer satisfaction)

Regression equation for customer retention:

$$Y = a + B_1X_1 + B_2X_2 + \dots + B_n X_n$$

$$\text{Customer retention (Y)} = 0.465 - 0.177(X_1) + 0.405(X_2) + 0.021 (X_3) - 0.127 (X_4) + 0.071(X_5) + 0.009(X_6) + 0.740(X_7)$$

X1(Responsiveness/assurance), X2 (reliability), X3 (empathy), X4 (tangibles), X5 (Shariah compliance institution/product), X6(Islamic bank employees' ethical conduct) and X7 (customer satisfaction)

Chapter Summary

The chapter started with responses to survey, screening and preparing data for analysis, factor analysis, reliability and validity, descriptive statistics and finally hypothesis testing. The next chapter moved on to discussion and implications followed by conclusion and recommendations.

CHAPTER 6

DISCUSSION AND IMPLICATIONS

As it is evident from the research on Islamic banking customer service issue in Malaysia, and also revealed by various previous studies that have reviewed the characteristics of quality service and customer satisfaction and their relationship with Islamic banking in Malaysia. In this research, customer loyalty and retention to predicate customer behavior is extended to the model. As well, an effort to improve to a new model SCSQ model from CARTER model within Malaysian Shariah governance framework is expounded. More importantly, this has also been shown using quantitative analysis. This chapter summarizes the results related to examining and testing the related constructs. With regards to chapter (5) statistical outcomes this chapter additionally reviewed the recent findings that improved the research on quality service and customer satisfaction together with loyalty and retention. The discussion that follows answers the fifteen research questions and related discussion the related hypothesis test results is discussed in four main parts for this research.

6.1 Service Quality Variable

Research Questions and Hypotheses that addressed service quality are as follows:

Does service quality influence customer loyalty? (Q1), Customer retention (Q2), Customer satisfaction (Q6)? Hypothesis tests were conducted whether service quality has influence on customer loyalty (H1) or customer retention (H2) or customer satisfaction (H6).

Firstly H1, service quality dimensions (tangibles, reliability, Responsiveness/assurance and empathy) influence on customer loyalty in Malaysian Islamic Banks. This present research supports the significant positive effect of service quality dimensions on customer loyalty except tangibles dimension which don't support this hypothesis. Reliability dimension also supports this hypothesis more than empathy as well as Responsiveness/assurance. This result implies that service quality dimensions increases customer loyalty, because when respondents receive good feeling toward the services of Islamic bank they become more loyal. Thus, with this result research question 1 was answered.

Secondly H2, service quality dimensions (tangibles, reliability, Responsiveness/assurance and empathy) influence on customer retention in Malaysian Islamic Banks. This present research supports the significant positive effect of service quality dimensions on customer retention except tangibles dimension which don't support this hypothesis. Reliability dimension supports this hypothesis more than empathy then Responsiveness/assurance. This result implies that service quality dimensions increase customer retention, because when respondents receive good feeling toward the services, Islamic bank can retain the customer. Thus, with this result research question 2 was answered.

Thirdly H6, service quality dimensions (tangibles, reliability, Responsiveness/assurance and empathy) influence on customer satisfaction in Malaysian Islamic Banks. This present research supports the significant positive effect of service quality dimensions on customer

satisfaction except tangibles dimension which don't support this hypothesis. Reliability dimension supports this hypothesis more than empathy then Responsiveness/assurance. This result implies that service quality dimensions increases customer satisfaction, because when respondents receive good feeling towards the services of Islamic bank they become more satisfied. Thus, with the help of this result research question 2 was answered.

Common notes that all dimensions (reliability, Responsiveness/assurance and empathy) of service quality support the H1, H2 and H6 except tangibles dimension (Physical aspects, the bank's state of the art technology and visually appealing premises) which does not support any of these hypotheses. The Islamic bank should care for these physical aspects which have not met the customer expectations.

- In current stage for Islamic banks, tangibles dimension (physical aspects) which concern with technology and visual appealing premises are not serving to customer loyalty (customer recommend to others). Decision makers should care for these physical aspects to seek customer loyalty.

- In current stage for Islamic banks Physical aspects which are concerned with technology and visual appealing premises are not serving to customer retention (customer likes to continuous using the service). Decision makers should care for these physical aspects to seek customer retention

- In current stage for Islamic banks Physical aspects which concern with technology and visual appealing premises are not serving to customer satisfaction (the comparison between

reward and cost for using the service). Decision makers should care for these physical aspects to gain customer satisfaction.

- Except tangibles dimension, all service quality dimensions, reliability (accurate and dependable), Responsiveness/assurance (willingness to assist and capability to convey trust) and empathy (care to customer) correlate and influence independent variable customer (loyalty and retention) and mediator (customer satisfaction).

Table 6-1 Summary of service quality dimensions influence and correlation

Hypothesis	Type of correlation	Significant of correlation (*)	Rank	Hypothesis results
H1: Service quality has influence on customer loyalty.				
H1.a Tangibles service has influence on customer loyalty.	positive	Small		Rejected
H1.b Reliability service has influence on customer loyalty.	positive	medium	1	Accepted
H1.c Responsiveness/assurance service has influence on customer loyalty.	positive	Small	3	Accepted
H1.d Empathy service has influence on customer loyalty.	positive	medium	2	Accepted
H2: Service quality has influence on customer retention.				
H2.a Tangibles service has influence on customer retention.	positive	small		Rejected
H2.b Reliability service has influence on customer retention.	positive	Large	1	Accepted
H2.c Responsiveness/assurance service has influence on customer retention.	positive	Medium	3	Accepted
H2.d Empathy service has influence on customer retention.	positive	Medium	2	Accepted
H6: Service quality has influence on customer satisfaction.				
H6.a Tangibles service has influence on customer satisfaction.	positive	Small		Rejected
H6.b Reliability service has influence on customer satisfaction.	positive	Large	1	Accepted
H6.c Responsiveness/assurance has influence on customer satisfaction.	positive	Medium	3	Accepted
H6.d empathy has influence on customer satisfaction.	positive	Medium	2	Accepted

*Small correlation $r=0.10$ to 0.29 , medium $r=0.3$ to 0.49 and large $r=0.5$ to 1.0 .

6.2 Shariah Compliance Variable

Research Questions and Hypotheses that addressed Shariah compliance are as follows:

Does Shariah compliance influence customer loyalty? (Q3), Customer retention (Q4), Customer satisfaction (Q7)? Hypothesis tests were conducted regarding Shariah compliance and were found to have influence on customer loyalty (H3) or customer retention (H4) or customer satisfaction (H7).

Firstly H3, Shariah compliance dimensions (Shariah compliance institution/product dimensions and Islamic bank employees' ethical conduct dimension) influenced on customer loyalty in Malaysian Islamic Banks. This research supports the significant positive effect of Shariah compliance institution/product dimension on customer loyalty except Islamic bank employees' ethical conduct dimension which doesn't support this hypothesis. This result implies that Shariah compliance dimensions increases customer loyalty, because when respondents trust Islamic bank compliant with Shariah law they become more loyal. Thus, with this result research question 3 was answered.

Secondly H4, Shariah compliance dimensions (Shariah compliance institution/product dimensions and Islamic bank employees' ethical conduct dimension) influence on customer retention in Malaysian Islamic Banks. This research supports the significant positive effect of Shariah compliance dimensions on customer retention. This result implies that Shariah compliance dimensions increase customer loyalty. Islamic bank can retain customer when customer trust compliant Islamic bank with Shariah law and employee conduct are

observant of Islamic ethical values. Thus, with this result research question 4 was answered.

Thirdly H7, Shariah compliance dimensions (Shariah compliance institution/product dimensions and Islamic bank employees' ethical conduct dimension) influence on customer satisfaction in Malaysian Islamic Banks. This research supports the significant positive effect of Shariah compliance dimensions on customer satisfaction. This result implies that Shariah compliance dimensions increase customer loyalty. Islamic bank can satisfy its customer when customer trust compliant Islamic bank with Shariah law and employee conduct are observant of Islamic ethical values. Thus, with this result research question 7 was answered.

Common notes that all Shariah compliance dimensions (Shariah compliance institution/product dimensions and Islamic bank employees' ethical conduct dimension) support the H3, H4 and H7 which supports these hypotheses. Islamic bank can retain and satisfy customer. At the same time, it obtains customer loyalty when customer trust compliant Islamic bank with Shariah law and employee conduct are observant of Islamic ethical values.

Table 6-2 Summary of Shariah compliance dimensions influence and correlation

Hypothesis	Type of correlation	Significant of correlation (*)	Rank	Hypothesis results
H3: Shariah compliance has influence on customer loyalty.				
H3.a Shariah compliance institution/product dimension has influence on customer loyalty.	positive	Large		Accepted
H3.b Islamic bank employees' ethical conduct dimension has influence on customer loyalty.	positive	Medium		Rejected
H4: Shariah compliance has influence on customer retention.				
H4.a Shariah compliance institution/product dimension has influence on customer retention.	positive	Large	1	Accepted
H4.b Islamic bank employees' ethical conduct dimension has influence on customer retention.	positive	Large	2	Accepted
H7: Shariah compliance has influence on customer satisfaction.				
H7.a Shariah compliance institution/product dimension has influence on customer satisfaction.	positive	Large	1	Accepted
H7.b Islamic bank employees' ethical conduct dimension has influence on customer satisfaction.	positive	large	2	Accepted

*Small correlation $r=0.10$ to 0.29 , medium $r=0.3$ to 0.49 and large $r=0.5$ to 1.0 .

6.3 Customer Satisfaction Variable (mediator)

Research Questions and Hypotheses that addressed customer satisfaction are as follows:

Does customer satisfaction influence customer loyalty? (Q8), Customer retention (Q9), Customer satisfaction mediates between service quality and customer loyalty (Q11) and customer retention (Q12). Customer satisfaction mediates between Shariah compliance and customer loyalty (Q13) and customer retention (Q14).

For customer loyalty, Firstly H8, customer satisfaction (mediator) influence on customer loyalty in Malaysian Islamic Banks was examined. Present research supports the significant

positive effect of customer satisfaction on customer loyalty. Secondly H11, customer satisfaction mediates between Service quality and customer loyalty. This research supports the significant positive mediation of customer satisfaction on customer loyalty. Thirdly H13, customer satisfaction mediates between Shariah compliance and customer loyalty. This research supports the significant positive mediation of customer satisfaction on customer loyalty.

A common finding notes that customer satisfaction influence customer loyalty. At the same time, customer satisfaction mediates between service quality or Shariah compliance and customer loyalty. Customer satisfaction as mediate plays a big role in customer loyalty. Islamic bank needs to satisfy the customer for gaining customer loyalty.

For customer retention, Firstly H9, customer satisfaction (mediator) influence on customer loyalty in Malaysian Islamic Banks was observed. This research supports the significant positive effect of customer satisfaction on customer retention. Secondly H12, customer satisfaction mediates between Service quality and customer retention. This research supports the significant positive mediate of customer satisfaction on customer retention. Thirdly H14, customer satisfaction mediates between Shariah compliance and customer retention. This present research supports the significant positive mediate of customer satisfaction on customer retention.

Common notes that customer satisfaction influences customer retention. At the same time, customer satisfaction mediates between service quality or Shariah compliance and customer

retention. Customer satisfaction as mediator plays a big role in customer retention. Islamic bank should have a target to satisfy the customer which will gain customer retention.

In general, Islamic bank should have a target of satisfying the customer that will gain customer loyalty and customer retention.

Customer satisfaction variable (the comparison between reward and cost for using the service) has 4 items and has been studied without dimensions but as unifactorial variable.

In this study, it plays as mediator. Customer satisfaction has correlation and influences independent variables customer loyalty and customer retention. Customer satisfaction mediates the relationship between service quality from one side and customer loyalty and customer retention from other side. Customer satisfaction mediates the relationship between Shariah compliance from one side and customer loyalty and customer retention from other side.

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

Table 6-3 Summary of customer satisfaction influence and correlation

Hypothesis	Type of correlation	Significant of correlation (*)	Rank	Hypothesis results
H8: Customer satisfaction has influence on customer loyalty.	positive	Large		Accepted
H9: Customer satisfaction has influence on customer retention.	positive	Large		Accepted
H11: Customer satisfaction mediates between Service quality and customer loyalty.	positive			Accepted
H11.a: Customer satisfaction mediates between tangibility and customer loyalty	positive	Small		Accepted
H11.b: Customer satisfaction mediates between reliability and customer loyalty	positive	Medium	1	Accepted
H11.c: Customer satisfaction mediates between Responsiveness/assurance and customer loyalty	positive	Small	3	Accepted
H11.d: Customer satisfaction mediates between empathy and customer loyalty	positive	Medium	2	Accepted
H12: Customer satisfaction mediates between Service quality and customer retention.	positive			Accepted
H12.a: Customer satisfaction mediates between tangibility and customer retention	positive	Small		Accepted
H12.b: Customer satisfaction mediates between reliability and customer retention	positive	Large	1	Accepted
H12.c: Customer satisfaction mediates between Responsiveness/assurance and customer retention	positive	Medium	3	Accepted
H12.d: Customer satisfaction mediates between empathy and customer retention	positive	Medium	2	Accepted
H13: Customer satisfaction mediates between Shariah compliance and customer loyalty.				Accepted
H13.a: Customer satisfaction mediates between Shariah compliance institution/product dimension and customer loyalty	positive	Large	1	Accepted
H13.b: Customer satisfaction mediates between Islamic bank employees' ethical conduct dimension and customer loyalty	positive	Medium	2	Accepted

H14: Customer satisfaction mediates between Shariah compliance and customer retention.					Accepted
H14.a: Customer satisfaction mediates between Shariah compliance institution/product dimension and customer retention.	positive	Large	1		Accepted
H14.b: Customer satisfaction mediates between Islamic bank employees' ethical conduct dimension and customer retention.	positive	Large	2		Accepted

6.4 Relationships between the Same Types of Variables

Research Question and Hypothesis that addressed as follows:

Q5: Does service quality have relationship with Shariah compliance?

Which became a hypothesis?

H5: Service quality has a relationship with Shariah compliance

The results show that the relationship between service quality and Shariah compliance was found to be statically positively and significantly correlated except tangibles dimension which have weak positive correlation. Any increase in service quality causes increase in Shariah compliance and the reverse is true too. In general, service quality and Shariah compliance were correlated (0.530) which was classified as largely correlated.

Research Question and Hypothesis that addressed as follows:

Q10: Does customer loyalty have relationship with customer retention?

Which became a hypothesis?

H10: Customer loyalty has relationship with customer retention.

The results reveal that the relationship between customer loyalty and customer retention was found to be statically positively and significantly correlated. Any increase in customer loyalty cause increase in customer retention and the reverse is true too. In general, customer loyalty and customer retention were correlated (0.768) which was classified as largely correlated.

For the relationship between both independent variables service quality and Shariah compliance are correlate relation to each other. At the same time, both dependent variables customer loyalty and customer retention are also correlated to each other

6.5 Comparison between CARTER Model and SCSQ Model

Q15: Does SCSQ model's explanatory power has different from CARTER model on aspects of Shariah compliance?

Using correlation and multiple regressions results this hypothesis has been accepted. SCSQ model's explanatory power is significantly different from CARTER model on the aspects of Shariah compliance.

6.6 Implications

Given here are very important implications and contributions of the research findings include managerial and theoretical implications.

This work offers significant impacts on some main features: practical contribution, and strong methodology and theoretical contribution. In term of practical contribution, the findings of this research can be used as a guideline by decision makers to produce the planning and division of service quality program in Islamic banks. Especially, the

management and planning of service quality can be designed when the managers of the Islamic banks highlight on the propositions as follow:

First, the bank employee providing services need to be given appropriate training programs to develop their knowledge of Shariah compliance. The training programs therefore may help the bank employees to improve their understanding for the concept and significance of Shariah compliance practicing of renewed knowledge and ethical values. Consequently, it could help to make some enhancements to the job quality.

Second, the respondents are satisfied with services at medium level but their loyalty is at a high level because all respondents are Muslims. Researcher thinks that they support Islamic banks under act of religious factor. Religious factor can play an important role in influencing the decision-making behavior of Muslim customers and their organized relationships with Islamic banks since customers believe that Islamic banks are Shariah compliant (Amin, Muslim; Isa, Zaidi; Fontaine, Rodrigue, 2013).

Third, decision makers should care for this tangibles dimension (physical aspects). Appropriate physical aspects should be done. To make the customers feel that they are inside Islamic institution like modest employee dress codes, employees' conducts are observant of Islamic ethical values.

Fourth, comparing with service quality dimensions, the Islamic institutions have been successful for their services and the first rank for reliability (accurate and dependable) then

empathy (care to customer) and finally Responsiveness/assurance (willingness to assist and capability to convey the trust).

Fifth, Comparing with Shariah compliance dimensions, the Islamic institutes have been successful for their services and the first rank is for Shariah compliance institution/product (comply with Shariah law) and then Islamic bank employees' ethical conduct.

Sixth, decision makers or managers should focus on customer satisfaction. It plays a big role as mediating variable. Customer satisfaction is the way to customer loyalty and customer retention. Managers should implement the customer satisfaction program as target to improve their organization. Islamic banks work in competitive environment. Customer satisfaction is their way to keep or improve their position in this competitive world.

Seventh, Shariah compliance is very important concept. It is the core of Islamic banks to legitimacy and improves with service quality. People need to touch this aspect in Islamic organization, product and ethics of employees.

Eighth, CARTER model have been tested and good results have been obtained to evaluate service quality in Islamic banks. At the same time SCSQ model has been tested to evaluate service quality in Islamic banks too and good results were obtained but SCSQ model presents added factor with dual dimension as information that can help in knowing the pertinent points related with Shariah compliance institution/product dimension or Islamic bank employees' ethical conduct dimension.

With respect to theoretical contribution, this study provides several important findings: firstly, service quality has influence over customer loyalty. This finding is consistent with studies conducted by Zeithaml, Berry, & Parasuraman, 1996; (Ennew & Binks, 1996);

Wong and Sohal 2003 and customer retention Ennew and Binks, 1996; Kangis and Zhang 2000; Zeithaml, Berry, & Parasuraman, 1996. Secondly, service quality has influence over customer satisfaction. This finding is consistent with studies conducted by Boulding, Kalra, Staelin, & Zeithaml, 1993; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Anderson & Sullivan, 1993; Mittal, Ross, & Baldasare, 1998. Thirdly, customer satisfaction has influence on customer loyalty. This finding is consistent with studies conducted by Soderlund, 1998; Richens, 1983; File & Prince, 1992; Kohli & Jaworski, 1990; Buttle & Burton, 2002; Anderson & Sullivan, 1993; Boulding, Kalra, Staelin, & Zeithaml, 1993; Bitner, 1990; Oliver, Richard L; Linda, Gerald, 1981; Danaher & Rust, 1996. Fourthly, customer satisfaction has influence over customer retention. This finding is consistent with studies conducted by East, R., 1997; Parasurman, Berry, & Zeithmal, 1988; Reichheld & Sasser, 1990; Mittal & Kamakura, 2001; Parasurman, Berry, & Zeithmal, 1988; Reichheld & Sasser, 1990; Mittal & Kamakura, 2001; Cronin, Brady, & Hult, 2000; Boulding, Kalra, Staelin, & Zeithaml, 1993; Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Buzzell & Gale, 1987; Lee and Hwan 2005 Anderson & Sulliyvan, 1993; Oliver R. , 1980. Fifthly, Customer loyalty has relationship with customer retention. This finding is consistent with studies conducted by Bansal & Taylor, 1999; Ranaweera & Prabhu, 2003. Sixthly, Customer satisfaction mediates between Service quality and customer loyalty. This finding is consistent with studies conducted by Caruana (2002). Seventhly, Customer satisfaction mediates between Service quality and customer retention. This finding is consistent with studies conducted by Cronin, Brady, and Hult, 2000; Wong and Sohal, 2003; Levesque & McDougall, 1996; File & Prince, 1992. Eighthly, to measure service quality in Islamic

banking, CARTER model has been tested in Malaysia. It was found that CARTER is appropriate to measure service quality in Islamic Banking. This finding is consistent with studies conducted by Shafie, Azmi, & Haron, 2004.

With respect to theoretical contribution, this study provides a new several important findings:

Firstly, to enhance measurement of service quality in Islamic banking, SCSQ model has been tested in Malaysia. It was found that SCSQ model is appropriate to measure service quality in Islamic Banking with some advantages that can determine the weak points between Shariah compliance dimensions.

Secondly, Shariah compliance is a variable when considered with service quality variable in the SCSQ model. Shariah compliance has influence over customer loyalty and customer retention.

Thirdly, Islamic banks can use this model SCSQ model with relating customer satisfaction toward loyalty and retention within a single model to evaluate their service quality.

Regarding the robustness of research methodology, the data gathered using service quality literature, adequate sample size of respondents in Islamic banks, pilot study and survey questionnaires have exceeded a minimum standard of validity and reliability analyses, this can lead to the production of accurate and reliable findings. Islamic banks can used this

model SCSQ model for investigating customer satisfaction towards loyalty and retention as one model to evaluate their service quality.



CHAPTER 7

CONCLUSION AND RECOMMENDATION

This study examined the relationship between service quality dimensions and Shariah compliance as independent variables, customer satisfaction as mediator and customer loyalty and customer satisfaction as dependent variables. The research examined service quality dimensions such as tangibles, reliability, Responsiveness/assurance and empathy in Malaysian Islamic banks. Quantitative research was conducted with a sample of 339 respondents. The aim of the study was to examine if a customer's satisfaction changes the relationship between as mediator. The main objectives in this research were as follows:

1. To examine effects of service quality and Shariah compliance on customer satisfaction in terms of dependent variables customer loyalty and customer retention in Islamic Banking.
2. To determine whether relationship is significant or otherwise between Service quality, Shariah compliance and customer loyalty with customer retention.
3. To examine the mediating effects of customer satisfaction on the relationship of service quality dimensions and Shariah compliance as independent variables and customer loyalty and customer retention as dependent variables.
4. To compare between CARTER model and improved SCSQ model to evaluate service quality for Islamic banks.

7.1 Scope and Findings

For achieving the **objective 1** several hypotheses were conducted. Hypothesis 1 accepted all the alternative sub-hypotheses except for the effect of tangibles on customer loyalty (H1.a). Multiple regressions showed that tangibles service quality dimension do not influence customer loyalty, whereas each of other service quality dimensions such as reliability, Responsiveness/assurance and empathy (H1.b, H1.c and H1.d) were found to have influence on customer loyalty. The most important dimension predicting customer loyalty was dimension of reliability then empathy and finally Responsiveness/assurance. Hypothesis 2 accepted all the alternative sub-hypotheses except for the effect of tangibles on customer retention (H2.a). Multiple regressions showed that tangibles service quality dimension does not influence the customer retention, whereas each of other service quality dimensions such as reliability, Responsiveness/assurance and empathy (H2.b, H2.c and H2.d) were found to have influence on customer retention. The most important dimension predicting customer retention was dimension of reliability then empathy and finally Responsiveness/assurance. Hypothesis 3 accepted Shariah compliance institution/product sub-hypotheses (H3.a) but not accepted the effect of Islamic bank employees' ethical conduct dimension on customer loyalty (H3.b). Multiple regressions showed that Islamic bank employees' ethical conduct dimension does not influence on customer loyalty, whereas other Shariah compliance institution/product dimension were found to have influence on customer loyalty. The most important dimension predicting customer loyalty was Shariah compliance institution/product dimension. Hypothesis 4 accepted Shariah compliance institution/product sub-hypotheses (H4.a) and accepted the effect of Islamic bank employees' ethical conduct dimension on customer retention (H4.b). Multiple

regressions showed that both Shariah compliance institution/product dimension and Islamic bank employees' ethical conduct dimension influence customer retention, the most important dimension predicting customer retention was Shariah compliance institution/product dimension then Islamic bank employees' ethical conduct dimension.

For achieving the **objective 1** several hypotheses were conducted. Hypothesis 6 accepted all the alternative sub-hypotheses except for the effect of tangibles on customer satisfaction (H6.a). Multiple regressions showed that tangibles service quality dimension does not influence customer satisfaction, whereas each of other service quality dimensions such as reliability, Responsiveness/assurance and empathy (H6.b, H6.c and H6.d) were found to have influence on customer satisfaction. The most important dimension predicting customer loyalty in was dimension of reliability then empathy and finally Responsiveness/assurance. Hypothesis 7 both dimensions for Shariah compliance accepted customer satisfaction Shariah compliance institution/product sub-hypotheses (H7.a) and Islamic bank employees' ethical conduct dimension (H7.b). Multiple regressions showed that both Shariah compliance institution/product dimension and Islamic bank employees' ethical conduct dimension influence customer satisfaction, the most important dimension predicting customer satisfaction was Shariah compliance institution/product dimension then Islamic bank employees' ethical conduct dimension. Hypothesis 8 considered a relationship between customer satisfaction and customer loyalty. The result indicates strong influence that the relationship between customer satisfaction and customer loyalty and hypothesis supported. Hypothesis 9 considered a relationship between customer satisfaction and customer retention. The result indicates strong influence that the

relationship between customer satisfaction and customer retention and hypothesis supported.

In order to achieving the **objective 2** several hypotheses were conducted. Hypothesis 5 that all service quality dimensions were correlated with Shariah compliance dimensions. Shariah compliance dimensions (Shariah compliance institution/product and Islamic bank employees' ethical conduct). Shariah compliance institution/product dimension is largely correlated with empathy, reliability and Responsiveness/assurance then small correlation with tangibles dimension. Islamic bank employees' ethical conduct dimension has large correlation with empathy and Responsiveness/assurance, reliability then small correlation with tangibles dimension. At the same time, all dimensions are positively correlated. Increase in service quality dimensions will lead to increase Shariah compliance dimensions. For Islamic banks, service quality is highly related with Shariah compliance. Increase in service quality correlates with Shariah compliance.

For fulfilling the **objective 2** several hypotheses were conducted. Hypothesis 10 customer loyalty was correlated with customer retention. Both have large correlation with each other. At the same time, all have positive correlation. Increased customer loyalty will lead to increase in customer retention. Increased recommendation to others rate will lead increase continuous use of the service rate.

For fulfilling the **objective 3** several hypotheses were conducted. Hypothesis 11 supposes that Customer satisfaction mediates between service quality dimensions (tangibles, reliability, Responsiveness/assurance and empathy) and customer loyalty. All the

alternative sub-hypotheses have been accepted (H11.a, H11.b, H11.c and H11.d). Multiple regressions and partial correlation showed that customer satisfaction mediate the relationship between service quality dimensions and customer loyalty. Hypothesis 12 supposes that Customer satisfaction mediates between service quality dimensions (tangibles, reliability, Responsiveness/assurance and empathy) and customer retention. All the alternative sub-hypotheses have been accepted (H12.a, H12.b, H12.c and H12.d).

Multiple regressions and partial correlation showed that customer satisfaction mediate the relationship between service quality dimensions and customer retention. Hypothesis 13 supposes that Customer satisfaction mediates between Shariah compliance dimensions (Shariah compliance institution/product and Islamic bank employees' ethical conduct) and customer loyalty. All the alternative sub-hypotheses have been accepted (H13.a and H13.b). Multiple regressions and partial correlation showed that customer satisfaction mediate the relationship between Shariah compliance dimensions and customer loyalty. Hypothesis 14 supposes that Customer satisfaction mediates between Shariah compliance dimensions (Shariah compliance institution/product and Islamic bank employees' ethical conduct) and customer retention. All the alternative sub-hypotheses have been accepted (H14.a and H14.b). Multiple regressions and partial correlation showed that customer satisfaction mediate the relationship between Shariah compliance dimensions and customer retention.

For achieving the objective 4 hypothesis were conducted. Hypothesis 15 supposes that SCSQ model's explanatory power is different from CARTER model on aspects of Shariah compliance. The hypothesis has been accepted. Multiple regressions showed that SCSQ

model's explanatory power is different from CARTER model on aspects of Shariah compliance.

7.2 Limitations of the Research

The conclusion derived from the outcomes of this study must look into the limitations as follow:

Firstly, both manually distributed and electronic link have advantages and disadvantages. In this research, electronic link has been used. Response rate of electronic link is usually less than manually distributed and difficulties to compute response rate.

Secondly, lack of awareness for about the importance of scientific research was recorded. Electronic link distributed for 12 institutes for this study. Number of respondents should be more than one thousand not just 369 response.

Thirdly, researcher planned to receive response from non-Muslims to compare their responses with Muslims but unfortunately no response was received from non-Muslims. In this study, all responses came from Muslims.

Fourthly, it is difficult to collect data using probability sample for banking sector. This research collected the samples which only were chosen as non - probability sample using convenient sampling technique and purposive samples. These kinds of sample reduce the ability of generalizing the results of this research to other organizational environment.

7.3 Recommendations

The conceptual and methodological limitations of this research need to be considered when designing future research. This research sets a foundation for research on relationships between service quality, Shariah compliance and mediator customer satisfaction with loyalty and retention. It can be used for evaluation of service quality and Shariah compliance for Malaysian Islamic institutes. Recommendation of this study can be summarized as follow:

Firstly, based on the favorable results should us probability sample like simple random sample or stratified random can give ability to generalize the results to other organizational environment.

Secondly, the important advantage for electronic link, data can be used directly by analysis programs like SPSS without data entry errors. In comparison between electronic links or manually distributed still electronic links have more practical benefits. It can produce governmental procedures, regulations, systems helping researchers to use electronic links.

7.4 Conclusions

Based on the relevant Expectation confirmation theory (perceived performance meets customers' expectations of services, the customer are satisfied. When it does not, they are dissatisfied). In this study, customer satisfaction is attained for all service quality and Shariah compliance dimensions except for tangibles dimension (physical aspects) and Islamic bank employees' ethical conduct dimension. Both however do not meet the expectation of the customers. This study supports relevant theory that perceived quality imply satisfaction. In the case of Shariah compliance it can be represented as co-factor to

service quality in attaining customer satisfaction peculiar to Islamic banks. Islamic bank customers perceive both to be equally important to be satisfied with Islamic bank services. Furthermore both of these factors are considered more significant to affect loyalty and retention with customer satisfaction as mediation variable. Hence it presents a contribution to better understand Shariah compliance as an integral factor affecting customer satisfaction of Islamic financial services.

The research problem (The problem statement constructs and evaluates model to measure service quality in Malaysian Islamic banking). A new model SCSQ constructed and evaluated to address the problem statement.

The Purpose of research is establishing a new model to measure service quality in Islamic banks which has done by SCSQ model.

The research objectives have been studied on this chapter (Scope and Findings). The research objectives are specified within the scope of the research to formulate the research questions and related hypothesis.

The empirical findings based on the customer survey indicated the importance of service quality, Shariah compliance, customer satisfactions, customer loyalty and retention dimensions.

Subsequent hypothetical testing indicates the significant relationship between the variables which explain further the nature and interaction of these variables.

A better understanding is derived from testing for the more important dimensions of service quality and Shariah compliance. In addition the significant relationship between service quality with customer satisfaction, loyalty and retention as well as customer satisfaction as

mediation variable were found. Similar tests with Shariah compliance also highlight the importance of Shariah compliance as an independent variable. This led to a modification of the Carter model as the SCSQ model to enhance the relevance and importance of Shariah compliance to assess customer satisfaction which became the way to have customer loyalty and customer retention.

7.5 Proposed Future Research

Firstly, there is a need to test the SCSQ model in Malaysia and other Islamic countries to check the results of this study.

Secondly, the Tangibles dimension does not contribute to improve customer satisfaction, customer loyalty, and customer retention in Islamic banks. Islamic bank employees' ethical conduct dimension does not contribute to improving customer loyalty. A study is needed to answer these questions.

Thirdly, the customer category needs to be further investigated (e.g., sex, age, education level, incomes) characteristics may provide more meaningful perspectives for understanding of how individual similarities and differences affect the findings.

Fourthly, to evaluate customers in Islamic banks, Non-Muslims respondents are very important to compare their results with Muslims to have a complete view.

BIBLIOGRAPHY

- Abdullah, M., Al-Nasser, A. D., & Husain, N. (2000). Functional relational between image, customer satisfaction and customer loyalty using general maximum entropy. *Total Quality Management 11 (4/5&6)*, 826-29.
- Abdullrahim, Najat. (2010, 2). Service quality of English Islamic banks. *Ph D. thesis*. Bournemouth University, England: unpublished.
- Ahmad. (2000). Islamic finance and banking: the challenge and Prospects. *Review of Islamic Economics, Vol. 9*, 57-82.
- Ahmad, N., & Haron, S. (2002). Perceptions of Malaysian corporate customers towards islamic banking products and services. *International Journal of Islamic Financial Services, Vol. 3 No. 4*, 13-29.
- Allerd, T., & Addams, H. (2000). Service quality at banks and credit unions: What do their customer say. *Managing Service Quality, 10(1)*, 52–60.
- Amin, Kashif. (2016). Determinants of attitude towards the acceptance of Islamic banking: A case of district peshawar, Pakistan. *Journal of Managerial Sciences, Volume X Number 1*, 140-148.
- Amin, Muslim; Isa, Zaidi. (2008). An examination of the relationship between service quality perception and customer satisfaction: A SEM approach towards Malaysian Islamic banking. *International Journal of Islamic and Middle Eastern Finance Management Vol. 1 No. 3*, 191-209.
- Amin, Muslim; Isa, Zaidi; Fontaine, Rodrigue. (2013). Islamic banks contrasting the drivers of customer satisfaction on image, trust, and loyalty of Muslim and non-Muslim customers in Malaysia. *International Journal of Bank Marketing Vol. 31 No. 2, 2013*, 79-97.
- Anderson ; Sullivan. (1990). Customer satisfaction and retention across firms. *TIMS College Conference on Services Marketing*. Nashville: TN, September.
- Anderson, E., & Sullivan, M. (1993). The antecedents and consequences of customer atisfaction for firms. *Marketing Science, Vol. 12, No. 2*, 125-143.
- Andreassen, T., & Lindestad, B. (1998). Customer loyalty and complex services: The impact of orporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management, 9(1)*, 7–23.

- Angur, M., Natarajan, R., & Jahera, J. J. (1999). Service quality in the banking industry: An assessment in a developing economy. *The International Journal of Bank Marketing*, Vol. 17 No. 3, 116-125.
- Arasli, H., Katircioglu, S., & Mehtap-Smadi, S. (2005). A comparison of service quality in the banking industry: Some evidence from Turkish and Greek speaking areas in Cyprus. *The International Journal of Bank Marketing*, Vol. 23 Nos 6/7, 508-526.
- Archer, S. (2006). On capital structure, risk sharing and capital adequacy in Islamic banks. *International Journal of Theoretical and Applied Finance* Vol. 9, No. 3, 269–280.
- Astrom, Z. H. (2013). Survey on customer related studies in Islamic banking. *Journal of Islamic Marketing* Vol. 4 No. 3, 2013, 294-305.
- Aydin, S., & Ozer, G. (2005). National customer satisfaction indices: An implementation in the Turkish mobile telephone market. *Marketing Intelligence and Planning*, 23 (5), 486-504.
- Babakus, E., & Boller, G. (1992). An empirical assessment of SERVQUAL scale. *Journal of Business Research*, 24(3), 253-268.
- Babakus; Mangold. (1989). Adapting the servqual scale to hospital services: An empirical investigation. *Health Service Research*, 26(6), 767-780.
- Bansal, H., & Taylor, S. (1999). The service provider switching model (SPSM): A model of consumer switching behaviour in the service industry. *Journal of Service Research*, Vol. 2 No. 2, 200-218.
- Beerli, A., Martin, J., & Quintana, A. (2004). A model of customer loyalty in the retail banking market. *European Journal of Marketing*, Vol. 38 Nos 1/2 , 253-275.
- Benet-Martinez, V., Leu, J., Lee, F., & Morris, M. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross Cultural Psychology*, 33(5), 492–516.
- Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing*, 54 (2), 69-82.
- Bloemer, J., Ruyter, K. d., & Wetzels, M. (1999). Linking perceived service quality and service loyalty: a multi-dimensional perspective. *European Journal of Marketing*, 33 (11/12), 1082-106.
- BNM. (2008). *Listed of licensed of banking institutions in Malaysia*. Retrieved 2 12, 2013, from www.bnm.gov.my
- BNM. (2008). *What is Islamic banking*. Retrieved February 12, 2008, from. Retrieved 2 12, 2013, from www.bnm.gov.my

- BNM. (2009). *Banking Info*. Retrieved 1 27, 2014, from http://www.bankinginfo.com.my/_system/media/downloadables/islamic_banking.pdf
- BNM. (2013). *info banking*. Retrieved 11 8, 2013, from <http://www.bnm.gov.my/index.php?ch=9&pg=15&ac=427>
- BNM. (2013). *Shariah governance framework for islamic financial institutions islamic banking and takaful Department*. KL: Nigara Bank of Malaysia.
- Bolton, R. N., & Drew, J. H. (1991). A Longitudinal analysis of the impact of service changes on customer attitudes. *Journal of Marketing*, 55(January), 1-9.
- Bontis, N., Booker, L., & Serenko, A. (2007). The mediating effect of organizational reputation on customer loyalty and service recommendation in the banking industry. *Management Decision*, 45(9), 1425–1445.
- Boulding, W., Kalra, A., Staelin, R., & Zeithaml, V. (1993). A dynamic process model of service quality: From expectations to behavioural intentions. *Journal of Marketing Research*, 30(February), 7-27.
- Brunner, T., Markus, S., & Klaus, O. (2008). Satisfaction, image and loyalty: New versus experienced customers. *European Journal of Marketing*, 42(9/10), 1095–1105.
- Bryman, A., & Bell, E. (2003). *Business research methods*. Oxford: University press.
- Bryman, A., & Bell, E. (2007). *Business research methods (2nd ed.)*. Oxford: Oxford University Press.
- Butt, M. M., & Aftab, M. (2013). Incorporating attitude towards Halal banking in an integrated service quality, satisfaction, trust and loyalty model in online Islamic banking context. *International Journal of Bank Marketing Vol. 31 No. 1*, 6-23.
- Buttle, F. A., & Burton, J. (2002). Does service failure influence customer loyalty. *Journal of Consumer Behaviour*, 1 (3), 217-227.
- Buzzell, R., & Gale, B. (1987). *The PIMS principles: Linking strategy to performance*. New York, NY: The Free Press.
- Carman, J. M. (1990). Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions. *Journal of Retailing*, 66(1), 33-35.
- Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing*, 36(7/8), 811–828.
- Chapra. (1992). *Islam and the economic challenge*. Leicester: The Islamic Foundation.

- Chapra, M. (2000). Why has Islam prohibited interest: Rationale behind the prohibition of interest. *Review of Islamic Economics*, Vol. 9, 5-20.
- Churchill. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, Vol. XVI, Feb., 64-73.
- Churchill, G., & Surprenant, C. (1982). An investigation into the determinants of customer satisfaction. *Journal of Marketing Research*, XIX (November), 491-504.
- Ciptono, W., & Soviyanti, E. (2007). *Adopting Islamic Banks' CARTER model; An empirical study in RAU's Syariah banks*. Indonesia: Proceeding PESAT.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression correlation analysis for the behavioral sciences*. Hillsdale: NJ: Erlbaum.
- Coolican, H. (2009). *Research methods and statistics in psychology (5th ed.)*. London: Hodder Education.
- Cronin, J., & Taylor, S. (1992). Measuring service quality: A re-examination and extension. *Journal of Marketing*, 55-68.
- Cronin, J., & Taylor, S. A. (1994). SERVPERF versus SERVQUAL: Reconciling performance-based and perceptions-minus-expectations measurement of service quality. *Journal of Marketing*, 58(January), 125-131.
- Cronin, J., Brady, M., & Hult, G. (2000). Assessing the effects of quality, value, and customer satisfaction on behavioural intentions in service environment. *Journal of Retailing*, 76(2), 193-218.
- Dabholkar, P. A., Dayle, I. T., & Joseph, O. R. (1996). A measure of service quality for retail stores: Scale development and validation. *Journal of the Academy of Marketing Science*, 24 (1), 3-16.
- Dabholkar, P. A., Shepherd, D. C., & Thorpe, D. I. (2000). A comprehensive framework for service quality: An investigation of critical, conceptual and measurement issues through a longitudinal study. *Journal of Retailing*, 73-139.
- Danaher, P., & Rust, R. (1996). Indirect financial benefits from service quality. *Quality Management Journal*, Vol. 2, 63-75.
- David, M., & Sutton, C. D. (2004). *Social Research: The Basics*. London: Sage.
- Davis, M., & Heineke, J. (1998). How disconfirmation, perception and actual waiting times impact customer satisfaction. *International Journal of Service Industry Management* Vol. 9, 64-73.
- Dick, A., & Basu, K. (1994). Customer loyalty: toward an integrated conceptual framework". *Journal of Service Industry Management*, Vol. 4, No. 1.

- Dotchin, J., & Oakland, J. (1994). Total quality management in services. Part 1: understanding and classifying services. *International Journal of Quality & Reliability Management*, Vol. 11 No. 3, 9-26.
- Dusuki, A. W., & Abdullah, N. I. (2007). Why do Malaysian customers patronise Islamic banks? *International Journal of Bank Marketing* Vol. 25 No. 3, 142-160.
- East, R. (1997). *Consumer behaviour: Advances and applications in marketing*. London: Prentice Hall.
- East, R., Hammond, K., & Lomax, W. (2008). Measuring the impact of positive and negative word of mouth on brand purchase probability. *International Journal of Research in Marketing*, Vol. 25, 215-224.
- Ennew, C., & Binks, M. (1996). The impact of service quality and service characteristics on customer retention: small businesses and their banks in the UK. *British Journal of Management*, Vol. 7, 219-230.
- Eriksson, K., & Vaghult, A. L. (2000). Customer retention, purchasing behaviour and relationship substance in professional services. *Industrial Marketing Management*, 29 (4), 72-363.
- Erol, C., & El-Bdour, R. (1989). Attitudes, behaviour and patronage factors of bank customers towards Islamic banks. *International Journal of Bank Marketing*, 7(6), 31-37.
- Erol, C., Kaynak, E., & El-Bdour, R. (1990). Conventional and Islamic banks: Patronage behaviour of Jordanian customers. *International Journal of Bank Marketing*, Vol. 8 No. 4, 25-35.
- Estiri, M., Hosseini, F., & Yazdani, H. (2011). Determinants of customer satisfaction in Islamic banking: Evidence from Iran. *International Journal of Islamic and Middle Eastern Finance and Management* Vol. 4 No. 4, 295-307.
- Fabrigar, L., Wegener, D., MacCallum, R., & Strahan, E. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological methods*, 4(3), 272-299.
- File, K., & Prince, R. (1992). Positive word-of-mouth: customer satisfaction and buyer behaviour. *International Journal of Bank Marketing*, Vol. 10 No. 1, 25-29.
- Fomell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of marketing*, 56 (1), 6-18.
- Fontaine, R., & Richardson, S. (2003). Cross-cultural research in Malaysia. cross cultural management. *An International Journal*, 10(2), 70-92.

- Fontaine, R., & Richardson, S. (2005). On cultural values in Malaysia: Malays, Chinese and Indians compared. *Cross Cultural Management. International Journal*, 12(4), 63-77.
- Ford, D. (2001). *Understaning business markets and purchasing*. London: Thompson Learning.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variable and measurement Error. *Journal of Marketing Research Vol. 18, No. 1 Feb.,1981*, 39-50.
- Fornell, C., & Wernerfelt, B. (1988). A model for customer compliant management. *Marketing Science, Vol. 7*, 271-281.
- Fornell, C., Johnson, M., Anderson, E., Cha, J., & Bryant, B. (1996). The American customer satisfaction index: Nature, purpose and findings. *Journal of Marketing*, 60(4), 7-18.
- Francis, B. (2011). *Customer relationship management*. Oxford: Elsevier Ltd.
- Garson, D. G. (2008). *Factor analysis: Statnotes*. North Carolina State: University Public Administration program.
- Gaskin. (2011). *Detetcting outliers*. Retrieved from Gaskination's Statistics: [Http://youtube.com/gaskination](http://youtube.com/gaskination)
- Gaskin. (2012). *Gaskination's Statistics*. Retrieved from Data Screening: [Http://Statwiki.kolobkcreations.Com](http://Statwiki.kolobkcreations.Com).
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using pls-graph: Tutorial and annotated example. *Communications of the Association for Information Systems (Volume 16, 2005)*, 91-109.
- Gerrard, P., & Cunningham, J. (1997). Islamic banking: a study in Singapore. *International Journal of Bank Marketing, Vol. 15 No. 6*, 204-216.
- Gerrard, P., & Cunningham, J. (2004). Consumer switching behavior in the Asian banking market. *Journal of Service Marketing, 18(3)*, 215-223.
- Gill, J., & Johnson, P. (2009). *Research methods for managers (4th ed.)*. London: Sage.
- Griffin, J. (1995). *Customer loyalty: How to earn it, How to keep it*. San Francisco, CA.: Jossey-Bass.
- Gronroos. (1982). *Strategic management and marketing in the service sector*. Finland: Swedish: School of Economics and Business Administration.

- Gronroos. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, Vol. 18 No. 4, 36-44.
- Gronroos. (1990). *Service management and marketing*, Lexington Books. Toronto: ONT.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey methodology (2nd ed.)*. New Jersey: John Wiley & Sons.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis (4th ed.)*. Saddle River, NJ: Prentice Hall.
- Hallowell, R. (1996). The relationships of customer satisfaction, customer loyalty, and profitability: An empirical study. *International Journal of Service Industry Management*, Vol. 7, No. 4, 27-42.
- Haron, S., Ahmed, N., & Planisek, S. (1994). Bank patronage factors of Muslims and non-Muslim customers. *International Journal of Bank Marketing*, 12(1), 32-40.
- Harris, L., & Goode, M. (2004). The four levels of loyalty and the pivotal role of trust: A study of online service dynamics. *Journal of Retailing*, Vol. 80, 139-158.
- Hatcher, L. (1994). A Step-by-step approach to Using the SAS® system for factor analysis and structural equation modeling. Cary, NC: SAS Institute, Inc.
- Hegazy, I. (1995). An empirical comparative study between Islamic and commercial banks' selection criteria in Egypt. *International Journal of Commerce & Management*, Vol. 5, 46-61.
- Heskett, J. (1987). Lessons in the service sector. *Harvard Business Review*, 65 (2), 118-126.
- Heskett, James; Sasser, W. Earl; Heskett, James; Jr., W. Earl Sasser; Hart, Christopher. (1990). *Service breakthroughs: Changing the rules of the game*. New York: The Free Press.
- Holliday, K. (1996). Keeping close to the customer. *Bank Marketing*, Vol. 28 No. 6, 14-19.
- Hoq, M. I., Sultana, N., & Amin, M. (2008). the effect of trust, customer satisfaction and image on customers' loyalty in Islamic banking sector. *South Asian Journal of Management*, 70-93.
- Idris, T., & Almahmid, M. (1997). Services considered important to business customers and determinants of bank selection in Kuwait: A segmentation analysis. *International Journal of Bank Marketing*, Vol. 15 No. 4, 126-133.
- Iqbal, M., & Molyneux, P. (2005). *Thirty years of Islamic banking: History, performance and prospects*. New York, NY.: Palgrave Macmillan.

- Jabnoun, N., & Khalifa, A. (2005). A customized measure of service quality in the UAE. *Managing Service Quality*, 15(4), 374-388.
- Jacoby, J., & Chestnut, R. W. (1978). *Brand loyalty : measurement and management*. New York: Wiley.
- Jain, S. K., & Gupta, G. (2004). Measuring service quality:SERVQUAL vs. SERVPERF scales. *Vikalpa*, Volume 29, No. 2, April-June 2004., 25-37.
- Jones, T., & Sasser, E. (1995). Why satisfied customers defect. *Harvard Business Review*, Reprint 95606, November-December, 1-13.
- Kader. (1993). Performance and market implications of Islamic banking: a case study of bank Islam Malaysia Berhad. Durham University, Durham.: unpublished PhD thesis.
- Kader. (1995). *Bank Islam Malaysia: market implications*, in Al-Harran, S. (Ed.) *Leading Issues in Islamic Banking and Finance*. Kuala Lumpur: Pelanduk Publications.
- Kamali, M. H. (1991). *Principles of Islamic jurisprudence*. Cambridge: Cambridge Islamic Texts Society.
- Kangis, P., & Zhang, Y. (2000). Service quality and customer retention in financial services. *Journal of Financial Services Marketing*, Vol. 4, No. 4, 306-318.
- Kashif, M., Shukran, S. S., & Sarifuddin, S. (2015). Customer satisfaction and loyalty in Malaysian Islamic banks: A PAKSERV investigation. *International Journal of Bank Marketing*, 23-40.
- Khan, M., & Bhatti, M. (2008). Islamic banking and finance: on its way to globalization. *Managerial Finance*, Vol. 34 No. 10,, 708-725.
- Kohli, A., & Jaworski, B. (1990). Market orientation: the construct, research propositions, and managerial implications. *Journal of Marketing* Vol. 54, April, 20-35.
- Krosnick, J. A. (1999). Survey research. *Annual Review of Psychology*, 50 (1),, 537-567.
- Kwan, W., & Hee, T. (1994). Measuring service quality in Singapore retail banking: a GAP analysis & segmentation approach. *Singapore Management Review*, Vol. 16 No. 2, 1-12.
- Lasser, W., Manolis, C., & Winsor, R. (2002). Service quality perspectives and satisfaction in private banking. *Journal of Services Marketing*, Vol. 14 No. 3 , 244-271.
- Lee, J. A., Garbarino, E., & Lerman, D. (2007). How cultural differences in uncertainty avoidance affect product perceptions. *International Marketing Review*, 24 (3), 330-349.

- Lee, K., & Ullah, S. (2007). Integration of Islamic and conventional finance. *International Review of Business Research Papers*, Vol. 3 No. 5, 241-265.
- Lee, M., & Hwan, I. (2005). Relationships among service quality, customer satisfaction and profitability in the Taiwanese banking industry. *International Journal of Management*, Vol. 22 No. 4, 635-648.
- Leeds, B. (1992). Mystery shopping' offers clues to quality service. *Bank Marketing*, Vol. 24 No. 11, 24-27.
- Leete, R. (1996). *Malaysia's demographic transition, rapid development, culture and politics*. Kuala Lumpur, Malaysia: Oxford University Press.
- Levesque, T., & McDougall, G. H. (1996). Determinants of customer satisfaction in retail banking. *International Journal of Bank Marketing*, 14 (7), 12-20.
- Liu, T.-C., & Wu, L.-W. (2007). Customer retention and cross-buying in the banking industry: An integration of service attributes, satisfaction and trust. *Journal of Financial Services Marketing* (2007) 12, 132 – 145.
- Malhotra, N., Francis, M., Ugaldo, J., & Imad, B. (1994). International services marketing: A comparative evaluation of the dimensions of service quality between developed and developing countries. *International Marketing Review*, Vol. 11 No. 2, 5-15.
- Masood, O., & Bora, A. (2009). Islamic banking: A study of customer satisfaction and preferences in non-countries. *International Journal of Monetary Economics and Finance*, Vol. 2 Nos 3/4, 261-285.
- Mengi, Pooja. (2009). Customer satisfaction with service quality an empirical study of public and private sector banks. *The IUP Journal of Management Research*, Vol. 8 VIII, No. 9, 7-17.
- Metawa, S., & Almosawi, M. (1998). Banking behaviour of Islamic bank customers: Perspectives and implications. *International Journal of Bank Marketing*, 16(7), 299–315.
- Mittal, V. ; Baldasare, P. (1996). Managers should optimize rather than maximize performance to enhance patient satisfaction. *Journal of Health Care Marketing*, Vol. 16 No. 4, 24-37.
- Mittal, V., & Kamakura, A. (2001). Satisfaction, repurchase intent, and repurchase behaviour: Investigating the moderating effect of customer characteristics. *Journal of Marketing Research*, Vol. 38, February, 31-42.
- Mittal, V., Ross, W., & Baldasare, P. (1998). The asymmetric impact of negative and positive attribute-level performance on overall satisfaction and repurchase intentions. *Journal of Marketing*, Vol. 62, 33-47.

- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58 (3), 20-38.
- Muamalat, B. (2013). <http://www.muamalat.com.my>. Retrieved 11 15, 2013, from <http://www.muamalat.com.my/media-room/shariah-knowledge-center/overview.html>
- Muijs, D. (2004). *Doing qualitative research in education with SPSS*. London: Sage.
- Musil, C., Warner, C., Yobes, P., & Jones, S. (2002). A comparison of imputation techniques for handling missing data. *Saga Journals*.
- Muslim, A., & Zaidi, I. (2005). Islamic banking in Malaysia: An empirical analysis of service quality. *Proceeding of seminar finance and Islamic economics* (pp. 362–371). Universiti Utara Malaysia, Kuala Lumpur: Univision Press Sdn. Bhd.
- Muslim, A., Zaidi, I., & Fontaine, R. (2011). The role of customer satisfaction in enhancing customer loyalty in Malaysian Islamic banks. *The Service Industries Journal*, 1519–1532.
- Najjar, L., & Bishu, R. (2006). Service quality: a case study of a bank. *The Quality Management Journal*, Vol. 13 No. 3, 35-44.
- Naser, K., & Moutinho, L. (1997). Strategic marketing management: The case of Islamic banks. *International Journal of Marketing*, 15(2), 187-203.
- Naser, K., & Pendlebury, M. (1997). The influence of Islam on bank financial reporting. *International Journal of Commerce and Management*, 7(2), 56-83.
- Naser, K., Jamal, A., & Al-Khatib, K. (1999). Islamic banking: A study of customer satisfaction and preferences in Jordan. *International Journal of Marketing*, 17(3), 135-150.
- Newman, K. (2001). Interrogating SERVQUAL: a critical assessment of service quality measurement in a high street retail bank. *International Journal of Bank Marketing*, 19(3), 126-139.
- Newman, K., & Cowling, A. (1996). Service quality in retail banking: The experience of two British clearing banks. *The International Journal of Bank Marketing*, Vol. 14 No. 6, 3-11.
- Ngui, C. (2004, May 16). A bank for all. *Malaysian Business*, p. 40.
- Nunnally, J. C. (1978). *Psychometric theory*, 2 nd Ed. New York: McGraw-Hill.
- Oliver. (1980). A cognitive model of the antecedent and consequences of satisfaction decisions. *Journal of Marketing*, 17(10), 460–469.

- Oliver. (1998). New directions in the study of the consumer satisfaction response anticipated evaluation, internal cognitive-affective processes and trust influences on loyalty. *Advances in Consumer Research*, 25 (1), 14.
- Oliver, R. (1997). *Satisfaction: A behavioural perspective on the consumer*. New York: McGraw Hill.
- Oliver, Richard. (1996). *Satisfaction: A behavioural perspective on the consumer*. New York: McGraw-Hill.
- Oliver, Richard L; Linda, Gerald. (1981). Effect of satisfaction and its antecedents on consumer preference and intention. *Advances in Consumer Research*, 8 (1), 88-93.
- Olshavsky, R., & Miller, J. (1972). Consumer expectations, product performance, and perceived product quality. *Journal of Marketing Research*, Vol. 9, 19-21.
- Othman, A., & Owen, L. (2002). The multi dimensionality of carter model to measure customer service quality in Islamic banking industry: A study in Kuwait finance house. *International Journal of Islamic Financial Services*, 3(4), 1-12.
- Othman, A., & Owen, L. (2003). Adopting and measuring customer service quality in Islamic banks: A case study in Kuwait financial house. *International Journal of Islamic Financial Services Vol. 3. No. 1*.
- Othman, A., & Owen, L. (2003). Managing and measuring customer service quality in Islamic banks: A Study of Kuwait finance house. *International Journal of Islamic Financial Services*, 3(1), 6-12.
- Pallant, J. (2011). *SPSS survival manual 4 edition*. Crows Nest, Australia: Allen & Unwin.
- Parasuraman, A., Berry, L., & Zeithmal, V. (1985). A conceptual model of SQ and its implications for future research. *Journal of Marketing*, 41-50.
- Parasuraman, A., Berry, L., & Zeithmal, V. (1994). Rassessment of expectations as a comparison stand in measuring SQ : Implications for further Research. *Journal of Marketing*, 58(1), 111-124.
- Parasuraman, A; Berry, L; Zeithmal, V. (1991). Percieved service quality as a customer based performance measure: An emperical examination of organizational barriers using an extended service quality model. *Human Resource Management*, 335-364.
- Parasuraman; Berry; Zeithmal. (1993). Research note: More on improving SQ meauement. *Journal of Retailing*, 69 (1), 140-147.
- Parasuraman; Zeithmal; Berry. (1990). Five imperatives for improving SQ. *Sloan Management Review*, 29 (2), 29-38.

- Parasurman, A., Berry, L., & Zeithmal, V. (1988). Servqual : A multi-item scale for measuring consumer perceptions of SQ. *Journal of Retaining* 64(2), 12-40.
- Peck, H., Adrian, P., Christopher, M., & Clark, M. (2000). *Relationship marketing: strategy and implementation*. Oxford: Butterworth Heinemann.
- Peter, J. P., Churchill, G. A., & Brown, T. J. (1993). Caution in the use of difference scores in consumer research. *Journal of Consumer Research*, 19(March), 655-62.
- Pett, M. L. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. Thousand Oaks, CA: CA:Sage Publications.
- Rajshekhhar, G. J., & Moberg, C. R. (1997). Service loyalty: Implications for service providers. *Journal of Services Marketing*, Vol. 11, No. 3, 165-179.
- Ranaweera, C., & Prabhu, J. (2003). On the relative importance of customer satisfaction and trust as determinants of customer retention and positive word-of-mouth. *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 12 No. 1, 82-89.
- Rehman, A. A. (2012). Customer satisfaction and service quality in Islamic banking: A comparative study in Pakistan, United Arab Emirates and United kingdom. *Qualitative Research in Financial Markets* Vol. 4 No. 2/3, 165-176.
- Reichheld. (1996). *The loyalty effect: The hidden force behind growth, profit, and lasting value*. Boston: Harvard Business School Press.
- Reichheld. (2003). "The one number you need to grow," , 2-10. *Harvard Business Review* (December), 2-10.
- Reichheld, F. F. (1993). Loyalty-based management. *Harvard Business Review*, 71 (2), 64-73.
- Reichheld, F., & Sasser, W. (1990). Zero defections: quality comes to service. *Harvard Business Review*, September-October, 105-116.
- Reichheld, F., Markey, R., & Hopton, C. (2000). The loyalty effect-the relationship between loyalty and profits. *European Business Journal*, Vol. 12, No. 3, 134.
- Richens, M. (1983). Negative word-of-mouth by dissatisfied consumers: A pilot study. *Journal of Marketing*, winter, 69.
- Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers* (2nd ed.). Oxford: Blackwell.

- Rodrigues, L. L., Barkur, G., Varambally, K., & Motlagh, F. G. (2011). Comparison of SERVQUAL and SERVPERF metrics: An empirical study. *The TQM Journal Vol. 23 No. 6*, 629-643.
- Rose, S. (1990). The coming revolution in credit cards. *Journal of Retail Banking, Vol. 12*, 17-19.
- Rust, R., & Oliver, R. (1994). Service quality – new directions in theory and practice. In M. Bitner, & A. Hubert, *Encounter satisfaction versus overall satisfaction versus quality* (pp. 72-94).
- Rust, R., & Zahorik, A. (1993). Customer satisfaction, customer retention, and market share. *Journal of Retailing, 69(2)*, 193–215.
- Sangeetha, J. (2011). Service quality models in banking: a review. *International Journal of Islamic and Middle Eastern Finance and Management*, 83-103.
- Sarantakos, S. (2005). *Social research (3rd ed.)*. Basingstoke: Palgrave Macmillan.
- Saunders, M., Philip, L., & Thornhil, A. (2009). *Research methods for business students*. Essex: Pearson Education.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business : A skill building approach*. West Sussex: John Wiley.
- Shafie, S., Azmi, W., & Haron, S. (2004). Adopting and measuring customer service quality (SQ) in Islamic banks: A case study in Bank Islam Malaysia. *Journal of Muamalat and Islamic Finance Research, 1(1)*, 91-102.
- Shemwell, D. J., Yavas, U., & Bilgin, Z. (1998). Customer-service provider relationships: An empirical test of a model of service quality, satisfaction and relationship-oriented outcomes. *International Journal of Service Industry Management, 9 (2)*, 155-68.
- Shemwell, D., Cronin, J., & Bullard, W. (1994). Relational exchange in services: An empirical investigation of ongoing customer service-provider relationships. *International Journal of Service Industry Management, Vol. 5, No.3,*, 57-68.
- Siddiqui, N. (1992). *Banking without interest*. New Delhi, India: Markazi Maktaba Islami.
- Soderlund, M. (1998). Customer satisfaction and its consequences on customer behaviour revisited: The impact of different levels of satisfaction on word-of-mouth, feedback to the supplier and loyalty. *International Journal of Service Industry Management, Vol. 9 No. 2*, 169-183.
- Spreng, R. A., & Mackoy, R. D. (1996). An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing, 72 (2)*, 201-214.

- Stafford, M. (1994). How customers perceive SQ. *Journal of Retail Banking* , 17(2), 29-38.
- Storbacka, K., Strandvik, T., & Grönroos, C. (1994). Managing customer relationship for profit: The dynamics of relationship quality. *International Journal of Service Industry Management*, Vol. 5, No. 5, 21-38.
- Stratigos, A. (1999). Measuring end-user loyalty matters. *Online Magazine*, 23 (6), 74-76.
- Sureshchandar, G., Rajendran, C., & Anantharaman, R. (2002). The relationship between service quality and customer satisfaction – A factor-specific approach. *Journal of Service Marketing*, 16(4), 363-379.
- Szymanski, D., & Henard, D. (2001). Customer satisfaction: a meta-analysis of the empirical evidence. *Journal of Academy of Marketing Science*, Vol. 29, 16-35.
- Tabachnick, B., & Fidell, L. (2007). *Using multivariate statistics (5th edn)*. Boston: Pearson Education.
- Tahir, I., & Abu Bakar, N. (2007). Service quality gap and customers' satisfactions of commercial banks in Malaysia. *International Review of Business Research Papers*, Vol. 3 No. 4, 327-326.
- Tajudin, A. A. (2013). *Bank Islam*. Retrieved 1 25, 2014, from <http://www.bankislam.com.my/>: <http://www.bankislam.com.my/en/Documents/shariah/OverviewOfIslamicFinance-13122010.pdf>
- Taylor, S. (1997). Assessing regression-based importance weights for quality perceptions and satisfaction judgments in the presence of higher-order and/or interaction effects . *Journal of Retailing*, Vol. 73 No. 1, 135-159.
- Taylor, S. A., & Backer, T. L. (1994). *An assessment of the relationship between service quality and customer satisfaction in the formation of consumers purchase intentions*. *Journal of Retailing*, 70 (2): 163-178.
- Teas. (1993). Expectations, performance evaluation, and consumer's perceptions of quality. *Journal of Marketing*, 57(October), 18-34.
- Teas. (1994). Expectations as a comparison standard service quality: An assessment of reassessment in measuring. *Journal of Marketing*, 58(January), 132-139.
- Wan Ahmed, W., Ab Rahman, A., Ali, N., & Seman, A. (2008). Religiosity and banking selection criteria among Malaysians in Lembah Klang. *Shariah Journal*, Vol. 16 No. 2, 279-304.
- Wang, Y., Lo, H., & Hui, Y. (2003). The antecedents of service quality and product quality and their influences on bank reputation: Evidence from banking industry in China. *Manag. Serv. Qualit.*, Vol. 13 No. 1, 72-83.

- Warde, I. (2000). *Islamic finance in the global economy*. Edinburgh: Edinburgh University Press.
- Westbrook, R. (1981). Sources of consumer satisfaction with retail outlets. *Journal of Retailing*, 57, (Fall), 8-85.
- Westbrook, R., & Reilly, M. (1983). Value-percept disparity: an alternative to the disconfirmation of expectation theory of consumer satisfaction. *Advances in Consumer Research*, Vol 10, 256-261.
- Wong, A., & Sohal, A. (2003). Service quality and customer loyalty perspectives on two levels of retail relationships. *Journal of Services Marketing*, Vol. 17 No. 5, 495-513.
- Woodruff, R., Clemons, D., Schumann, D., Gardial, S., & Bruns, M. (1991). The standards issue in CS/D research: A historical perspective. *Journal of Customer Satisfaction, Dissatisfaction and Complaining Behavior*, Vol. 4, 103-109.
- Yavas, U., Benkenstein, M., & Stuhldreier, U. (2005). Relationships between service quality and behavioral outcomes: a study of private bank customers in Germany. *International Journal of Bank Marketing*, Vol. 22 No. 2, 144-157.
- Yavas, U., Bilgin, Z., & Shemwell, D. (1997). Service quality in the banking sector in an emerging economy: A consumer survey. *International Journal of Bank Marketing*, Vol. 15 No. 6, 217-223.
- Yeates, C. (2008). Islamic finance rides the storm. *Islamic finance rides The Sydney Morning Herald*, October 11-12.
- Zeithaml, V. A., & Bitner, M. J. (2001). *Services marketing: Integrating customer focus across the firms*, 2nd Edition. Boston: Tata-McGraw Hill.
- Zeithaml, V., & Bitner, M. (1996). *Services marketing, international edition*. New York, NY.: McGraw-Hill.
- Zeithaml, V., Berry, L. L., & Parasuraman, A. (1988). Communication and control processes in the delivery of service quality. *Journal of Marketing*, 52 (2), 35-48.
- Zeithaml, V., Berry, L., & Parasuraman, A. (1996). The behavioural consequences of service quality. *Journal of Marketing*, Vol. 60, April, 31-46.
- Zeithaml, V.A.; Berry, L.; Parasuraman, A. (1993). The nature and determinants of customer expectations of service. *Journal of the Academy of Marketing Science*, 21, 1-12.
- Zeithmal, V. (2000). Service quality, profitability, and the economic worth of customers: what we know and what we need to learn. *Academy of Marketing Science*, Vol. 28, No. 1.

APPENDICES

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

APPENDIX A: QUESTIONNAIRE FORM

SHARI'AH COMPLIANCE OF ISLAMIC BANKING SERVICES: CUSTOMER SATISFACTION, LOYALTY AND RETENTION

DEAR VALUED CUSTOMERS

We are honored to be given the opportunity to have you as a valued customer of banks which offer Islamic financial services. Your valued feedback on your bank service quality satisfaction, retention and loyalty will assist banks to enhance their services.

This survey forms part of a doctoral research to analyze and evaluate quality financial services as well as recommendations for quality improvements to enhance banks performance and ensure customer satisfaction in Malaysia. All responses are CONFIDENTIAL and will only be used for academic research purposes.

We look forward to receiving your completed questionnaire, and thank you very much for your time, cooperation, support, and valued feedback.

SECTION A: CUSTOMER CATEGORY

1. **Gender:** Male Female
2. **Age:** less than 20 years 20 to 40 years 40 to 60 years 60 years and more
3. **Please indicate your deposit account type with the bank(s).**
 Islamic current deposit account only Islamic investment deposit account only
 Both
4. **Your Preferred Bank Customer Experience**
 Less than 2 year 2 years and less than 5 years
 5 years and less than 10 years 10 years and more
5. **Nationality:** Malaysian Non-Malaysia
6. **Ethnic Group** (please select one that best describes you):
 Malay Chinese Indian others please specify-----
7. **Academic qualification:**
 High school Diploma Bachelor/Professional Post graduate (Master/PhD)
8. **Social status:**
 Academic staff University student University employee
 Bank employee Non-bank financial institution employee
9. **Exposure to Islamic Finance:**
 Formal Qualification In-house programs Seminars/Workshops None
 Others _____

10. **Religious Belief:**

Muslim Non-Muslim

11. **Annual income**

Less than RM36,000 RM36,000 and less than RM50,000 RM50,000 and less than RM100,000 RM 100,000 or more

SECTION B: PERCEPTION OF BANKS SERVICE QUALITY DIMENSIONS

The five dimensions are Tangibles (Physical factors), Reliability (Accurate and Dependable), Responsiveness (Willingness to assist), Assurance (Capability to convey trust and confidence), Empathy (care to customer)

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

I am satisfied with	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Tangibles	1	2	3	4	5
12. State of the art technology	1	2	3	4	5
13. Visually appealing premises	1	2	3	4	5
14. Customer intimacy	1	2	3	4	5
15. Customer friendly brochures	1	2	3	4	5
Reliability	1	2	3	4	5
16. Promised delivery	1	2	3	4	5
17. Caring solution	1	2	3	4	5
18. Bank's Good advise	1	2	3	4	5
19. Timely service	1	2	3	4	5
20. Error free records	1	2	3	4	5
Responsiveness	1	2	3	4	5
21. Relevant information provided in response to customer queries	1	2	3	4	5
22. Prompt response to customer	1	2	3	4	5
23. Assistance rendered willingly	1	2	3	4	5
24. Adequate attention to request	1	2	3	4	5
Assurance	1	2	3	4	5
25. Customer confidentiality observed	1	2	3	4	5

26.Secured banking privacy	1	2	3	4	5
27. Courteous bank employees	1	2	3	4	5
28. Adequate response to request	1	2	3	4	5
Empathy					
29.Customized services	1	2	3	4	5
30.Convenient operating hours	1	2	3	4	5
31. Personalized attention.	1	2	3	4	5
32.Favored banking style	1	2	3	4	5
33.Attend to customer needs	1	2	3	4	5

SECTION C: SHARI'AH COMPLIANCE DIMENSIONS

The dimensions include principles, institution, products and employee's conduct

(1) Strongly disagree (2) disagree (3) Neutral (4) agree (5) strongly agree

I am confident that my bank	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Shari'ah principles					
34. Bank operates based on Islamic law and principles	1	2	3	4	5
35. Bank avoids interest payments or receiving deposits from financing respectively	1	2	3	4	5
36.Bank provides Islamic financial products and services	1	2	3	4	5
37.Bank provides interest free loans	1	2	3	4	5
38.Bank provides profit sharing investment accounts	1	2	3	4	5
Shari'ah compliance institution					
39. Provides proper banking product disclosure	1	2	3	4	5

40. Care for Shari'ah requirements for products and services	1	2	3	4	5
41. Gives assurance that your banking transactions are Shari'ah compliant	1	2	3	4	5
42. Facilities are visually appealing and consistent with Islamic values	1	2	3	4	5
43. Attend to ensure your banking needs are Shari'ah compliant	1	2	3	4	5
Shari'ah Compliance product and services					
44. Shari'ah compliant product features are adequately explained to you	1	2	3	4	5
45. Uses customer friendly Islamic terms in banking	1	2	3	4	5
46. Assures bank product compliance is certified	1	2	3	4	5
47. Response to clarify bank product Shari'ah compliant features	1	2	3	4	5
48. Services rendered meet your expectations of Shari'ah compliant services	1	2	3	4	5
Islamic Bank employees' ethical conduct					
49. Employees conduct are proper and observant of Islamic ethical values	1	2	3	4	5
50. Adoption of proper and modest employee dress codes in banking.	1	2	3	4	5
51. Employees are supportive of your concerns to ensure Shari'ah compliant banking transactions	1	2	3	4	5
52. Employees are transparent in all dealings with your Islamic banking needs	1	2	3	4	5
53. Employee are courteous and well-mannered in Islamic banking services	1	2	3	4	5

SECTION D: CUSTOMER SATISFACTION, LOYALTY AND RETENTION ASSESSMENT

Your feedback response on customer satisfaction is (the comparison between the reward and cost for purchase), Customer loyalty is (recommendation to others) and Customer retention is (continuous trading relationships) to you as the bank’s customer.

(1) Strongly disagree (2) disagree (3) Neutral (4) agree (5) strongly agree

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Customer satisfaction					
54. I am satisfied with employees responses and prompt services	1	2	3	4	5
55. I am satisfied with bank financial services advice	1	2	3	4	5
56. I am satisfied with banking products and services provided by my bank	1	2	3	4	5
57. I am satisfied with financial product information which is provided to me	1	2	3	4	5
58. I am satisfied with availability of ATM outlets	1	2	3	4	5
Customer Loyalty					
59. I am inclined to say positive things about Islamic banks to other people	1	2	3	4	5
60. I have favorable Islamic banking experiences to share	1	2	3	4	5
61. I will recommend family and relatives to do business with Islamic banks	1	2	3	4	5
62. I will recommend my bank to someone who seeks advice	1	2	3	4	5
63. I will suggest Islamic banking services to other customers	1	2	3	4	5
64. I will encourage fellow colleagues to use the services of my bank	1	2	3	4	5
Customer retention	1	2	3	4	5

65. I have favorable Islamic banking experience to share on this bank.					
66. I will continue with this bank for paying good returns	1	2	3	4	5
67. I will continue with my bank for the flexible choice of products and services	1	2	3	4	5
68. I look forward to the next services offered by my bank.	1	2	3	4	5
69. My prior banking experience has influenced me to prefer my bank.	1	2	3	4	5
70. In the next year, if I need banking services I will select my bank	1	2	3	4	5
71. I am confident with my bank	1	2	3	4	5

THANK YOU VERY MUCH

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

APPENDIX B: SHARIAH CONCEPTS IN ISLAMIC BANKING

Shariah concepts in Islamic banking(BNM, Banking Info, 2009)

Shariahconcept	Means	Notes
a. Wadiah (Safekeeping)	Custody or safekeeping. In a Wadiah arrangement, you will deposit cash or other assets in a bank for safekeeping. The bank guarantees the safety of the items kept by it.	
b. Mudharabah (Profit sharing)	(Profit A Profit sharing arrangement between two parties, that is, an investor and the entrepreneur. The investor will supply the entrepreneur with funds for his business venture and gets a return on the funds he puts into the business based on a profit sharing ratio that has been agreed earlier.	The principle of Mudharabah can be applied to Islamic banking operations in 2 ways: between a bank (as the entrepreneur) and the capital provider, and between a bank (as capital provider) and the entrepreneur. Losses suffered shall be borne by the capital provider.
c. Bai' BithamanAjil – BBA (Deferred payment sale)	This refers to the sale of goods where the buyer pays the seller after the sale together with an agreed profit margin, either in one lump sum or by installment.	
d. Murabahah (Cost plus)	As in BBA, a Murabahah transaction involves the sale of goods at a price which includes a profit margin agreed by both parties. However, in Murabahah, the seller must let the buyer know the actual cost for the asset and the profit margin at the time of the sale agreement.	
e. Musyarakah (Joint venture)	(Joint In the context of business and trade, Musyarakah refers to a partnership or a joint business venture to make profit. Profits made will be shared by the partners based on an agreed ratio which may not be in the same proportion as the amount of investment made by the partners. However, losses incurred will be shared based on the ratio of funds invested by each partner.	
f. IjarahThumma Bai' (Hire purchase)	Normally used in financing consumer goods especially motor vehicles. There are two separate contracts involved: Ijarah	

contract (leasing/renting) and Bai' contract (purchase). The contracts are made one after the other.

- g. a. Wakalah (Agency) This is a contract whereby a person (principal) asks another party to act on his behalf (as his agent) for a specific task. The person who takes on the task is an agent who will be paid a fee for his services. Example: A customer asks a bank to pay someone under certain terms. The bank is therefore the agent for carrying out the financial transaction and the bank will be paid a fee for its services.
- h. Qard (Interest-free loan) Under this arrangement, a loan is given for a fixed period on a good will basis and the borrower is only required to repay the amount borrowed. However, the borrower may, if he so wishes, pay an extra amount (without promising it) as a way to thank the lender. Example: A lender who lent RM5,000 to a borrower on Qard will expect the borrower to return exactly RM5,000 to him at a later date.
- i. Hibah (Gift) This refers to a payment made willingly in return for a benefit received. Example: In savings operated under Wadiah, banks will normally pay their Wadiah depositors Hibah although the account holders only intend to put their savings in the banks for safekeeping.

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.


UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

APPENDIX C: COMPARISON BETWEEN PARASURAMAN (1988, 1991)

Comparison between Questionnaire items which were adopted with Parasuraman (1988, 1991)

Questionnaire Items	The SERVQUAL Instrument Parasuraman, Zeithaml and Berry (1988)	SERVQUAL Instrument (Parasuraman, Berry and Zeithaml(1991)	comment
Service quality			
Tangibles The bank's use state of the art equipment and technology for its services	P1 XYZ has up-to-date equipment	P1 XYZ has modern-looking equipment	Modified 1991
The bank's premises are visually appealing.	P2 XYZ's physical facilities are visually appealing	P2 XYZ's physical facilities are visually appealing	Modified 1991
The bank's reception desk employees display customer intimacy.	P3 XYZ's employees are well dressed and appear neat	p3 XYZ's employees are neat-appearing	Modified 1991
Materials associated with the service (such as pamphlets or statements) are customer friendly at the bank	P4 The appearance of the physical facilities of XYZ is in keeping with the type of services provided.	P4 Materials associated with the service (such as pamphlets or statements) are visually appealing at XYZ	1991
Reliability When the bank promises are promptly delivered.	p5 When XYZ promises to do something by a certain time, it does so	P5 When XYZ promises to do something by a certain time, it does so	Modified 1991, 1988
10. When you have a problem, the bank is caring with solution.	P6 When you have problems, XYZ is sympathetic and reassuring	P6 When you have a problem, XYZ shows a sincere interest in solving it	1991
The bank performs the service right the first time.	p7 XYZ is dependable	P7 XYZ performs the service right the first time	1991
The bank provides timely service according to your expectation	P8 XYZ provides its services at the time it promises to do so	P8 XYZ provides its services at the time it promises to do so	Modified 1991
The bank insists on error	P9 XYZ keeps its records	P9 XYZ insists on	1991

free records.	accurately	error-free records	
Responsiveness Employees in the bank update with reliable information when the services will be performed.	P10 XYZ does not tell customers exactly when services will be performed	P10 Employees of XYZ tell you exactly when services will be performed	Modified 1991
Employees in the bank attend to you promptly.	P11 You do not receive prompt service from XYZ's employees	P11 Employees of XYZ give your prompt service	Modified 1991
Employees in the bank are always willing to help you.	P12 Employees of XYZ are not always willing to help customers	P12 Employees of XYZ are always willing to help you	1991
Employees in the bank are never too busy to respond to your request.	P13 Employees of XYZ are too busy to respond to customer requests promptly	P13 Employees of XYZ are never too busy to respond to your requests	1991
Assurance The bank employees serve you in confidence.	P14 You can trust employees of XYZ	P14 The behavior of employees of XYZ instills confidence in customers	Modified 1991
Your banking transactions are secured and safe.	P15 You feel safe in your transactions with XYZ's employees	P15 You feel safe in your transactions with XYZ	Modified 1991
Employees in the bank are consistently courteous towards you.	P16 Employees of XYZ are polite	P16 Employees of XYZ are consistently courteous with you	Modified 1991
Employees in the bank respond with satisfaction to your questions.	P17 Employees get adequate support from XYZ to do their jobs well	P17 Employees of XYZ have the knowledge to answer your questions	Modified 1991
Empathy The bank attends to your individual attention.	P18 XYZ does not give you individual attention	P18 XYZ gives you individual attention	Modified 1991
The bank's operating hours are convenient to you.	P19 Employees of XYZ do not give your personal attention customers	P19 XYZ has operating hours convenient to all its customers	Modified 1991
The bank has employees who give your personal	P20 Employees of XYZ do not know what your needs	P20 XYZ has employees who give	1991

attention.	are	your personal attention	
The bank has special banking relationship which presents personal appeal to you	P21 XYZ does not have your best interests at heart	P21 XYZ has your best interests at heart	Modified 1991
The employees of the bank understand your specific needs.	P22 XYZ does not have operating hours convenient to all their customer	P 22 Employees of XYZ understand your specific needs	1991


UNIRAZAK
 UNIVERSITI TUN ABDUL RAZAK
 Copying, modifying, or reprinting, is not permitted.

APPENDIX D: GENERAL REQUIREMENTS OF THE SHARIAH GOVERNANCE FRAMEWORK

Principles	Original of principles	Summary
BNM SGF Principle 1	Responsibility of an IFI to establish a sound and power Shariahgovernance framework with ensure placed on the roles of key functionalities in ensuring effective implementation of the Shariahgovernance framework	To ensure sound and robust Shariahgovernance framework including end-to-end Shariahcompliantcontrol mechanism shall be established in all aspects of its business operations to ensure that all activities are Shariahcompliant
BNM SGF Principle 2	An IFI should arranged the accountability and responsibility of each key functionary associated with the implementation of Shariahgovernance framework	To ensure accountable and responsible implementation of SG
BNM SGF Principle 3	Independence of the Shariah Committee shall be viewed continually in exercising their duties for making objective and informed judgment.	To ensure independence of SC to make objective and informed judgment
BNM SGF Principle 4	Anybody in IFI shall possess the required competency and continuously improve their knowledge on the Shariah as follow on the latest developments in Islamic finance.	Key person to be competent and continuously updated
BNM SGF Principle 5	Internal and privileged information received by the Shariah Committee members throughout their duties shall be stored confidential continually and shall not be misused.	SC to maintain confidentiality
BNM SGF Principle 6	Professional ethics, judgment and consistency shall be maintained in ensuring Shariah compliance.	Professional ethics, judgment and consistency by SC
BNM SGF Principle 7	There shall be a powerful Shariah compliance supporting functions, composed of review and audit functions, sustained by risk management control process and internal research capacity.	Conduct robust Shariahcompliance supported by audit, risk and internal research


UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

APPENDIX E: CORRELATION MATRIX FOR INDEPENDENT VARIABLES (SQ AND SHARIAH COMPLIANCE)

Correlation Matrix for independent variable Service quality

Dimension	Item	Symbol	Tanq1	Tanq2	Tanq3	Tanq4	Resq1	Resq2	Resq3	Resq4	Resq5	Resq6	Resq7	Resq8	Resq9	Resq10	Ass1	Ass2	Ass3	Ass4	Amp1	Amp2	Amp3	Amp4	Amp5
Tempile	The bank's state of the art technology	Tanq1	1.000	.554	.488	.370	.346	.322	.335	.265	.156	.292	.379	.204	.223	.290	.404	.238	.321	.291	.234	.257	.411	.244	
	The bank's visually appealing premises	Tanq2	.554	1.000	.402	.471	.430	.379	.380	.280	.260	.334	.387	.259	.263	.325	.438	.249	.367	.212	.246	.222	.407	.310	
	The bank's customer intimacy	Tanq3	.488	.402	1.000	.547	.569	.654	.592	.585	.216	.416	.443	.571	.533	.464	.427	.588	.609	.307	.190	.317	.603	.444	
	Customer friendly brochures	Tanq4	.370	.471	.547	1.000	.554	.594	.516	.553	.318	.561	.465	.545	.485	.539	.443	.425	.555	.543	.428	.485	.515	.514	
Reliability	Bank's promised delivery	Resq1	.346	.430	.569	.554	1.000	.778	.582	.583	.270	.500	.387	.473	.484	.407	.292	.478	.478	.411	.363	.335	.514	.462	
	Bank's caring solution	Resq2	.322	.379	.654	.594	.778	1.000	.668	.587	.223	.526	.524	.643	.572	.490	.300	.555	.598	.447	.290	.546	.668	.518	
	Bank's first time right advice	Resq3	.335	.350	.592	.516	.582	.668	1.000	.540	.447	.495	.547	.655	.601	.400	.495	.670	.614	.534	.314	.502	.553	.531	
	The bank timely service	Resq4	.265	.280	.565	.553	.583	.567	.540	1.000	.363	.584	.507	.627	.682	.564	.382	.558	.694	.528	.445	.445	.541	.457	
	The bank's error free records	Resq5	.156	.260	.216	.319	.270	.223	.447	.368	1.000	.544	.311	.396	.428	.349	.403	.392	.307	.384	.224	.320	.199	.376	
	Reliable information update to customer	Resq6	.292	.334	.416	.561	.500	.526	.498	.594	.544	1.000	.601	.567	.560	.607	.401	.474	.560	.435	.387	.544	.434	.584	
Empowerment	Efficient customer response	Resq7	.379	.387	.443	.485	.387	.524	.517	.507	.311	.601	1.000	.730	.662	.589	.422	.488	.617	.432	.416	.521	.524	.638	
	Assistance rendered willingly	Resq8	.204	.259	.571	.545	.473	.643	.655	.627	.396	.567	.708	1.000	.900	.615	.476	.718	.702	.611	.298	.557	.675	.682	
	Adequate attention to request	Resq9	.223	.263	.533	.496	.454	.572	.681	.632	.428	.560	.662	.900	1.000	.577	.514	.713	.769	.634	.428	.521	.521	.641	
	Customer confidentiality observed	Resq10	.289	.325	.464	.509	.407	.490	.400	.564	.349	.601	.559	.615	.577	1.000	.559	.564	.660	.432	.219	.417	.521	.425	
Assurance	Secured banking privacy	Ass1	.454	.438	.427	.443	.292	.300	.495	.382	.403	.401	.422	.478	.514	.559	1.000	.534	.627	.393	.277	.326	.432	.485	
	Courteous Bank Employees	Ass2	.238	.249	.588	.428	.476	.555	.678	.588	.392	.474	.488	.718	.713	.564	.534	1.000	.773	.649	.274	.512	.493	.594	
	Adequate response on request	Ass3	.291	.381	.609	.598	.475	.556	.614	.694	.387	.565	.647	.730	.789	.662	.627	.773	1.000	.633	.428	.515	.563	.685	
	Customized services	Ass4	.281	.212	.387	.548	.471	.447	.534	.526	.354	.435	.422	.611	.634	.422	.393	.549	.635	1.000	.444	.595	.472	.578	
Empathy	Convenient operating hours	Amp1	.234	.246	.198	.428	.365	.284	.314	.448	.224	.387	.416	.290	.408	.219	.277	.274	.405	.444	1.000	.498	.516	.468	
	Personalized attention	Amp2	.257	.222	.317	.490	.338	.346	.502	.445	.320	.544	.521	.587	.521	.417	.326	.612	.516	.595	.499	1.000	.683	.637	
	Flavored banking style	Amp3	.411	.407	.603	.510	.514	.668	.553	.541	.194	.434	.524	.578	.521	.521	.432	.483	.593	.472	.516	.653	1.000	.597	
	Attuned to customer needs	Amp4	.244	.310	.444	.514	.492	.516	.531	.457	.378	.544	.523	.682	.641	.423	.485	.594	.653	.579	.469	.637	.597	1.000	
		Amp5																							
		Amp6																							

Correlation Matrix for independent variable Shariah Compliance

Dimension	Item	Symbol	SCI1	SCI2	SCI3	SCI4	SCI5	SCP1	SCP2	SCP3	SCP4	SCP5	SCE1	SCE2	SCE3	SCE4	SCE5
Shariah compliance and feature	Provides proper banking product disclosure	SCI1	1.000	.523	.546	.541	.548	.492	.349	.423	.441	.445	.398	.325	.492	.427	.226
	Care for Shariah requirements for products and services	SCI2	.523	1.000	.723	.504	.634	.684	.609	.512	.652	.690	.607	.302	.607	.642	.511
	Gives assurance that your banking transactions are Shariah compliant	SCI3	.546	.723	1.000	.647	.766	.587	.449	.577	.709	.679	.547	.237	.625	.689	.504
	Facilities are visually appealing and consistent with Islamic values	SCI4	.541	.504	.647	1.000	.593	.535	.485	.650	.600	.504	.602	.366	.591	.609	.532
	Attend to ensure your banking needs are Shariah compliant	SCI5	.548	.634	.766	.593	1.000	.677	.606	.610	.730	.523	.230	.644	.706	.535	
Shariah Compliance product and services	Shariah compliant product features are adequately explained to you	SCP1	.492	.684	.587	.535	.677	1.000	.722	.578	.722	.743	.598	.360	.621	.689	.592
	Use customer friendly Islamic terms in banking	SCP2	.349	.609	.449	.485	.608	.722	1.000	.560	.764	.601	.524	.320	.563	.628	.447
	Assures bank product compliance is certified	SCP3	.423	.512	.577	.650	.610	.578	.580	1.000	.753	.607	.516	.216	.458	.555	.483
	Response to clarify bank product Shariah compliant feature	SCP4	.441	.652	.709	.600	.730	.722	.784	.753	1.000	.783	.616	.281	.653	.778	.593
	Services rendered met your expectations of Shariah compliant services	SCP5	.448	.690	.679	.504	.730	.743	.601	.607	.783	1.000	.599	.270	.697	.754	.662
Islam's bank employees' ethical conduct	Employees conduct are proper and observant of Islamic ethical values	SCE1	.368	.607	.547	.602	.523	.598	.524	.516	.618	.599	1.000	.483	.607	.618	.640
	Adopt proper and modest employee dress codes in banking	SCE2	.329	.302	.237	.306	.230	.380	.320	.216	.281	.270	.483	1.000	.469	.443	.435
	Employees are supportive of your concerns to ensure Shariah compliant banking transactions	SCE3	.492	.625	.591	.644	.621	.563	.458	.653	.697	.607	.469	1.000	.829	.591	
	Employees are transparent in all dealings with your Islamic banking needs	SCE4	.427	.642	.688	.609	.706	.659	.628	.559	.778	.754	.618	.443	.829	1.000	.691
	Employee are courteous and well-mannered in Islamic banking services	SCE5	.228	.511	.504	.532	.635	.592	.447	.493	.593	.682	.640	.435	.591	.691	1.000

APPENDIX F: MEASURES OF SAMPLING ADEQUACY (MSA)

Anti-image correlation matrix for Service quality dimensions

Dimension	Item	Temp1	Temp2	Temp3	Temp4	Resp1	Resp2	Resp3	Resp4	Resp5	Resp6	Resp7	Resp8	Resp9	Resp10	Ass1	Ass2	Ass3	Ass4	Emp1	Emp2	Emp3	Emp4	Emp5	
Temp	The bank's state of the art technology	Temp1	-0.33	-0.29	-0.33	0.45	-0.79	0.03	0.09	0.03	0.09	-0.10	-0.26	0.19	-0.09	-0.12	-0.19	0.73	0.12	-0.24	0.66	-0.73	-0.63	0.76	
	The bank's visually appealing premises	Temp2	-0.33	0.27	0.69	-0.49	-0.16	-0.04	0.62	0.08	-0.14	0.22	-0.10	0.06	0.06	-0.53	0.66	-0.14	-0.09	-0.60	0.128	0.66	0.73	-0.148	0.10
	The bank's customer intimacy	Temp3	-0.33	0.69	0.89	-0.27	0.15	-0.12	-0.09	-0.14	0.45	-0.40	0.73	-0.60	-0.01	0.34	0.03	-0.23	-0.10	0.167	0.175	0.238	-0.237	-0.01	
	Customer friendly brochures	Temp4	0.45	-0.49	-0.27	0.22	0.22	0.22	-0.148	-0.131	-0.073	0.065	-0.123	0.145	-0.231	0.255	-0.165	-0.094	0.304	-0.099	-0.276	-0.255	-0.061	0.233	-0.49
Reliability	Bank's prompt solution	Resp1	-0.79	-0.16	0.15	0.22	0.22	0.22	-0.148	-0.131	-0.073	0.065	-0.123	0.145	-0.231	0.255	-0.165	-0.094	0.304	-0.099	-0.276	-0.255	-0.061	0.233	-0.49
	Bank's first time right advice	Resp2	0.03	-0.04	-0.12	-0.14	-0.06	-0.06	-0.14	-0.21	-0.12	-0.12	-0.076	0.06	0.00	0.15	-0.01	0.01	0.01	-0.02	0.11	0.190	-0.294	-0.21	0.112
	The bank timely service	Resp3	0.09	0.62	-0.49	-0.131	-0.141	-0.165	0.307	0.034	-0.245	0.004	-0.213	0.153	-0.277	0.327	-0.213	-0.290	-0.109	-0.023	0.169	-0.41	-0.171	0.124	
	The bank's error free records	Resp4	0.03	0.09	-0.141	-0.073	-0.281	0.119	0.034	0.111	-0.059	-0.150	0.097	0.008	-0.225	-0.074	0.123	0.007	-0.007	-0.124	-0.055	-0.099	0.270		
Responsiveness	Reliable information update to customer query	Resp5	0.03	-0.140	0.45	0.65	-0.12	-0.147	-0.245	-0.069	0.241	-0.351	0.127	-0.075	0.016	-0.029	-0.115	0.002	0.027	-0.041	-0.020	-0.044	0.116	-0.036	
	Prompt customer response	Resp6	-0.10	0.22	-0.40	-0.123	-0.076	-0.060	0.008	-0.150	-0.351	0.215	-0.223	0.065	-0.009	-0.285	0.034	0.011	0.096	-0.041	-0.206	0.192	-0.158		
	Assistance rendered willingly	Resp7	-0.65	-0.106	0.73	0.145	0.066	-0.034	-0.212	0.097	0.127	-0.223	0.011	-0.420	0.117	-0.137	0.121	0.201	-0.305	0.172	-0.386	-0.075	0.122	0.42	
	Adequate attention to request	Resp8	0.199	0.086	-0.060	-0.231	0.030	-0.113	-0.153	0.006	-0.075	0.065	-0.420	0.657	-0.699	-0.039	0.002	-0.203	0.214	-0.088	0.371	0.018	-0.202	-0.164	
Assurance	Customer confidentiality observed	Ass1	-0.09	-0.55	-0.001	0.255	0.135	-0.047	-0.277	-0.223	0.016	-0.009	0.117	-0.699	0.027	-0.060	-0.041	0.094	-0.205	-0.093	-0.332	0.070	0.245	-0.067	
	Secured banking privacy	Ass2	-0.12	0.66	0.134	-0.165	-0.073	-0.011	0.207	-0.074	-0.029	-0.285	-0.137	-0.039	-0.060	0.307	-0.289	-0.190	-0.109	0.036	0.254	0.037	-0.288	0.28	
	Courteous Bank Employees	Ass3	-0.183	-0.145	0.033	-0.064	0.055	0.158	-0.213	0.123	-0.115	0.063	0.121	0.002	-0.041	-0.289	0.170	-0.062	-0.221	0.123	-0.059	0.066	-0.034	-0.106	
	Adequate response on request	Ass4	0.73	-0.09	-0.205	0.04	-0.069	0.201	-0.295	0.097	0.002	0.034	0.201	-0.203	0.064	-0.190	-0.052	0.276	-0.241	-0.051	-0.161	0.209	-0.027	-0.206	
Empathy	Customized services	Emp1	0.121	-0.50	-0.108	-0.099	0.107	-0.025	0.09	-0.283	0.027	0.011	-0.305	0.214	-0.205	-0.159	-0.221	-0.375	0.027	-0.147	0.055	0.106	-0.027	-0.206	
	Convenient operating hours	Emp2	-0.244	0.24	0.167	-0.278	-0.002	0.115	-0.023	-0.007	-0.41	0.096	0.172	-0.050	-0.083	0.208	0.123	-0.244	-0.147	0.233	-0.097	-0.229	0.027	-0.019	
	Personalized attention	Emp3	0.056	0.066	0.175	-0.255	-0.215	0.190	0.169	-0.124	-0.020	-0.041	-0.288	0.371	-0.332	0.254	-0.099	-0.061	0.065	-0.097	0.174	-0.104	-0.400	-0.41	
	Favored banking style	Emp4	-0.075	0.073	0.258	-0.061	0.343	-0.294	-0.041	-0.055	-0.044	-0.206	-0.076	0.018	0.070	0.207	0.066	-0.160	-0.109	-0.228	-0.104	0.207	-0.319	-0.265	
	Attend to customer needs	Emp5	-0.069	-0.149	-0.287	0.233	0.113	-0.231	-0.171	-0.099	0.119	0.192	0.122	-0.202	0.245	-0.285	-0.034	0.209	-0.087	0.027	-0.400	-0.319	0.207	-0.177	

a. measures of sample adequacy (MSA)

Anti-image correlation matrix for Shariah Compliance dimensions

Dimension	Item	SCI1	SCI2	SCI3	SCI4	SCI5	SCP1	SCP2	SCP3	SCP4	SCP5	SCE1	SCE2	SCE3	SCE4	SCE5	
Sharia Banker's behavior and attitude	Provides proper banking product disclosure	SCI1	0.897	-0.213	-0.001	-0.281	-0.219	-0.175	0.189	-0.014	-0.043	-0.038	0.103	-0.253	-0.144	0.133	0.304
	Care for customer requirements for products and services	SCI2	-0.213	0.897	-0.468	-0.187	-0.158	-0.123	-0.328	-0.037	0.183	-0.152	-0.217	0.065	-0.005	-0.025	-0.060
	Gives assurance that your banking transactions are Shariah compliant	SCI3	-0.001	-0.468	0.897	-0.304	-0.412	0.401	0.099	-0.324	0.001	0.025	0.027	-0.001	-0.089	-0.108	0.108
	Facilities are visually appealing and consistent with Islamic values	SCI4	-0.281	-0.187	-0.304	0.897	0.037	0.016	-0.156	-0.383	0.141	0.206	-0.224	0.028	-0.124	-0.080	-0.199
	Attend to ensure your banking needs are Shariah	SCI5	-0.219	0.158	-0.412	0.037	0.897	-0.077	-0.240	-0.096	0.073	-0.162	0.029	0.155	-0.036	-0.091	-0.085
Shariah Compliance products and services	Shariah compliant product features are adequately explained to you	SCP1	-0.175	-0.123	0.401	0.016	-0.077	0.897	-0.333	-0.034	0.041	-0.246	-0.057	-0.039	0.097	-0.080	-0.128
	Use customer friendly Islamic terms in banking	SCP2	0.189	-0.328	0.417	-0.156	-0.240	-0.333	0.897	0.082	-0.518	0.144	0.031	-0.118	-0.075	0.014	0.187
	Assures bank product compliance is certified	SCP3	-0.014	-0.037	0.099	-0.383	-0.096	-0.034	0.082	0.897	-0.438	-0.076	0.004	0.004	0.145	0.086	-0.001
	Response to clarify bank product Shariah compliant feature	SCP4	-0.043	0.183	-0.324	0.141	0.073	0.041	-0.518	-0.438	0.897	-0.246	-0.122	0.116	0.072	-0.276	-0.020
	Services rendered met your expectations of Shariah compliant services	SCP5	-0.038	-0.152	0.001	0.206	-0.162	-0.246	0.144	-0.076	-0.246	0.897	-0.034	0.154	-0.204	-0.041	-0.247
Shariah Bank employees' ethical conduct	Employees conduct are proper and observant of Islamic ethical values	SCE1	0.103	-0.217	0.028	-0.224	0.029	-0.057	0.031	0.004	-0.122	-0.034	0.897	-0.249	-0.106	0.107	-0.207
	Adopt proper and modest employee dress codes in banking	SCE2	-0.283	0.065	0.027	0.028	0.155	-0.039	-0.118	0.004	0.116	0.154	-0.249	0.897	-0.138	-0.152	-0.211
	Employees are supportive of your concerns to ensure Shariah compliant banking transactions	SCE3	-0.144	-0.005	-0.001	-0.124	-0.036	0.007	-0.078	0.145	0.072	-0.204	-0.106	-0.138	0.897	-0.508	0.056
	Employees are transparent in all dealings with your Islamic banking needs	SCE4	0.133	-0.025	-0.089	-0.000	-0.091	-0.000	0.014	0.088	-0.278	-0.041	0.107	-0.152	-0.508	0.897	-0.219
	Employee are courteous and well-mannered in Islamic banking services	SCE5	0.304	-0.050	0.106	-0.199	-0.085	-0.128	0.187	-0.001	-0.020	-0.247	-0.207	-0.211	0.056	-0.219	0.897

a. Measures of Sampling Adequacy (MSA)

APPENDIX G: COMMUNALITIES FOR ALL VARIABLES

Communalities For Service quality			Communalities for Shariah compliance			Communalities for customer satisfaction			Communalities for customer retention		
	Initial	Extraction		Initial	Extraction		Initial	Extraction		Initial	Extraction
Tang1	1.000	.688	SCI1	1.000	.390	CS1	1.000	.840	CR1	1.000	.804
Tang2	1.000	.727	SCI2	1.000	.654	CS2	1.000	.878	CR2	1.000	.753
Tang3	1.000	.761	SCI3	1.000	.716	CS3	1.000	.648	CR3	1.000	.810
Tang4	1.000	.593	SCI4	1.000	.567	CS4	1.000	.801	CR4	1.000	.782
Relb1	1.000	.689	SCI5	1.000	.766	CS5	1.000	.270	CR5	1.000	.808
Relb2	1.000	.835	SCP1	1.000	.699	Communalities for customer loyalty			CR6	1.000	.863
Relb3	1.000	.645	SCP2	1.000	.570	CL1	1.000	.529	CR7	1.000	.957
Relb4	1.000	.605	SCP3	1.000	.610	CL2	1.000	.599			
Relb5	1.000	.540	SCP4	1.000	.812	CL3	1.000	.813			
Resp1	1.000	.580	SCP5	1.000	.746	CL4	1.000	.685			
Resp2	1.000	.562	SCE1	1.000	.672	CL5	1.000	.715			
Resp3	1.000	.834	SCE2	1.000	.792	CL6	1.000	.703			
Resp4	1.000	.821	SCE3	1.000	.710						
Ass1	1.000	.594	SCE4	1.000	.784						
Ass2	1.000	.664	SCE5	1.000	.641						
Ass3	1.000	.743									
Ass4	1.000	.783									
Amp1	1.000	.596									
Amp2	1.000	.747									
Amp3	1.000	.717									
Amp4	1.000	.699									
Amp5	1.000	.652									


UNIRAZAK
 UNIVERSITI TUN ABDUL RAZAK
 Copying, modifying, or reprinting, is not permitted.

APPENDIX H: FACTOR ANALYSIS FOR SHARIAH COMPLIANCE DIMENSIONS

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.906
Bartlett's Test of Sphericity	4406.489
Approx. Chi-Square	105
df	105
Sig.	0.000

Correlation Matrix for Shariah compliance dimensions

	SCI1	SCI2	SCI3	SCI4	SCI5	SCP 1	SCP 2	SCP 3	SCP 4	SCP 5	SCE 1	SCE 2	SCE 3	SCE 4	SCE 5
SCI1	1.000	.523	.546	.541	.548	.492	.349	.423	.441	.445	.368	.329	.492	.427	.226
SCI2	.523	1.000	.723	.504	.634	.684	.609	.512	.652	.690	.607	.302	.607	.642	.511
SCI3	.546	.723	1.000	.647	.766	.587	.449	.577	.709	.679	.547	.237	.625	.689	.504
SCI4	.541	.504	.647	1.000	.593	.535	.485	.650	.600	.504	.602	.366	.591	.609	.532
SCI5	.548	.634	.766	.593	1.000	.677	.606	.610	.730	.730	.523	.230	.644	.706	.535
SCP 1	.492	.684	.587	.535	.677	1.000	.722	.578	.722	.743	.598	.360	.621	.689	.592
SCP 2	.349	.609	.449	.485	.606	.722	1.000	.560	.764	.601	.524	.320	.563	.628	.447
SCP 3	.423	.512	.577	.650	.610	.578	.560	1.000	.753	.607	.516	.216	.458	.559	.483
SCP 4	.441	.652	.709	.600	.730	.722	.764	.753	1.000	.783	.616	.281	.653	.778	.593
SCP 5	.445	.690	.679	.504	.730	.743	.601	.607	.783	1.000	.599	.270	.697	.754	.662
SCE 1	.368	.607	.547	.602	.523	.598	.524	.516	.616	.599	1.000	.483	.607	.618	.640
SCE 2	.329	.302	.237	.366	.230	.360	.320	.216	.281	.270	.483	1.000	.469	.443	.435
SCE 3	.492	.607	.625	.591	.644	.621	.563	.458	.653	.697	.607	.469	1.000	.829	.591
SCE 4	.427	.642	.689	.609	.706	.689	.628	.559	.778	.754	.618	.443	.829	1.000	.691
SCE 5	.226	.511	.504	.532	.535	.592	.447	.483	.593	.662	.640	.435	.591	.691	1.000

Total Variance Explained for Shariah Compliance dimensions

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.020	60.135	60.135	9.020	60.135	60.135	6.963	46.420	46.420
2	1.103	7.352	67.487	1.103	7.352	67.487	3.160	21.068	67.487
3	.916	6.109	73.597						
4	.688	4.588	78.185						
5	.668	4.455	82.640						
6	.493	3.289	85.929						
7	.396	2.638	88.567						
8	.346	2.305	90.872						
9	.309	2.057	92.930						
10	.279	1.857	94.787						
11	.216	1.440	96.227						
12	.190	1.266	97.493						
13	.168	1.122	98.615						
14	.126	.838	99.453						
15	.082	.547	100.000						

Extraction Method: Principal Component Analysis.

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.

APPENDIX I: FACTOR ANALYSIS FOR CUSTOMER SATISFACTION ITEMS

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824
Bartlett's Test of Sphericity	Approx. Chi-Square	1171.945
	df	10
	Sig.	.000

Correlation Matrix

		CS1	CS2	CS3	CS4	CS5
Correlation	CS1	1.000	.869	.637	.771	.418
	CS2	.869	1.000	.724	.777	.400
	CS3	.637	.724	1.000	.671	.192
	CS4	.771	.777	.671	1.000	.395
	CS5	.418	.400	.192	.395	1.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.437	68.738	68.738	3.437	68.738	68.738
2	.844	16.885	85.623			
3	.345	6.891	92.515			
4	.255	5.100	97.615			
5	.119	2.385	100.000			

Extraction Method: Principal Component Analysis.

APPENDIX J: FACTOR ANALYSIS FOR CUSTOMER LOYALTY ITEMS

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.858
Bartlett's Test of Sphericity	Approx. Chi-Square	1286.356
	df	15
	Sig.	.000

Correlation Matrix

		CL1	CL2	CL3	CL4	CL5	CL6
Correlation	CL1	1.000	.535	.648	.465	.515	.472
	CL2	.535	1.000	.643	.658	.475	.524
	CL3	.648	.643	1.000	.683	.719	.719
	CL4	.465	.658	.683	1.000	.648	.608
	CL5	.515	.475	.719	.648	1.000	.770
	CL6	.472	.524	.719	.608	.770	1.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.044	67.398	67.398	4.044	67.398	67.398
2	.652	10.871	78.270			
3	.554	9.236	87.505			
4	.319	5.318	92.824			
5	.228	3.808	96.631			
6	.202	3.369	100.000			

Extraction Method: Principal Component Analysis.

APPENDIX K: FACTOR ANALYSIS FOR CUSTOMER RETENTION ITEMS

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.924
Bartlett's Test of Sphericity	Approx. Chi-Square	2946.875
	df	21
	Sig.	0.000

Correlation Matrix

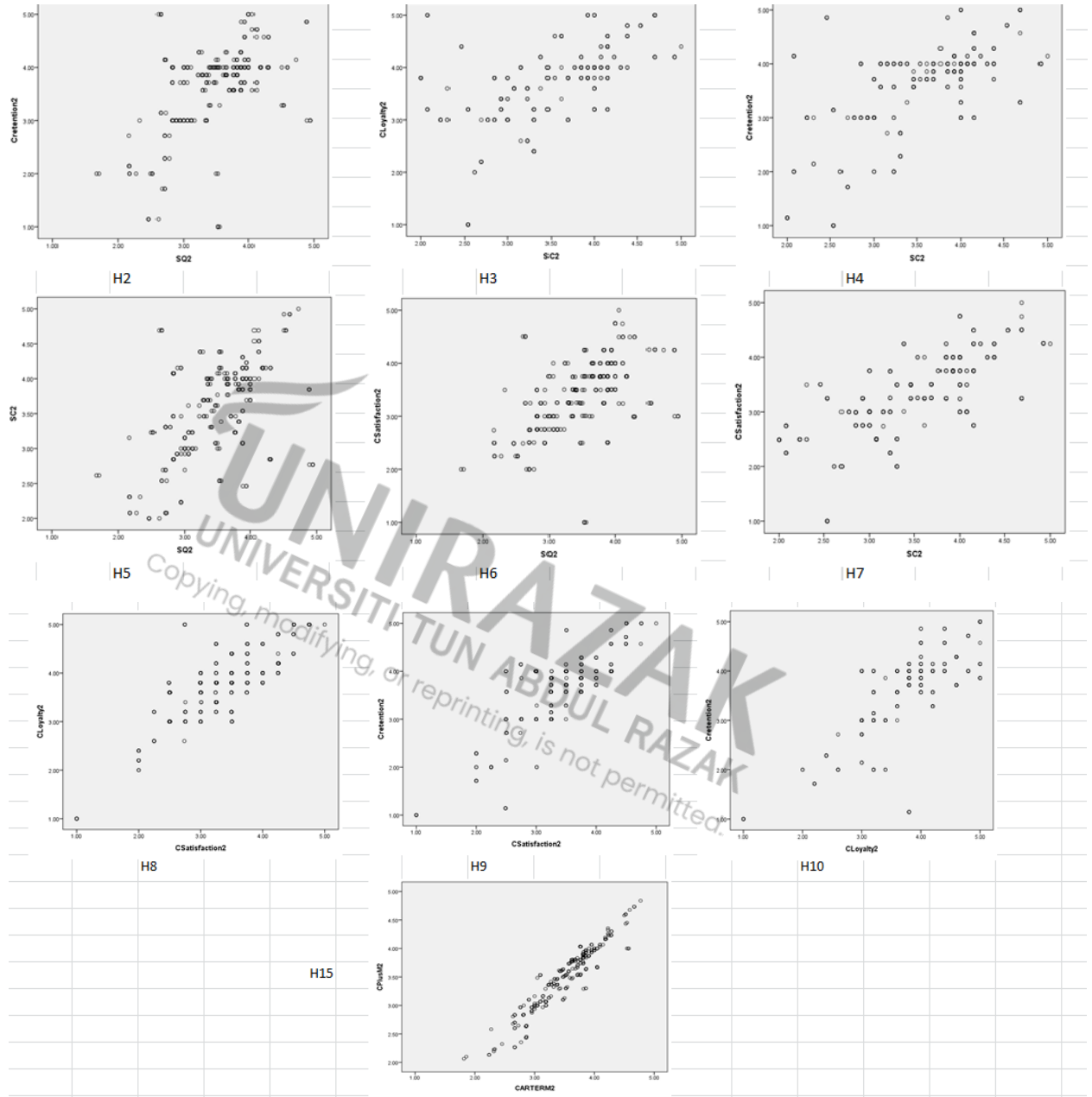
		CR1	CR2	CR3	CR4	CR5	CR6	CR7
Correlation	CR1	1.000	.752	.745	.728	.767	.813	.893
	CR2	.752	1.000	.751	.726	.729	.728	.838
	CR3	.745	.751	1.000	.753	.792	.799	.876
	CR4	.728	.726	.753	1.000	.751	.830	.835
	CR5	.767	.729	.792	.751	1.000	.815	.859
	CR6	.813	.728	.799	.830	.815	1.000	.909
	CR7	.893	.838	.876	.835	.859	.909	1.000

Total Variance Explained

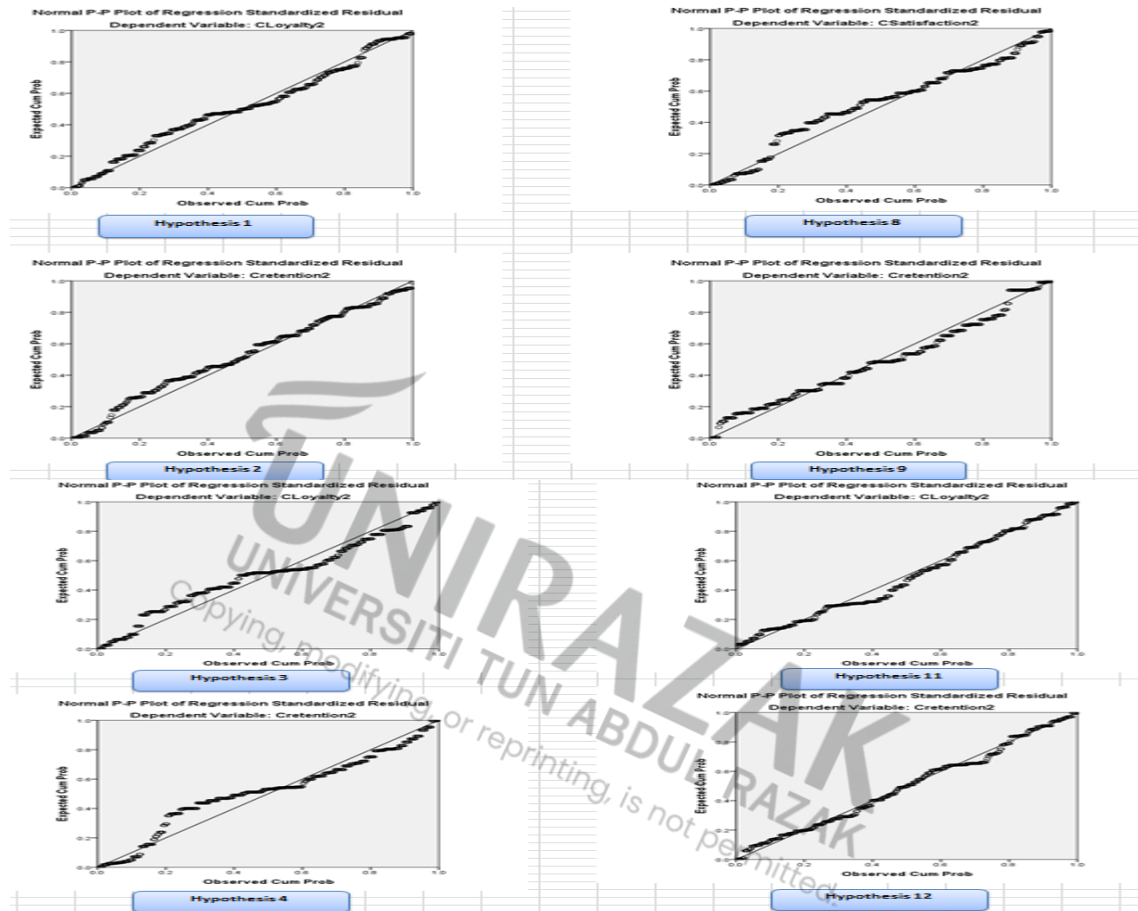
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.776	82.512	82.512	5.776	82.512	82.512
2	.312	4.460	86.972			
3	.272	3.887	90.859			
4	.260	3.715	94.574			
5	.202	2.886	97.460			
6	.134	1.919	99.378			
7	.044	.622	100.000			

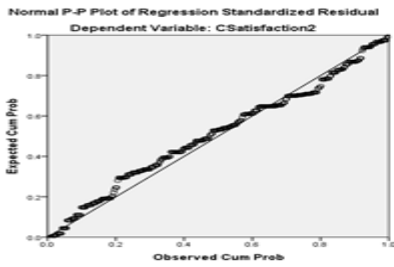
Extraction Method: Principal Component Analysis.

APPENDIX L: SCATTERPLOT FOR HYPOTHESIS (FROM H2 TO H10 AND H15)

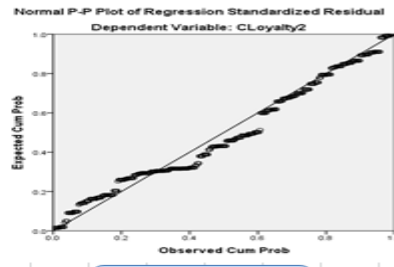


APPENDIX M: NORMAL P-P PLOT FOR HYPOTHESIS (FROM H1 TO H14 EXCEPT H5, H10)

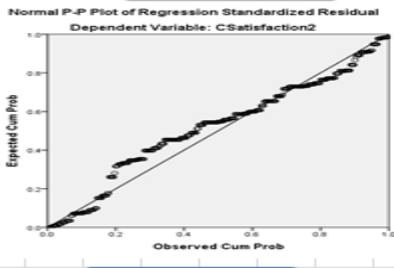




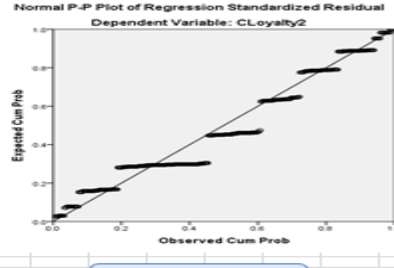
Hypothesis 6



Hypothesis 13



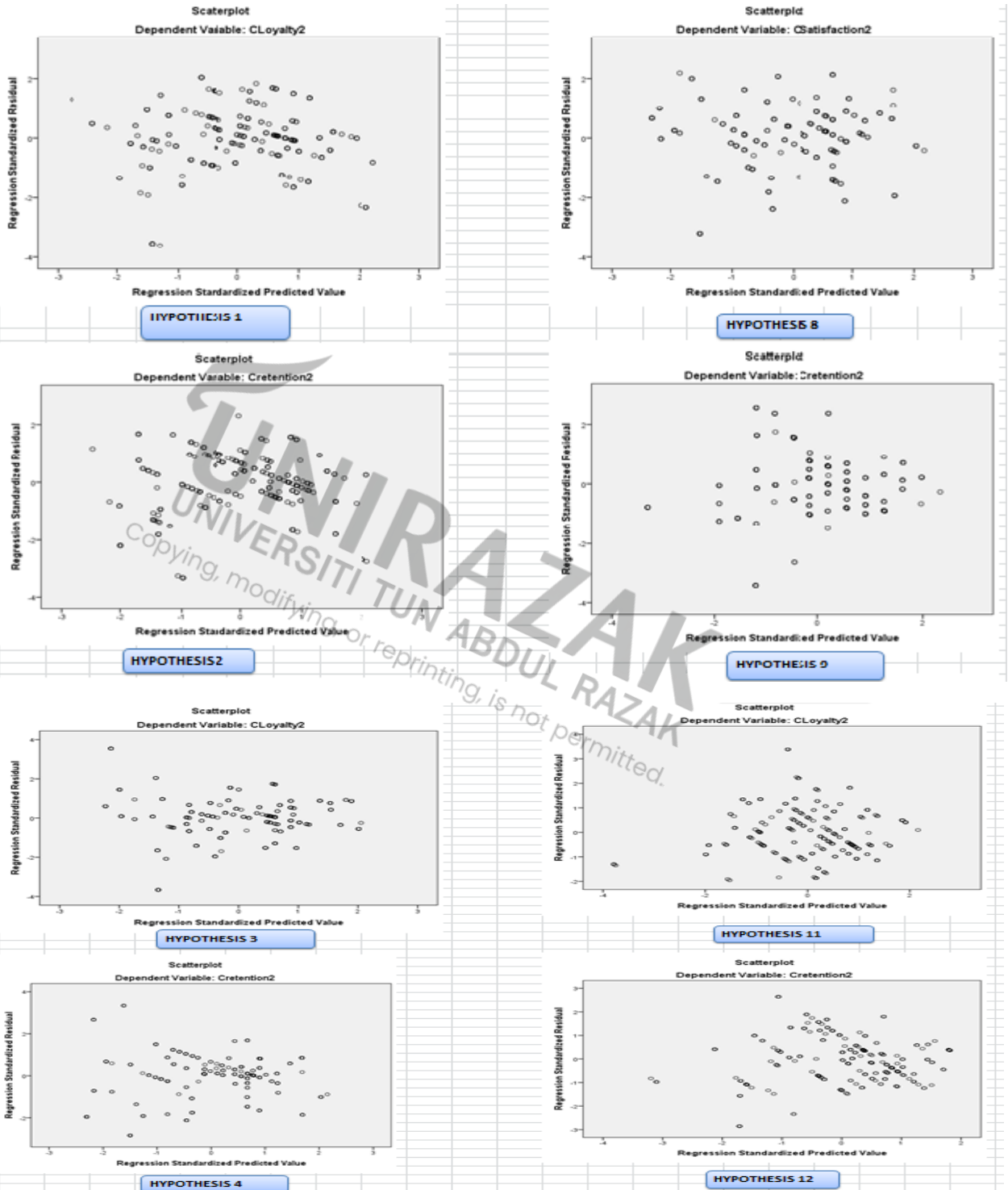
Hypothesis 7

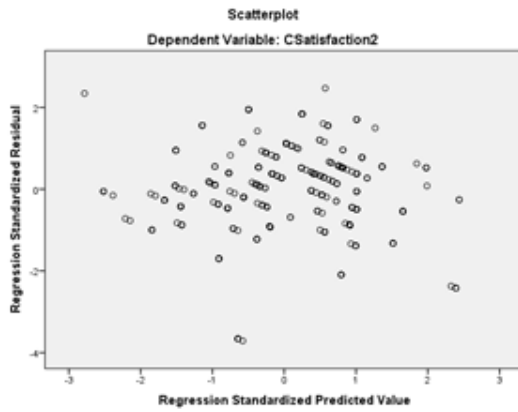


Hypothesis 14

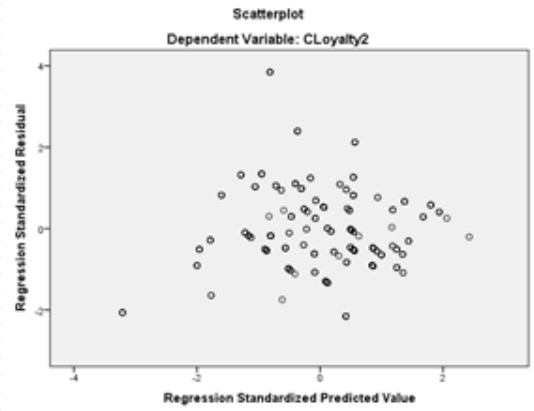
UNIRAZAK
 UNIVERSITI TUN ABDUL RAZAK
 Copying, modifying, or reprinting, is not permitted.

APPENDIX N: SCATTERPLOT RESIDUAL FOR HYPOTHESIS (FROM H1 TO H14 EXCEPT H5, H10)

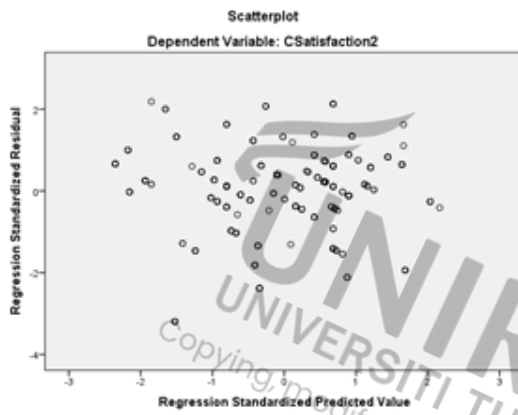




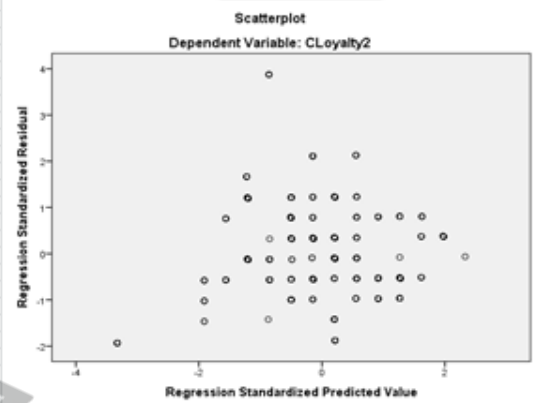
HYPOTHESIS 6



HYPOTHESIS 13



HYPOTHESIS 7



HYPOTHESIS 14

UNIRAZAK
UNIVERSITI TUN ABDUL RAZAK
Copying, modifying, or reprinting, is not permitted.