Service Quality and Customer Preference Towards Islamic Banking in Malaysia: A Study Using CARTER Model

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This study has been carried out to identify elements of service quality influencing customers' preference towards Islamic Banking products and services in Malaysia. An alternative service quality measurement model called CARTER developed by Othman and Owen (2001) has been used particularly to address elements of compliance to Shari'ah in addition to Parasuraman's service quality measurement of five original dimensions. Data collection covering 5 largest cities from 5 states and four regions of peninsular Malaysia has been sucessfully conducted in which 1036 questionnaires have been returned. Respondents were randomly chosen from two of the largest banks in Malaysia in which one is Islamic bank and the latter is conventional bank offering Islamic banking scheme products and services. Multiple Regression analysis has been used to determine critical elements of service quality in which respondents perceived more in influencing them to choose Islamic banking products and services.

Keywords: Islamic banking, service quality, quality, customer satisfaction

1. Background of the study

Islamic banking has over the years grown significantly worldwide with more than 180 Islamic banks and financial institutions operating in Asia, Africa, Europe and the USA by end of 1999. In Malaysia, Islamic Banking has gone from strength to strength since the establishment of Bank Islam Malaysia Berhad (BIMB) in 1983, which marked a milestone in the Malaysian banking system as it provided an alternative to the existing conventional system. Due to significant increase in demand from the consumer, on March 4, 1993, the Central Bank of Malaysia (BNM) introduced a scheme known as "Skim Perbankan Tanpa Faedah" (Interest-free banking scheme) which in later years known as Islamic Banking Scheme (SPI). In the mean time, Othman and Owen (2001) stated that the consequent increase in competition between conventional banks and Islamic banks has made service quality factors a key differentiating factor for Islamic banks to improve their market shares, and profit positions. Hence, the measurement of service quality has become critically important for Islamic banks in order to better understand customer needs, wants and preferences. In Malaysia, research on Islamic banking or issues related to Islamic banking have been conducted by Haron, Ahmad and Planisek (1994 and 2000) in

which they just focused more on corporate customers' perception (2000) and bank patronage factors of Muslim and non-Muslim customers (1994). Other research on Islamic banking, are also focusing on customer satisfaction with some using SERVQUAL five dimensions model to study service quality factors (Gerrard and Cunningham, 1997; Naser, Jamal and Al-Khatib, 1999). However, Othman and Owen (2001) have developed a new more appropriate instrument to study Islamic banking service quality with the inclusion of compliance factor (compliance fully with Islamic law and principles). Thus, this research represents an effort to examine service quality factors and its relationship with customer satisfaction in Islamic banking using CARTER model, an alternative service quality measurement and assessment model.

2. Research Objectives

2.1 To identify elements of service quality influencing customers' preference towards Islamic Banking products and services

2.2 To identify any relationship between dimension of service quality in CARTER model and customer satisfaction in Interest-free Banking (IFB) operations

3. Literature Review

Islamic Banking in Malaysia

The Islamic initial response to prohibition of 'riba' has been the rationalization of Islamic banking. Malaysia has first embarked on Islamic banking in 1983 with the establishment of Bank Islam Malaysia Bhd. (BIMB) with operations governed by the Islamic Banking Act 1985. Since its introduction, Islamic banking has made rapid expansion in market share of banking assets, deposits and financing. As at end June 2003, Islamic banking assets, deposits and financing grew 10.9%, 8% and 15.4% to RM75,470 million , RM57,573 million and RM42,364 million respectively (Economic Report, 2003). Additionally, Islamic banking assets have expanded massively from RM370 million in 1983 to RM79.5 billion at end June 2003 (Economic report, 2003). The Islamic banking system helps to promote the growth of other sectors, such as takaful (the Islamic insurance) and the money market.

Service Quality Model and The development of CARTER Model

Service quality is a vital antecedent of customer satisfaction (Cronin and Taylor, 1992). Over these years, service quality has been the subject of great interest by both practitioners and researchers, especially after the original work by Parasuraman et al. (1985). One reason for the interest in service quality by practitioners has been transpired by the beneficial effect on bottom line performance for the firm (Caruana, 2002). Service quality is commonly noted as a critical prerequisite for establishing and sustaining satisfying relationships with customers (Lassar et al., 2000). In this way, the association between service quality and customer satisfaction has emerged as a topic of strategic concern (Cronin and Taylor, 1992). In general, research in service quality suggests that service quality is an important indicator of customer satisfaction. Definitions of service quality indicate that it is the result of the comparison customers make between what they want and expect (expectation) on the service and what they actually receive (perception) from the service (Lewis and

Booms, 1983; Lehtinen and Lehtinen, 1982; Gronroos, 1984; Parasuraman et al., 1985, 1988, 1994). Parasuraman et al.(1988) developed a 22-item instrument, recognized as SERVQUAL, that has become widely used as a generic instrument for measuring service quality, representing five dimensions which are reliability, responsiveness, tangibles, assurance, and empathy. In term of the development of CARTER model, many researchers and quality scholars have agreed the need and the important to develop valid and distinct measures of Service Quality (SQ) given the rise of service development in recent years in general, and in banking industry in particular (Othman and Owen, 2001). And due to significant weaknesses in the SERVQUAL model in which referring to its inability to capture certain aspects of cultural differences between countries, religions or ethnic groups, Othman and Owen (2001) have decided that it is important to build new additional dimensions for that model in the Islamic banking industry through the development of CARTER model in which a new dimension called *"Compliance with Islamic law"* has been added to SERVQUAL five dimensions.

4. RESEARCH METHODOLOGY

4.1   Research Design

This study utilised the survey method of primary data collection. The unit analysis is the banks' customers.

4.2 Theoretical Framework

INDEPENDENT VARIABLES   **DEPENDENT VARIABLES**
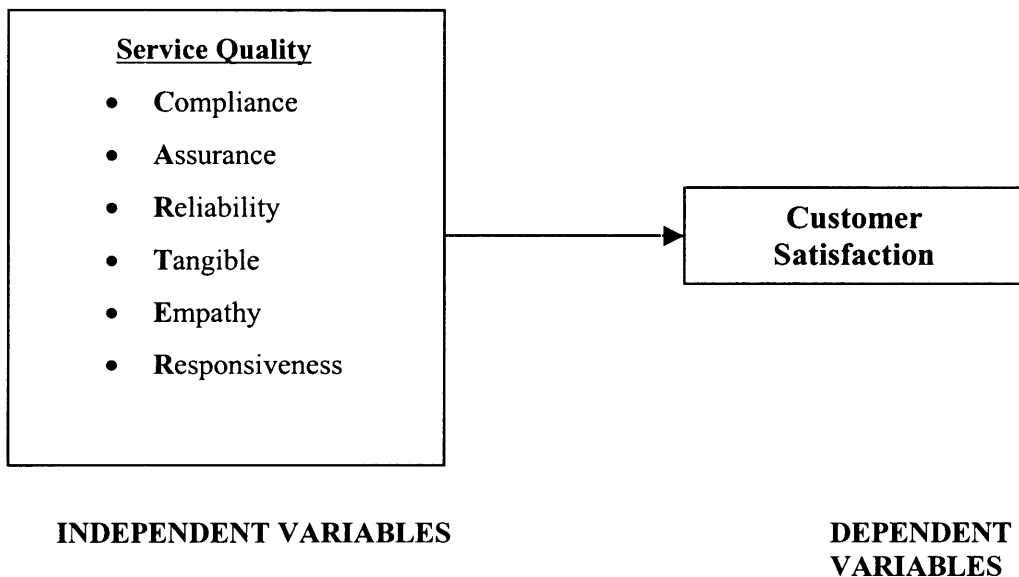
4.3 Sample, Data collection and Research Instrument

Population of the study was consumer-banking customers in Peninsular Malaysia. The respondents were selected among consumer banking customers of BMB (a local Islamic bank) and RHB (a local conventional bank offering both conventional and Islamic bannking). Area sampling was used to select the sample. The Peninsular Malaysia was then being divided into four main regions of northern, southern, eastern

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and midland. From those regions, one major city representing each region will be chosen for data collection. The four cities are Penang (northern region), Johor Bahru (southern region), Kuala Lumpur (midland), and Kota Bahru (eastern region). Alor Setar (northern region) was chosen as an additional city because it has majority Muslim population as well as its size and attributes in which comparatively similar to those of Kota Bahru. Questionnaires were distributed utilizing a convenience sampling from walk-in customers at the banks' premises across five cities representing four regions in West Malaysia. These cities were chosen because they represented a competitive banking environment and customers had a wide range of SPI banks and Islamic banks from which to choose. Only conventional banks offering Islamic banking scheme were chosen alongside local Islamic banks.

Of 2000 distributed questionnaires throughout 5 cities involving 4 regions and two banks, 1036 were usable, showing a response rate of 51.8%. In the mean time, pilot study was previously conducted in UUM in which staffs, students and other walk-in customers of an Islamic (BMB) and a conventional bank (BCB) were chosen as a test sample. In terms of research instrument, the questionnaire was adapted from Othman and Owen (2001) based upon CARTER instrumentation, which contains six dimensions of compliance, assurance, reliability, tangible, empathy, and responsiveness (the instrument has been tested and used in the Kuwait banking industry). However, adjustments on the questionnaire have been made based on responses and comments from the respondents in the pilot study.

4.5 Hypotheses of the study

The six dimensions of service quality in CARTER model will significantly explain the variance in customer satisfaction towards Interest-free Banking (IFB)

5. ANALYSIS OF FINDINGS

5.1 Demographic profile of respondents (N = 1036)

From the findings, 55.6% of 1,036 respondents are male and 43.9% are female. Statistics also shows 83.3% of the respondents are Malay, 11.8% Chinese and 3.4% Indian. In terms of religion, 83.6% of the respondents are muslim, 9.1% Buddha, 3.4% Christians and 2.7% Hindu. In the mean time, statistics on data collection shows 30% of the respondents are from Johor Bahru, 24.5% from Alor Setar, 17.1% from Kuala Lumpur, 16.7% from Kota Bahru, and 11.7% from Penang. Classification on customers based upon type of banks shows 61.3% of respondents are customers of Bank Muamalat Berhad, a local Islamic bank, while the rest are Interest-free Banking (29.4%) and conventional banking customers (9.3%) of a local conventional bank known as RHB Bank Berhad. Looking at analysis on respondents' occupation saw 7.4% are professionals such as doctors and lawyers, 19.3% are holding executive positions in their respective organizations, 17.5% owns businesses, 6.1% working in the banking sector and 5.9% are academician and teachers.

5.2 Descriptive statistic of measure

(i)   The following table shows a summary of the descriptive statistics for all dimensions used in this study.

Table 1: Descriptive Statistics of Measures (N=1036)

Variable Type	Variable Name	Means (SD)	Rank (IV)	No of Item	Minimum Score	Maximum Score
Dependent: Y	*Customer Satisfaction*	3.92 (0.66)		6	1.38	5.00
Independent: X_1	*Compliance*	4.32 (0.66)	5	5	1.40	5.00
X_2	*Assurance*	4.45 (0.53)	1	6	1.00	5.00
X_3	*Reliability*	4.35 (0.56)	4	5	1.00	5.00
X_4	*Tangible*	4.22 (0.58)	6	5	1.40	5.00
X_5	*Empathy*	4.37 (0.53)	2	9	1.11	5.00
X_6	*Responsiveness*	4.35 (0.56)	3	6	1.00	5.00

5.3 Reliability analysis (N=1036)

After completing the factoral analysis, reliability tests have been conducted on the samples collected involving all independent (predictors) and dependent variables. All six measures (CARTER dimensions) are found to be consistently reliable with cronbach alpha readings of above 0.70, hence the measures are accepted for further analysis.

5.4 Multiple Regression analysis

This section discusses regression analysis and results involving two approaches. Firstly, analysis using standard regression method has been conducted to identify contribution of the predictors (dimension) towards variance in dependent variable, and then a Stepwise regression procedure has been used to determine the best predictor (dimension) of customer satisfaction. The regression model created from the study is as follows:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 \; ; \text{Where:}$$

Y = Customer satisfaction with Islamic banking
$\beta_1 X_1$ = *Compliance* $\beta_2 X_2$ = *Assurance* $\beta_3 X_3$ = *Reliability*
$\beta_4 X_4$ = *Tangible* $\beta_5 X_5$ = *Empathy* $\beta_6 X_6$ = *Responsiveness*
a = Constant (the value of the intercept on the Y axis)
$\beta_{1 \, thru} \beta_6$ = *regression coeficient (the slope of the regression line)*

Table 2 : Regression results (Anova and R^2)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.672	6	11.112	30.514	.000
	Residual	326.648	897	.364		
	Total	393.320	903			

R^2 = 0.170, Adjusted R^2 = 0.164

Table 3: Regression results (Coefficients)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.403	.199		7.057	.000
	compliance	.044	.033	.044	1.319	.188
	assurance	**.294**	**.057**	**.236**	**5.121**	**.000**
	reliability	-.068	.056	-.057	-1.205	.228
	tangible	.019	.060	.016	.316	.752
	empathy	**.202**	**.070**	**.162**	**2.881**	**.004**
	responsiveness	.084	.062	.070	1.343	.179

a Dependent Variable: Customer satisfaction with Islamic banking

The regression results from table 2 and 3 shows that all the variables contributed for about 17% of the variance in customer satisfaction with Islamic banking, which is significant as indicated by F-value of 30.514. From the Coefficient table, only assurance and empathy variables that significantly contributes to the prediction of customer satisfaction. In the mean time, analysis using Stepwise regression has further established the previous results by stating that only assurance and empathy dimension have significantly contributes towards the prediction of customer satisfaction. Assurance variables alone, to be specific, has accounted for 14.1% of the variance in dependent variable while together with empathy variables contributed for about 16.5% of the prediction of the dependent variable. However, smaller percentage of R^2 as compared to higher F-value also indicated that the research instrument should includes more variables in the future for further and better predictions of the dependent variable.

Table 4: ANOVA Results using STEPWISE regression

Model	R	R Square	Adjusted R Square	F	Sig.
1	.376(a)	.141	.141	148.643	.000(a)
2	.407(b)	.165	.163	89.220	.000(b)

a Predictors: (Constant), assurance dimension
b Predictors: (Constant), assurance dimension, empathy dimension
c Dependent Variable: Customer satisfaction with Islamic banking

In the mean time, separate regression analysis on each bank (BMB and RHB-IFB) has also been conducted in which both analysis shows that all variables are significantly contributes almost 18% ($R2 = 17.1\%$ for BMB and $R2 = 17.7\%$ for RHB-IFB) of the variance as indicated by both F-value of 20.687 and 10.298 respectively. Further findings also indicated that assurance is a significant predictor for customers of both banks explaining 32.7% (RHB-IFB) and 17% (BMB) of the variance. In fact, analysis also shows that assurance is actually the only significant contributor of the variance for customer of RHB-IFB. As for BMB, empathy is another significant predictor on customer satisfaction towards Islamic banking ($R^2 = 19\%$, p = 0.007).

Table 5: Separate Regression Analysis on Each Banks

	BMB			RHB IFB		
Model summary/ Anova	R^2	F	Sig.	R^2	F	Sig.
	0.171	20.687	0.000[a]	0.177	10.298	0.000[a]
Predictors	Beta	t-value	Sig.	Beta	t-value	Sig.
Compliance	0.027	0.633	0.527	0.002	0.032	0.974
Assurance	**0.170**	**2.884**	**0.004**	**0.327**	**4.266**	**0.000**
Reliability	-0.034	-0.605	0.545	-0.074	-0.840	0.402
Tangible	0.037	0.591	0.555	-0.035	-0.368	0.713
Empathy	**0.190**	**2.728**	**0.007**	0.167	1.680	0.094
Responsiveness	0.077	1.226	0.221	0.068	0.708	0.479

a. Dependent Variable: Customer satisfaction with Islamic banking

6. Discussion

Objective 1: To identify elements of service quality influencing customers' preference towards Islamic Banking products and services

Customers' preference in this study can also be defined as to what reason respondents choose to become customers of their respective banks based on their perceptions on elements of service quality. Therefore, mean analysis has been conducted in order to determine respondents' perception on the importance of service quality elements and subsequently, ranking of the mean (36-service quality items) has also been

implemented. The purpose of developing the ranking is to orderly identify which elements are highly regarded to be the most influential in deciding customers' preference towards certain banks' Islamic Banking products and services. Based on mean analysis, these are the ten highest ranked service quality elements that are very highly perceived by the respondents in influencing their preferences:

Table 6: Ten Highest Ranked Service Quality Elements Perceived by Respondents

Elements of Service Quality	Ranking (1 – 10)	Mean	Standard Deviation
Confidentiality on customers' information guarateed	1	4.65	0.35
Security of transaction	2	4.61	0.39
Speed & efficiency of transactions	3	4.55	0.45
Fast & efficient counter services	4	4.54	0.45
Knowledgeable & experienced bank staff	5	4.54	0.44
More tills/counter open on peak time	6	4.54	0.40
Politeness & friendly staff	7	4.53	0.46
Convenience (short time for service anywhere)	8	4.51	0.44
Confidence in bank's management	9	4.50	0.47
The way staff treats customers	10	4.48	0.45

Ironically, though the study was initially conducted to specifically identify factors that influencing customers' preferences towards banks' Islamic banking products and services, but none of the ten highest ranked service quality items are from the compliance to Syari'ah dimension. However, combinely under the compliance dimension, specific Islamic banking factors such as run on Islamic law and principles, interest-free savings or loans, and provision of profit-sharing investment products are still considered important to the customers as shown by the average mean value of 4.32 (standard deviation of 0.66) in which ranked number five in overall CARTER six service quality dimensions. As for the individual service quality items, relevant bodies particularly banks should give substantial attention and significant improvement to the above ten highest ranked elements in order to attract more potential new customers as well as enlarging their customer base without totally excluding other important service quality elements.

Research Hypotheses: The six dimensions of service quality in CARTER model will significantly explain the variance in customer satisfaction

Based on the regression analysis, jointly all the six dimension of service quality in CARTER model are significantly explaining 17% the variance in customer satisfaction in which p = 0.000. However, R^2 of only 17% is also indicating that there are potential variables that are not included and should be considered in the instrument in order to enhance the explanation of the variance. In other words, other elements of service quality that are not included in the CARTER model should also be considered to identify factors that are significantly influencing customer satisfaction. Notable attention, however, should be given to two significant dimensions in which are assurance and empathy.

7. Conclusion and Scope for future research

It is very critical to prudentially understand the important of the 36-service quality elements. In fact, relevant bodies such as banks can now identify the important level for each element based on the mean ranking. In other words, banks can now focus its resources more towards highly important elements as perceived by customers and developing a more effective marketing strategy. Understanding on which dimensions of service quality that significantly influencing customer satisfaction can also prove to be crucially decisive to the banks. However, as revealed in the discussion section, more independent variable should be included in order to improve the prediction of dependent variable (factors that influencing customer satisfaction). In the mean time, this study can also be improved through the inclusion of more banks and respondents. Coverage on more geographical area or city could also be considered for future study in order to enhance the generalizibility of the findings. As focal point of this research was consumer banking (retail banking), this study can also be enhanced to focus on the more profitable banking division in which is the corporate banking (corporate customers).

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