



GLOBAL JOURNAL OF MANAGEMENT AND BUSINESS RESEARCH: E  
MARKETING

Volume 16 Issue 2 Version 1.0 Year 2016

Type: Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals Inc. (USA)

Online ISSN: 2249-4588 & Print ISSN: 0975-5853

# Elixir of the Service Quality of Islamic Banking Sector in Bangladesh

By Dr. Hossain Shahid Shohrowardhy, Md. Alauddin & Mohd. Yasin Sharif

*International Islamic University, Bangladesh*

**Abstract-** Islamic Banking Sector (IBS) is the most influential domain in the economic development of Bangladesh. In the 21<sup>st</sup> century, IBS has passed thirty years glorious journey creating huge competition considering its service quality and achieved a remarkable growth. Service Quality (SQ) is the most significant affecting factor for remarkable growth of IBS in Bangladesh from 1983 to 2013. Thus, this research work attempts to determine the elixir of the service quality of Islamic Banks existed in Bangladesh as Islamic Banking Sector using Structural Equation Modelling (SEM). This research uses modified CARTER model (Compliance of Islamic Shariah, Reliability, Assurance, Tangibility, Empathy and Responsiveness) consisting of 34 (thirty four) dimensions with 6 (six) constructs. A total of 396 samples have been used from 6 (six) full pledged Islamic banks in Bangladesh. This study reveals that 20 (twenty) factors have found as the elixir of service quality of Islamic banks in Bangladesh where assurance is the most significant construct followed by reliability, tangibility, empathy, responsiveness and tensely compliance of Islamic Shariah.

**Keywords:** *islamic banking sector (IBS), elixir, service quality (SQ), carter, and vision-21.*

**GJMBR - E Classification :** JEL Code : M10



*Strictly as per the compliance and regulations of:*



# Elixir of the Service Quality of Islamic Banking Sector in Bangladesh

Dr. Hossain Shahid Shohrwardhy<sup>α</sup>, Md. Alauddin<sup>σ</sup> & Mohd. Yasin Sharif<sup>ρ</sup>

**Abstract-** Islamic Banking Sector (IBS) is the most influential domain in the economic development of Bangladesh. In the 21<sup>st</sup> century, IBS has passed thirty years glorious journey creating huge competition considering its service quality and achieved a remarkable growth. Service Quality (SQ) is the most significant affecting factor for remarkable growth of IBS in Bangladesh from 1983 to 2013. Thus, this research work attempts to determine the elixir of the service quality of Islamic Banks existed in Bangladesh as Islamic Banking Sector using Structural Equation Modelling (SEM). This research uses modified CARTER model (Compliance of Islamic Shariah, Reliability, Assurance, Tangibility, Empathy and Responsiveness) consisting of 34 (thirty four) dimensions with 6 (six) constructs. A total of 396 samples have been used from 6 (six) full pledged Islamic banks in Bangladesh. This study reveals that 20 (twenty) factors have found as the elixir of service quality of Islamic banks in Bangladesh where assurance is the most significant construct followed by reliability, tangibility, empathy, responsiveness and tensely compliance of Islamic Shariah. This finding therefore, may be supportive for the policy makers of concern authority (Islamic Banks and Bangladesh Bank) who have been making endeavor to the sustained growth of IBS as transparent banking industrialization in Bangladesh stated in the goals for Vision-21, the golden jubilee of Bangladesh independence.

**Keywords:** *islamic banking sector (IBS), elixir, service quality (SQ), carter, and vision-21.*

## I. INTRODUCTION

Customers are the mainframe of banking industry; therefore, customer satisfaction is the principle account of any bank through delivering quality service. Service quality is a judgment of expectations from providing service performed by the banks which are required to meet customer's needs and desires. For sustainability of performance, creation of modified, improved or developed service quality is required since competitive gain is depends on the nature of service quality (Nicholls, 1998). From the inception, Islami banks perform better than conventional banks in Bangladesh. Islamic banking system have passed thirty-year (1983-2013) glorious journey and achieved substantial growth in Bangladesh

(Shohrwardhy, 2015). At present, Bangladesh has 2.03% market share [8 out of 385 (GDR, 2012)] in the Islamic banking world and 25 banks are incorporated in the Islamic Banking Sector of Bangladesh that are performed Islamic banking in full-fledged, branching and window form of Islamic banking (DIB Report, 2015).

## II. LITERATURE REVIEW

Service quality is needed for creating customer satisfaction and service quality is connected to customer perceptions and customer expectations (Kabir, 2010). Service quality is described as the comparative result from customer expectations about the services provided by the banks (Oliver, 1994). And service quality is depended on the perception of customer towards the organizational service providing dimensions (Parasuraman, et.al., 1998; Othman and Owen, 2001). Customers are the driver of organizational loyalty by which a systematic design has been developed to deliver quality services for corresponding to the market demand. System loyalty is highly moderated factor of sustaining operational performance of Islamic banks (Uddin, 2015). Therefore, standard benchmark of service quality of Islamic banks is required to make loyalty in favor of Islamic Banks in Bangladesh for sustaining their operational performance.

A number of devoted scholars contribute a lot in the different aspects of Islamic banking i.e. philosophy and economic explanation (Chopra, 1985), service quality (Haron, 2010), indication of growth (Munawar, 2005), CARTER dimensions in KFH model (Othman and Owen, 2001), factorial impact of service quality on business performance between IBS and CBS (Hasan, 2009), SERVQUAL model; applying in the Islamic banking using structural equation modeling (Khafafa, 2013) etc.

From 1974, Bangladeshi scholars also drew their contribution to the establishment and development of Islamic banking in Bangladesh (Ahmed, 1978) i.e. accounting practice in Islamic banking (Mohiuddin & Rashid, 1993), religious impact on the performance of Islamic banks (Mohiuddin, 2001), Poverty alleviation and RDS of IBBL (Hawladar, 2004), RATER Model applied in the Islamic banking (Shafie, 2004), comparative performance analysis between IBS and CBS (Misir, 2005), behavioral impact on the performance of Islamic banks impact (Rashid and

*Author α:* Associate professor, Department of Marketing University of Chittagong. e-mail: hssmanik786@gmail.com

*Author σ:* Lecturer in Marketing Department of Business Administration International Islamic University Chittagong. e-mail: mdalauddin89@yahoo.com

*Author ρ:* Associate professor, Department of English Language and Literature International Islamic University Chittagong. e-mail: shariifmy@gmail.com

Hassan, 2008), Compliance of Islamic Shariah (Rashid, 2008), Selection criteria of Islamic Banks (Rashid, 2008); Khan, 2008), technological advancement by Islamic banks in Bangladesh (Jahiruddin & Haque, 2009), Customer perception on Islamic Banking (Rashid, 2010), Islamic banking as the moderate variable of customer loyalty legal system (Uddin, 2015), Elixir of growth of Islamic banking system (Shohrowardhy, 2015) etc.

In Bangladesh, no empirical research has ever addressed the issue of sustainability of Islamic Banking System. However, there are some fragmented literatures regarding individual institution's reflection of Islamic banks i.e. comparative analysis about products/services, riba and interest etc. performance analysis,

perception, customer preference and satisfaction have been explained but there is a scarcity of structural studies of ever all Islamic Banking System. Moreover, 30-year-experience (1983-2013) is enough to evaluate the service quality of Islamic Banking Sector for its sustainability in Bangladesh.

### III. PROBLEM OF THE STATEMENT

Problem of the statement has been developed on the basis of real scenario and status of the growth indicators of Islamic Banking Sector (IBS) in Bangladesh. Table-1 expresses the real scenario of banking industry of Bangladesh in 21<sup>st</sup> century where 44.64% visible market share is achieved by Islamic Banking Sector.

Table-1 : Banking Industry of Bangladesh

	No. of Banks	% of Share	No. of branch	% of Share
<b>Conventional Banking Sector</b>	<b>48</b>	<b>85.71%</b>	<b>5313</b>	<b>84.70%</b>
Full Fledged Islamic	8	14.29%	916	14.60%
Branching Islamic	9	16.07%	19	0.30%
Windows Islamic	8	14.29%	25	0.40%
<b>Islamic Banking Sector</b>	<b>25</b>	<b>44.64%</b>	<b>960</b>	<b>15.30%</b>
<b>Overall Banking Industry</b>	<b>56</b>		<b>6273</b>	

Source: DIBB Report, 2015

From the inception in 1983, Islamic banks have shown better performance (IBBL, 2014) and growth is substantial (Shohrowardhy, 2015) and remarkable (BBR,

2014). Table -2 explores the comparative growth position of Islamic Banking Sector considering the overall performance from FY2005-06 to FY 2013-14.

Table-2 : Growth of Islamic Banking Sector in Bangladesh

Growth Indicators	Islamic Banking Sector	Overall Banking Sector
Deposits	18.00%	82.00%
Investment	21.00%	79.00%
Classified Investment	4.20%	8.90%
Equity	15.00%	85.00%
Classified Equity	39.90%	59.30%
Asset	17.00%	83.00%
Remittance	28.00%	72.00%
Import	21.00%	79.00%
Export	24.00%	76.00%
Capital Adequacy Rate	12.16%	11.50%

Source: DIBB Report, 2015

The above table explains the growth of IBS considering 10 (Ten) growth indicators suggested by Bangladesh Bank, the central bank of Bangladesh where every indicators show the better performance than overall banking sector during the 30-years experiences.

Service quality and business performances are correlated and co-integrated (Ahmed, 2009; Haron, 2010, khafafa, 2013; Shohrowardhy, 2015). Therefore, the specific question has been raised that what

influencing factors are attached behind the growth Islamic Banking Sector in Bangladesh? Thus, this study attempts to examine factors (Elixir) that effect define as philosopher stone regarding the growth of Islamic banking sector in Bangladesh.

### IV. CONCEPTUAL FRAMEWORK

#### a) Elixir

The term 'Elixir' usually used in the medical science as combination of ingredients of medicine

(Products) for solution of specific disease. It is an ancient term not used frequently in the academic purpose. Elixir is originated from the Arabic word 'Al-Eksar' where 'Al' mean 'the' and 'Eksar' means xerion (Greek Word), the powder for drying wounds. Another way, it is defined as 'sweet-flavored liquid used for medical purpose' (The Oxford Dictionary), 'A sweetened aromatic solution' (The American Heritage® Dictionary), 'Philosopher's Stone' (The US Dictionary), 'Solid used to convert metal into gold' (The GNU Webster 1913, Word Net 3.0). In 1995, for the first time, Minford, P., Riley, J., and Newell, E. used the term 'The Elixir' in academic purpose to explore the integrating factor involved in the trade, non-trade product and development in European counties. The study is used the term 'Elixir' as combined driven forces, dimensions of service quality that enhances growing operational performance of Islamic Banking Sector in Bangladesh. In this study, 34 dimensions with 6 construct of CARTER Model (Othman and Owen, 2001) are considered as the proposed elixir of the service quality of Islamic Banking Sector in Bangladesh.

#### b) CARTER Model

The CARTER is an instrument that might be used to define and measure the service quality of Islamic Banking System. Othman and Owen (2001) has been developed CARTER model to measure service quality of Islamic Banking System. They noted that Islamic banks had to adopt service quality program to their customers and to cope with well-built competition from conventional banks both existing and new arrivals to the financial market. CARTER model is quality assessment tools compelled with six dimensions i.e. compliance-Islamic Shariah (COM)-4 dimensions, assurance (ASU)-5 dimensions, reliability (REL)-4 dimensions, tangibility (TAN)-4 dimensions, empathy (EMP)-4 dimensions, and responsiveness (RES)-4 dimensions.

#### c) Vision-21

Bangladesh started itself as independent country from 1971. Yet, after 40 years of independence,

Bangladesh remains a low-income country (LIC), almost two third of population remains below poverty line (Buru, 2013). For improving the situation and recognizing the long-term development challenges, the present Government has been adopted the Vision 2021. The Vision 2021 calls for Bangladeshi socio-economic environment to be transformed from a low income economy to the first stages of a middle-income country by the year 2021 which also marks as the 50<sup>th</sup> anniversary of Bangladesh independence called golden jubilee of the nation. Moreover, Vision 2021 lays down a development scenario where citizens will have a higher standard of living, better educated, will have a more equitable socio-economic environment, and the sustainability of development in all respects will be ensured through better protection from climate change and disasters both materialistic and non-materialistic. There sustainability of the progress in every economic aspect is basic issue in modern time. Finally, the vision-21 is formed for reaching the country as a middle-income country (MIC) replete with the sign of economic progress (GED, 2012). Islamic banking sector is the most influential factor of economic progress and top most successive micro-financer in Bangladesh (UNDP, 2012). Experimentally, IBS have passed crucial time in Bangladesh, but question is its sustainability in the financial market in Bangladesh.

## V. THEORETICAL FRAMEWORK AND METHODS

In this study, a theoretical framework has been developed on the basis of evidence available in the above-mentioned literature. The dependent variable is service quality and the independent variables are compliance of Islamic Shariah, assurance, reliability, tangibility, empathy and responsiveness on the basis of CARTER Model (Othman and Owen, 2001) expressed by the function and equation:

$$SQ = f(\text{COM, ASU, REL, TAN, EMP, RES})$$

And equation under restricted model is

$$SQ = \beta_1 \text{COM} + \beta_2 \text{ASU} + \beta_3 \text{REL} + \beta_4 \text{TAN} + \beta_5 \text{EMP} + \beta_6 \text{RES} + \varepsilon$$

Where, SQ expresses the service quality of Islamic banking sector in Bangladesh,  $\beta_{n \rightarrow 1}^{n=6}$  express the standard weight, the explanatory power of the variables and  $\varepsilon$  notes the standard error of the respective model.

## VI. OBJECTIVES OF THE STUDY

The broad objective of this study is to identify the dimensions of service quality that drives the growth of Islamic Banking Sector in Bangladesh. The more specific objectives in this regards are as follows:

1. To determine the relationship among the dimensions of CARTER with its constructs in Bangladesh perspective.
2. To measure the effect of CARTER constructs with service quality of islamic banking sector of Bangladesh, and
3. To construct the integrated factors (ELIXIR) that drive the growth Islamic Banking sector in Bangladesh.



## VII. DATA COLLECTION METHOD

For this study, data was collected via a self administrative questionnaire, which consisted of three major sections. The first section has been designed to collect the information about the respondents regarding their demographic and socio-economic characteristic along with some other factors such as name, address, gender, religion, marital status, living status, age, education, profession, income levels, while second section consists of some specific information regarding the respondents attachment with Islamic banking system, namely name of the bank, use of banking system, customer status (depositor or investor), length of relationship with the Islamic bank and opinion regarding satisfaction in a dichotomic form and finally third section consists of 34 dimensional questions of service quality with six constructs. The responses of the respondents were collected by using the Likerts non-comparative five-point scale of the range of attitude; from 1-strongly disagree to 5-strongly agree.

## VIII. SAMPLING

A total of 500 questionnaires were distributed of which only 396 questionnaires were received from six full fledged Islamic banks i.e. Islami Bank Bangladesh Limited (IBBL), Al-Arafah Islami Bank Bangladesh limited (AAIBL), Export-Import Bank Bangladesh Limited (EXIM), First Security Islami Bank Limited (FSIBL), Shahjalal Islami Bank limited (SJBIL), and Social investment bank Limited (SIBL) where 77% response rate is calculated. Specifically, questionnaires were distributed to every customer considering the working hour of the respective banks (Usually from 9 AM to 5 PM) or their convenience time. However the data were collected from two cosmopolitan city of the country, namely Dhaka and Chittagong. The principal premise in

this regard is that the sample will bear the representative characteristic of the population. Besides, Islamic Banking system provided equal services irrespective of location.

## IX. STATISTICAL TOOLS USED IN THE STUDY FOR ANALYZING

The statistical techniques employed in this study are as follows: descriptive and frequency analyses were conducted to represent the respondents' demographic and socio-economic characteristic. In addition, a reliability test to check for the "internal consistency" of the questionnaire by applying Cronbach's Alpha test and Mahalanobis Distance coefficient is used to test the individual consistency of the respondent's responses. Normality distribution was tested using Skewness and kurtosis finally, structural equation modeling (SEM) is used to determine the relationship between dimensions and constructs. The researcher then performed the confirmatory factor analysis (CFA) to test the measurement model specifying the posited relations of the observed variables to the underlying construct.

## X. RESPONDENTS' DEMOGRAPHIC AND SOCIO-ECONOMIC PROFILE

Table-3 shows that the majority of respondents' characteristics are males (72.22%), Muslim (84.85%), aged between 31 to 40 years old (34.34%), with SSC and below SSC (31.31%). The majority of the respondents are service oriented (51.51%) with 24.49% of respondents having an income up to 20,000 BDT and 55.06% of respondents are married. It also mentioned that 55.05% respondents are from urban and 5 or less year's respondents are dominants (40.15%) to maintain relationship with Islamic banks in Bangladesh.

*Table-3 : Demography and Socio-Economic Nature of the Respondents' responses*  
(Sample Size, n=396)

	Frequency	Percent		Frequency	Percent
<b>Gender</b>			<b>Permanent Resident</b>		
Male	286	72.22%	Urban	231	58.33%
Female	110	27.78%	Rural	165	41.67%
<b>Religion</b>			<b>Banking Relationship</b>		
Muslim	336	84.85%	IBS	237	59.85%
Others	60	15.15%	Both	159	40.15%
<b>Marital Status</b>			<b>Average Monthly Income (BDT, 000)</b>		
Married	218	55.05%	0-20	97	24.49%
Unmarried	152	38.38%	21-30	82	20.71%
Others(D/W/S)	26	6.57%	31-40	67	16.92%
<b>Age of the Respondent</b>			41-50	44	11.43%
Up to 30 Years	160	40.40%	51-60	41	10.35%
31-40 Years	136	34.34%	61-70	12	3.03%
41-50 Years	54	13.64%	71-80	13	3.28%
Above 50 Years	46	11.62%	81-90	10	2.53%
			91-100	14	3.54%
			101-500	15	3.79%

Education			Length of Relationship with Islamic Banks (Years)		
Below SSC	124	31.31%	5 or less Years	159	40.15%
SSC	47	11.87%	5-10 Years	77	19.44%
HSC	71	17.93%	10-15 Years	62	15.66%
Graduate	74	18.69%	15-20 Years	52	13.13%
Post Graduate	57	14.39%	Over 20 Years	46	11.62%
Others (Religious)	23	5.81%	Typology of the Customers		
Occupation			Deposit	154	38.89%
Agriculture	102	25.76%	Investment	91	22.98%
Business	36	9.09%	Both	125	31.57%
Service	200	50.51%			
Others	58	14.65%			

Source: Calculated by Researcher

## XI. CUSTOMER'S PERCEPTION AND RELIABILITY TEST

In this research work, we have composed the respondents' responses to find their patterns of usage the services provided by Islamic banks. The demography and socio-economic information shows the justification of respondent's responses involved in this study. For instrumental experiment, we used a modified CARTER model (Othman and Owen, 2001) consisting of 34 dimensions with six constructs using 5-points non-comparative scale and found average mean scores ranging from 2.62 to 4.28. The standard deviation of these mean scores is comprised in the interval 0.750 to 1.189. The skewness does not show extreme value  $\pm 3$  (-1.650 to 0.629) and kurtosis is 0.231 to 2.514, not exceeding the rule of thumb of kurtosis  $\pm 8$ . The descriptive statistics express the normal distribution nature of the responses of the respondents.

Reliability test of the administrative questionnaire is varied to measure the impact of the respondents' perception on service quality of Islamic banks in Bangladesh (Wei and Nair, 2006). Cronbach's Alpha Coefficient of six constructs i.e. compliance of Islamic Shariah, assurance, reliability, tangibility, empathy and responsiveness are 0.790(4), 0.649(5), 0.593(4), 0.597(6), 0.687(9) and 0.719(6) respectively. The overall coefficient of Cronbach's Alpha of 34 dimensions is 0.847(34). This statistics show the accepted reliability nature of the customer perception on service quality of Islamic banks in Bangladesh (Finn and Lamb, 1991).

## XII. TEST OF THE CONSISTENCY OF RESPONDENT'S RESPONSES USING MAHALANOBIS DISTANCE COEFFICIENT

In this study, we incorporate 41 variables (34 observed and 7 constructed unobserved variables). The sample size of study stances to 396 indicates optimum level in SEM. A set of standard normally distributed random variables is required for SEM. Mahalanobis d-square coefficient is used in this study to test of the consistency of 396 respondent's responses. The  $P_1$

shows the assuming normality, the probability of individuals and the  $P_2$  shows, still assuming normality. Small value for  $P_1$  and  $P_2$  are to be expected. It is indicated that the observations are incredibly far from the centroid under the hypothesis of normality (Bollen, 1987). It is evident that the highest value of Mahalanobis Distance Coefficient is  $d^2_{HV} = 83.948$  ( $P_1 = 0$ ,  $P_2 = 0$ ) and the lowest value is  $d^2_{LV} = 25.558$  ( $P_1 = 0.181$ ,  $P_2 = 0.000$ ). Considering the coefficient of  $d^2$  of respondent's responses it can be concluded that the requirement of random normality of consistency of respondent's responses is satisfied.

## XIII. ANALYSIS

Basically, the research work is designed to find out the influencing factors on the growth Islamic banking sector in Bangladesh. We use Structural Equation Modeling (SEM) on SPSS-AMOS version 21.0 to determine the relationship between observed variables (Responses of the respondents on 34 dimensions) and unobserved variables (CARTER constructs with service quality –SQ of Islamic Banking Sector). To analysis these factors, 1<sup>st</sup> Order Conformity Factor Analysis (CFA) and 2<sup>nd</sup> Order CFA were run and dimensions were tested.

### a) First Order Conformity Factor Analysis (CFA) of Service Quality

1<sup>st</sup> order CFA is used to determine the correlation among the factors and appropriateness of variables to the model through deduction or Factor Loading (Kline, 2011). Factor loading is defined as the regression weights in standardized format that indicate the hidden power (strength) and direction of factors on measured variables (Fabrigar, 1999; Kline, 2004; Byrne, 2010). Figure-1 expresses the factor loading of 20 dimensions that are competent for 2<sup>nd</sup> Order CFA (Fornell and Larcker, 1981; Byrne, 2010).

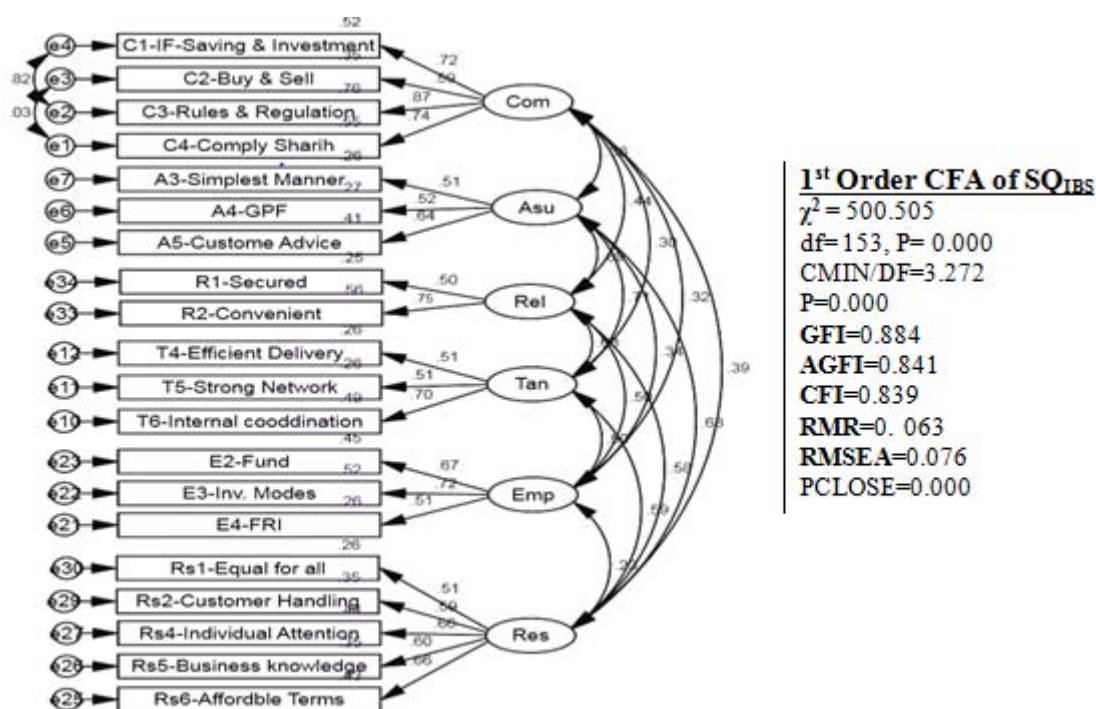


Figure-2 : First Order CFA of Service Quality of Islamic Banking Sector in Bangladesh

Source: Generated by Authors

Considering the results of 1<sup>st</sup> Order CFA, low factor loading (Anderson and Gerbing, 1988) fourteen (14) dimensions have been deducted through expressed in the table-4.

Table-4 : Deducting Factors from 1<sup>st</sup> Order CFA

Assurance		Empathy	
ASU5	Cognitive Knowledge	EMP20	Qualified Mgt Team
ASU6	Trustee	EMP24	Attractive Location
Reliability		EMP25	Confidentiality Maintenance
REL12	More service in Pick time	EMP26	Profitability Trends
REL13	Reasonable Waiting Time	EMP27	Parking Facility
Tangibility		EMP28	Min Charge
TAN14	Team Work	Responsiveness	
TAN15	Modern Technological Equipment	RES31	Service Demo
TAN16	Flexible Operation Time		

Source: Generated by Authors

#### b) Correlation

From the result of 1<sup>st</sup> order CFA, correlation among the constructs has been found. Correlation usually explores the degree of association of defined constructs and expresses the linear relationship between two constructs considering direct causation or

statistical change (Ferdousi, 2009). Table-5 indicates the results of correlation among constructs used in this study and found that correlations of reliability, tangibility and responsiveness with assurance are more powerful than others respective of Islamic banking sector in Bangladesh. .

Table-5 : Correlation

Estimate			
Com	<-->	Asu	0.360
Com	<-->	Tan	0.300
Com	<-->	Emp	0.325
Com	<-->	Res	0.392
Com	<-->	Rel	0.437
Asu	<-->	Tan	0.712

Asu	<-->	Emp	0.344
Asu	<-->	Res	<b>0.679</b>
Asu	<-->	Rel	<b>0.889</b>

### c) Second Order CFA of service quality

2<sup>nd</sup> Order CFA is used to determining the dependency of constructed variables through standardized regression weights. Chi-square test, CMIN/DF, RMR, GFI, AGFI, CFI and RMSEA are most significant parameters in SEM (Joreskog and Sorbom, 1996; Byrne, 2010). This model is too sensitive model due to incorporate more than 15 cases (Stevan, 1996) and too large sample size more than 200 (Hair, 1995). Thus absolute values of the parameters of this model are not desired. But, the goodness-of-fit of the structural equation model is RMSEA= 0.076 is in an accepted

form (Browne and Cudeck, 1993). The base line indicator, CFI=0.827,  $p=0.000$ , RMR=0.068, GFI=0.876, AGFI= 0.839. All measurements of SEM showed that the data successfully fit the model with a Chi-square of 535.661 with 162 degrees of freedom, clearly meeting the requirements (Byrne, 2010; Bagozzi and Yi, 1988). Model modification was not necessary, as the structural equation model had model fit indices that were more than satisfactory. Finally, figure-2 explores the influential dimensions of service quality of Islamic banking sector called elixir of service quality that have been drive the substantial growth from 1983 to 2013.

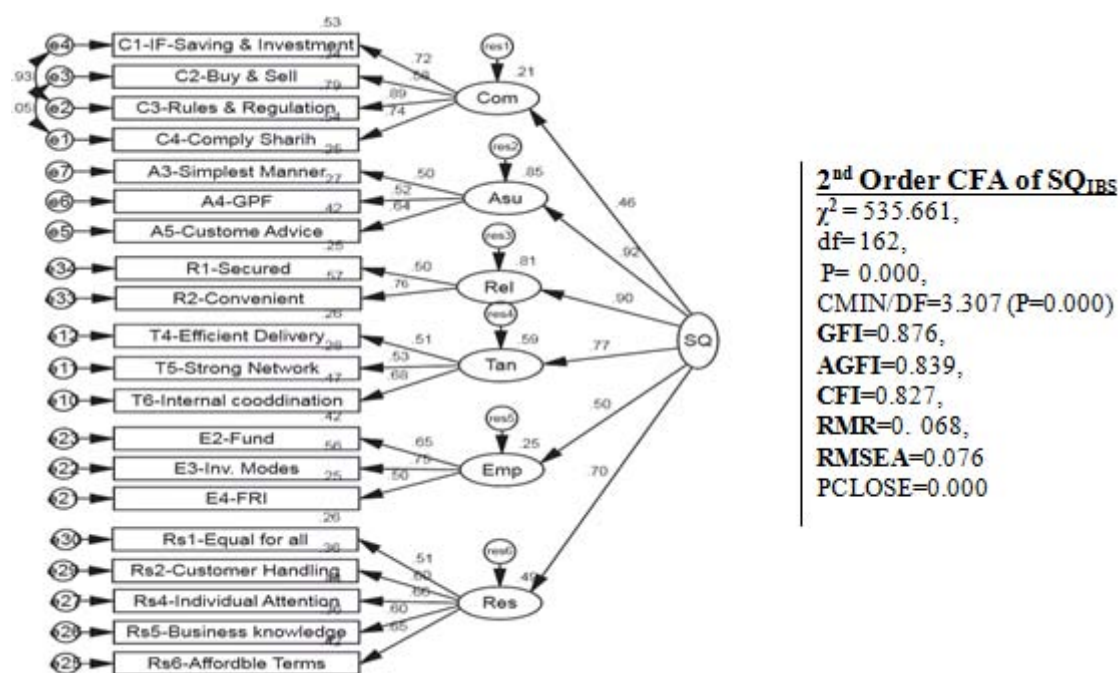


Figure-3 : Second Order CFA of Service Quality of Islamic Banking Sector in Bangladesh

Source: Generated by authors

### d) Finding

Structural Equation Modeling (SEM) based proposed model with these 34 items examined and identify 20 items that were significantly attached as the elixir of service quality of Islamic Banking Sector in

Bangladesh. These 20 factors with 6 dimensions are defined as the Elixir of the service quality of Islamic Banking Sector in Bangladesh and have been arranged orderly on the basis of their relative standard weights ( $\beta$ ) expressed in the table-6:

Table-6 : Elixir of Service Quality of Islamic Banking System in Bangladesh

		Factor Loading from 1 <sup>st</sup> Order CFA	Standard Weight ( $\beta$ ) from 2 <sup>nd</sup> Order CFA	Rank
Assurance $SQ = f(Asu)$ where $\beta_{ASU} = 0.922^1$				
ASU9	Custom Advice	0.639	0.644	1
ASU8	Gentle, Polite & friendly	0.523	0.523	2
ASU7	Simplest Manner	0.506	0.499	3



Reliability SQ= $f(\text{Rel})$ where $\beta_{\text{REL}} = 0.901^2$				
REL11	Convenient	0.748	0.758	4
REL10	Secured	0.502	0.495	5
Tangibility SQ= $f(\text{Tan})$ where $\beta_{\text{TAN}} = 0.768^3$				
TAN19	interior decoration	0.699	0.684	6
TAN18	Strong Network	0.513	0.526	7
TAN17	Effective Delivery	0.512	0.515	8
Responsiveness SQ= $f(\text{Res})$ where $\beta_{\text{RES}} = 0.699^4$				
RES32	Individual Attention	0.661	0.664	9
RES34	Affordable terms	0.658	0.645	10
RES30	Customer Handling	0.589	0.600	11
RES33	Business Knowledge	0.596	0.597	12
RES29	Equal for All	0.508	0.509	13
Empathy SQ= $f(\text{Emp})$ where $\beta_{\text{EMP}} = 0.495^5$				
EMP22	Investment Modes	0.723	0.747	14
EMP21	Available Fund	0.668	0.652	15
EMP23	Reputation & Image	0.509	0.496	16
Compliance of Islamic Shariah, SQ= $f(\text{Com})$ where $\beta_{\text{COM}} = 0.458^6$				
Com3	Rules & Regulations	0.874	0.891	17
Com4	Complaisance Shariah	0.745	0.735	18
Com1	IF-Saving & Investment	0.722	0.725	19
Com2	Trade-Buy & Sell	0.592	0.583	20

Source: Generated by Authors

To determine the elixir of service quality of Islamic Banking Sector, 20 dimensions of CARTER model are jurisdicted and 14 dimensions are deducted due to inconstancy of respondents' responses (Low factor loading, below 0.50). Top influential construct of the elixir of service quality of Islamic banking sector in Bangladesh is Assurance ( $\beta_{\text{ASU}} = 0.922$ ) consisting of three factors, followed by reliability ( $\beta_{\text{REL}} = 0.901$ ) with two, tangibility ( $\beta_{\text{TAN}} = 0.768$ ) with three, responsiveness ( $\beta_{\text{RES}} = 0.699$ ) with five factors, empathy ( $\beta_{\text{EMP}} = 0.495$ ) with three factors and finally compliance of Islamic Shariah ( $\beta_{\text{COM}} = 0.458$ ) compelled with four factors.

#### XIV. CONCLUSION

The study has exposed the combined driven forces of service quality of Islamic banking sector in Bangladesh which is introduced as the elixir of service quality. It is worth mentioning here that compliance of Islamic Shariah, assurance, reliability, tangibility, empathy and responsiveness are significantly correlated in Bangladesh perspective. The results of this study also found that the assurance is the most influential construct of service quality followed by reliability, tangibility, responsiveness, empathy and compliance of Islamic Shariah. For suitability of the Islamic Banking Sector in Bangladesh, the devoted authorities should concentrate themselves to construct the Islamic banking system loyalty ensuring more accountability of complying Shariah principle in all scope of Islamic banking operation in Bangladesh. It should mention here that some specific factors are not loaded by respondents'

responses i.e. cognitive knowledge, trustee on customer transaction, corporate service, team work, parking facility, charge against service, networking location that too important for optimum level of the service quality of Islamic banking in Bangladesh.

#### XV. LIMITATION OF THE STUDY

In this study, as organizational sample, six full-fledged Islamic banks have been considered as Islamic banking sector in Bangladesh. And data have been collected from two cosmopolitan cities as assuming that equal services are provided for all customers by Islamic banks.

#### XVI. SCOPE OF FURTHER RESEARCH

This study may have a few limitations to explore the scope of further research i.e. as organizational sample considering all banks practicing Islamic banking in branching or window form, reconstructing sampling design considering the rural and urban area.

#### REFERENCES RÉFÉRENCES REFERENCIAS

1. Ahmad, A. (2009). A Comparative Study of Islamic Banking in Pakistan: Proposing and Testing a Model. Department of Management Sciences. Iqra University. Islamabad. Pakistan.
2. Ahmed, M.U. (1978), "Privatization in Bangladesh", A Conference on 'Privatization in South Asia' reflected in the country's First Five Year Plan (1973-1978) sponsored by Government of Bangladesh.

3. Anderson, E.W. et.al (1993), "The Antecedents and Consequences of Customer Satisfaction for Firms", *International Journal of Marketing Science*, Vol.-2(2), 125-143.
4. BBR (2013), "Bangladesh Bank Annual Report- (2013)", Published by Bangladesh, the central bank of Bangladesh.
5. Bollen, K. A. (1987), "Total, Direct, and Indirect Effects in Structural Equation Models." *Sociological Methodology*, Vol-17, 37-69.
6. Buru (2013), "Annual Report 2012-2013" published by BURU Bangladesh, registered NGO under department of social welfare of Bangladesh government.
7. Byrne, B. M. (2010). *Structural Equation Modeling With AMOS: Basic Concepts, Application and Programming*. 2<sup>nd</sup> Edition, Taylor & Francis Group Publication, New York, USA.
8. Chapra, M. U. (2000), "The Future of Economics: An Islamic Perspective", The Islamic Foundation, Leicester.
9. Chapra, M.D. (1985), "Towards a Just Monetary System", published by the Islamic Foundation, Leicester, UK.
10. Fabrigar, R.; Wegener, T., MacCallum, C., Strahan, J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*. 4(3), 272-299.
11. Ferdousi S. A. (2009), "Interest Rates and Investment Spending Relationship in Bangladesh", *Journal of Asian Affairs*, Vol.- 31(2), 5-20.
12. Finn, D.W. and Lamb, C.W., (1991), "Service Quality Determinants and effectiveness in the Real Estate Brokerage Industry" *The Journal of Real Estate research*, Vol-3, 21-36.
13. Fornell, C. and Larcker, D. (1981). Evaluating Structural Equation Models and Unobservable Variables and Measurement Error. *Journal of Marketing Research*. 18, 39-50.
14. GED (2012), "Perspective Plan of Bangladesh 2010-2021-Making Vision 2021; A Reality", General Economics Division (GED), Planning Commission (PC), Government of the People's Republic of Bangladesh.
15. Gritti, P. & Foss, N. J. (2007). Customer Satisfaction and Competencies: An Econometric Study of an Italian Bank. SMG Working Paper No. 10.
16. Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W. C. (1995), "Multivariate Data Analysis with Reading", 4th edition, Englewood Cliffs, NJ: Prentice Hall. USA.
17. Haron S, and Ahmad N (2000), "The Effects of Conventional Interest Rates and Rate of Profit on funds deposited with Islamic banking system in Malaysia", *International Journal of Islamic Financial Service* Vol.-3(4), 1-7.
18. Hassan, A. (2009), "Corporate Social Responsibility of Islamic Financial Institutions and Businesses: Optimizing Charity Value", *Journal of Humanomics*, Vol. -25(3), 177-188.
19. Hassan, M. (2007). Banking Behavior of Islamic Bank Customers in Bangladesh". *Journal of Islamic Economics Banking and Finance*, 3(2), 160-194.
20. Howlader, H. R. (2008), "Rural Development Scheme of Islami Bank Bangladesh Limited (IBBL): An Appraisal towards Poverty Eradication in Bangladesh, *Journal of Business Administration*, Vol- 19, 72-84.
21. IBBL (2014), "Annual report-2014" Published by Islami Bank Bangladesh Limited, 40, Dilkusa, Dhaka, Bangladesh.
22. IBDR (2015), "Islamic Banking Development Report-2015", A quarterly publication of Bangladesh Bank.
23. Jahiruddin, A., & Haque, R. (2009), "Bank Selection Criteria of Retail Customers in Bangladesh: A Study on Khulna City" *Journal of Business and Management*, Vol-15(2), 159-169
24. Joreskog, K.G. & Sorbom, D. (1996), "LISREL-8 users Guidelin", Chicago: Scientific Software.
25. Kabir, H. (2010), "Service Quality-Expectations, perceptions and satisfaction about Service Quality at Destination Gotland- A case study", Master Thesis of Gotland University.
26. Khafafa, A.J. (2013), "Measuring the Perceive Service Quality and Customer Satisfaction in Islamic Bank window in Libya based on Structural Equation Modeling (SEM), *Afro Eurasian Studies*, Vol.-2(2), 56-71.
27. Khan F. (2010), "How 'Islamic' is Islamic Banking", *Journal of Economic Behavior & organization*, Vol.- 76, 805-820.
28. Khan S.U. & Mohiuddin K.M.G., (2013) " Green Banking in Bangladesh: Issues and Challenges", Paper presented on the seminar on Business and environmental challenges, Organized by HEQEP CP-140, Department of accounting and Information System, University of Chittagong, Bangladesh 21-35.
29. Kline, R. (2011), "Principles and Practice of Structural Equation Modeling", 3<sup>rd</sup> Edition, the Guilford Press, Inc. 72 Spring Street, New York, NY 10012.
30. Kline, R. B. (2005), "Principles and Practice of Structural Equation Modeling", 2nd ed., New York: Guilford Press.
31. Kotler, P. and Armstrong, G., (2006) "Principles of Marketing", 11<sup>th</sup> Edition. Upper Saddle River: New Jersey: Prentice-Hall.
32. Minford, P., Riley, J., and Newell, E. (1995), "The Elixir of Growth: Trade, Non- trade goods and Development", *Discussion paper no-1165*, London

- Center for Economic Policy Research (CERR), London.
33. Misir, M.A. & Huq, I.A (1998), "Shariah Based Banking and Economic Development: A Comparative Study", *the Chittagong University Journal of Commerce*, Vol.-14, 122-135
  34. Muhiuddin, K.M.G et.al. (1993), "Investment Management of Interest-free Banking System: A Study of Islami Bank Bangladesh Limited", *Journal of Chittagong University Studies (Commerce)*, Vol.-9(1), 18-32.
  35. Munawar I. and Molyneux P.(2005), 'Thirty Years of Islamic Banking: History, Performance and Prospects', Pilgrave Macmillan, New York, USA.
  36. Nicholls, J. A. F., Gilbert, G. R. and Roslow, S. (1998), "Parsimonious Measurement of Customer Satisfaction with Personal Service and the Service Setting", *Journal of Consumer Marketing*, 15(3), 239-253.
  37. Oliver, R. L. (1994), "Service Quality: Insights and Managerial Implications from the Frontier in Service Quality", *New Directions in Theory and Practice*. 1-20.
  38. Othman, A and Owen, L. (2001), "The Multidimensionality of CARTER model in Measure Customer Service Quality (SQ) in Islamic Banking Industry: A study on Kuwait Finance House", *International Journal of Islamic Financial Services*, Vol.-3(4).
  39. Parasuraman, A., Zeithmal, V. A. and Berry, L. L. (1988), "SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality", *Journal of Retailing*, 64(1), 12-40.
  40. Parveen, J.A. and Huq, I.A. (1997), "Performance and Limitation of an Interest-Based and Interest-free Banks in Bangladesh: A Comparative Studies", *Journal of Chittagong University Studies (Commerce)*, Vol.-13.
  41. Rashid M., Hassan M. K., Ahmed A. (2008), "Quality Perception of the Customers towards the Domestic Islamic Banks in Bangladesh", *Journal of Islamic Economics, Banking and Finance*, Vol.-5, 110-131.
  42. Rashid, H. and Muhiuddin, G.M. (1993), "Accounting Practices of Interest- free Banking-A Case Study of Islami Bank Bangladesh Limited" *Journal of Chittagong University Studies (Commerce)* Vol.-9.
  43. Rashid, M. (2010), "Quality Perception of the customers Towards the Domestic Islamic Banks in Bangladesh", *Journal Islamic Economics, Banking and Finance*, Vol.-5(1), 109-131.
  44. Rashid, M. et.al. (2011), "Performance Analysis of Islamic Bank Micro Credit Scheme in Bangladesh" *Prosiding Perkem*, Vol-6(1), 61-72, ISSN: 2231-962X.
  45. Shafie, (2004) "Bank Selection Criteria and Service Quality of Islamic Banking: A Comparison Between Muslim and non-Muslim Students and its Effect on Student's Satisfaction"
  46. Sharma, A. and Mehta, V., (2005), "Service Quality Perceptions in Financial Services - A Case Study of Banking Service", *Journal of services research*, 4(2), 205-223.
  47. Shohrwardhy, H.S. (2015), "Elixir of Growth of Islamic Banking System; A Study on Bangladesh", A Ph.D. Thesis of Finance & Banking Department, University of Chittagong, under Supervision of Professor Dr. Nesarul Karim, Professor and Degree Rewarded on March 13, 2015.
  48. Stevens, J. (1996), "Applied multivariate statistics for the social sciences" Mahwah, NJ: Lawrence Erlbaum Publishers.
  49. Uddin, N. M. (2015), "Determinants of Service Quality in the Banking Sector of Bangladesh", A Ph.D. Thesis of Finance & Banking Department, University of Chittagong, under Supervision of Prof. Dr. Shamim Uddin Khan and Degree Rewarded on March 13, 2015.
  50. UNDP (2012),"Scaling up Islamic Microfinance in Bangladesh through the Private Sector: Experience of Islami Bank Bangladesh Limited (IBBL)", One United Nations Plaza • New York, NY 10017 USA, November 2012, Available from [www.undp.org/poverty](http://www.undp.org/poverty).
  51. Yi, Y. J. and La, S. N. (2004), "What Influences the Relationship Between Customer Satisfaction and Repurchase Intention? Investigating the Effect of Adjusted Expectations and Customer Loyalty", *Psychology and Marketing*, 21(5), 351-373.