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## Article

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Journal of Open Innovation: Technology, Market, and Complexity

## Provided in Cooperation with:

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*Suggested Citation:* Ur Rashid, Md. Harun; Nurunnabi, Mohammad; Mahfuzur Rahman; Masud, Md. Abdul Kaium (2020) : Exploring the relationship between customer loyalty and financial performance of banks: Customer open innovation perspective, Journal of Open Innovation: Technology, Market, and Complexity, ISSN 2199-8531, MDPI, Basel, Vol. 6, Iss. 4, pp. 1-19, <https://doi.org/10.3390/joitmc6040108>

This Version is available at:

<https://hdl.handle.net/10419/241494>

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Article

# Exploring the Relationship between Customer Loyalty and Financial Performance of Banks: Customer Open Innovation Perspective

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Received: 10 August 2020; Accepted: 3 October 2020; Published: 9 October 2020



**Abstract:** In the age of technology, continuous innovation is the ultimate motto of the financial sector to attract customers. Firms in the financial sector must be innovative in terms of service quality and operational performance to obtain customer loyalty and gain financial stability. A dearth of studies on customer loyalty and financial performance of Islamic Banks motivated the authors to examine the relationship between customer loyalty and financial performance. The study also explores whether the service qualities have any impact on customer loyalty. The study uses both primary and secondary data to conclude the research objectives. A survey of 356 questionnaires was carried out among the customers of the selected Islamic banks of Bangladesh to gather information regarding customer service quality and customer loyalty, while financial performance data were attained from the annual reports. Moreover, the study follows the SERVQUAL model's five dimensions (tangibles, empathy, assurance, reliability, and responsiveness) to determine the service quality of Bangladeshi Islamic Banks. Rigorous statistical techniques, including exploratory factor analysis, reliability testing, and regression analysis were used to investigate the hypothesis. The study empirically documents a positively significant impact of service quality (tangibles, empathy, reliability, and responsiveness) on customer loyalty, while assurance shows an insignificant relationship. Furthermore, the study does not find any significant relationship between customer loyalty and the financial performance of Bangladeshi Islamic Banks. The findings of the study profoundly denote that the financial performance of Bangladeshi Islamic Banks mostly depends on many other financial and non-financial factors, rather than customer loyalty.

**Keywords:** service quality; customer loyalty; financial performance; Islamic banks; SERVQUAL; Bangladesh

## 1. Introduction

Global service marketing research is mostly conducted on customer loyalty, service quality, and customer satisfaction [1,2], but there is a dearth of research on service marketing components and financial performance specifically on customer loyalty [3]. Moreover, profitability is considered the lifeblood of the business, whereas customer loyalty is the most dominant factor. Furthermore,

service marketing research is mostly focused on conventional financial institutions, rather than Islamic financial institutions (IFI). Additionally, the prior literature on IFIs ignores the relationship between portability, customer loyalty, and service quality. The most recent studies by Wu et al. [4] (customer loyalty), Fauzi and Suryani [5] (services quality, customer satisfaction, and loyalty in Indonesia), Tabrani et al. [6] (trust, commitment, and customer loyalty); Khamis and AbRashid [7] (service qualities and customer loyalty in Tanzania); Mohd Thas Thaker et al. [8] (customer loyalty) and Kashif et al. [9] (customer satisfaction and loyalty in Malaysia); Saqib et al. [10] (Shari'ah compliance); Muhammad Awan et al. [11] (service quality and customer satisfaction in Pakistan); Ullah [12] (Shari'ah compliance of Islamic banks in Bangladesh) and Sayani [13] (customer satisfaction and loyalty in the United Arab Emirates) empirically explored the IFI's customer satisfaction, trust, service quality, and loyalty. Not a single study was documenting the relationship between customer loyalty and service quality with financial performance. Ullah and Khanam [14] descriptively explored the financial performance of a Bangladeshi Islamic bank in relation to Shari'ah compliance, but the study is limited to only a sample bank. Moreover, the interview-based study explored how financial performance had no empirical evidence on customer loyalty and service quality. According to the existing literature, it can be noted that the importance of customer loyalty and financial services have merely been explored [15], though it is crucial for marketing activity to focus on achieving customer loyalty of financial institutions [16]. This insufficient nature of the prior literature motivated us to investigate the relationship between service quality, customer loyalty, and financial performance.

The financial sector depends on long-term relationships with its clients, as the loss of a customer is observed with deep concern. If there are no customers, a firm will not be able to get any revenue, profits, and therefore no market value. Particularly in the financial services sector, building a successful long-term relationship is essential in the present competitive environment. Acquiring new customers is more expensive than managing existing customers. Loyal customers purchase more products and services, and they show a higher willingness to spend and act like advocates for the company. Since marketing combats for greater accountability, it is critical to examine how customer loyalty links to the profitability of a firm. This issue is very crucial for the banking industry as it faces more challenges of customer dissatisfaction than any other industry. Though a small number of customers switch banks, a large number keeps their relationship with many financial providers at a time. Moreover, the satisfied customers of the banks spread the banks' services and products to many other institutions [17]. Furthermore, innovative service quality is required to satisfy the customer and earn loyalty for facing market pressures, as well as complexity. Therefore, banks must be innovative in terms of technological innovation, customer satisfaction, marketing strategy, and risk-taking behavior. A recent study by Rahman et al. [18] found that innovative trade openness decreases banks' risk-taking behavior.

Bangladesh is a Muslim country, where a mass of people show a high interest in Islamic transactions. From the commencement of the Islamic Bank Bangladesh Limited (IBBL) in 1983, Islamic banking has been gaining importance in Bangladesh. Currently, 10 full-fledged Islamic banks (Standard Bank and NRB Global Bank have been converted into fully-fledged Shari'ah-compliant banks) are operating their activities. Furthermore, traditional banks are operating mixed banking (Islamic and interest-based), as they have recognized the importance and necessity of Shari'ah-based banking in the country. From September 2018 to September 2019, the total number of Islamic bank branches increased from 1200 to 1301, which exhibits the potentiality of Shari'ah-based banking in the country. In addition, the deposit and investment growth of Islamic banks have been 15.05% and 13.61%, respectively, from 2018 to 2019, which is higher than that of conventional banks. Moreover, IBBL earned the highest revenue among the banks in Bangladesh. Additionally, the banking sector has a significant contribution to our national economy. The profit and loss sharing concept builds on "bearing each other's burdens", which reminds people of the relationship between customers and institutions. Therefore, IFIs must pay sufficient concern to customer satisfaction and customer loyalty. It is also evident that customer loyalty mostly depends on the service quality of the organizations. As a responsible organization, Islamic banks are highly committed to customer trust, satisfaction, and service quality that turns

a customer into a loyal one and helps them gain competitive advantages [7]. On the other hand, financial performance is the ultimate goal of the organization. Therefore, service quality tends to make the customers loyal, which ultimately advocates increased profitability through competitive advantage [3]. Therefore, Islamic banks are required to develop strong marketing strategies, along with efficient human resources and sophisticated technological improvement that ultimately gain a competitive environment. The prior study empirically tested the relationship between customer loyalty, service quality, customer trust, customer satisfaction, customer purchasing behavior, and many other issues that are closely associated with customer development. Service quality and customer loyalty have also been influenced by the cultural dimension and organizational capability [9]. Kashif et al. [9] and Hossain and Leo [19] stated that cultural contexts offer several marketing strategies and opportunities that exponentially increase service quality. Moreover, competition among the industry creates opportunities for the customer. Nowadays, Islamic banks around the world are competing with conventional banks, which increases competitive advantage in the financial sector. Increasing competition enhances customer service quality that finally creates a loyal customer. The general economic theory, as well as service quality models, signifies that higher service quality creates a satisfied customer that makes a long-run relationship with the customer (loyal customer) that finally increases financial performance [20]. A dearth of research on financial performance, customer loyalty, and service quality make us the question whether there is any relationship that exists among these three important elements of service marketing. To find the answer, the study has considered both primary and secondary data of Bangladeshi Islamic banks. Moreover, during the study period, we did not find any Bangladeshi study on the issues. Therefore, the purpose of the present study is to investigate and fuse existing knowledge on customer loyalty of Islamic banks of Bangladesh and find out any direct relationship between service quality, customer loyalty, and financial performance.

## 2. The Conceptual Framework, Literature Reviews, and Hypotheses Development

### 2.1. Literature Review and Hypotheses Development

#### 2.1.1. Service Quality

Service quality (SERVQUAL) can be defined as the gap between the expectation and reality of services received by customers [21]. According to Priyo et al. [22], the SERVQUAL is the control over the degree of quality needed to fulfill customers' expectations. It is a set of benefits obtained by customers either directly or indirectly in facilitating the acquisition of products and services by placing greater emphasis on the terms of services, qualities, and levels of customers.

In the context of service quality measurement, two models have been widely used—the CARTER model and SERVQUAL model [7,10]. The SERVQUAL model was introduced and further improved by Parasuraman et al. ([23,24]). On the other hand, Othman and Owen [25] developed the CARTER model. The main difference between the SERVQUAL and CARTER models is several dimensions of service quality measurement. SERVQUAL uses five dimensions, namely, tangibles, empathy, assurance, reliability, and responsiveness, while the CARTER model defines six dimensions, adding one more compliance with the SERVQUAL model. Fornell [26] used the SERVQUAL model to determine service quality and customer satisfaction in Sweden. Chavan and Ahmed [27] empirically tested the SERVQUAL model to find customer loyalty in retail banking. In Islamic banking literature, the service quality measurement scale has widely used both the SERVQUAL and CARTER model (Table 1). Moreover, Muhammad Awan et al. [11], Kashif et al. [9], and Saqib et al. [10] developed the SERVQUAL model in the context of Islamic Bank's customer satisfaction, service quality, and customer loyalty determination. On the contrary to the SERVQUAL model, Khamis and AbRashid [7], Fauzi and Suryani [5], and Othman and Owen [25] empirically explored the CARTER model to ascertain customer satisfaction, trust, and service quality. Many researchers have proposed to use it practically in the banking industry with little changes [28]. Despite having a difference from the Shari'ah view, Islamic banks have more similarities to the conventional one in terms of service quality. Therefore,

there is no major exception to apply the SERVQUAL model in Islamic banks. It is also evident that not only in Bangladesh, but also around the world, conventional banks are additionally performing dual banking services (conventional and Islamic). Based on the discussion and prior literature, the study adopted the SERVQUAL model [9,10].

**Table 1.** SERVQUAL and CARTER models in the Islamic Banking literature.

	<b>Researches</b>	<b>Countries</b>	<b>Model</b>
1.	Saqib et al. [10]	Pakistan	SERVQUAL
2.	Kashif et al. [9]	Malaysia	SERVQUAL
3.	Khafafa and Shafii [29]	Libya	SERVQUAL
4.	Muhammad Awan [11]	Pakistan	SERVQUAL
5.	Al-Tamimi and Al-Amiri [30]	UAE	SERVQUAL
6.	Khamis and AbRashid [7]	Tanzania	CARTER
7.	Fauzi and Suryani [5]	Indonesia	CARTER
8.	Lone et al. [31]	Saudi Arabia	CARTER
9.	Janahi and Al Mubarak [32]	Bahrain	CARTER
10.	Misbach and Hadiwidjojo [33]	Indonesia	CARTER
11.	Rehman et al. [9]	Pakistan	CARTER
12.	Osman et al. [34]	Malaysia	CARTER
13.	Amin and Isa [35]	Malaysia	CARTER
14.	Ciptono and Soviyanti [36]	Indonesia	CARTER
15.	Shafie et al. [37]	Malaysia	CARTER
16.	Othman and Owen [25]	Kuwait	CARTER

Source: Authors’ own compilation.

Many researchers define service quality as the long-term evaluation of the customers’ extrinsically perceived attitudes on services, employee involvement, commitment to the final goods and services, strategic effort to obtain a competitive advantage, and value of the creation [3,10,21,29–37]. Service quality considers the most crucial and significant driver of the banking industry because service quality provides an inclusive (managerial issues), as well as particular (social and environmental issues) image of the organization. Islamic banks are considered as a responsible bank, as they are doing business by the religious perspective; therefore, the service quality of Islamic banks must comply with the Shari’ah principles. Khamis and AbRashid [7] documented that Tanzania’s Islamic banks consider service quality as the prime matter to make satisfied customers, and found service quality is positively and significantly associated with customer satisfaction. Saqib et al. [10] conducted a study on customer perception of Shari’ah compliance and found high service quality was positively and significantly related to customer satisfaction and loyalty. Moreover, the recent study of Ullah and Khanam [14] concluded that Bangladeshi Islamic bank performance majorly depends on the Shari’ah compliance that is determined by service quality. Additionally, conducting a study in the retail bank, Siddiqi [38] pointed out that the more the service quality increases, the more its servicing cost decreases. Moreover, the SERVQUAL model’s five dimensions determine the nature of the service quality of the organization. Prior literature found the different significant results of tangibles, empathy, assurance, reliability, and responsiveness with customer loyalty.

### Tangibles

A tangible indicates the physical outline of a bank which includes furniture, fixture, and equipment, and physical facilities, such as the cleanliness, personal appearance, and the overall environment of the bank [19,25]. Effective and efficient management with tangible assets of Islamic banks may provide excellent services to the customer that will create a loyal customer. Kashif et al. [9] and Al-Tamimi and Al-Amiri [30] documented a positive and significant relationship between tangibles and customer loyalty, and the study is also consistent with the study of Awan et al. [11]. Furthermore, Keisidou et al. [3] found evidence of a positive association of tangibles with customer satisfaction and

loyalty in Greek banks. Additionally, Jamal and Anastasiadou [39] found that tangibles are the most significant factor that makes a customer loyal. On the other hand, the most recent study of Khamis and AbRashid [7] posits an insignificant relationship between tangibles and customer loyalty of Tanzania's Islamic banks. As an emerging economic country, we like to believe that Islamic banks in Bangladesh have a strong tangible environment that changes customer attitudes and makes them a loyal customer. Therefore, we hypothesize that:

**Hypothesis 1 (H1).** *There is a positive and significant relationship between tangibles and customer loyalty in Bangladeshi Islamic banks.*

### Empathy

Empathy defines individualized problem-solving, caring, and providing the best support of the banks to the customers [25]. Fauzi and Suryani [5] stated that the empathy of an Islamic bank represents the staff's profiles, which creates an intimate relationship with customers. Empathy also represents the services provided by the banks to its customers as per their interest which best suits them. A prior study found empathy as the substantial factor of Islamic banks that ensures better service quality and turns a satisfied customer into a loyal one [5,30]. Khamis and AbRashid [7] and Fauzi and Suryani [5] documented a positive and significant relationship between empathy and customer loyalty, and this was supported by the study of Al-Tamimi and Al-Amiri [30]. The prior literature and results led us to believe that Bangladeshi Islamic banks also consider empathy as an important dimension of customer service quality. Therefore, we hypothesize that:

**Hypothesis 2 (H2).** *There is a positive and significant relationship between empathy and customer loyalty in Bangladeshi Islamic banks.*

### Assurance

Assurance defines the employee's communication skills and ability to convey trust and confidence to the customers [25]. Moreover, assurance also represents customers' perceptions of security and employees' attitudes, politeness, knowledge, skills, competence, quickly solving and advising customers on specific issues, and providing customer account information quickly [7,25,32]. A prior study found a positive and significant relationship of assurance [9,32], whereas some other studies reported insignificant relationships [7]. Therefore, we like to believe that Bangladeshi Islamic banks maintain excellent communication with the customer to make them into a loyal client. Therefore, we hypothesize that:

**Hypothesis 3 (H3).** *There is a positive and significant relationship between assurance and customer loyalty in Bangladeshi Islamic banks.*

### Reliability

Reliability defines dependability and trustworthy services to customers [5,30]. Reliability is also represented by services provided by the bank as promised, their speed of solving problems, accurate transaction processing time of the banks, operating hours of the bank, and providing up-to-date recording information. Satisfied and loyal customers demand more accurate and promised services. Reliability is considered a strong tool for Islamic banks to make loyal customers. A prior study posits a positive and significant association of reliability with customer satisfaction and loyalty [5,32]. Additionally, Al-Tamimi and Al-Amiri [30] found an insignificant relation. Therefore, we suppose to

believe that in the competitive market, Bangladeshi Islamic banks provide timely and accurate services to the customers to gain a competitive advantage. Hence, we hypothesize that:

**Hypothesis 4 (H4).** *There is a positive and significant relationship between reliability and customer loyalty in Bangladeshi Islamic banks.*

#### Responsiveness

Responsiveness refers to the ability and willingness to support customers and serve them as per their necessity. Prompt and quick responses of customer queries led to loyal clients. Moreover, Al-Tamimi and Al-Amiri [30], Janahi and Al Mubarak [32], and Fauzi and Suryani [5] noted how whether or not a bank is more responsive to its customers highly depends on whether the customers are satisfied with the employees' promptness in providing services in the bank, the willingness of employees to help them, and sending timely bank statements with necessary services. Prior studies found a positive and significant relationship between responsiveness and customer loyalty [5,10,32]. Moreover, Al-Tamimi and Al-Amiri [30] and Khamis and AbRashid [7] reported an insignificant relationship. We strongly believe that Bangladeshi Islamic banks are very much concerned with responsiveness issues to customers. Hence, the study postulates the following hypothesis:

**Hypothesis 5 (H5).** *There is a positive and significant relationship between responsiveness and customer loyalty in Bangladeshi Islamic banks.*

#### 2.1.2. Customer Loyalty

Loyal customers are satisfied and can be used as a marketing tool. Customer loyalty is defined as satisfied customers who are inclined to purchase goods and services. Prior researchers broadly defined customer loyalty in the name of behavioral and attitudinal loyalty [6]. Both classifications explain customers' intention to purchase, repurchase, and recommend purchasing goods and services. In the banking context, loyalty can be defined as the customer's frequent patronage of a certain bank over a long period [40]. Moreover, loyal customers are those who show the repetitive purchasing behavior of products and services, who recommend it to others, and oppose all types of propaganda. When a customer shows their loyalty in the repetitive purchase of the same product or service, such a customer is called "brand loyal". Walsh et al. [41] suggested serving loyal customers (existing) because they are less costly than a new customer. Moreover, Kashif et al. [9] found a significant positive relationship between customer loyalty and a different dimension of the SERVQUAL model in the Malaysian Islamic banks' context.

#### 2.1.3. Banks' Financial Performance

Financial performance is a quantitative indicator of how effectively a firm can utilize its assets from the primary business model and produce revenues. The term is often used to measure the overall financial health of an organization over a certain period. Ensuring better services to the customers is the ultimate goal of increasing the financial performance of the business organization. Therefore, it is evident that customer loyalty will enhance the financial performance of the banks. Hegner-Kakar et al. [42] stated that loyal customers stay long-term, which increases sales and profits.

Based on a prior study, we used profitability variables to measure the financial performance of Bangladeshi Islamic banks. The study was followed by ROA, ROE, and NPM variables consistent with Keisidou et al. [3]. A prior study used several methods to measure financial performance. For instance, Anderson et al. [43] used return on investment (ROI); Chi and Gursoy [44] used profitability, ROI and net profit; Hallowell [45] used return on assets (ROA) and percentage of non-interest expenses divided by total revenue; and Keisidou et al. [3] used ROA, return on equity (ROE), and net profit

margin (NPM). Moreover, a prior study on Islamic banks used several accounting variables to measure financial performance (ROA; ROE; Deposit; Revenues). Nawaz [46] used ROA and ROE to measure the financial performance of Islamic banks of the UK.

Some studies on trust and satisfaction provided evidence for there being a positive and significant relationship with financial performance [43,45]. A few studies found a significant relationship between customer loyalty and financial performance [3,42,47]. Hallowell [45] stated that financial performance depends on customer loyalty. Helgesen [47] found a positive and significant association between customer loyalty and financial performance of Norwegian countries. The most recent study of Hegner-Kakar et al. [42] examined four types of loyalty variables and profitability; they documented only a loyalty variable (action loyalty) that has a positive and significant relationship to profitability. Furthermore, the most comprehensive study of customer loyalty and financial study of Keisidou et al. [3] evidenced an insignificant relationship in the Greek banking sector. Hegner-Kakar et al. [42] found cognitive, affective, and conative loyalty had an insignificant relationship with profitability in the German financial industry. A dearth of research on customer loyalty and financial performance motivated us to investigate the issue in the Bangladesh context. Therefore, our understanding is that Bangladeshi Islamic banks are driven for financial benefits, and are motivated to enhance service quality that ultimately increases loyal customers. Hence, the study proposes the following hypotheses:

**Hypothesis 6 (H6).** *There is a positive and significant relationship between customer loyalty and ROA in Bangladeshi Islamic banks.*

**Hypothesis 7 (H7).** *There is a positive and significant relationship between customer loyalty and ROE in Bangladeshi Islamic banks.*

**Hypothesis 8 (H8).** *There is a positive and significant relationship between customer loyalty and NPM in Bangladeshi Islamic banks.*

## 2.2. Conceptual Framework

Based on the prior literature of the SERVQUAL model, we defined customer loyalty, service quality, and financial performance that are the conceptual dimensions of the study. Moreover, the conceptual model of customer loyalty is the continuous improvement mechanism that is comprised of innovation, challenges, and market complexity. According to the SERVQUAL model and questionnaire, we have developed eight hypotheses in the study. Therefore, the study proposes the following conceptual framework of the study (Figure 1).



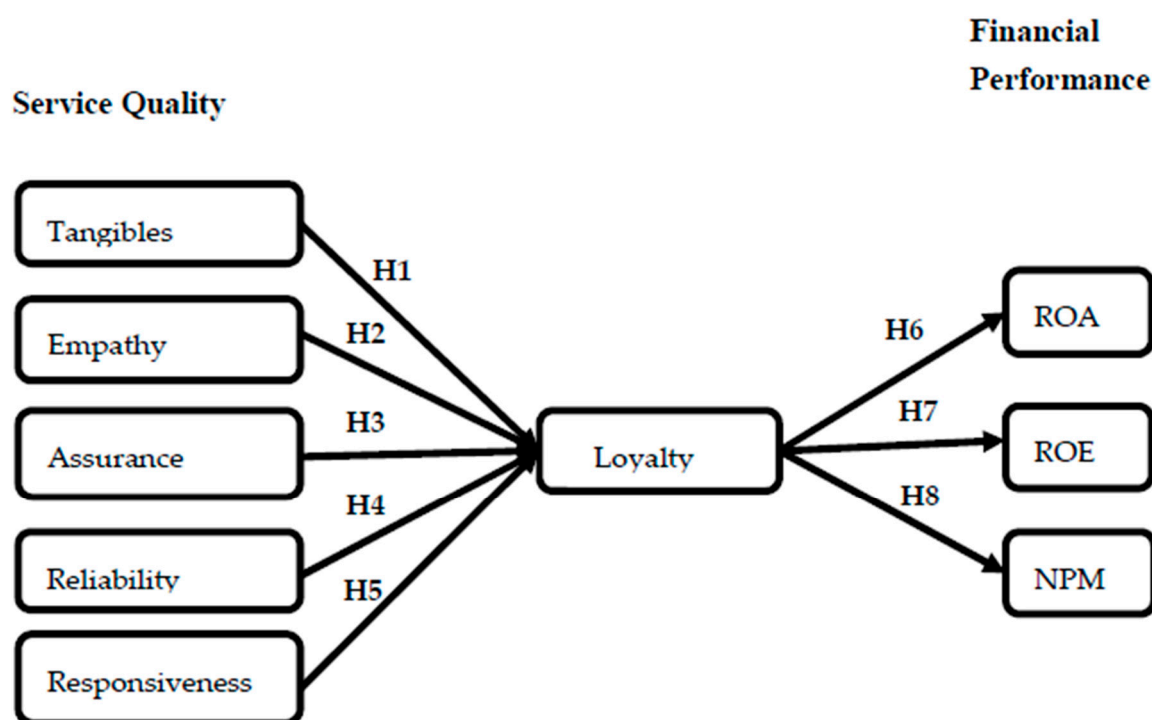


Figure 1. Conceptual framework of the study.

### 3. Methodology

#### 3.1. Data Collection and Sample

The data of the study were collected from both primary and the secondary sources. Primary data were collected from the questionnaire to the customers, whereas secondary data were obtained from the annual report of the sample banks. Out of eight full-fledged Islamic banks in Bangladesh, five banks were taken as a sample of the study, considering their size, the number of branches, the age of operation, and profitability (see Appendix A). It is also noteworthy that selected banks are the most prominent, experienced, and aged banks in the Islamic banking history of the country. During the period of May–June 2018, a total of 500 questionnaires (in the Bangla language) were served among the customers of the selected Islamic banks, out of which 390 were collected (78 percent response rate). After filtering out the incomplete responses, a total of 356 responses were finally selected (71.2 percent). It is considered that the SEM model can perform well with a small sample size, even though the sample size is 50–100 responses [48]. Therefore, a sample size of 356 responses was a good fit for this study. We also used the KMO test to check the availability of sample size. Financial performance data were collected from the annual report of the banks between 2014 and 2017.

#### 3.2. Measurement Instruments

The study followed a five-point Likert-scale technique. A close-ended, structured questionnaire was served for the respondents, where one (1) indicates strongly disagree, and five (5) indicates strongly agree. The questionnaire was developed from the SERVQUAL model based on the Bangladeshi Islamic banks’ perspective. Hence, a questionnaire of a total of 24 items was adopted from the previous study of Siddiqi [38], Saqib et al. [10], and Fauzi and Suryani [5] (see Appendix B). However, the questionnaire consisted of two parts: the first part was about the demographic information of the respondents (age, gender, education, income, etc.) while the second part included service quality attributes and service quality, and loyalty-related questions. On the other hand, the study used the three most accepted

profitability ratios to measure the financial performance of the Islamic banks; ROA, ROE, and NPM, following the previous study of Keisidou et al. [3]. The three variables have been measured by:

- ROA: The average return on assets is the result of net income divided by total assets during 2014–2017, following Masud et al. [49].
- ROE: The average return on equity is the result of net income divided by shareholder’s equity during 2014–2017, following Bae et al. [50].
- NPM: The average net profit margin is calculated by deducting the sum of net operating and non-operating expenses from the sum of net operating and non-operating income during 2014–2017, consistent with Keisidou et al. [3].

### 3.3. Data Analysis Techniques

In this study, data has been analyzed in two steps. In the first step, both primary and secondary data were analyzed through various statistical tools and techniques, consisting of mean, SD, correlation, and exploratory factor analysis (EFA). EFA has been applied to analyze the primary data as it explores the percentage of variance explained by each factor, along with the loading value of each item. Moreover, the study employed principal components analysis to reduce the Likert-scale biases for the model. In the second step, the regression was run to find out whether service quality and customer loyalty has any impact on the financial performance of the Islamic bank. This study also applied the Cronbach’s alpha coefficient (CA) and composite reliability to measure the consistency and reliability of the data. Both SPSS and AMOS version 22 were used to analyze the data.

## 4. Results

### 4.1. Respondents’ Profile

Table 2 shows the respondents’ demographic profile about gender, age, income, profession, and status of their bank account with frequency and percent. Most of the respondents had a savings account (41.3%). Of the 356 participants, both males and females participated in the survey. Of the people who used Islamic banks of the country, 38.2% were female, which is lower than the male percentage (61.2%). More young people are using Islamic banks’ services (20–30 years; 43.3%), which is a promising factor for the future of the Islamic banks in the country. The study also shows that most of the customers’ (45.2%) income level fell within the range of BDT 20,000–40,000. The survey shows a mixed result on profession, where students (37.6%) used the Islamic bank’s services more than a businessman (28.4%).

**Table 2.** Demographic information of respondents.

Items	Categories	Frequency	Percent
Account	Current Account	92	25.8
	Savings Account	147	41.3
	Fixed Account	88	24.7
	Other	29	8.1
Gender	Male	218	61.2
	Female	138	38.8
Marital Status	Married	215	60.4
	Single	141	39.6
Age	Under 20 years	38	10.7
	21–30	154	43.3
	31–40	90	25.3
	41–50	45	12.6
	Above 50	29	8.1

**Table 2.** *Cont.*

Items	Categories	Frequency	Percent
Income	Below Tk.10,000	49	13.8
	Tk.10,000–20,000	121	34.0
	Tk.20,000–40,000	161	45.2
	Above Tk.40,000	25	7.0
Profession	Business	101	28.4
	Service	112	31.5
	Student	134	37.6
	Housewife	9	2.5
	Total	356	100.0

**4.2. Descriptive Statistics**

Table 3 shows the descriptive statistics of the study. Among the five dimensions of the SERVQUAL model, responsiveness shows the highest average and standard deviation scores of 3.74 and 0.797, respectively. The average and standard deviation of customer service quality and loyalty are almost equal. However, the study shows the average ROE is about 11.11, which is much better than ROA. Moreover, the NPM result indicates a good profit margin of the banks.

**Table 3.** Descriptive statistics.

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Tangibles	356	1	5	3.53	0.598
Reliability	356	1	5	3.71	0.741
Responsiveness	356	1	5	3.74	0.797
Assurance	356	1	5	3.72	0.673
Empathy	356	1	5	3.71	0.730
Loyalty	356	1	5	3.71	0.733
ROA	20	0.31	2.36	0.96	0.601
ROE	20	7.00	16.16	11.11	2.613
NPM	20	694.28	4692.95	2210	1217

**4.3. Sampling Adequacy Test**

The study used a sample of 356 respondents. To check whether the sample is adequate for further analysis, we applied the Kaiser-Meyer-Olkin (KMO) measurement test. The KMO index measures a value between the ranges of 0 to 1. In this study, the result shows a value of 0.885, which is greater than the threshold of 0.77 [51] shown in Table 4. Therefore, the sample size is adequate for factor analysis. The result of Bartlett’s test (6660.814, df = 741,  $p < 0.000$ ) explains that the correlation is meaningfully different from the identity matrix and the correlations among the factors are not zero.

**Table 4.** KMO and Bartlett’s Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.885
Bartlett’s Test of Sphericity—Approx. Chi-Square	1985.968
df	136
sig	0.000

**4.4. Correlation Matrix**

Table 5 represents Pearson’s pairwise correlation matrix of the study. The service quality of all variables is positively and significantly correlated with customer loyalty at a 1 percent significant level. On the other hand, profitability variables are negatively associated with service quality and

loyalty. The table indicates that with the increasing nature of service quality in the Islamic Banks, customer loyalty also increases. Moreover, customer loyalty does not influence the banks' financial performance. The relationship between customer loyalty and financial performance posits that the financial performance of Bangladeshi Islamic banks is mostly driven by other Shari'ah and financial factors. The maximum correlation coefficient lies between ROA and ROE (0.80); it is below the threshold value of 0.90, ensuring no evidence of the multicollinearity problem [49]). It is also evident in the accounting literature that ROA and ROE have almost the same predictability and must have a high correlation. The correlation matrix also indicates that the data share common factors and are appropriate for factor analysis.

#### 4.5. Exploratory Factor Analysis (EFA)

The main purpose of EFA is to reduce the number of factors from a large group into a smaller one without making any significant loss of important information, and to explore the dimensionality of the data set [52]. The recommended factor loading values were set at  $>0.55$  in the prior study of [53]. The study reveals that most of the factor loading dimensions of the SERVAQUAL model is above the threshold, except Tan1, Tan5, Emp6, Rel12, Rel16, Res17, Lo24, and Lo25, which were filtered out due to poor loading scores. All factors of SERVQUAL along with customer loyalty show the eigenvalue is greater than one. The study also shows in Table 6 that the first extracted factor among the service quality attributes is tangible, which explains 14% of the total variance. This highest variance that reveals the tangibles' composition, among all other factors, is the most persuasive factor for customer loyalty in Islamic banks in Bangladesh. On the contrary, the last extracted factor of the study is customer loyalty. Customer loyalty accounted for only 4.52% of the total variance explained, which indicates that the influence of the dimension is very poor. Our model explanation power is 57.89%, which is relevant to the prior study.

#### 4.6. Reliability Test

Reliability analysis indicates the internal consistency of the data [54]. The reliability of the data is measured by Cronbach's alfa coefficient. The recommended value of Cronbach's coefficient is considered  $>0.60$  [55]. The study documented that each of the dimensions exceeded the Cronbach's recommended threshold value (Table 6). Further, the study calculated composite reliability (CR) of each of the constructs used in the study. We have found that the CR of all dimensions was above the threshold value of 0.70 [56] except assurance, which is near to 0.70 (0.67). Therefore, it can be concluded that the dimensions fulfill the requirement successfully; they are reliable and consistent for further proceedings.

#### 4.7. Regression Analysis

Table 7 composes the findings of regression paths, estimate, probability values, and remarks of the hypothesis. The SEM techniques were applied to investigate the relationship between (i) service quality and customer loyalty, and (ii) customer loyalty and financial performance. We found a positive and significant relationship between tangibles and customer loyalty. Next, we document a positive and significant relationship between empathy and customer loyalty. Our next hypothesis is assurance and customer loyalty; we did not find any significant relationship between the two variables. Therefore, we reject hypothesis H3. It indicates the Islamic banks failed to provide confident and quality services to loyal customers. This is because the customers were not confident with the security of the bank, as well as the knowledge of the employees. Next, we find a positive and significant association between reliability and customer loyalty. The study shows loyal customers have the utmost good faith in the Islamic bank's services. The finding is also supported by the prior study of Islamic banking [7,10,11,32]. Our last hypothesis of the SERVQUAL model is responsiveness and customer loyalty, and reveals a positive and significant relationship. This finding is also consistent with the prior result [3,7,10,11,32]. In this stage, the study finds no significant relationship between customer loyalty

and financial performance variables (ROA, ROE, and NPM). Therefore, we reject hypothesis H6, H7, and H8. The finding indicates that for Islamic banks in Bangladesh, financial performance does not depend on customer loyalty, but rather, on many other non-financial factors. Our empirical findings are supported by the recent banking sector study of Keisidou et al. [3] in Greece and Hegner-Kakar et al. [42] in Germany.

#### *4.8. Additional Tests*

The study used several additional variables to confirm its robustness. The general tendency between customer loyalty and financial performance is positive, but we found an insignificant relationship. Therefore, to confirm the relationship between service quality, customer loyalty, and financial performance, we changed the financial performance variables. Firstly, we used ROA, ROE, and NPM only for the year 2017, which reveals the same result. Secondly, we used revenue as a proxy for financial performance again, and documented the same results. Finally, we tested market-based return as a proxy for financial performance, and again found the same results. The three alternative proxies found that four service quality variables (tangibles, empathy, reliability, and responsiveness) were positively and significantly associated with customer loyalty ( $\rho < 0.01$ ), while assurance shows an insignificant relationship. On the other hand, customer loyalty and financial performance found an insignificant relationship in every aspect. The additional findings confirm that our results are robust and reliable.

**Table 5.** Pearson Correlation Matrix.

Name	Tangible	Empathy	Assurance	Reliability	Responsibility	Loyalty	ROA	ROE	NP
Tangible	1								
Empathy	0.423 **	1							
Assurance	0.435 **	0.535 **	1						
Reliability	0.463 **	0.551 **	0.650 **	1					
Responsibility	0.347 **	0.391 **	0.563 **	0.605 **	1				
Loyalty	0.385 **	0.423 **	0.462 **	0.556 **	0.557 **	1			
ROA	-0.419	-0.573 **	-0.378	-0.616 **	-0.471 *	-0.427	1		
ROE	-0.402	-0.515 *	-0.328	-0.533 *	-0.325	-0.376	0.800 **	1	
NPM	-0.215	-0.033	-0.100	0.014	-0.194	-0.243	-0.007	-0.137	1

\*\* Correlation is significant at the 0.01 level and \* at 0.05 level (2-tailed).

**Table 6.** Factor analysis.

	Items	Loading Factors	Eigenvalue	Variance (%)	Cumulative (%)	Cronbach'sAlfa	Composite Reliability
Tangibles	Tan4	0.801	3.36	14.00	14.00	0.68	0.78
	Tan3	0.755					
	Tan2	0.641					
Empathy	Emp8	0.568	3.10	12.93	26.93	0.62	0.71
	Emp7	0.902					
	Ass11	0.611					
Assurance	Ass10	0.562	2.35	9.81	36.74	0.70	0.67
	Ass9	0.734					
	Rel15	0.754					
Reliability	Rel14	0.675	2.15	8.95	45.69	0.73	0.75
	Rel13	0.706					

Table 6. Cont.

	Items	Loading Factors	Eigenvalue	Variance (%)	Cumulative (%)	Cronbach'sAlfa	Composite Reliability
Responsiveness	Res18	0.718	1.84	7.68	53.37	0.66	0.70
	Res19	0.754					
	Lo21	0.626					
Loyalty	Lo22	0.767	1.09	4.52	57.89	0.67	0.83
	Lo23	0.954					

Table 7. Regression analysis and hypotheses testing.

Hypothesis	Path	Estimate	S.E.	C.R.	p	Remarks
H1	Loyalty ←Tangible	0.132	0.050	2.646	0.008	Supported
H2	Loyalty ←Empathy	0.108	0.040	2.671	0.008	Supported
H3	Loyalty ←Assurance	0.019	0.038	0.501	0.616	Not Supported
H4	Loyalty ←Reliability	0.261	0.044	5.857	***	Supported
H5	Loyalty ←Responsiveness	0.322	0.041	7.863	***	Supported
H6	ROA ←Loyalty	-0.243	0.184	-1.322	0.186	Not Supported
H7	ROE ←Loyalty	-0.929	0.820	-1.134	0.257	Not Supported
H8	NPM ←Loyalty	-280.089	399.710	-0.701	0.483	Not Supported

\*\*\* signifiant at 1 percent level.

## 5. Discussions and Conclusions

Service quality, customer loyalty, and financial performance are considered the most influential and dominating factors in service marketing, which pave the way for customer open innovation. Open innovation promotes technological advancement and market demands. Efficient customer service quality is the outcome of an appropriate business model, and therefore organizations must consider the innovative service mechanism to achieve customer loyalty. The study results were that customer open innovation (i.e., rapid transaction, virtual technology, sufficient ATM booths, one-stop service, security, online transaction, globalization facilities) in the line of the SERVQUAL model had a significant impact on customer loyalty. Additionally, if organizations initially make a total quality control framework to adapt to the SERVQUAL model, a decent methodology for the execution of customer open innovation can be accomplished [57]. It creates new products and services based on the market demand that motivates evidence-based entrepreneurial innovation. The more loyal the customer is, the higher the financial performance is achieved, since loyal customers tend to make repetitive purchases, which lead to an increase in the financial performance of the firms [58]. The Islamic banks of Bangladesh are in the process of open innovation, as four out of five dimensions of the SERVQUAL model are significantly related to customer loyalty. Customer satisfaction and loyalty depend on service quality, while service quality 77satisfied customers into loyal customers. Customer loyalty increases revenue and long-time relationships with companies. Islamic banks follow Shari'ah compliance that makes them more responsible and caring to customers. The study was designed to explore both the direct and indirect relationship between service quality, customer loyalty, and financial performance of Bangladeshi Islamic banks. Based on the primary (questionnaires) and secondary data (annual reports), the study used the SERVQUAL model and documented that service quality was significantly influenced by loyalty, but in contrast, loyalty had no relationship with financial performance. Moreover, the study took an attempt to find links between customer service quality, customer loyalty, financial performance, and customer open innovation processes in service marketing.

This study found that the SERVQUAL model's first dimension, tangibles, have a greater influence on customer loyalty. The empirical evidence indicates that Bangladeshi Islamic banks maintain sufficient tangible assets to provide better-quality services to customers. Islamic banks are keeping up with necessary tangible equipment and service quality, and also keep customers satisfied and loyal. Moreover, sufficient tangibility increases the speed and privacy of the services, visually appeal, and technological equipment of the banks that ultimately increase customer loyalty. Our result is consistent with the empirical findings of Pakistani Islamic Banks [10], UAE Islamic banks [11], and Bahrain Islamic banks [32].

Another important factor in service quality is empathy for the customers. The results indicate a significant influence on customer loyalty. The evidence shows that Islamic banks in Bangladesh are very concerned with individualized customer care and supervision. Empathy also says something about banks' economic performance, like service charges on different services [32], that means that customers are satisfied on these issues. In Bangladesh, Islamic banks provide services to their customers as per their interest which suits best them. Moreover, the customers perceive Islamic banks' employees as caring and attentive. Our result is also supported by the studies of Islamic banks in Pakistan [10], UAE [11], Bahrain [32], and Tanzania [7].

Assurance refers to the verbal and non-verbal communication of the bank employees and customers concerning faith, trust, attitudes, knowledge, politeness, and confidence in the staff. The study found an insignificant association between assurance and customer loyalty. The result posits that Islamic banks in Bangladesh failed to earn trust from their customers. Islamic banks' customers had difficulty believing in the banks' managerial approach over security issues, like leaking personal information, the government's recent intervention on Islamic bank management [59], patronizing political allegation on specific Islamic banks, and allegations on militant fund transfer [60]. The most recent rapid management changes, foreign institutional investors share-selling, and government control on the Islamic banks in Bangladesh, sent a negative signal to the customers about Islamic banks'



assurance [59,60]. In addition, the findings imply that the customers' perception of the employees' knowledge and competency in quickly solving problems and advising customers on specific issues was negative in Bangladesh. Moreover, our finding is supported by the argument of Ullah [12] who found Islamic banks in Bangladesh had a lack of people knowledgeable in Shari'ah resources, employees were insincere regarding Shari'ah compliance, and performed inadequate Shari'ah audits. Additionally, our finding is also consistent with the empirical result of Pakistani Islamic banks [10], UAE Islamic banks [11], Bahraini Islamic banks [32], and Tanzanian Islamic banks [7].

Reliability is found to be significantly associated with customer loyalty, which means customer loyalty closely depends on the reliable and trustworthy services of the Islamic banks in Bangladesh. The result also reveals that Islamic banks are considering accurate and timely services to gain a competitive advantage. The dependable, secured, and accurate service of Islamic banks increases customer satisfaction and loyalty. Loyal customers want to depend on decisions by bank staff members because they believe that the decision is in their best interest. The recent growth and expansion of Islamic banks (e.g., more new branches and new Shari'ah-compliant products) support our result in the context of Bangladesh. Additionally, our result is supported by the prior findings of Pakistani Islamic banks [10], UAE Islamic banks [11], Bahraini Islamic banks [32], and Tanzanian Islamic banks [7].

In the study, the SERVQUAL dimension's last driver of service quality is responsiveness. We document a significant relationship between responsiveness and customer loyalty. The result implies that Islamic banks are very prompt and responsive regarding customer queries. Bangladeshi Islamic Banks are willingly trying to help and solve customers' problems. Moreover, responsiveness also posits out that in the competitive market (competition with conventional, as well as Islamic Banks), Islamic banks are searching for potential customers for whom they are very cooperative and helpful. Furthermore, Shari'ah-based banks are considered an ethical organization that lead them to be more helpful and benevolent to customers. Our findings are also supported by prior studies [7,10,11,32].

The study examined the influence of customer loyalty on financial performance using the three most useful attributes of financial performance. The study found no significant relationship between customer loyalty and financial performance in the Islamic Banks of Bangladesh. All three profitability ratios—ROA, ROE, and NPM—were found insignificant to measure the impact of financial performance on customer loyalty, which is also consistent with the previous study of Hegner-Kakar et al. [42], Keisidou et al. [3], and Hallowell [45]. The finding seems surprising, but it has strong reasoning because customer loyalty is an abstract issue that mostly depends on service quality, while financial performance is a pragmatic issue that depends not only on customer service quality and loyalty, but also many other financial and non-financial factors and drivers. The most recent study of Ullah and Khanam [14] and Rashid et al. [61] stressed that among many other factors influencing the financial performance of the Islamic banks, Shari'ah compliance is the single most crucial factor in the Islamic banking context. Saqib et al. [10] and Muhammad Awan et al. [11] empirically documented that Shari'ah compliance is the most dominating factor in the Pakistani Islamic Banks, while they found Shari'ah compliance had significant moderating influences on banks' performance. Moreover, Keisidou et al. [3] found an insignificant relationship between customer loyalty and financial performance in the Greek banking sector and pointed out that the bad economic conditions of the country were responsible. Hegner-Kakar et al. [42] found that cognitive, affective, and conative loyalty had no significant relationship in the German financial sector because investment into the loyalty dimension had a strong linkage with long-run future derivatives, rather than individual customer levels. Moreover, Chi and Gursoy [44] mentioned a multitude of factors that disguised the real relationship between customer satisfaction/loyalty and financial performance. For instance, when a business would like to upsurge its customer loyalty, they may decide to spend a large amount of money. This decision to invest a huge amount of money on some selected factors, such as training of the employees, upgrading the modern facilities, providing better services, and so forth may increase customer loyalty, but may not necessarily result in a higher profit. However, it is more rational in the context of Bangladesh as the majority of its

population is Muslim, and they would like to avoid interest-bearing transactions, as they are Haram (prohibited). Therefore, the customers prefer the Islamic banks and become loyal to it only for Shari'ah compliance, rather than the quality of service. These discussions convinced us to understand that customer loyalty of Islamic Banks in Bangladesh has no direct relationship to financial performance, but service quality is the prime determinant of customer loyalty.

The study has significant theoretical and managerial implications in the context of customer loyalty, service quality, and financial performance. Theoretically, the study contributes a piece of new evidence in the Islamic banking literature. Prior research uncovered the relationship between customer loyalty and financial performance. Therefore, the study empirically found no association between customer loyalty and financial performance. The finding implies that the financial performance of Islamic banks does not entirely depend on customer loyalty—rather, it relies on many other factors, like Shari'ah principles. Furthermore, the study has significant managerial contributions. The study discovered that service quality is the crucial determinant of customer loyalty and financial performance of Islamic Banks in Bangladesh. Moreover, it identified different drivers and factors that influenced consumers' loyalty to Islamic Banks of Bangladesh in relation to customer open innovation. Additionally, the management of Islamic Banks must consider physical components, modern banking facilities, information technology facilities, service diversity, virtual banking, quick banking services, professionalism, smart banking concepts, more indoor facilities, a pleasant manner, and responsible banking with regard to the customers. The study also made a significant contribution to customer open innovation, market forces, and technological diversity to achieve customer loyalty, and ways to convert a satisfied customer into a loyal customer.

The study found that employees of Islamic Banks in Bangladesh had inadequate communication skills, knowledge, and security that decreased customer loyalty. On the other hand, bank management styles that are unable to mitigate external political pressures sends a negative signal to the customer for secured and accountable transactions. Moreover, Islamic Banks' political affiliation, patronization and allegations of banking access to the militant has profoundly created a legitimacy threat to the society that must be considered by the management to ensure quality services and inclusive banking to loyal customers. Management should investigate the reasons behind the failure of achieving assurance to the customers. Additionally, Islamic Banks should revisit the training capabilities and facilities of the employees. Bank management should critically think about how to improve human intellectual property to mitigate 21st century risks and challenges.

The empirical study considered customer loyalty and its impact on financial performance under the following limitations regarding sample size, choosing the banks, and data collection and analysis procedures. First, to measure the impact of service quality on customer loyalty, the study only considered SERVQUAL dimensions, which may not reflect the banks' actual realities. Second, the study focused only on the customers of Islamic banks. Third, the study collected the service quality data within a year, but customers' perceptions regarding the service qualities of their banks may change over time. Therefore, future studies may consider the whole banking sector of the country, along with customer satisfaction and Shari'ah compliance perspectives following multidimensional and revised time-period approaches.

**Author Contributions:** Conceptualization, M.H.U.R. and M.A.K.M.; methodology, M.H.U.R. and M.A.K.M.; software, M.H.U.R.; validation, M.H.U.R.; M.N.; M.A.K.M. and M.R.; formal analysis, M.H.U.R. and M.A.K.M.; investigation, M.H.U.R. and M.A.K.M.; resources, M.N. and M.R.; data curation, M.H.R.U.; writing—original draft preparation, M.H.U.R. and M.A.K.M.; writing—review and editing, M.H.R.U. and M.A.K.M. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no conflict of interest.

**Appendix A**

**Table A1.** List of sample banks for 2017 (amount in Million BDT).

<b>Banks Name</b>	<b>Established Year</b>	<b>Listing Year</b>	<b>Total Branches</b>	<b>Total Employees</b>	<b>Market Capitalization (BDT)</b>	<b>Total Assets (BDT)</b>
IBBL	13 March 1983	1985	332	13,760	54,417.68	899,959.77
SIBL	22 November 1995	2012	138	2599	17,940.66	276,348.95
EXIM	3 August 1999	2004	118	2794	27,613.77	333,892.61
FSIBL	29 August 1999	2008	168	3640	17,289.44	344,486.61
SJIBL	10 May 2001	2007	113	2402	25,456.94	207,886.00

**Appendix B**

**Table A2.** Questionnaire of the study (translated from the Bangla language to the English language).

<b>1. Strongly Disagree</b>	<b>2. Disagree</b>	<b>3. Neither Disagree nor Agree</b>	<b>4. Agree</b>	<b>5. Strongly Agree</b>
<b>Latent Variable</b>	<b>Measured Variable</b>	<b>Measured Variables</b>		
Tangibles	Tan1	Are you satisfied with the premises of the bank? Is it visually appealing?		
	Tan2	Are you satisfied with the up-to-date technological equipment of the bank?		
	Tan3	Are you satisfied with the way employees dress?		
	Tan4	Are you satisfied with the pamphlets distributed by the bank? Are they clear and give complete information?		
	Tan5	Are you satisfied with the bank statement? Is it visually clear?		
Empathy	Emp6	Are you satisfied by banks' service of providing customers the best interest at heart?		
	Emp7	Are you satisfied with the bank service of providing the product that best suits you?		
	Emp8	Are you satisfied with the overall service quality of your bank?		
Assurance	Ass9	Are you satisfied with the security of the bank?		
	Ass10	Are you satisfied with the employee's eagerness of instilling confidence in you?		
	Ass11	Are you satisfied with the knowledge of the employees?		

Table A2. Cont.

1. Strongly Disagree	2. Disagree	3. Neither Disagree nor Agree	4. Agree	5. Strongly Agree
Latent Variable	Measured Variable	Measured Variables		
Reliability	Rel12	Are you satisfied with the services provided by the bank as promised?		
	Rel13	Are you satisfied with the service of handling a problem (speed of solving the problem)?		
	Rel14	Are you satisfied with the way the bank provides service at the time they promised (the time at which it is performed)?		
	Rel15	Are you satisfied with the operating hours of the bank?		
Responsiveness	Rel16	Are you satisfied with the way the bank delivers up to date record?		
	Res17	Are you satisfied with the employees' promptness in providing services in the bank?		
	Res18	Are you satisfied with the willingness of employees to help customers?		
	Res19	Are you satisfied with the bank service of sending timely bank statements along with the necessary services?		
Loyalty	Lo21	Say positive things about Banks-to other people		
	Lo22	Encourage friends and relatives to do business with Bank.		
	Lo23	Intend to continue doing business with Bank.		
	Lo24	Have a strong preference for this Bank		
	Lo25	Consider Bank as my primary Bank		

## References

1. Aramburu, I.A.; Pescador, I.G. The Effects of Corporate Social Responsibility on Customer Loyalty: The Mediating Effect of Reputation in Cooperative Banks Versus Commercial Banks in the Basque Country. *J. Bus. Ethics* **2017**, *154*, 701–719. [[CrossRef](#)]
2. Cossío-Silva, F.-J.; Revilla-Camacho, M.-Á.; Vega-Vázquez, M.; Palacios-Florencio, B. Value co-creation and customer loyalty. *J. Bus. Res.* **2016**, *69*, 1621–1625. [[CrossRef](#)]
3. Keisidou, E.; Sarigiannidis, L.; Maditinos, D.I.; Thalassinos, E. Customer satisfaction, loyalty and financial performance. *Int. J. Bank Mark.* **2013**, *31*, 259–288. [[CrossRef](#)]
4. Wu, H.-C.; Cheng, C.-C.; Hussein, A.S. What drives experiential loyalty towards the banks? The case of Islamic banks in Indonesia. *Int. J. Bank Mark.* **2019**, *37*, 595–620. [[CrossRef](#)]
5. Fauzi, A.A.; Suryani, T. Measuring the effects of service quality by using CARTER model towards customer satisfaction, trust and loyalty in Indonesian Islamic banking. *J. Islam. Mark.* **2019**, *10*, 269–289. [[CrossRef](#)]
6. Tabrani, M.; Amin, M.; Nizam, A. Trust, commitment, customer intimacy and customer loyalty in Islamic banking relationships. *Int. J. Bank Mark.* **2018**, *36*, 823–848. [[CrossRef](#)]
7. Khamis, F.M.; AbRashid, R. Service quality and customer's satisfaction in Tanzania's Islamic banks. *J. Islam. Mark.* **2018**, *9*, 884–900. [[CrossRef](#)]
8. Thakur, R. What keeps Islamic mobile banking customers loyal? *Int. J. Islam. Bank Mark.* **2014**, *32*, 628–646. [[CrossRef](#)]
9. Kashif, M.; Shukran, S.S.W.; Rehman, M.A.; Sarifuddin, S. Customer satisfaction and loyalty in Malaysian Islamic banks: A PAKSERV investigation. *Mark. Intell. Plan.* **2015**, *33*, 23–40. [[CrossRef](#)]
10. Saqib, L.; Farooq, M.A.; Zafar, A.M. Customer perception regarding Shari'ah compliance of Islamic banking sector of Pakistan. *J. Islam. Account. Bus. Res.* **2016**, *7*, 282–303. [[CrossRef](#)]
11. Awan, H.M.; Bukhari, K.S.; Iqbal, A. Service quality and customer satisfaction in the banking sector. *J. Islam. Mark.* **2011**, *2*, 203–224. [[CrossRef](#)]
12. Ullah, H. Shari'ah compliance in Islamic banking. *Int. J. Islam. Middle East. Financ. Manag.* **2014**, *7*, 182–199. [[CrossRef](#)]
13. Sayani, H. Customer satisfaction and loyalty in the United Arab Emirates banking industry. *Int. J. Bank Mark.* **2015**, *33*, 351–375. [[CrossRef](#)]
14. Ullah, H.; Khanam, R. Whether Shari'ah compliance efficiency is a matter for the financial performance. *J. Islam. Account. Bus. Res.* **2018**, *9*, 183–200. [[CrossRef](#)]
15. Arbore, A.; Busacca, B. Customer satisfaction and dissatisfaction in retail banking: Exploring the asymmetric impact of attribute performances. *J. Retail. Consum. Serv.* **2009**, *16*, 271–280. [[CrossRef](#)]
16. Vesel, P.; Zabkar, V. Managing customer loyalty through the mediating role of satisfaction in the DIY retail loyalty program. *J. Retail. Consum. Serv.* **2009**, *16*, 396–406. [[CrossRef](#)]
17. Aurier, P.; N'Goala, G. The differing and mediating roles of trust and relationship commitment in service relationship maintenance and development. *J. Acad. Mark. Sci.* **2009**, *38*, 303–325. [[CrossRef](#)]
18. Rahman, M.M.; Begum, M.; Ashraf, B.N.; Masud, A.K. Does Trade Openness Affect Bank Risk-Taking Behavior? Evidence from BRICS Countries. *Economies* **2020**, *8*, 75. [[CrossRef](#)]
19. Hossain, M.; Leo, S. Customer perception on service quality in retail banking in Middle East: The case of Qatar. *Int. J. Islam. Middle East. Financ. Manag.* **2009**, *2*, 338–350. [[CrossRef](#)]
20. Lariviere, B.; Keiningham, T.; Aksoy, L.; Yalçın, A.; Morgeson, F.V.; Mithas, S. Modeling Heterogeneity in the Satisfaction, Loyalty Intention, and Shareholder Value Linkage: A Cross-Industry Analysis at the Customer and Firm Levels. *J. Mark. Res.* **2016**, *53*, 91–109. [[CrossRef](#)]
21. Zeithaml, V.; Berry, L.; Parasuraman, A. The behavioral consequences of service quality. *J. Mark.* **1996**, *60*, 31–46. [[CrossRef](#)]
22. Priyo, J.S.; Mohamad, B.; Adetunji, R.R. An examination of the effects of service quality and customer satisfaction on customer loyalty in the hotel industry. *Int. J. Supply Chain Manag.* **2019**, *8*, 653–663.
23. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. A conceptual model of service quality and its implications for future research. *J. Mark.* **1985**, *49*, 41–50. [[CrossRef](#)]
24. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. Alternative scales for measuring service quality: A comparative assessment based on psychometric and diagnostic criteria. *J. Retail.* **1994**, *70*, 201–230. [[CrossRef](#)]

25. Othman, A.; Owen, L. The multidimensionality of Carter Model to measure customer service quality (SQ) in Islamic banking industry: A study in Kuwait finance house. *Int. J. Islam. Financ. Serv.* **2001**, *3*, 1–12.
26. Fornell, C. A national customer satisfaction barometer: The Swedish experience. *J. Mark.* **1992**, *56*, 6–21. [[CrossRef](#)]
27. Chavan, J.; Ahmad, F. Factors affecting on customer satisfaction in retail banking: An empirical study. *Int. J. Bus. Manag. Invent.* **2013**, *2*, 55–62.
28. Zhou, L.; Zhang, Y.; Xu, J. A critical assessment of Servqual's applicability in the banking context of China. *ACR Asia-Pac. Adv.* **2002**, *5*, 14–21.
29. Khafafa, A.J.; Shafii, Z. Measuring the perceived service quality and customer satisfaction in Islamic bank windows in Libya based on structural equation modelling (SEM). *Afro Eurasian Stud.* **2013**, *2*, 56–71.
30. Al-Tamimi, H.A.H.; Al-Amiri, A. Analysing service quality in the UAE Islamic banks. *J. Financ. Serv. Mark.* **2003**, *8*, 119–132. [[CrossRef](#)]
31. Lone, F.A.; Aldawood, E.M.; Bhat, U.R. Customer satisfaction towards Islamic banking in Saudi Arabia: An application of CARTER model. *Int. J. Serv. Oper. Inform.* **2017**, *8*, 333. [[CrossRef](#)]
32. Janahi, M.A.; Al Mubarak, M.M. The impact of customer service quality on customer satisfaction in Islamic banking. *J. Islam. Mark.* **2017**, *8*, 595–604. [[CrossRef](#)]
33. Misbach, I.; Hadiwidjojo, D. Islamic Bank Service Quality and Trust: Study on Islamic Bank in Makassar Indonesia. *Int. J. Bus. Manag.* **2013**, *8*, 8. [[CrossRef](#)]
34. Osman, I.; Ali, H.; Zainuddin, A.; Rashid, W.E.W.; Jusoff, K. Customers Satisfaction in Malaysian Islamic Banking. *Int. J. Econ. Financ.* **2009**, *1*, 197–202. [[CrossRef](#)]
35. Amin, M.; Isa, Z.; Fontaine, R. Contrasting the drivers of customer satisfaction on image, trust, and loyalty of Muslim and non-Muslim customers in Malaysia. *Int. J. Bank Mark.* **2013**, *31*, 79–97. [[CrossRef](#)]
36. Ciptiono, W.; Spvivyanti, E. Adapting Islamic bank's CARTER model: An empirical study in Riau's Syariah Banks, Indonesia. In Proceedings of the PESAT Auditorium Kampus Gunadarma, Depok, Indonesia, 21–22 August 2007.
37. Shafie, S.; Azmi, W.N.W.; Haron, S. Adopting and measuring customer service quality in Islamic banks. *J. Muamalat Islam. Financ. Res.* **2004**, *1*, 1–12.
38. Siddiqi, K.O. Interrelations between Service Quality Attributes, Customer Satisfaction and Customer Loyalty in the Retail Banking Sector in Bangladesh. *Int. J. Bus. Manag.* **2011**, *6*, 12. [[CrossRef](#)]
39. Jamal, A.; Anastasiadou, K. Investigating the effects of service quality dimensions and expertise on loyalty. *Eur. J. Mark.* **2009**, *43*, 398–420. [[CrossRef](#)]
40. Ladhari, R.; Ladhari, I.; Morales, M. Bank service quality: Comparing Canadian and Tunisian customer perceptions. *Int. J. Bank Mark.* **2011**, *29*, 224–246. [[CrossRef](#)]
41. Walsh, G.; Groth, M.; Wiedmann, K.-P. An Examination of Consumers' Motives to Switch Energy Suppliers. *J. Mark. Manag.* **2005**, *21*, 421–440. [[CrossRef](#)]
42. Hegner-Kakar, A.-K.; Richter, N.F.; Ringle, C.M. The Customer Loyalty Cascade and Its Impact on Profitability in Financial Services. In *Foreign-Exchange-Rate Forecasting with Artificial Neural Networks*; Springer Science and Business Media LLC: Berlin/Heidelberg, Germany, 2018; Volume 267, pp. 53–75.
43. Anderson, E.W.; Fornell, C.; Lehmann, D.R. Customer satisfaction, market share, and profitability: Findings from Sweden. *J. Mark.* **1994**, *58*, 53–66. [[CrossRef](#)]
44. Chi, C.G.; Gursoy, D. Employee satisfaction, customer satisfaction, and financial performance: An empirical examination. *Int. J. Hosp. Manag.* **2009**, *28*, 245–253. [[CrossRef](#)]
45. Hollowell, R. The relationships of customer satisfaction, customer loyalty, and profitability: An empirical study. *Int. J. Serv. Ind. Manag.* **1996**, *7*, 27–42. [[CrossRef](#)]
46. Nawaz, T. Intellectual capital profiles and financial performance of Islamic banks in the UK. *Int. J. Learn. Intellect. Cap.* **2019**, *16*, 87. [[CrossRef](#)]
47. Helgesen, Ø. Are Loyal Customers Profitable? Customer Satisfaction, Customer (Action) Loyalty and Customer Profitability at the Individual Level. *J. Mark. Manag.* **2006**, *22*, 245–266. [[CrossRef](#)]
48. Lacobucci, D.; Churchill, G.A. *Marketing Research. Methodological Foundations*, 10th ed.; South-Western Cengage Learning: Cincinnati, OH, USA, 2010.
49. Masud, M.A.K.; Nurunnabi, M.; Bae, S.M. The effects of corporate governance on environmental sustainability reporting: Empirical evidence from South Asian countries. *Asian J. Sustain. Soc. Responsib.* **2018**, *3*, 3. [[CrossRef](#)]

50. Bae, S.M.; Masud, M.A.K.; Kim, J.D. A Cross-Country Investigation of Corporate Governance and Corporate Sustainability Disclosure: A Signaling Theory Perspective. *Sustainability* **2018**, *10*, 2611. [[CrossRef](#)]
51. Leech, N.L.; Barrett, K.C.; Morgan, G.A. *SPSS for Intermediate Statistics: Use and Interpretation*; Psychology Press: Hove, UK, 2005.
52. Hair, J.; Black, W.; Babin, B.; Anderson, R.; Tatham, R. SEM: An introduction. In *Multivariate Data Analysis: A Global Perspective*; Pearson: London, UK, 2010; pp. 629–686.
53. Tabachnick, B.; Fidell, L.S. Multivariate Analysis of Variance and Covariance. In *Using Multivariate Statistics*; Pearson Education: London, UK, 2007.
54. Masud, A.K.; Rashid, H.U.; Khan, T.; Bae, S.M.; Kim, J.D. Organizational Strategy and Corporate Social Responsibility: The Mediating Effect of Triple Bottom Line. *Int. J. Environ. Res. Public Health* **2019**, *16*, 4559. [[CrossRef](#)]
55. Hundleby, J.D.; Nunnally, J. Psychometric Theory. *Am. Educ. Res. J.* **1968**, *5*, 431. [[CrossRef](#)]
56. Bagozzi, R.P.; Yi, Y. On the evaluation of structural equation models. *J. Acad. Mark. Sci.* **1988**, *16*, 74–94. [[CrossRef](#)]
57. Krajšák, Z. Implementing Open Innovation Using Quality Management Systems: The Role of Organizational Commitment and Customer Loyalty. *J. Open Innov. Technol. Mark. Complex.* **2019**, *5*, 90. [[CrossRef](#)]
58. Ergün, H.S.; Kuşcu, Z.K. Innovation Orientation, Market Orientation and e-Loyalty: Evidence from Turkish e-Commerce Customers. *Procedia Soc. Behav. Sci.* **2013**, *99*, 509–516. [[CrossRef](#)]
59. Masud, M.A.K.; Bae, S.M.; Manzanares, J.; Kim, J.D. Board Directors' Expertise and Corporate Corruption Disclosure: The Moderating Role of Political Connections. *Sustainability* **2019**, *11*, 4491. [[CrossRef](#)]
60. Transcom Group. The Daily Star. 2011. Available online: <https://www.thedailystar.net/news-detail-175966> (accessed on 1 April 2019).
61. Rashid, M.H.U.; Ullah, M.H.; Bhuiyan, F. Shari'ah Compliance as a Matter for Financial Performance. In *Handbook of Research on Theory and Practice of Global Islamic Finance*; IGI Global: Hershey, PA, USA, 2020; pp. 355–371.



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