

A Case Study on Customer Satisfaction Towards Online Banking in Bangladesh

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Abstract

Today's technological era has made all daily tasks much easier than they were in the past. Everything has been digitized thanks to technology. A further one among them is banking. Technology has resulted in many improvements in the banking industry. Every task in the banking sector is digitized, from account opening to money transfers through online banking, eliminating the need for customers to visit banks and wait in long queues. This makes work for both customers and banking institutions easy, efficient, and quick. Online banking also encourages competition among banks to offer their customers better services and draw in a growing number of customers. To check the level of customer satisfaction, 500 randomly chosen and conveniently placed individuals are surveyed to achieve this. The result of the research shows that Privacy & Security, Online Bill Pay, Fund Transfer, any time anywhere use, Update information, delivers services and save time and energy are directly related to Customer Satisfaction towards Online Banking in Bangladesh.

Keywords: Online Banking, Customer Satisfaction, Bangladesh, Factors

1. Introduction

In this era of modern information technology, internet-based communication is the backbone of a nation for its economics and business, changing consumer behavior in a variety of ways. The banking industry has seen significant transformation recently. Electronic banking is used in modern banking practices to offer customers both new and traditional banking products and services. Online banking services have reportedly been identified as the most profitable ecommerce application [1]. Using electronic banking systems, businesses and consumers can make direct payments or debit accounts and telecommunications. Managers in the service sector need to be adept at managing impressions in order to draw in and keep clients, who decide whether a business will last or not. More and more pressure is being placed on the banking industry to demonstrate that its services are client-focused and that it is achieving continuous performance improvement. Nonetheless, banks must make sure that their clients are satisfied when implementing improvements [2].

The benefits of internet banking for the growth of a country must be realized through the development of new online banking services, an increase in household internet usage, and the development of an effective legal and regulatory framework. The creation of service quality (SERVQUAL) characteristics to calculate the customer satisfaction has resulted from the development of electronic banking in general and internet banking in definite. One of the more well-known tools for calculating customer satisfaction is SERVQUAL, which was developed at 1988[3]. Recently, the PAKSERV model was unveiled, which expanded the

SERVQUAL model by include customer-relevant service quality factors such as tangibility, reliability, assurance, sincerity, personalization, and formality [4]. It has also been proposed that service effectiveness influences service quality [5], [6].

The banking and financial sector in Bangladesh has likewise embraced this development. The rapid increase of internet users and the need of the people to have access to their desired resources when their desire show that Bangladeshi banks are becoming more and more cognizant of the significance of the internet. In today's brutally competitive sector, an increasing number of Bangladeshi banks are attempting to set themselves apart. This not only enables them to better connect their offers with changing client demands and technological advancements, but it also takes over some traditional banking duties, resulting in significant savings in branch-related costs. Finding out how customers feel about the general level of service quality and their satisfaction with the current online banking services becomes even more crucial as more Bangladeshi banks consider cutting-edge strategies, like online banking, to make their banking experience more convenient, effective, and efficient. In addition to assisting banks in developing effective strategies to employ efficient customer service as a differentiator in this very client-focused service sector, measuring customer satisfaction can give banks vital information regarding customer loyalty and retention.

2. Literature Review

Ramya, M., A STUDY ON CUSTOMERS SATISFACTION TOWARDS ONLINE BANKING TRANSACTIONAL SERVICE WITH SPECIAL REFERENCE TO COIMBATORE CITY. The Study of the Objective to Identify the Customers Satisfaction related to transactional Online Banking. They simply use Simple Percentage Analysis and Ranking Analysis tools as a Statistical tool for Analyze the Data. The Study Analyze the Privacy and Safety of Online Banking Application. They said that Customers faced major Security issues while using Online Banking applications. The Study suggests to improve the Safety of Online Banking Transaction to Increase the Customers Online Banking Transaction. The main objective of the paper and my research aim is same which is find out the customer's satisfaction towards online banking [7].

Amir, M.K. and Sheykh, D.H., 2017. Analysis of Customer Satisfaction on Online Banking: A Case Study on "One Bank Limited". The study goal is finding out how satisfied customers are with one bank Limited's online banking services in Bangladesh. They Collected response from 50 Customers and Five Different Branches of One Bank Limited in Dhaka City. This Paper suggest almost 60% responses are Agree and Strongly Agree and rest of 40% are Neutral Feedback. This is Clear Indication that most of the Customers are satisfied in Online Banking of "One Bank Limited" [8].

Ling, G.M., Fern, Y.S., Boon, L.K. and Huat, T.S., 2016. Understanding customer satisfaction of internet banking: A case study in Malacca. The following five factors quality, online design and content, security and privacy, convenience, and speed—can influence customer satisfaction with Internet banking. They use questionnaire for survey and they collected response from 200 user of Internet banking from different branches and different occupation. In this research shows that Customers Satisfied with design and content, convenience and speed. Customers supported those three Elements [9].

Siddika, A. and Sarker, B., 2019. Customers' satisfaction with internet banking: Evidence from Bangladesh. This study that looked into the relationship between customer satisfactions with Agrani Bank

Limited's various internet banking services. The causal relationships between the variables are also investigated using the ANOVA and coefficients techniques. The Analysis shows that the majority of respondent's use internet banking to withdraw money (52 %), pay bills (20 %), transfer funds between accounts (12 %), and manage payroll (16 %). The Analysis also shows that although 76 % of respondents believe that internet banking is safer than any other banking system, a small number of respondents disagree [10].

Renu, D.P. and Singh, K., 2019. The Impact of E-Banking on the use of Banking Services and Customers Satisfaction. Every task in the banking sector is automated, from account opening to money transfers through e-banking, eliminating the need for customers to visit banks and wait in long lines. Public sector banks have staff members who are over 50 and have very little experience with computerized banking or online banking. These are the expenses incurred by public sector banks must bear in order to train their employees to use computers while they are employed by the bank and can manage any transaction. Additionally, technology has been playing vital to the banking industry. E-banking is useful for banks as well as customers, in addition to both [11].

CHERUKUR, M.R.B. and RUBY, M.S., 2020 in the title "Study on electronic banking towards customer satisfaction" The goal of the study is to comprehend client satisfaction with online banking. The research was analyzed using a sample of 205 people. They were doing Mean analysis based on 13 questionnaires and the analysis clearly shows that the aspects that impact are determined by the mean values of variables such as use, significance, time savings, accessibility, rating, educational role, security threats, effectiveness, security, costs, issue handling, and convenience. Therefore, it is clear from the data that the use and significance of electronic banking are the criteria that have the biggest impact on consumer satisfaction [12].

Ali Karam, A. and Sleimi, M., 2018. The Impact of E-Banking Services Quality on Customers Satisfaction Moderated by Customer Trust: Survey on Arab Bank in Amman, Jordan. This study's goal is to "explore the moderating influence of customers' trust on banking service quality effects over customer happiness." 500 questionnaires were randomly delivered to online-banking users in all Amman City branches of Arab Bank. SPSS software was used for the analysis of 300 questionnaires. According to the gender results, males made up 64% of the population while females made up 34%. Additionally, a category rate is included in the income variable that ranges 200 JOD to more than 800, however the results of the descriptive investigation reveal that the majority of respondents chose the range 601–800, with 40% as the highest rate. In terms of experience, the group with the largest percentage (43.3%) was those with 4 to 7 years of experience. However, with 57.3 percent of the total, the participants were mostly between the ages of 18 and 30. Finally, 85 percent of respondents had bachelor's degrees in terms of education [13].

Al Kabir, A. and Poddar, S.C., 2015. E-Banking and Customer satisfaction in Bangladesh. European Journal of Business and Management, 7(8), pp.48-54. This paper clarifies Bangladesh's experience with electronic banking. Examining customer satisfaction with service quality and determining if the institutions' e-banking services are satisfactory to Bangladeshi clients are the study's key goals. The study makes an effort to concentrate on 26 qualitative traits. Since the study's total population was unknown, a sample size of 400 was used. Customers were chosen at random during the sample process. The respondents received 400 questionnaires in all. The final sample size in a usable form was 382. . According to these descriptive

statistics, the mean score on a Likert scale for customer satisfaction with e-banking is 3.81, which is above the satisfactory standard [14].

Naveed, R.T., Irfan, M., Aslam, H.D., Anwar, B. and Ayub, A., 2019. The Effect Of General Banking Information Technology System On Customers' satisfaction With The Moderating Effect Of Customer Trust: An Empirical Study From Pakistani Commercial (Islamic) Banks. The main goal of this study is to examine how customers perceive using online banking technology and how much confidence they have in it. The majority of respondents—51 percent of them are female—are either customers or employees of different commercial banks, whereas just 49 percent of the respondents who identified as men answered the survey. The majority of them have degrees from bachelor's and master's programs, totaling 144 out of a possible 300. The survey is made stronger by the fact that the respondents are educated and fall within the majority of their age brackets. Due to the use of the transaction processing system, the relationship between the customer satisfaction and the moderation of consumer trust is likewise trending downward ($P = 0.001$, $\beta = -.020$). The incorrect bank transactions may be the main factor in the deteriorating TPS-CT customer satisfaction interaction term. Bank systems can occasionally be compromised by hackers [15].

Sadozai, A.M., Saleem, A., Chuanmin, S., Ali, M.R. and Marri, M.Y.K., 2017. Factors affecting customers' satisfaction in online banking: empirical evidence from developing countries. International Journal of Advanced Biotechnology and Research, 8(2), pp.96-104. For the purpose of analyzing how customers respond to service quality, reliability, credibility of a system, transaction efficiency, ease of use, and customer awareness of the availability of electronic banking, we gathered data from 250 customers of various banks in Pakistan. We also looked at how satisfied customers were with using electronic banking. Due to time and money constraints, we adopted the convenience sampling strategy to get the data. The various study variables were measured using a scale that has already been published. The scale created by Nochi and Nochi (2013) is used to measure Customer Support, Ease of Use (User Friendly), Reliability, Transaction Effectiveness, and Service Security. A five-point Likert scale with the values strongly disagree (1) to strongly agree (5) was used to measure the study's variable (5). Male respondents made up 55.6% of the total sample. The majority of the responders were between the ages of 20 and 30. Most individuals were married (75.6 percent). Almost all of the respondents hold bachelor's degrees (150). The majority of folks earn less than 20,000 Pakistani rupees every month. Most survey participants only conduct one electronic transaction per month (32.85) [16].

Firdous, S. and Farooqi, R., 2017. Impact of internet banking service quality on customer satisfaction. The Journal of Internet Banking and Commerce, 22(1), pp.1-17. The goal of the study is to provide banks and decision-makers with greater knowledge of the components of internet banking and how they affect customer satisfaction. People who live in New Delhi and have used the SBI and Indian bank's Internet Banking systems for at least a year made up the survey's sample population. This made sure that each respondent had enough knowledge of online banking. Out of the 200 persons who were asked to participate in the survey, 194 valid questionnaires made up the final sample (valid). Analysis of the correlation matrix reveals an estimated 0.706 link between effectiveness and customer satisfaction. This figure shows that the correlation between the variables is 70%, which is very significant and positive. This is the factor that has the strongest correlation to customer happiness [17].

Islam, R., Ahmed, S., Rahman, M. and Al Asheq, A., 2020. Determinants of service quality and its effect on customer satisfaction and loyalty: an empirical study of private banking sector. The TQM Journal. The main goal of this study is to examine how several service quality factors, such as dependability, responsiveness, visibility, employee dedication, and accessibility to service, affect customer satisfaction in Bangladesh's private banking industry. They use total five hypothesis to ensure the Customers Satisfaction and one hypothesis to ensure Customer Loyalty. Those hypotheses are Reliability, Responsiveness, Visibility, Employees Commitment, Access to Service, Customer Loyalty. SEM was utilized in the current study to examine the correlations between independent and dependent variables. In order to determine the correlations between customer happiness, private banking service quality parameters (i.e., reliability, responsiveness, visibility, employee commitment, and access to service), and customer loyalty in Bangladesh, this study tested a structural model with six hypotheses. The model and the data were reasonably well-matched: Chi square per degree of freedom (9.584/4): 5 2.396 [18], less than 5, NFI: 5 0.989, CFI: 5 0.993, over 0.9, p: 5 0.048, nearly 0.05; RMSEA: 5 0.084, less than 0.088; and PNFI: 5 9.16, higher than 0.9. Along with the aforementioned SEM analysis, other tests like the analysis of variance (ANOVA) and logistic regression (LR) have also been carried out. Since customer satisfaction is the main factor in acquiring a client's loyalty and serves as a platform for an organization's survival, it has been selected as the dependent variable. The results support the findings of the ANOVA analysis [19]. There is only one occupation that significantly correlates with customer satisfaction (Wald (2) 5 11.897, p 5 0.003). The complete LR equation reads as follows:

Gender, logit (customer satisfaction), 5 21.214-0.951 (male) Age (21–30 years) = 0.139 Age (31–40 years) = 1.027 - 0.008 education (bachelor's), 1.826 profession (businessman), 2.082* profession (students), 1.175 customer type (depositor), 20.704 years of experience (less than 5 years), and 19.195 years of experience (between 5 and 10 years) [20].

Jahan, N. and Shahria, G., 2021. Factors effecting customer satisfaction of mobile banking in Bangladesh: a study on young users' perspective. South Asian Journal of Marketing. This study attempts to pinpoint the most important variables and assess how much of an impact they have on young customers' satisfaction and loyalty to mobile banking. It is a quantitative study, and the main tool for gathering data was a self-administered questionnaire. Out of 300 questionnaires, 279 useable questionnaires were returned. To verify the model and evaluate the hypothesis, these obtained data were examined using the partial least square-structural equation model (PLS-SEM) and Smart PLS [21].

There were primary and secondary data gathered for this study using both primary and quantitative research methodologies. Young mobile banking customers were asked to complete the questionnaire in order to test the research factors. Cost (three things), security (two items), relative advantage (three items), responsiveness (three items), convenience (five items), customer satisfaction (three items), and loyalty make up the seven research factors (three items)

Two parts make up the systematic procedure used to study and assess PLS-SEM:

- (1) Analysis of the outer measurement model
- (2) Analysis of the inner structural model

Evaluating the discriminant validity, convergent validity, internal consistency, and indicator dependability are steps in the examination of the outer model. Assessing an internal structural model that measuring the route coefficient, explaining endogenous variable variation (R^2), multi-collinearity check (VIF), and measuring effect size (f^2), comes after analyzing the measurement model and establishing reliability, consistency, and validity.

According to the study, loyalty in Bangladeshi mobile banking is strongly influenced by satisfaction. Young clients' happiness with using mobile banking in this country is influenced by a number of things. Among those factors, cost has the greatest bearing. Although it doesn't directly affect loyalty, this factor has a big impact on satisfaction. Bangladesh still has a long way to go before mobile banking is widely used [22].

3. Objective of the Study

The study's primary goal is to measure customer satisfaction levels in different Key Factor of online banking. Those Key Factor are Security, User Friendly, Fund Transfer, Online Bill Pay, E-Statement, Reduce Transaction Cost, knowledge about system etc. My aim is to find out the customer feedback in those key factor of online banking in Bangladesh. Recognize how Bangladeshi internet banks' customers behave. The additional aim is to suggest the findings for the development of the online banking services.

Problem Statement

While using the online banking application, there were significant security issues. The cost of transactions is likewise considerable. Hackers utilize illegal methods to decrypt user data in order to gain access to account information such passwords and account numbers, which they then use to drain funds from users' accounts. A security issue is the main danger the customer faces. The appropriate skills for using online banking.

Aim of the Research

The primary goal of the research is to determine customer satisfaction with online banking as well as the factors that have the greatest influence in online banking. Furthermore, the future prospect of online banking in Bangladesh is a goal.

4. Research Methodology

It is a descriptive study built on data from a survey. The primary data source is the study's core foundation. To construct a broad concept for the survey in primary sources and the questionnaire used to gather information about customer satisfaction in Bangladeshi commercial banks' online banking systems. We made google form with 13 multiple choice questionnaires and one optional open comment field. Data from 500 customers from the chosen sample of respondents from a Bangladeshi bank were gathered for analysis purposes. All questions responses have five options. Those are Neutral, Satisfied, Highly Satisfied, Dissatisfied and Highly Dissatisfied. Matplotlib and VS Code software was used to process the acquired data with the aid of a computer. The data has been examined using the Python programming language.

5. Data Size

There are 500 participants in the sample. We collect data during a very short period of time, and the majority of the data are obtained from students, corporate officer and Engineer

Area of the Study: The study is conducted all over the Bangladesh. But most of the respondent are in Dhaka.

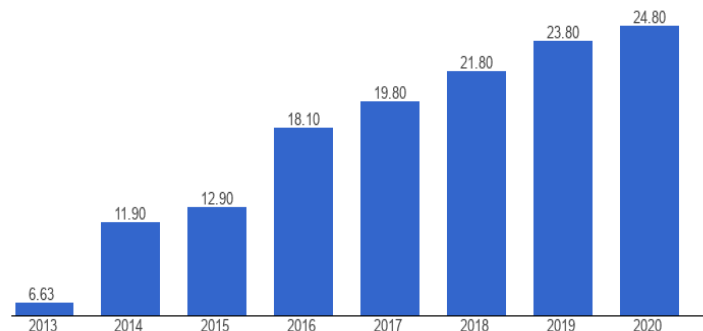
Data Analysis Tool Applied

- Matplotlib for Plotting and Visualization
- VS Code as an Editor

6. Online Banking In Bangladesh

Statistics for Bangladesh is indicated that, only 3% of Internet Users are uses Internet Banking [23]. From 1990 to 2020, with a minimum of 0% in 1990 and a top of 24.8 percent in 2020, Bangladesh's average value over that time was 5.41 percent. The most recent figure for 2020 is 24.8% [24].

Figure 1: Online Banking Growing in Bangladesh



People all over the world are now engaging in greater activity and business, necessitating the need for quick and 24/7 access to their bank accounts. Online banking also makes it easier to buy and sell a variety of goods that differ from country to country. Many banks in Bangladesh have introduced with internet banking. City Bank, Dutch Bangla Bank, Standard Chartered, BRAC Bank, Eastern Bank, Bank Asia, Jamuna Bank and others are among them. Online banking branches are increased day by day. At the year of 2016, Online branches climbed by 7%, going from 68.1 to 75.1 percent [25].

In this dynamic digital environment, the banking industry is moving swiftly. We now use our internet banking apps to pay bills, top up our phones, transfer money, or even book theater tickets in advance because life has gotten so busy and frantic.

It is anticipated that the financial services and technology industries would collide even more in 2020 [26]. In our country, many banks have created their own internet banking applications throughout the years to offer all these extras that a consumer can get by using online banking application.

Last decade, large banks in Bangladesh view internet banking as a way to concentrate on offering the finest service possible in terms of security and application of cutting-edge technology. Top Bangladeshi banks have realized how important service quality and customer satisfaction are during the past five years. As a result, many banks have developed their own banking apps to establish their brand's personality. An excellent relationship between banks and their devoted customers can be fostered via a strong mobile banking application. The top 5 bank smartphone apps for internet banking in Bangladesh are:

City Bank (City Touch)

One of the oldest private commercial banks operating in Bangladesh, City Bank, developed its first internet banking app, Citytouch, in 2013 [27]. You may manage your banking in the simplest way possible with Citytouch - Digital Banking Service from City Bank. On the screen of your internet-enabled devices, the service delivers all the benefits of branch banking. Via Citytouch, you may now shop from top shops, purchase airline tickets, pay credit card, mobile phone, and school expenses, transfer money, and keep track

of your accounts (current, savings, fixed deposit, or loan), among other things [28]. Never before has banking been so easy.

Eastern Bank Ltd (EBL SKYBANKING)

EBL Skybanking is a mobile app and web-based banking service that can be accessed from any location at any time using any type of device (smartphone, desktop, laptop, tablet, etc.). The same ID and password can be used for EBL Skybanking on both mobile and web platforms to perform all necessary basic banking services [29].

Standard Chartered Bank (SC Mobile Banking)

You can keep track of your money and maintain control over your finances by having quick, simple access to your accounts. anytime you get a spare moment, pay your payments and make transfers. Use the SC Mobile App to keep an eye on your transactions and track account activity [30].

Dutch Bangla Bank (NexusPay)

Bangladesh's first entirely cardless option is NexusPay from Dutch-Bangla Bank. All bank cards, including Nexus, Visa, MasterCard, Dutch-Bangla Bank Agent Banking, and Rocket Mobile Banking are compatible with NexusPay [31].

Mutual Trust Bank (MTB Smart Banking)

MTB is always working to provide new and better services. In support of this effort, we've released a mobile app for smartphones that gives you ongoing access to your accounts. You can perform a limited number of financial transactions using this value-added service anywhere in the world on your mobile device [32].

When comparing the capabilities of the app aforementioned banking apps, it is evident that City Touch's internet banking app offers its consumers the most extensive selection of online banking services and user acceptability [26]. he Citytouch mobile app has already attracted a sizable customer base to its cutting-edge financial features and highly secure infrastructure. In contrast to other internet banking apps, City Touch supports the payment method for Amex credit cards, Visa or Master issued in Bangladesh. However, other banks are trying to improve their services to satisfy their customers. In the future, I believe that other banks will also provide the best online services to their customers in order to achieve customer satisfaction.

Some important Features that Bangladeshi Online Banking contains are:

1. Fund Transfer

Financial transactions that are carried out electronically are referred to as electronic funds transfers or EFTs. Transferring money electronically between accounts, either between institutions or inside the same financial institution, is known as an EFT [33].

2. Online Bill Payment

The majority of banks enable registration-free credit card payments using debit cards. To make a payment, you can either directly enter your debit card information into the payment channel or use your debit card at an ATM operated by the bank. Debit card payments can be done at any time and from any location in

Bangladesh. However, you can also use your cards to pay for other expenses including tuition, taxes, and other services like electricity and water.

3. Mobile top-ups

One of the well-known and reputable private commercial banks operating Online Banking in Bangladesh is City Bank. City Bank introduced the Citytouch online banking app to their devoted consumers in order to make banking easier, faster, and more comfortable for their clients [33]. Similar facilities also provided by others bank. Using those Online Banking App, users can easily recharge the credit inn their mobile phone.

4. Mini Statement

Customers are able to monitor your account and statements. A request for an account statement for the specified time period can be made by the customer. This request will be handled manually by the bank.

5. Mobile Banking

In order to efficiently and affordably serve unbanked communities, mobile banking operates without the use of bank branches. Using a mobile to contact a bank is a quick and practical way to do it. Services such account information, conducting particular transactions, reporting the theft of an ATM card, debit card, credit card, or checkbook are all available. The clients' time and energy are saved. Additionally, it aids in the bank using less paper and energy. The majority of banks attempted to implement this paperless facility [34].

6. Transfer to Bkash

We can now use Internet Banking to instantly transfer money from your bank account to bKash. Users might need to first add the bKash account as a beneficiary before they can send money using your bank's internet banking. The following banks' internet banking services currently allow for immediate transfers [35].

Customers can do financial transactions over the phone with a bank or other financial institution without visiting a branch office or an automated teller machine.

The following other services are provided to consumers through online banking are:

- Balance enquiry in Online.
- Last five transactions.
- Transactions of a recent date
- Request for service.
- Details of transactions.
- Request for a statement of account.
- Request for cheque book.
- Account Statements
- Utility Bill Payments
- QR Payments
- Check out and download a credit card statement
- Prepaid Card Information
- Instant Self-Registration
- Fingerprint Login

Future of Online Banking in Bangladesh

Many people will soon have access to new career opportunities thanks to online banking. Despite the fact that digitalization is reducing demand for positions like bank tellers and other branch clerks, there will be an increase in demand for digital professionals, cyber security experts, web designers, app developers and programmers, banking customer experience experts, risk and compliance officers, quantitative analysts, data specialists, and other jobs related to digital banking.

The government's recent efforts to create a digital Bangladesh, including the creation of an ICT park, increased funding for the development of ICT infrastructure, the elimination of taxes on computer accessories, and other initiatives like the banking sector's automation program Bangladesh's prospects for online banking have improved because of initiatives from the Bangladesh Bank and competition between the scheduled banks to improve consumer offerings. [36].

Customer Satisfaction Through Online Banking in Bangladesh

Edwin Locke defined satisfaction as "a good and joyful response associated to some variables such as job items or services" in 1969, and this definition has since been widely accepted (Locke, 1969) [37]. The consumer's reaction following use of a good or service has traditionally been used to determine customer satisfaction [38]. Recurring purchases of the goods or services can be used to evaluate customer satisfaction [39]. As client satisfaction with a product or service rises, the likelihood of repeat purchases rises [40]. For many years, the banking business has caught the attention of researchers, and several studies have been done globally on the many facets of banking services [41], [42], [43], and [44].

Using bank services online is referred to as online banking. Online banking is the integration of traditional banking with telecommunications tools. In Bangladesh's banking industry, online banking has significantly changed things. Bangladeshi banks have responded quickly to this trend despite the unstable climate. Since its inception in Bangladesh, the introduction of online banking has simplified the banking process.

The idea has elevated Bangladeshi banks to a new level, allowing them to successfully compete with other banks around the globe. The banking sector thinks that by implementing the newest technology, online banking, and banks will be able to improve customer service and develop closer relationships with their customers. Online banking in Bangladesh still has its share of difficulties, including fraud, protracted wait times for reversed transactions, huge lines, and more.

Relationship between Service Quality and Customer Satisfaction

Customer opinion of a company's overall long-term service performance is known as service quality. Although the definition of good service quality is obvious, because it is based on perceptions, and because perceptions are highly personal to each individual, it can be difficult to quantify.

A model for evaluating service quality was first proposed in 1985. It was then improved in 1988 and again in 1991 in response to feedback from other researchers [45]. The SERVQUAL methodology, which assesses the high quality of a service based on five dimensions—tangibles, reliability, responsiveness, assurance, and empathy—asks participants 22 questions to ascertain how they perceive and perform a certain service. One of the 22 questions, for instance, asks if a company personnel deliver their services on time, which, if true, would demonstrate dependability. Whereas the capacity to deliver the promised service with dependability and accuracy is the definition of reliability. Each dimension has four questions, and a good response indicates that, in terms of service quality, that dimension has been met.

The idea of customer satisfaction can be characterized as a consumer fulfillment reaction in which customers feel satisfied with the good or service they have acquired. Furthermore, rather than focusing solely on the fulfillment reaction following a purchase and chose to emphasize the entire consumer experience as the foundation of customer happiness. More specifically, the total consumer experience takes into account elements including product quality, price, functionality, and personal advantages. Customer experience is a comprehensive satisfaction that is more lasting than just transaction-based satisfaction, add support to this.

One of the most extensively researched marketing subjects is customer happiness. It is a feature that serves as the primary objective for the majority of businesses and is frequently a recurring theme in almost all organizational endeavors. This is due to the fact that maintaining existing clients is more profitable than constantly seeking out new ones. Additionally, it is a very old idea that has been researched for more than 200 years. Which would imply that it won't change in the approaching years and is thus a crucial area on which firms should concentrate in order to encourage longevity.

Customers Satisfaction depends on how they are satisfied on the application. If they feel better, they continue the use. So, Every Banks authority must focus on customers' needs and demand.

High-quality services that satisfy customers improve a company's capacity to compete in the market. High service quality can be achieved by identifying service problems and creating measurements for service performances, outcomes, and customer satisfaction. Customer care and service excellence are seen as critical business factors since they have a significant impact on how well a firm maintains its customer base through service. Strong service quality is thought to lead to client satisfaction, which will encourage customer loyalty and retention.

Service quality is determined by comparing customer expectations and service performance. Service quality can also be assessed using the differences between expected and perceived services.

7. Result

The result Pointed out that customers are satisfied with deliver services, Update Information, save time & energy, anytime anywhere use, Save Time and Energy, anytime anywhere use, Online Bill Pay, Fund Transfer and Overall Satisfaction on Online banking of Bangladesh.

Table 1: Overall Customer Satisfaction Percentage

Factors	Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied
Deliver Services	12%	46.4%	38.4%	2.4%	.8%
Update Information	12.4%	52%	29.6%	4.8%	1.2%
Privacy & Security	13.6%	54%	29.6%	2%	.8%
Save Time & Energy	16%	49.2%	30.8%	3.2%	.8%
User Friendly	13.2%	44%	31.6%	10.4%	.8%
Anytime anywhere use	20%	43.6 %	29.2%	6.4%	.8%
Reduce Transaction Cost	12%	34.4%	39.6%	11.6%	2.4%
Free from cash carry	20.4%	41.6%	32.4%	4.4%	1.2%

E-Statement	16.6 %	38.4%	36%	8.4%	1.6%
Online Bill Pay	22.4%	42%	29.6%	2.8%	3.2%
Fund Transfer	22.8%	43.2%	25.6%	6.8%	1.6%
Easy and Convenience to use	10.4%	49.2%	35.2%	4%	1.2%
Overall Satisfaction	.4%	48.8%	50.8%	0%	0%

Data Analysis & Interpretation

In my research survey, it is clear that most of the factors 42% to 54% respondents are satisfied and 25 % to 38 % respondents are put responses as Neutral. Whereas 12% to 22% Customers are Highly Satisfied. 2% to 10 % customers are Dissatisfied in different variable of Online Banking. Sometimes it increased up to 11.6%. Less responses are Highly Dissatisfied. Which percentage is 0.8% to 3%. The Overall Satisfaction of Online Banking is 48.8% customers are satisfied on online banking and 50.8% are Neutral. 0.4% customers are Highly Satisfied. But no responses are dissatisfied and highly dissatisfied.

I manually read the customer review. The majority of clients are worried about their privacy and security. Additionally, not every bank has access to an ATM booth everywhere. Customer must need to wait for confirmation when they send money, and sometime customer faced server error, as seen by the numerous comments I have received from customer.

Figure 2: Customer Satisfaction Level



Above the bar graph shows that, Customers are neither highly satisfied with online banking nor extremely dissatisfied with it. Most Number of customers are satisfied and neutral about online banking.

So, the clear picture is customers are satisfied on Online Banking. Additionally, top-level bank managers in Bangladesh should be concerned with the responsiveness factor in order to devote all bank resources to ensuring customer satisfaction. Employees may be able to work effectively and efficiently with this outcome.

Findings

- Most of the online banking user don't know how to transfer money using online banking application. First time they need to help other and they are tense until the receiver confirmation.
- Lots of Banks Online Banking System is not Up to Date. So, Customers faced lots of problems like Server Error.
- Additionally, I discovered that customers are worried about cybercrime and hacking difficulties, so they don't feel completely secure after using the bank's online service.
- Customers of private banks in Bangladesh were dissatisfied with the lack of ATM booths, with the exception of Dutch Bangla Bank, and the paucity of government bank ATMs, I learned when it came to ATM services.

8. Future Suggested Work

Several suggestions are available to help overcome this research. By extending the time range of a research project in the future, the issue of time restrictions can be resolved. It may provide researchers more time to interview more respondents for data and distribute more questionnaires to working adults. Simple online transactions are possible. Enhancing online banking security could result in more customers transacting online.

The research's sample size needs to be expanded because it could have an impact on the study's correctness and dependability. A larger sample size can aid researchers in selecting more working individuals who are employed across Bangladesh.

Additionally, In the future, I'll make the comment field required, and I'll get a lot more client feedback. After that, I'll perform NLP on the customer comment and create a customer Insight about online banking.

9. Conclusion

Bangladeshi banks offer very good opportunities to their clients and sustain excellent client relationships. It has been advised that the banking sector give their clients the assurance or guarantee of convenient services and charge transparency whenever they use their services [46]. Results from earlier studies have consistently shown that assurance has a favorable, considerable impact on customer satisfaction [47], [48]. Online banking benefits both clients and banks by being more accessible, practical, secure, quick, and economical. Customer requirements Innovations that make tasks easier, quicker, and more efficient enable banks to compete for clients by offering better services and utilizing cuttings-edge technology. 48.8% of customers say they are generally satisfied with online banking. It is evident from this number that almost half of the respondents are happy with online banking. Rural residents are now started to use online banking. The number of online banking users would rise sharply in the near future if Bangladeshi banks offer good online banking services and meet the expectations of the customers. A fantastic potential exists for Dutch Bangla Bank to dominate online banking in Bangladesh. because they have the greatest number of

ATM booths and branches available among all Bangladeshi banks. Additionally, this study shows customer satisfaction with online banking is correlated with deliver services, Update Information, anytime anywhere use, Save Time and Energy, anytime anywhere use, Online Bill Pay, Fund Transfer. This study can help online banking service providers understand the viewpoints of users and identify problems from their point of view. This study comes to the conclusion that online banking usage and customer satisfaction need to be increased. The effectiveness of online banking services depends on commitment, attitude, and technology.

10. References

1. Raza, S.A., Umer, A., Qureshi, M.A. and Dahri, A.S., 2020. Internet banking service quality, e-customer satisfaction and loyalty: the modified e-SERVQUAL model. *The TQM Journal*, 32(6), pp.1443-1466.
2. Al-Hajri, M.O., 2018. Factors Associated with Audit Committee Meeting Frequency: Evidence from Kuwait. *Accounting and Finance Research*, 7(2), pp.207-207.
3. Al Kabir, A. and Poddar, S.C., 2015. E-Banking and Customer satisfaction in Bangladesh. *European Journal of Business and Management*, 7(8), pp.48-54.
4. Alnaser, F., Ghani, M. and Rahi, S., 2018. Service quality in Islamic banks: The role of PAKSERV model, customer satisfaction and customer loyalty. *Accounting*, 4(2), pp.63-72.
5. Firdous, S. and Farooqi, R., 2017. Impact of internet banking service quality on customer satisfaction. *The Journal of Internet Banking and Commerce*, 22(1), pp.1-17.
6. Hassan, M.K., Aliyu, S., Huda, M. and Rashid, M., 2019. A survey on Islamic Finance and accounting standards. *Borsa Istanbul Review*, 19, pp.S1-S13.
7. Ramya, M., A STUDY ON CUSTOMERS SATISFACTION TOWARDS ONLINE BANKING TRANSACTIONAL SERVICE WITH SPECIAL REFERENCE TO COIMBATORE CITY.
8. Amir, M.K. and Sheykh, D.H., 2017. Analysis of Customer Satisfaction on Online Banking: A Case Study on "One Bank Limited".
9. Ling, G.M., Fern, Y.S., Boon, L.K. and Huat, T.S., 2016. Understanding customer satisfaction of internet banking: A case study in Malacca.
10. Siddika, A. and Sarker, B., 2019. Customers' satisfaction with internet banking: Evidence from Bangladesh.
11. Renu, D.P. and Singh, K., 2019. The Impact of E-Banking on the use of Banking Services and Customers Satisfaction. *International Journal of Trend in Scientific Research and Development*, 3(4), pp.20-23.
12. CHERUKUR, M.R.B. and RUBY, M.S., 2020. Study on electronic banking towards customer satisfaction. *Journal of Contemporary Issues in Business and Government* | Vol, 26(2), p.938.
13. Sleimi, M. T., Karam, A. A., & qubbaj, i. s. (2018). The Impact of E-Banking Services Quality on Customers Satisfaction Moderated by Customer Trust: Survey on Arab Bank in Amman, Jordan. *Journal of Al-Quds Open University for Administrative & Economic Research*, 3(9), 24-37.
14. Al Kabir, A. and Poddar, S.C., 2015. E-Banking and Customer satisfaction in Bangladesh. *European Journal of Business and Management*, 7(8), pp.48-54.
15. Naveed, R.T., Irfan, M., Aslam, H.D., Anwar, B. and Ayub, A., 2019. The Effect Of General Banking Information Technology System On Customers' satisfaction With The Moderating Effect Of Customer Trust: An Empirical Study From Pakistani Commercial (Islamic) Banks.

16. Sadozai, A.M., Saleem, A., Chuanmin, S., Ali, M.R. and Marri, M.Y.K., 2017. Factors affecting customers' satisfaction in online banking: empirical evidence from developing countries. *International Journal of Advanced Biotechnology and Research*, 8(2), pp.96-104.
17. Firdous, S. and Farooqi, R., 2017. Impact of internet banking service quality on customer satisfaction. *The Journal of Internet Banking and Commerce*, 22(1), pp.1-17.
18. https://www.mun.ca/biology/scarr/2250_Chi-Square_test.html, Chi-square test (single classification) mun.com, Access 15-12-2023
19. Fan, Y., Chen, J., Shirkey, G. *et al.* Applications of structural equation modeling (SEM) in ecological studies: an updated review. *Ecol Process* 5, 19 (2016). <https://doi.org/10.1186/s13717-016-0063-3>
20. Islam, R., Ahmed, S., Rahman, M. and Al Asheq, A., 2020. Determinants of service quality and its effect on customer satisfaction and loyalty: an empirical study of private banking sector. *The TQM Journal*.
21. <https://www.smartpls.com/documentation/algorithms-and-techniques/pls/>, Access 15-12-2023
22. Jahan, N. and Shahria, G., 2021. Factors effecting customer satisfaction of mobile banking in Bangladesh: a study on young users' perspective. *South Asian Journal of Marketing*.
23. <https://www.tbsnews.net/economy/banking/only-3-internet-users-are-internet-banking-customers-244042>, Access 15-12-2022.
24. <https://gigatechltd.com/2021/09/07/rise-of-online-banking-in-bangladesh>, Access 15-12-2022.
25. Hoque, N., Mowla, M., Uddin, M.S., Mamun, A. and Uddin, M.R., 2019. Green banking practices in Bangladesh: a critical investigation. *International Journal of Economics and Finance*, 11(3), pp.58-68.
26. <https://brainstation-23.com/internet-banking-apps>, Access 20-1-2023
27. <https://businessinspection.com.bd/top-internet-banking-apps-in-bd/>, Access 20-1-2023
28. <https://www.thecitybank.com/citytouch>, Access 20-1-2023.
29. <https://www.ebl.com.bd/retail-digital/ebl-skybanking>, Access 20-1-2023
30. <https://www.sc.com.bd/ways-to-bank/sc-mobile-app/>, Access 20-1-2023
31. <https://www.dutchbanglabank.com/nexuspay/nexusPay-home.html>, Access 20-1-2023
32. <https://www.mutualtrustbank.com/mtb-internet-banking/>, Access 20-1-2023
33. Mohiuddin, M., 2014. Trend and Development of E-Banking: A Study on Bangladesh. *IOSR Journal of Business and Management*, 16(5), pp.16-24.
34. Ullah, M.M., 2013. Green Banking in Bangladesh-A comparative analysis. *World Review of Business Research*, 3(4), pp.74-83.
35. Rahman, M., Saha, N.K., Sarker, M.N.I., Sultana, A. and Prodhan, A.Z.M.S., 2017. Problems and prospects of electronic banking in Bangladesh: A case study on Dutch-Bangla Bank Limited. *American Journal of Operations Management and Information Systems*, 2(1), pp.42-53.
36. <https://www.bkash.com/en/products-services/bank-to-bkash>, Access 20-1-2023
37. <https://blog.starmeup.com/en/people-first-culture/job-satisfaction-complete-guide/#:~:text=One%20of%20the%20most%20accepted,achievement%20of%20one's%20job%20values>, Access 22-01-2023
38. Tse, D.K. and Wilton, P.C., 1988. Models of consumer satisfaction formation: An extension. *Journal of marketing research*, 25(2), pp.204-212.
39. P. Kotler and K. L. Keller, *A Framework for Marketing Management*, Prentice Hall, 2011.
40. J R. East, *Consumer Behaviour*, Sydney: Prentice-Hall, 1997.

41. V. D. and N. Rajyalakshmi, "Service Quality and Customer Satisfaction in Online Banking," International Journal of Online Marketing, vol. 8, no. 2, 2018.
42. S. Kodithuwakku, "Impact of Internet Banking on Customer Satisfaction: A Case Study of State Banks in Kandy District," Academy of Social Science Journal, vol. 3, no. 2, pp. 1114- 1122, 2018.
43. J. Hammound, R. M. Bizri and I. E. Baba, "The Impact of E-Banking Service Quality on Customer Satisfaction: Evidence From the Lebanese Banking Sector," Business and Management, 2018.
44. J. Adekannbi and M. Aje, "Factors Influencing Customer Satisfaction and Loyalty to Internet Banking Services Among Undergraduates of A Nigerian University," Journal of Internet Banking and Commerce, vol. 23, no. 1, 2018.
45. Isibor, A.A., Omankhanlen, A.E., Okoye, L.U., Achugamonu, B.U., Adebayo, M.E., Afolabi, G.T. and Ayodeji, O.E., 2018. Impact of electronic banking technology on customers satisfaction and economic growth in Nigeria. *International Journal of Civil Engineering and Technology*, 9(12), pp.536-544.
46. P. A. Korbu, "Customer Satisfaction towards Financial Inclusion: A Case Study of Rural Cooperative Banks in Belgaum District.," MANTHAN: Journal of Commerce , vol. 3, no. 1, 2016.
47. S. O. Whingan and E. A. & Ogundare, 2018, "Impact of service quality on customer satisfaction: the Malaysia bank," International Journal of Accounting & Business Management, vol. 6, no. 2, pp. 62-85.
48. A. S. Alabboodi, 2019, "The effect of customer satisfaction on service quality: The case of Iraqi banks," International Journal of Applied Research, pp. 146-152.

11. Appendix

Table A1. Correlation Matrix between items

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9	Factor 10	Factor 11	Factor 12	Factor 13
Factor 1	1.00												
Factor 2	0.97	1.00											
Factor 3	0.96	1.00	1.00										
Factor 4	0.98	0.99	1.00	1.00									
Factor 5	0.98	0.98	0.97	0.98	1.00								
Factor 6	0.96	0.97	0.98	0.99	0.97	1.00							
Factor 7	0.95	0.87	0.85	0.88	0.93	0.87	1.00						
Factor 8	0.97	0.96	0.96	0.98	0.96	0.99	0.90	1.00					
Factor 9	0.99	0.94	0.93	0.96	0.98	0.96	0.98	0.97	1.00				
Factor 10	0.95	0.95	0.96	0.98	0.93	0.99	0.84	0.99	0.94	1.00			

tor 10													
Fac- tor 11	0.92	0.95	0.96	0.97	0.94	0.99	0.81	0.98	0.91	0.98	1.00		
Fac- tor 12	0.99	0.99	0.98	0.99	0.99	0.96	0.93	0.96	0.97	0.94	0.93	1.00	
Fac- tor 13	0.98	0.94	0.93	0.93	0.95	0.90	0.95	0.91	0.96	0.88	0.84	0.98	1.00

Note: Factor1: Deliver Services; Factor2: Easy to Update Information; Factor3: Privacy & Security; Factor4: Save Time & Energy; Factor5: User Friendly; Factor6: Anytime anywhere use; Factor7: Reduce Transaction Cost; Factor8: Free from cash carry; Factor9: E-Statement; Factor10: Online Bill Pay; Factor11: Fund Transfer; Factor12: Easy and Convenience to use; Factor13: Overall Satisfaction.