



Measuring Clients' Satisfaction towards the Mobile Banking Services in the Northern Area of Bangladesh

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ABSTRACT

Purpose: The aim of the present study was to investigate the elements that influence Bangladeshi banking customers' satisfaction. Quality of Service (QoS) refers to how well it meets the needs of its present and potential customers. As a result, estimating service quality is extremely important for banking organizations.

Methodology: A survey research method has been used involving 255 mobile banking holders in the northern area of Bangladesh. A self-administrated survey has been given to the customers of Dutch Bangla Bank Limited (DBBL) and BRAC Bank Limited two full-fledged, early M banking service providers in Bangladesh.

Findings: According to the test results, client satisfaction is positively correlated with the four SERVQUAL criteria of reliability, assurance, empathy, and responsiveness (apart from tangible). Practical Implication: The investigation results can be interpreted theoretically and practically.

Research Limitations: The number of respondents who participated in the study could have been higher.

1. Introduction

Using a mobile device, such as a Smartphone or Personal Digital Assistant, to carry out account transactions, deposits, credit applications, and other banking operations is known as mobile banking, also known as M-Banking or SMS Banking (Becirovic *et al.* 2011). At the end of February 2021, Bangladesh had a population of 173.357 million people, with just 13% having bank accounts and more than 95% having cell phones. At the end of February 2021, there were 173.357 million active mobile phone customers worldwide. The subscribers for mobile phones are Grameenphone Ltd. (GP) 80.390, RobiAxiata Limited (Robi) 51.515, Banglalink Digital Communications Limited 35.920, Teletalk Bangladesh Ltd. (Teletalk) 5.532 (BTRC 2021).

Service quality (SQ) is an essential element of bank client satisfaction. There is a connection between customer satisfaction and service quality. Recently, the use of cell phones has tremendously increased for the exchange of communication and information in Bangladesh. Mobile banking is a financial service that allows bank customers to check their

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balances, and credit transfers via their mobile devices (Mohammad and Amin, 2007). Customers benefit from mobile banking systems because they can conduct banking transactions anywhere at any time easily. Banking transfers are secured and password-protected, ensuring security (Dahlberg and Mallat, 2002). One of the most interesting technological tales of the last two decades has been the global spread of mobile phones. Cheap handsets, prepaid cards' versatility, and low-cost services, such as short messages, have all contributed to the widespread use of mobile phones. Mobile phones, on the other hand, have spread across the developed world and into developing countries such as Bangladesh (Saud *et al.* 2014). M banking is very acceptable and popular with customers. The true potential of "m-banking" could be to make important monetary resources more accessible to many people in need. Basic financial services will be easier to obtain for low-cost, low-time, and low-distance retail bank offices with mobile banking (CGAP, 2006).

Bangladesh's digitization and technological advancements have expanded mobile banking usage more than before. People may send and receive money or cash using their mobile phones thanks to Mobile Financial Services (MFS), which is available in urban and rural locations. Users can use USSD (Unstructured Supplementary Service Data), SMS (Short Message Service), or phone-specific software to access their mobile accounts. Mobile account users can conduct transactions in the absence of actual agents outside of bank branches, thanks to the mobile financial services provided by agents who the bank has authorized. MFS typically includes the following functions: Balance Inquiry, Utility Bill Payment, Mini Statement Collection, Cash Out at ATM, Cash In/Out at Agent Point, Airtime Purchase, Fund Transfer from Card to MFS Wallet, P2P Fund Transfer, P2B Payment, G2P Fund Transfer, B2P Fund Transfer, Merchant Payment by Client, Inward Foreign Remittance Disbursement, Wallet Activation, Bank Account to MFS Wallet Fund Transfer, to increase Customer Satisfaction Levels (Business Hunt, 2020).

1.1. Rational of the Study

It's a great time to implement a mobile and IT arrangement system for greater financial integration. Mobile banking is one of the most important components in this respect (bankinfobd.com-2020). As each industry evolves, the banking industry has evolved as well, and it has become more innovative. To keep the wheel of banking turning, new products and services can be created continuously. Mobile Banking is a feature that can potentially change the financial industry's fate. The most important and rapidly expanding area of financial technology today is mobile financial services (MFS). MFS is actively supporting banking activities for the general population and playing a significant role in the banking industry of Bangladesh. M banking in Bangladesh gives a lot of opportunities and potential. As per the information of Bangladesh Bank, 61 scheduled banks run entirely under the direction and control of Bangladesh Bank, which is authorized to do so under the Bank Company Act of 1991 and the Bangladesh Bank Order of 1972 (as of 2022). The goal of Bangladesh's central bank is to bring the nation's unbanked citizens into the financial system. Mobile banking was introduced in 2011 by three private banks: BRAC Bank Limited, Dutch Bangla Bank Limited

(DBBL), and Trust Bank Limited. For instance, “bKash” from BRAC Bank Ltd. and “Rocket” from DBBL Mobile Banking soon took over as the standard MFS. Over 1 million agents and 15 banks in the nation already provide MFS.

The Digital Financial Service (DFS) site of the Bangladesh Post Office also provides MFS. There were 925.73 million MFS users registered as of July 2020, with 426.78 million active accounts (as per transacting within 3 months). The total volume of transactions between these accounts in that month was Tk. 62,999.42 crore (Business Hunt, 2020). In Bangladesh, several public and commercial firms use MFS to pay their employees’ salaries (Business Hunt, 2020). So, the socio-economic impacts of M banking are very significant. Along these lines, this paper will assist Bangladeshi banks and policymakers in identifying a path for opening a new business entryway and an effective competitive advantage.

1.2 Research Questions and Objectives of the Study

Four research questions may be formed from the purpose and objectives:

RQ 1: How is customer satisfaction affected by the tangible nature of the mobile banking service?

RQ 2: How does customer satisfaction relate to the reliability of the mobile banking service?

RQ 3: How does customer satisfaction relate to the responsiveness of the mobile banking service?

RQ 4: How does customer satisfaction relate to the assurance of the mobile banking service?

This study tries to gauge how satisfied mobile banking customers are in Bangladesh’s northern region. Three distinct goals may be identified within the overall goal:

- **RO1:** To find out the factors affecting customer satisfaction with mobile banking and the level of service provided.
- **RO2:** To identify whether or not the five components of service quality affect customer satisfaction.

1.3 Hypothesis Development

The research questions can be used to refine the following hypotheses. “Customer satisfaction” is the dependent variable in the present study. Five (five) independent factors were used to determine this variable’s dependence. Reliability, assurance, palpability, empathy, and responsiveness are among them.

H1: Customer satisfaction and the dependability of mobile banking services are strongly correlated.

H2: Customer satisfaction and assurance with mobile banking services are positively related.

H3: Tangibility and customer satisfaction with mobile banking services are highly related.

H4: Empathy and customer satisfaction with mobile banking services are related.

H5: Response time and customer satisfaction with mobile banking services are closely related.

3. Review of Relevant Literature

Mobile banking is a m-commerce that enables users to access their bank accounts and carry out and finish bank-related tasks, including checking account status, balancing checks, exchanging money, and selling equities using their mobile devices (Kim *et al.* 2009). According to Luo *et al.* (2010), mobile banking is a revolutionary method of accessing financial resources through a platform that enables a consumer to interact with a bank via a mobile device.

M-banking is another name for mobile banking. Mobile banking is “a form of banking transaction carried out via a mobile phone” (Amin *et al.*, 2007). One m-commerce application is mobile banking. Customers can use it to access their bank accounts to complete chores involving banks on mobile devices (Kim *et al.*, 2009).

If the present development trend holds, Bangladesh will serve as a global benchmark for mobile banking services. Cash transactions have increased by more than 20% month over month due to mobile banking's growing popularity (Business Hunt, 2020). Statistics from the Bangladesh Bank, about Tk. 263 crore are transacted using mobile banking services daily (Atiur, 2014). The banking regulation is encouraging commercial banks to develop mobile banking, which has attracted a lot of interest. Because they offer a straightforward transaction at a reasonable price, more people are embracing mobile banking services (Atiur, 2014).

Wu and Wang (2005) found that perceived risk, usability, and perceived usefulness had substantial implications on mobile banking uptake, but the cost had a minimally significant impact. On the other hand, Karnani (2009) asserts that cost is crucial when determining whether or not to utilize mobile banking. According to Mattila (2010), the key factor supporting mobile banking was the expense of conducting financial operations.

Drucker (1954) emphasized that the main objective of a company should be to have content clients. To determine customer satisfaction, specific methods like SERVQUAL (Parasuraman, Berry, and Zeithaml 1988, 1991) have been created to measure customer loyalty. This is the cause of the extensive current research on estimating consumer loyalty. Responsiveness, reliability, tangibility, assurance, and empathy were some of the specific SERVQUAL model components that Zeithaml *et al.* (1993) discussed in depth. A more important indicator of customer loyalty is tangible. The positive attitude of management is advantageous to every company. However, customer service is of utmost importance in the banking sector. Al-Hawari and Hartley (2005) highlight that the level of customer service can significantly impact the success of the banking industry.

The link between customer satisfaction and service quality has become a significant matter of concern, with various studies exploring the topic (such as Bolton and Drew, 1991; Cronin and Taylor, 1992; Taylor and Bread Cook, 1994). Other factors, such as the speed at which a provider addresses customer inquiries, also play a role in shaping both clients' evaluations of a service and their overall satisfaction (Goodman et. al., 1995).

Consumer loyalty is defined as an evaluation of the difference between perceived expectations and actual experiences (Tse and Wilton, 1988; Oliver 1999). Gardial and Woodruff (1996) considered it to be the customer's attitude towards using a business in a specific situation, which can be either positive or negative. Bennett (2004) pointed out that a high level of customer satisfaction does not necessarily lead to high levels of consumer loyalty. Muffatto (1995) emphasized that consumer loyalty adds credibility to a corporation and encourages long-term planning. Hansemark (2004) added that a strong bond with a customer can generate positive emotions.

Customer satisfaction can be defined as the customer's overall perception or evaluation of a product or service after using or consuming it (Metawa and Almossawi, 1998; Wells and Prensky, 1996). According to Oliver (1980), customer satisfaction refers to the extent to which a customer's expectations for a particular product or service have been met. If an apparent implementation meets or even surpasses clients' expectations, the administration will satisfy those needs. If it doesn't, they are unhappy (Wulf, 2003). The significance of leveraging administration quality as a factor in customer loyalty has already been stressed by many academics, particularly regarding support writing. From the perspective of the disconfirmation theory, customer satisfaction is characterized as the customer's positive reaction to the difference between their actual experience and their prior expectations (e.g., Oliver 1980; Rust, Zahorik, and Keiningham 1996; Yi 1990).

According to studies, both the financial and non-financial sectors have identified help quality as a critical component in any company's performance (Parasuraman *et al.*, 1988). Administration quality is a popular metric for assessing the display of financial administrations (Cowling and Newman, 1995). Customers would remain loyal and happy if they gained an advantage over rivals (Dawes & Swailes, 1999), and banks would benefit significantly if they were able to effectively position themselves better than their rivals inside a certain market (Davies *et al.*, 1995). In this way, banks must emphasize the importance of help quality as a serious process (Chaoprasert and Elsey, 2004). Additionally, banks worldwide offer similar administration services and work hard to keep up with new innovations made by their rivals. Clients also assess banks' presentations mostly based on their collaboration, interaction, and management (Gronroos, 1990). Additionally, a number of researchers concur that there should be two independent measures for evaluating the quality of assistance (Gronroos, 1984; Lehtinen, 1982). Zeithaml et al. (1985) referred to the first as result quality, and Gronroos referred to the second as technical quality (1984). Regardless, the primary measurement focuses on what the assistance communicates. In contrast, the

secondary size focuses on how it is conveyed: the process the customer goes through to obtain the assistance's intended outcome. According to McCleary and Weaver (1982), the hallmark of great service is the ability to demonstrate estimating techniques that clients depend on clearly. The investigation results highlight the link between customer loyalty and bank performance. According to Levitt (1981), clients base their selections on actual reasons by looking at looks. In the opinion of Lewis and Blasts (1983), quality resides in the help company's ability to satisfy its customers' demands, such as customer loyalty.

Customer Satisfaction

Service quality refers to judgment or mentality about the fineness of a service, whereas pleasure refers to a specific transaction (Parasuraman *et al.*, 1988a). On the other hand, customer satisfaction has been pushed to become the most important indicator of commitment (Lam and Burton, 2006). According to Ehigie (2006), consumer satisfaction and loyalty or retention have a significant positive link. As a result, customer satisfaction will be a mediator between service quality and customer loyalty in this study.

Islam (2013) said it is possible to engage new users in banking practices through the mobile banking system. Mobile banking technology enables mobile phone users to access banking services and banking products with the support of a mobile phone. The advantages of mobile banking include a more affordable, dependable, quick, and easy way to do business while minimizing human mistakes. The obstacles underlying mobile banking practices have operational concerns, client misuse of goods and services, legal issues, strategic issues, reputational issues, credit issues, and liquidity hazards.

Sagib and Zapan (2014) noted that maintaining a competitive position in the quickly expanding mobile banking sector requires ensuring service quality. Reliability and responsiveness, assurance and security, location convenience, efficiency, and ease of use all contribute to the quality of service. According to the study, perceived service quality positively affects sustaining and boosting customer happiness and retention. But to quantify satisfaction, the research solely took service quality into account. This article needs to discuss SERVQUAL's most widely used model.

According to Hossain & Hossain (2015), the level of service may have a good or negative impact on a customer's loyalty and satisfaction. At the same time, degrees of client loyalty relies on switching/transfer costs, credibility, and the surrounding demographics. Client pleasure is strongly correlated with action or customer loyalty. But the SERVQUAL model, which is crucial for gauging customer satisfaction, still needs to be taken into account in the study. The research focused solely on the city of Dhaka.

Islam and Himel (2015) discussed that speed of service, responsiveness, assurance, and cost are the important satisfaction determinants necessary to ensure customer satisfaction for mobile banking services. Smooth network operations, availability of agent points, exchange of information with customers, and reasonable price are the key success factors for satisfying

mobile banking customers. However, the study only looked at 100 samples and was limited to Dhaka Bank Ltd. and Trust Bank Ltd. The study still needs to take into account empathy, which is crucial for gauging customer pleasure.

Azzam (2015) described that service quality dimensions are appropriate tools for evaluating the effective customer service quality that helps bank practitioners to establish a profitable position in the competitive bank market. The dimensions are reliability, tangibility, responsiveness, security, and empathy. The service quality dimensions help achieve customer satisfaction that keeps customers from switching to other competitive banks. However, the study should have considered the northern areas of Bangladesh and the Dutch Bangla Bank Ltd. and Brac Bank Ltd. of Bangladesh.

Rahman et al. (2017) studied the relationship between customer satisfaction and five aspects of service quality, including assurance, reliability, tangibles, responsiveness, and empathy. Customer satisfaction affects the mobile banking industry's performance. The study showed that the presence of tangibles, dependability, responsiveness, and empathy boost customer satisfaction in the banking sector. Whereas the presence of assurance has no impact on satisfaction, the absence of it in the organization can create dissatisfaction in customers' minds. However, the study did not consider the northern area of Bangladesh.

Khan *et al.* (2018) discussed that out of the five dimensions of service quality, the two most important dimensions are reliability and responsiveness, which will enhance customer satisfaction by affecting the perception of customers. SERVQUAL dimensions affect overall customer satisfaction. That is possible through providing better quality services to mobile banking customers. However, the study did not consider the Dutch Bangla Bank Ltd. and Brac Bank Ltd. of Bangladesh. Mobile banking practices deliver value through the customer experience process. The factors that enhance the customer experience process and add value for mobile banking consumers include ease of use, real-time operation, visuals, a sense of control, trust, and social status (Komulainen and Saraniemi, 2019). The study did not, however, demonstrate how satisfaction relates to the SERVQUAL model.

According to Haq and Awan (2020), website design, dependability, and e-banking satisfaction, all have an impact on a customer's loyalty. Due to busy schedules, users do not concentrate more on websites, but they also pay attention to them. In the current situation, to enhance customer loyalty, it is necessary to provide better customer service and support. The customer service department is responsible for solving customer problems. Solving customer problems with effective customer service and help will only be possible. To make them loyal, banking organizations must detect and solve their problems through proper permission.

Clearly, previous researchers have established a direct or indirect relationship between service quality and customer satisfaction. As a result, studies were conducted to examine the relationship in the context of mobile banking in Bangladesh.

4. Research Gap

Although mobile banking is a recent development in Bangladesh, both bank customers and bankers may profit from it in various ways. For all parties involved, it is crucial to gauge the quality of services (QoS) provided by mobile banking in Bangladesh based on customer satisfaction. In Bangladesh, mobile banking is becoming more prevalent. Given the growing popularity of this business in Bangladesh, it is critical to assess client satisfaction. According to the available literature, research on customers' attitudes toward mobile banking services, problems, and prospects has been conducted in Bangladesh. However, substantial research on user satisfaction with mobile banking services has yet to be done. As a result, the relevance of customer satisfaction factors for mobile banking services has been assessed in this study. So, there is a research gap the researchers would like to strive to fulfill with the current study.

5. Conceptual Development

In the literature review related to the SERVQUAL model, it is clear that most scholars support five factors for the model. These five factors are the most appropriate to identify a firm's service quality. However, other investigations discovered that other criteria were also important in addition to dependability, responsiveness, assurance, empathy, and tangible. Access to service, services supplied, security, and reputation are listed as these (Flavian, Torres, and Guinaliu (2004). All these factors can lead to more satisfaction (Jamal Ahmed, 2002), V. Jhamand K. M. Khan (2008), H.Lee, Y. Lee, and D. Yoo (2000). Being satisfied, a client becomes loyal to the Medicare Institutions (Benjamin Osayawe Ehigie, 2006). These determining factors have theoretical importance as well as conceptual and empirical support to be included in a comprehensive model.

6. Service Quality Model

Most studies across a variety of fields have recognized the service quality measurement model, such as the service quality model enhanced by Parasuraman *et al.* (1988). The 1988 service quality model by Parasuraman *et al.* offered a five-dimensional framework with methods for evaluating perceived service quality tangibles, responsiveness, dependability security, and empathy (Parasuraman *et al.*, 1988; Zeithamlet *et al.*, 1990). Equipment, facilities, and the emergence of personnel are tangibles. Response: A willingness to assist customers and provide fast service. The capacity to consistently provide a specific service without any service error is called responsive.

Assurance (together with competence, politeness, dependability, and safety): Knowledge and civility of employees, as well as their capacity to motivate. Empathy (includes access, interaction, and consideration for the customer): The firm's concern and customized awareness of its clients.

Tangibility as a SERVQUAL dimension

The company representatives, actual structures, goods, and machinery, as well as written and printed communication materials, are palpable. Additionally, the environment's physical characteristics appeared to be a clear sign of the service provider's concern and attention to detail (Fitzsimmons and Fitzsimmons, 2001). Davis et al. describe tangibles as the physical assurance of the service (2003). That's right, Parasuraman. The tangibility look of physical facilities, equipment, people, and textual resources is described by Parasuraman et al (1985). Aspects of tangibility include the institutions' look, physical spaces, furnishings, and personnel (Lee and Johnson, 1997; Wilson, Zeithaml, Bitner, and Gremler, 2016). As a result, service providers use tangibles to provide the best services and communicate with customers through their tools, personnel, and other resources. Intangibles of m-banking services, on the other hand, are difficult to quantify. Finally, it is capable of determining the level of consumer satisfaction.

SERVQUAL dimension of assurance

Employees' assurance may be expressed by their expertise, friendliness, and capacity to convey assurance and trust. This evaluation becomes crucial when donors still determine a restaurant's administrative contributions (Wilson *et al.*, 2016). Customers may build trust and confidence in m-banking services with assurance since they won't face rudeness or reprisal. Additionally, these assurance dimensions will satisfy customers.

SERVQUAL dimension of reliability

The ability to respond to customer service issues, offer services accurately the first time, supply services on schedule, and maintain an error-free record are all examples of reliability. Additionally, they view reliability as the key component of conventional service (Parasuraman *et al.*, 1988). The proper completion of orders, correct records, accurate quotes, showing up straight on the bill, producing results that are more accurate than commissions, and upholding service pledges are all examples of reliability. The most important aspect of financial services, he argues, is reliability (Yang et al., 2004). SERVQUAL was used by Parasuraman et al. in their study to collect data from four distinct firms (1985). With the possible exception of a couple of the numbers related to key dimensions, he found a high degree of reliability in all four of these businesses (Parasuraman et al., 1985). Last, dependability is described as the “ability to execute the promised service properly and reliably” (Parasuraman *et al.*, 1988).

Responsiveness as a SERVQUAL dimension

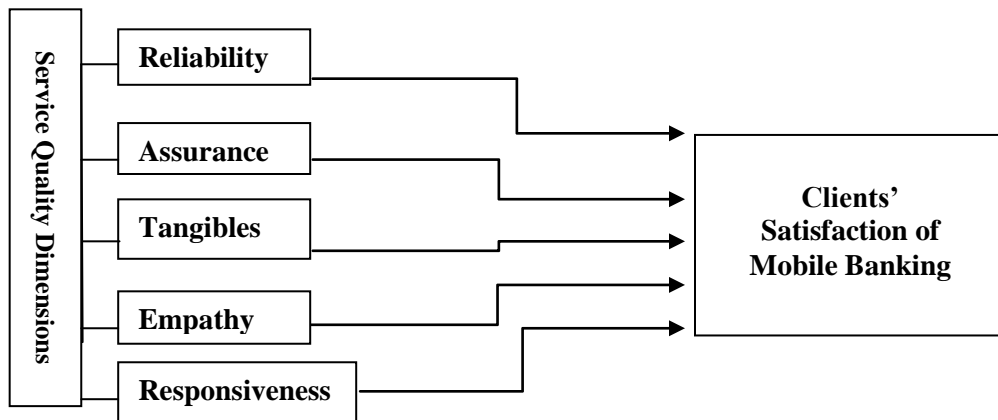
Receptivity is “the enthusiasm to serve people and deliver prompt service” (Parasuraman *et al.*, 1988). Johnston (1997) explains responsiveness in terms of the timeliness and speed of service delivery. This covers the capacity for rapid response to customer service inquiries, processing speed, service skills, and the ability to stand in line briefly. More specifically, responsiveness is an employee's desire or readiness to provide services. It covers the

promptness of the service (Parasuraman *et al.*, 1988). Kumar *et al.* (2009) also entails being aware of the needs and wishes of the client, operating quickly, obtaining individualized attention from the staff, attending to the issue, and assuring the client's safety throughout transactions.

Empathy as a SERVQUAL dimension

Empathy is "a caring and personalized attention that the firm delivers to its customers," according to Parasuraman *et al.* (1985). It comprises providing individualized attention to staff members who are aware of the needs of their customers and customer facilities during business hours. Ananth *et al.* (2011) demonstrate empathy in their research of private sector banks by giving clients individualized attention, short return times, and an awareness of their unique needs. According to Fitzsimmons & Fitzsimmons (2001), empathy entails being approachable, sensitive and attempting to comprehend customer needs.

Figure: 1 Conceptual framework



Source: Developed by researcher.

In this study, primarily essential information was utilized to examine and decipher data to understand the variable of interest.

7. Methodology of the Study

7.1 Research approach

This study was exploratory and quantitative. Both primary and secondary data were used here.

7.2 Sampling technique

The population of the study was the mobile banking users of Brac bank Ltd. and Dutch Bangla Bank Limited. Nonprobability sampling techniques were used for the analysis. The total number of sample sizes was 255(Two Hundred Fifty-Five). The survey was conducted during December, 2020 in the areas of Rangpur and Rajshahi. Dutch Bangla mobile bank

customers made up 49% of the total participants, while Bkash users made up 51%. There were 58 percent of males and 42 percent of females in the sample.

7.3 Data collection method

Primary data was collected to achieve study objectives through the survey method. I have used the SERVQUAL Instrument (Reliability, Responsiveness, Assurance, Empathy, and Tangibles) to develop the questionnaire. Self-administrated questionnaire was used for collecting primary data containing 25 inquiries addressing the five elements of client satisfaction estimation for getting essential quantitative information in this exploration. The seven-point Likert Scale was used to record the responses of the clients, with points 1 means "Very Strongly Disagree," 2 means "Strongly Disagree," 3 means "Disagree," 4 means "Neutral," 5 indicates "Agree," 6 indicates "Strongly Agree," and 7 indicates "Very Strongly Agree with the assertion." This scale was used to measure the client's value of the services and determine their significance.

7.4 Data analysis

Descriptive statistics were used to compile the data. The mean and standard deviation of the other dependent and independent variables, as well as the mean and standard deviation of the service quality dimension, were calculated. For each component, Cronbach's alpha was determined to confirm the reliability of the questionnaire. The relationship between service quality characteristics and customer satisfaction was investigated using correlation (Pearson product-moment correlation) and multiple regression models. Numerous regression analyses were utilized since there were multiple independent variables in the second stage of the study, which sought to highlight the impacts of five distinct factors on customer behavior. Here, statistical methods and procedures from the SPSS 22 edition were applied to analyze and present the data.

The regression model is as follows:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + e_i$$

Where,

Y= Overall client satisfaction;

X1= Reliability;

X2= Assurance;

X3 = Tangibles;

X4= Empathy;

X5= Responsiveness;

e_i = Error.

8. Results and Discussion

The research measures how satisfied two banks' customers are with mobile banking based on a number of factors, such as responsiveness, reliability, assurance, tangibility, empathy, and other client satisfaction factors. Based on the data gathered, the study has found that:

Demographic Profile of the respondents

Table:1

		Frequency	Percent %
Gender	Male	145	56.86
	Female	110	43.14
Age (in years)	Below 21 years	40	15.68
	21 - 31 years	114	44.70
	31 - 41 years	59	23.13
	41 – 51 years	25	9.80
	More than 50	17	6.66
Education level of the respondents	JSC	17	6.66
	Secondary School Certificate	31	12.16
	Higher School Certificate	67	26.27
	Graduate	80	31.37
	Post Graduate	60	23.52
Profession of the respondent	Student	60	23.52
	Service holder	99	38.82
	Business/ Entrepreneur	60	23.52
	Retired worker	36	14.11
Monthly Income of the Family	Below TK 11,000	31	12.15
	Between TK 11,000 to 31,000	59	23.13
	Between TK31,001 to 51,000	81	31.76
	Between 51,001 to 71,000	29	11.37
	Between TK 71,001 to 100001	30	11.76
	Above TK 100002	25	9.80
Using Purpose of mobile banking	Withdrawal of cash	161	63.13
	Balance inquiry	17	6.66
	Transfer fund	44	17.25
	Bill payment	33	12.94
Usage of mobile	One time	110	43.13

banking per months	Two times	50	19.60
	Three times	50	19.60
	Four times	45	17.64
Main causes to preference of mobile banking	Convenient banking all time every where	74	29.01
	User friendly	32	12.54
	Faster banking system	21	8.23
	Time and cost savings	48	18.82
	Secured to transaction	39	15.29
	All of above	41	16.07
	Total	255	

The RATER Model (Valarie Zeithaml, A. Parasuraman, and Leonard Berry, 1990) Score Analysis

There are five parameters, and the parameters' scores are detailed below.

1. Reliability: Ability of the bankers to perform the promised service perfectly and precisely: As per clients' reaction, the execution of the multitude of measurements recorded under the Reliability head (acting as per guarantees, truthfulness in critical thinking, playing out the help directly at the first run through and so forth is very acceptable, and the mean score here is **4.75**(Table no. 2) along these lines, the representatives can perform guaranteed service perfectly, efficiently, and effectively.

2. Assurance: Assurance of Competency, Politeness, Validity, and Security: From the clients' perspective, representatives' conduct ingrains sufficient trust in clients. Any remaining measurements recorded under the Assurance head (safe feeling in exchanges, predictable great graciousness of representatives, and having nice information on workers in noting clients' inquiries are very acceptable, and its mean value is **4.51** (Table no. 2)

3. Tangibly: The client of the bank have expressed satisfaction with the tangible aspects of their banking experience, such as the furniture, equipment, physical branches, and employees. According to Table 2, the mean score on the SERVQUAL scale for Normal Tangibles was 4.79.

4. Empathy: The survey results indicated that the bank is providing its customers with convenient banking hours and that the employees are attentive to their needs. However, some customers feel that they need to be more assertive to get noticed. These mixed feelings result in an average Empathy score of 4.3, according to Table 2.

5. Responsiveness: The employees' ability to provide banking support: The results of the study indicate that the employees are consistently able to assist customers, but they need to improve in providing prompt service. These factors contribute to the average Responsiveness score on the SERVQUAL scale, which is 4.9, as shown in Table 2.

6. Overall Assessment of Client satisfaction: The overall SERVQUAL mean value is **4.65** (Table no. 2) which shows an agreeable stage in the degree of consumer loyalty.

In this way, from the quantitative investigation, it is discovered that, albeit in certain measurements, clients are not appropriately fulfilled; the general outcome highlights a palatable degree of consumer loyalty to banks. To raise the level of client satisfaction, it has to execute in a few areas more effectively. These include treating each customer with special respect, comprehending their individual needs, providing information regarding the specific time that services will be provided, providing prompt support, responding in a manner that is convenient for clients, and so forth.

Measurement of client satisfaction

The Client satisfaction list addresses the general fulfillment level of that client as one number, for the most part, as a rate. This can be accomplished by computing the Fulfillment File utilizing a significance weighting dependent on independent factors or variables. Find the average of the relatively wide range of weightings the customer has provided. For the weighting based on the normal of the elements to appear, this normal must be separated from the individual weightings. Every personal score is provided as a component of that normal as well as the midpoints of the clients' importance scores. Therefore, customer satisfaction can be viewed as a metric that provides the organization with an understanding of its current status.

Table 2 shows how the weighted average score determines overall client satisfaction.

Weighted average score calculation to determine total client satisfaction with mobile banking

Independent variables	Variables' rating scores	Average rating	Weight	Average weighted score	Overall level of Client's Satisfaction
Reliability	5	4.75	1.550333	7.36408175	4.212615604
Assurance	4	4.51	1.158667	5.22558817	
Tangibles	3	4.79	0.946	4.53134	
Empathy	2	4.3	0.556667	2.3936681	
Responsiveness	1	4.9	0.316	1.5484	
Weighted Average scores	15	4.65	0.905533	21.06307802	

Table 3: Descriptive Statistics

Factors	Mean value	Standard Deviation	N
Client Satisfaction	3.6460	1.03081	255

Reliability	4.75	1.08238	255
Assurance	4.79	.87363	255
Tangibles	4.65	.85916	255
Empathy	4.3	1.12649	255
Responsiveness	4.51	1.05830	255

The averages and standard deviations of the variables in our regression model are provided by the descriptive statistics. The table below displays the means and standard deviations of the many pertinent variables.

Regression Analysis:

Both internal and external influences affecting the dependent variable. Additionally, all criteria work together to determine if a client is satisfied (dependent variable). Multiple regression analysis is the term for it.

Table 4: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820 ^a	.726	.700	.57881

Examine the model's general structure with an emphasis on R-square estimates. Our relapse model explains how much variation there is in assessing the needed variable according to this measurement. According to the model's R-square value of 0.726, autonomous factors account for 72% of the change in the dependent variable (consumer satisfaction). Additionally, the ANOVA table (Table 2) demonstrates a direct association between the variables, and Table 5's coefficient table summarizes the effects of our regression equation.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	30.162	1.317		21.619	.000
	Responsiveness	-.546	.129	-.864	-4.102	.000
	Assurance	.873	.121	1.430	5.053	.000
	Tangibility	3.221	.300	4.681	10.341	.052
	Empathy	.312	.100	.320	2.100	.023
	Reliability	-3.706	.347	-5.139	-11.170	.011

a. Dependent Variable (DV): Client Satisfaction

Analysis:

Table: 6 Test of Hypothesis

Path	Significance	Results	Remarks
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Responsiveness to clients' satisfaction	.000	Ha1 Accepted	Clients' satisfaction is reliant on Responsiveness.
Assurance to client satisfaction	.000	Ha2 Accepted	Clients' satisfaction is dependent on assurance.
Tangibility to clients' satisfaction	0.052	Ha3 Rejected	Clients' satisfaction is not reliant on tangibility.
Empathy to client satisfaction	0.023	Ha4 Accepted	Clients' satisfaction is reliant on empathy.
Reliability to clients' satisfaction	.011	Ha5 Accepted	Client satisfaction is depended on Reliability

Because the certainty stretch is 95%, the basic P-value is 0.05, and the factors' calculated P-values are 0.000, 0.000, 0.052, 0.023, and 0.011 respectively. As a result of the analysis above, we can conclude that responsiveness, certainty, empathy, and dependability improve customer satisfaction. Still, tangibles have no impact because they are more than .05. This suggests that reliability, certainty, responsiveness, and empathy are factors in customer satisfaction. On the other hand, tangibles have little impact on customer satisfaction.

9. Recommendations

According to the study results, a few areas are the most important to consider when implementing mobile banking. In order to enhance customer advantages and services, bankers, government representatives, and business owners must carefully evaluate these stated areas, particularly in the financial climate of Bangladesh.

- Customers might be more interested in the financial services provided if the risk associated with normal mobile device transactions was reduced.
- The bank's ongoing service development, which gives flexibility in its product and service offerings, encourages customers to use technology.
- To give timely and efficient service to users of mobile banking, a sophisticated technical infrastructure should be established and built.
- All mobile users must have affordable access to M banking (currently, the cost is high).

Mobile banking can gain widespread acceptance in this manner. However, obstacles must be considered, such as technology adoption, affordability, user-friendliness, confidence, traditional means of performing smooth financial transactions, and the massive use of cash in Bangladesh. Nevertheless, by encouraging financial transactions, mobile banking will help to improve socio-economic development.

10. Conclusions

In Bangladesh, mobile banking has a promising future. In Bangladesh, mobile banking is well-liked despite being a relatively new idea, effective tool, and essential service. The use of mobile banking is growing among account holders. This study was effective in determining the variables affecting mobile banking usage and satisfaction in Bangladesh. In Bangladesh, banks are solid wellsprings of monetary intermediation. This paper mainly discovered that elements like reliability, responsiveness, and assurance, and so forth, impact the client satisfaction level of banks. Using all five SERVQUAL dimensions, it should be able to do more research on the connections between customer loyalty, service excellence, and professional fulfillment. To improve service quality and customer satisfaction for mobile banking customers in Bangladesh, all interested parties must exercise extreme caution. More independent variables that may affect customer satisfaction need to be investigated to provide more informed recommendations.

10.1 Managerial Implications

The results of this study indicate that managers and decision-makers in the mobile banking service industry should make an effort to enhance their performance in SERVQUAL areas that have a significant influence on customer satisfaction. Customers want mobile banking service providers to communicate with them in depth so that they may learn about their expectations in terms of service quality. To compare annual service improvements and examine the effects of this development on customer perception and satisfaction, a survey on the Service Quality Dimensions should be done each year. Providers of mobile banking services should inform, persuade, and train their representatives to effectively interact with customers and resolve their problems. These agents should be enrolled in training programs where they may learn about various aspects of mobile banking. The outlet's physical appearance should be appealing. Eye-catching promotional materials and transaction forms are required. The transaction must be safeguarded, and any problems must be handled as quickly as possible.

10.2 Limitations and future directions of the study

The following list of cons for doing this research includes a number of them: i) For this study, only urban areas have been looked at. ii) The number of respondents who participated in the study could have been higher. iii) All mobile banking service providers were not represented among the respondents. Mobile banking is a new service in Bangladeshi financial organizations, particularly banks.

As per the study result, more studies should be done in this area to examine how profitability relates to the caliber of mobile banking services. There should be more research on independent variables that impact customer satisfaction. But only BRAC and Dutch-Bangla bank in Rajshahi and Rangpur was the subject of the study. Two banks and two regions didn't accurately represent Bangladesh. It must encompass the entirety of Bangladesh. Therefore, more research will also look at public, specialized, and other banks.

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