



CUSTOMER SATISFACTION TOWARDS MOBILE BANKING SERVICE QUALITY

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Abstract

The study sought to find out the effects of mobile banking on customer satisfaction, the study adopted a descriptive and causal-comparative research designs. To achieve the purpose of the study, structured questionnaire was prepared. Out of 385 questionnaires, only 299 numbers of customers' response were received. The data was analyzed by the aid of Statistical Package of Social Scientists Program (SPSS) 22.0 Version. Subjects were asked to assess their perceptions of various items representing customer satisfaction towards service quality of mobile banking of commercial banks of Rupandehi district. According to correlation analysis, all the service quality variables (tangibility, reliability, assurance, empathy and responsiveness) and customer satisfaction is positively related. The regression result has shown that among the variables undertaken in this study, responsiveness has a significant positive effect in determining customer satisfaction in the Rupandehi district, which is followed by the other variable tangibility.

I. Introduction

Banking services have been given new life in the 21st century by the widespread use of information technology and the exponential growth of the sector. Structures in the financial industry are optimized for maximum profit and market dominance. The whole banking sector has been revolutionized by technological advancements that allow banks to better meet the demands of their clients. The current market situation is evidence of the vast transition from conventional banking to the branchless, internet model. The fast growth of the World Wide Web and the internet has influenced numerous industries, including the banking industry.

Banks have used information technology and the internet to increase operational efficiency, boost commerce, and give superior customer service at a lower cost. These days, customers may bank whenever and wherever they choose, thanks to the widespread use of e-banking technology across the banking sector. To its consumers, e-banking is a service that is both quick and reliable (Nupur, 2010).

Recent advances in telecommunications have permitted the introduction of new financial access methods, including mobile banking, in which a consumer interacts with a bank through a mobile phone (Barnes & Corbitt, 2003). A mobile banking service is a form of E-banking service that is becoming more popular among bank clients. Mobile banking is the provision of banking services through mobile devices. Through their mobile service technology, mobile banking users have access to a variety of banking and financial services, including cash transfers, savings products, insurance products, fee payments in various formats, and payment receipts. Mobile banking is a wireless communication method for adding value to financial transactions for clients (Taghavi Fard & Torabi, 2010). Thaker et al. (2018), Baabdullah et al. (2019), and Shankar and Rishi (2020) say that mobile banking is a self-service facility that makes it easier, more convenient, and more mobile for clients to get bank services through their mobile devices whenever they are connected to the internet, without the help of bank employees or fixed equipment.

The first mobile banking service was launched in 1997 by Merita Bank of Finland offering SMS text banking (Hossain, 2020). The era of modern banking in Nepal started with Nabil Bank introducing credit cards in the early 1990s. Himalayan Bank introduced ATM and Nepali credit cards for the domestic market in 1995. In 2002, Kumari Bank introduced E-Banking (Internet Banking) service for the first time in Nepal. Likewise, in 2004, Laxmi Bank introduced SMS Banking (Mobile Banking) service for the first time in the country (Ghimire, 2020). Currently, mobile banking services are quite popular throughout all socioeconomic strata in Nepal. The number of mobile banking customers in Nepal has reached 17,600,000, according to Nepal Rastra Bank (NRB). Mobile banking has been recognized as an acceptable medium for this purpose. Mobile banking services include the transfer of funds to a separate bank account; payment of water, electricity, and internet bills; mobile recharge; booking of airline tickets; and payment of insurance premiums, among others. Mobile banking also provides the option of QR code payments (Fiscal Nepal, 2022).

Customers are essential to the success and survival of any organization, and the banking industry is no exception. Therefore, it is necessary not only to delight clients but also to keep them, since this may result in higher profitability and enhanced performance for banks. Customer satisfaction is a crucial factor in determining the performance of any bank in the digital forum. Due to the rising degree of competition, customer satisfaction is currently recognized as the most vital aspect of banking services. Customer service is the primary emphasis of a bank. Service quality is the ability to meet customer requirements and standards. This refers to how well the level of service meets customer expectations. From the client's perspective, the significance of customer satisfaction is evident to maintain a connection with the bank.

Service quality is of the greatest significance when evaluating the performance of bank branches, since their existence relies on the quality of service they give (Portela & Thanassoulis, 2005). Excellence in service quality is essential to achieving client loyalty, which is the main objective of most businesses because of the benefits of customer retention (Ehigie, 2006). Service quality plays an important role in increasing customer happiness and loyalty, so it is regarded as an essential requirement for IT in all industries today (Gorla et al., 2010). Consequently, as service providers, banks should improve the quality of their mobile banking services in order to retain consumers of this novel technology and broaden its applicability. In a developing country such as Nepal, knowing the variables that affect customer satisfaction with mobile banking is a vital step in developing a bank's overall strategy. So, the primary purpose of this research is to examine various service quality dimensions that affect the quality of mobile banking as a whole and how that affects customer satisfaction.

As the electronic banking sector has expanded to include telephone and internet banking, more and more worries have been raised in tandem with it. Despite its many advantages, e-banking in Nepal is now facing a number of new obstacles. E-banking services have not been generally accepted by Nepalese bank clients despite the fast proliferation of internet banking products and services by banks and financial institutions in the country. This can be because customers don't trust the service, they don't understand the technology, or they think the services are too risky. Banks frequently fail to satisfy their customers, which can result in significant losses for the institution (Martins et al., 2014).

Some customers may also worry that mobile banking is not secure because of the potential for fraud. One of their main worries is that a hacker would steal their personal data and then use it to make unauthorized financial transactions. They will also likely worry that their money would be lost. When using a mobile banking service, customers run the risk of feeling powerless if anything goes wrong. As Mitchell (1999) argues, risk is an individual's predetermined anticipation of loss; the greater the risk, the greater the anticipated likelihood of loss. Customers' desire to utilize mobile banking will decrease as a result.

There is no face-to-face contact with mobile banking since the transaction is completed by the consumer rather than by a bank teller. Customers do not proactively seek out the bank for new services or assistance. Not all clients are willing to give these services a try, however, since they want more personalized attention from businesses. Customers, though, have voiced concerns about safety and accuracy. System outages, network problems, and other such incidents all contribute to customer churn, dissatisfaction, and loss of loyalty (Domeher et al., 2014). Thus, this study will strive to address the following research issues by referring to the facts of existing situations: Is there any relationship between tangibility, reliability, assurance, empathy and responsiveness with customer satisfaction? Whether there is an effect of tangibility, reliability, assurance, empathy and responsiveness on customer satisfaction?

Objectives of the Study

- To measure the relationship between tangibility, reliability, assurance, empathy and responsiveness with customer satisfaction.

- To examine the effect of tangibility, reliability, assurance, empathy and responsiveness on customer satisfaction.

II. Review of Literature

Mwendwa et al. (2016) conducted a study to determine the impact of mobile banking on customer satisfaction in a selection of Trans-Nzoia County banks. The target audience consisted of ten particular banks in Trans-Nzoia County. Innovation diffusion theory, the technology acceptance model (TAM), and the theory of reasoned action drove the research (TRA). The study employed a descriptive survey research approach, with the target population consisting of 41 commercial bank employees in Trans Nzoia County. Since the target population was fewer than the minimum of one hundred for sampling to be employed in research, the census method was utilized. As a data collection instrument, a structured questionnaire with a Likert scale style was used. Version 23 of the Statistical Package for the Social Sciences (SPSS) was used to do regression and ANOVA in order to determine the relationship between the independent factors and the dependent variable. Based on the results, the researcher found that the regression effect was statistically significant, which showed that reliability, responsiveness, and accessibility had a big positive effect on mobile banking customers.

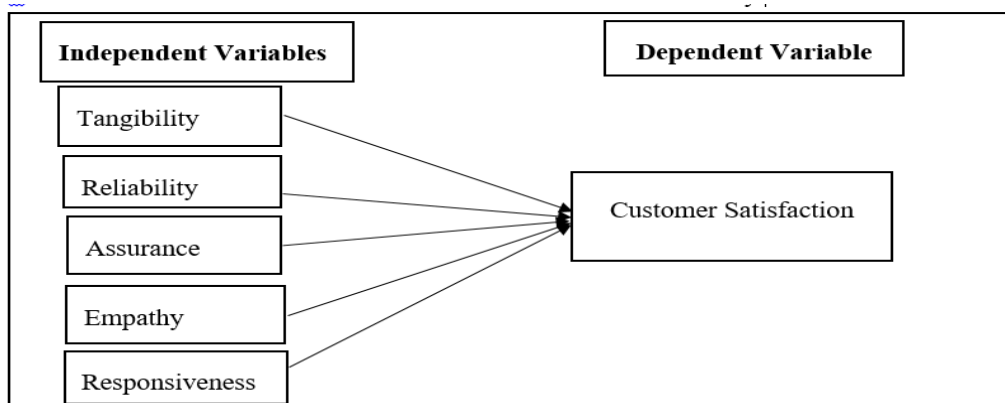
Khan et al. (2021) used a structural equation model to investigate the relationship between service quality and mobile banking customer satisfaction. A structured survey questionnaire was developed to obtain information from Bangladeshi participants. This study used a convenience sampling technique to choose possible participants. Out of the disseminated questionnaires, 240 that were filled out and usable were chosen for analysis using partial least squares structural equation modeling (PLS-SEM). All dimensions of service quality, namely tangibility, reliability, responsiveness, assurance, and empathy, had positive and statistically significant effects on mobile banking customer satisfaction. The findings also revealed that mobile banking service providers should focus on all aspects of service quality, with a particular emphasis on responsiveness and reliability, to increase customer satisfaction.

In the midst of the COVID-19 pandemic, Bala et al. (2021) undertook a study to quantify the effect of several mobile banking service aspects on customer satisfaction among users in rural parts of Bangladesh. The study also identifies the correlation between customer satisfaction and loyalty for various groups of mobile banking customers during the pandemic. Researchers utilized a self-administered questionnaire they developed to collect data; they obtained 180 of a total of 250 responses. The sampling method was completely random. The calculation was evaluated using SPSS Version 22 by the researcher. In particular, a stepwise method of linear multiple regression analysis was applied. The study found that consumer satisfaction during the COVID-19 lockdown periods was significantly affected by the reliability, responsiveness, and efficiency of the mobile banking service.

Theoretical Framework

Theoretical Framework is a structure which shows the relation between two or more than two variable. The theoretical framework of the study is mentioned below:

Figure 1 *Theoretical Framework*



Source: Parasuraman et al. (1985)

III. Research Methodology

A foundational framework for the investigation is provided by the research methodology. It is vital to first define the research process before undertaking the data analysis and interpretation.

Research Design: Descriptive research design and Causal Comparative research design were used for this study.

Population and Sample: The target population of the study were the users of mobile banking of all the commercial banks which are located in the Rupandehi district. As the exact number population was unknown, therefore Cochran formula was used to calculate a sample size for an unknown population (Cochran, 1963). Calculation of sample size:

$$\begin{aligned}
 n_0 &= Z^2 \cdot p \cdot q / e^2 \\
 &= 1.96^2 \times 0.5 \times 0.5 / 0.05^2 \\
 &= 385
 \end{aligned}$$

Where, n_0 = required sample size

p = estimated proportion of an attribute that is present in the population

q = estimated proportion of an attribute that is not present in population = $1-p$

e = Desired level of precision

Z^2 = Abscissa of the normal curve (z- score)

Sampling Method: Convenience sampling methods was employed in this study.

Nature and Sources of Data Collection: The study has used Primary data. Questionnaires was distributed to the respondents in order to get actual and accurate information. Five points Likert scale ranging from (5) “Strongly Agree” to (1) “Strongly Disagree” was used.

Methods of Data Analysis: The survey findings were analyzed using a variety of statistical tools and techniques. Both descriptive and inferential statistics were utilized in the investigation. Using Microsoft Excel and SPSS 22.0, the obtained data from the questionnaire were processed and assessed. Calculated in descriptive statistics are the mean and standard deviation. Cronbach's Alpha was used to determine and calculate the reliability of the

employed instruments. For the discussion and findings, correlation and regression analyses were performed as part of inferential statistics.

IV. Results and Analysis

Respondents' Demographic Profile

This section seeks to give participant profiles for study sample participants. This study is based on the replies of 299 customers in the Rupandehi district. The demographic component includes the gender, age, marital status, education, and occupation of the respondents.

Table 1 Demographic Profile of the Respondents

	Frequency	Percent
Gender		
Male	167	55.9
Female	132	44.1
Total	299	100.0
Age		
Below 20 years	44	14.7
20-30 years	115	38.5
31-40 years	90	30.1
41-50 years	43	14.4
51 years and above	7	2.3
Total	299	100.0
Marital Status		
Married	202	67.6
Unmarried	88	29.4
Widow	2	.7
Divorced	7	2.3
Total	299	100.0
Education		
Below SLC	45	15.1
SLC	86	28.8
+2 level	110	36.8
Bachelor level	43	14.4
Masters and above	15	5.0
Total	299	100.0
Occupation		
Student	57	19.1
Business	93	31.1
Govt. Sector Employee	48	16.1
Private Sector Employee	65	21.7

Other	36	12.0
Total	299	100.0

According to the above table, the percentage of male respondents was 55.9 % and the percentage of female respondents was 44.1 %. Similarly, respondents aged 20–30 years include 38.5%, 31–40 years, 30.1%, under 20 years, 14.7%, 41–50 years, 14.4%, and 51 years and older, 2.3%. Similarly, 67.6% of all respondents were married, 29.4% were single, 2.3 were divorced, and 0.7 were widowed. Similarly, 14.4% of respondents have a bachelor's degree, 36.8% have a +2 level, 28.8% have an SLC, 15.1% have a lower level than an SLC, and 5% have a master's degree or higher. In terms of career, 31.1% of respondents ran their own business, 21.7% worked in the private sector, and 19.1% were students, 16.1% worked for the government, and 12% worked in other sectors.

Reliability Test

One approach for verifying reliability is reliability testing. If the association in the reliability analysis is high, the scale gives consistent results. Cronbach's alpha is one of the internal consistency tests. If the Alpha (α) value is larger than 0.70, the construct is considered reliable.

Table 2 Reliability Statistics

Variables	Cronbach's Alpha	No. of items
Tangibility	0.834	5
Reliability	0.793	5
Assurance	0.854	5
Empathy	0.833	5
Responsiveness	0.854	5
Customers Satisfaction	0.795	6
Overall	0.884	31

Cronbach's alpha for the data reflects the construct's internal consistency. Cronbach's alpha for variables are greater than 0.70. It signifies that the data is trustworthy for further examination.

Descriptive Statistics

Descriptive analysis can be performed on the complete collection of numerical data or on selected subgroups. It displays means, standard deviations, percentages, and frequencies for both continuous and categorical data.

Table 3 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Tangibility	299	1.20	5.00	4.4201	.49385
Reliability	299	1.20	5.00	4.0288	.61380
Assurance	299	1.00	5.00	4.1391	.63089
Empathy	299	1.40	5.00	3.9358	.69776

Responsiveness	299	1.20	5.00	3.9993	.70824
Customer Satisfaction	299	2.00	5.00	4.3411	.46615
Valid N (listwise)	299				

Table no. 3 shows the descriptive statistics of the response of participants towards the mobile banking. The mean value of customer satisfaction is 4.3411, with a standard deviation of 0.46615, and mean value of tangibility is 4.4201, with a standard deviation of 0.49385 (Labeled strongly agree on the measurement scale). Likewise, the mean value of assurance, reliability, responsiveness, and empathy is 4.1391, 4.0288, 3.9993, and 3.9358 with a standard deviation of 0.63089, 0.61380, 0.70824, and 0.69776 (Labeled agree on the measurement scale).

Correlation Analysis

The Pearson correlation analysis of the dependent and independent variables reveals the amount and direction of the association between the two sets of scores. It has a score ranging from -1 to +1.

Table 4 Correlation Analysis

Variables	Tangibility	Reliability	Assurance	Empathy	Responsiveness	Customers Satisfaction
Tangibility	1	.503**	.449**	.437**	.411**	.416**
Reliability		1	.694**	.693**	.619**	.407**
Assurance			1	.726**	.715**	.437**
Empathy				1	.759**	.456**
Responsiveness					1	.548**
Customers Satisfaction						1

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

The table 4 shows the correlation result between all the variables under study. The coefficient of correlation between dependent variable customer satisfaction and independent variables tangibility, reliability, assurance, empathy and responsiveness is 0.416, 0.407, 0.437, 0.456 and 0.548 respectively which is found to be moderately positive and statistically significant.

Multicollinearity Test

The presence of multicollinearity in the residuals is determined by the collinearity analysis.

Table 5 Multicollinearity Test

Variables	Tolerance	VIF
Tangibility	.722	1.386
Reliability	.414	2.417

Assurance	.359	2.784
Empathy	.321	3.115
Responsiveness	.365	2.740

In table 5 Variance Inflation Factor (VIF) is less than 10 and most of them are under VIF of 5 which means there is no serious problem of multicollinearity between the variables.

Multiple Regressions

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587 ^a	.345	.333	.38057

a. Predictors: (Constant), RE, T, R, A, E

b. Dependent Variable: CS

R- Square of 34.5percent shows that 34.5 percent of dependent variable is explained by independent variable and remaining are errors.

Table 7 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.318	5	4.464	30.818	.000 ^b
	Residual	42.437	293	.145		
	Total	64.755	298			

a. Dependent Variable: CS

b. Predictors: (Constant), RE, T, R, A, E

The model reached statistical significance of P = 0.000 which indicates its significance at p < 0.05 which means we reject the null hypothesis and accept the alternative hypothesis, i.e., we can also conclude that model is significant.

Table 8 Coefficient Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.175	.209		10.395	.000
T	.209	.053	.222	3.984	.000

R	.007	.056	.009	.119	.905
A	.008	.058	.010	.129	.897
E	.014	.056	.021	.257	.797
RE	.282	.052	.428	5.466	.000

P-value of Tangibility and responsiveness is 0.000 or less than 5 percent level of significant. Therefore tangibility and responsiveness is positively related and statistically significant to influence customer satisfaction. On the contrary, reliability, assurance, and empathy is 0.905, 0.897, and 0.797 or more than more than 5 percent level of significant. Therefore reliability, assurance, and empathy are positively related and statistically insignificant to influence the customer satisfaction. Similarly, from the above table, it is found that the value of Unstandardized Beta Coefficients of Tangibility, reliability, assurance, empathy, and responsiveness is 0.209, 0.007, 0.008, 0.014, and 0.282 which infers that one unit increase in tangibility, reliability, assurance, empathy, and responsiveness will bring 0.209, 0.007, 0.008, 0.014, and 0.282 units of increase in customer satisfaction.

V. CONCLUSION AND RECOMMENDATION

This study has tried to cover the issues related with the customer satisfaction towards service quality of commercial banks of Rupandehi district. The study reveals that the correlation coefficient between all the service quality variables (tangibility, reliability, assurance, empathy, and responsiveness) and customer satisfaction is positively related. It means an increase in service quality variables will lead to an increase in customer satisfaction. The study's findings indicated that out of five variables, tangibility and responsiveness have the greatest significant impact on customer satisfaction with mobile banking,

The findings of this study have various implications for the usage of SERVQUAL in commercial banking ventures in Nepal. This research has the potential to offer theoretical, managerial, and methodological advances to service quality analysis. Theoretically, the purpose of this study was to look into the causal links between service quality factors, service quality, and customer satisfaction. Customer happiness is positively influenced by the level of service excellence. Managerially, this research offers bank managers with a scale to assess the quality of their service from the standpoint of the five underlying aspects named SERVQUAL.

In this study, only clients of 'A' class commercial banks were used as sample respondents; however, for future studies, other financial institutions such as development banks and finance firms could be included. Because many clients conduct business with different financial institutions. Strategically, bank administrators should remember that, among other things, providing a variety of high-quality mobile banking services is the most powerful predictor of client happiness. The government should build an effective regulatory framework to protect customer safety and transaction security. As a result, customers' trust in mobile banking would be strengthened. Finally, in order to remain competitive, banks should conduct frequent marketing research studies on their own clients. Also, the convenience sampling strategy was

adopted for this study, which has some disadvantages. The results of such sampling may not be representative of the intended population. All of this creates a new research agenda for the future. Any future researcher investigating a comparable topic must explore these characteristics and attempt to perform a large-scale survey to ensure that the results are representative and generalizable.

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