



E-Banking service quality and customer satisfaction

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Abstract

Customer satisfaction is essential to the long-term sustainability of any organization all around the globe. Customers are largely satisfied with e-banking since it provides them with faster, more dependable services. E-banking services can not only provide new competitive advantages, but also strengthen customer relationships. The main objectives of this Study is to examine the relationship between E-banking service quality and customer satisfaction and to measure the effect of E-banking service quality on customer satisfaction. The study collected primary data by using structured questionnaire techniques from 400 respondents who are enjoying banking services. This study is based Causal comparative research design. For the purpose of analysis, this study used a quantitative technique for data collecting. Convenience sampling was used as the sample method for the study. Customer satisfaction is considered as a dependent variable while reliability, responsiveness, assurance, empathy, and tangibles are considered as independent variables. SPSS was used to construct and evaluate their correlation and regression. It is found that Reliability, Empathy and Tangibility has positive significant effect on customer satisfaction. However, Responsiveness and Assurance has insignificant effect. The findings highlight the importance of prioritizing efforts to enhance reliability, empathy, and tangibility in service delivery to maximize customer satisfaction and ultimately improve bank & financial institutions and business performance.

Keywords: Customers, delivering, precondition, tangibles

Introduction

Development of electronic banking contributes to a higher, quicker, and less expensive product as well as the most efficient delivery of bank services. Customers can use their own personal devices to explore the important bank products and services anytime. With electronic banking, the majority of customers may now perform their banking activities and transactions at any time and from any location.

The modern world has been greatly influenced by technology. The global community that the internet has generated has transformed the financial sector. The banking sector now has a new facet as a result of moving from manual ledger systems to systemized procedures and the introduction of internet-based facilities. Over the past several years, the competition in the banking business has increased. In order to remain competitive, banks have adopted new tools and approaches to increase customer satisfaction and loyalty. E-banking is of the highest priority in satisfying consumer expectations. Delivering high-quality services may result in customer satisfaction and an increase of customer loyalty (Toor, Hunain, Hussain, Ali, & Shahid, 2016) ^[10].

Customers' use of bank services has been significantly influenced by e-banking. Because of its capacity to improve speed, performance, and efficiency, electronic services have become the primary pillar for Nepalese banks. In Nepal, electronic banking has been fully accepted as a value-added service to increase customer happiness and save costs.

Banks have also attempted to decrease operational expenses by providing electronic services and acquire access to the greatest geographical and temporal section of clients. Furthermore, banks have sought increased involvement in e-commerce networks. Because of the low rate of human error, electronic services give greater accuracy and dependability in banking service providing, resulting in better effectiveness and efficiency in the banking sector (AlHaliq & AlMuhir, 2016) ^[2].

To understand customer satisfaction in the context of e-commerce, we need to first clarify what we mean by client satisfaction. Customer satisfaction is defined as the outcome of a cognitive and affective evaluation in which a comparison standard is compared to the actual perceived performance. Customers will be dissatisfied if the perceived is lower than expected. Customers, on the other hand, will be satisfied if the perceived performance satisfies expectations. Effective customer satisfaction investigation is a critical precondition for e-commerce to compete in the market (Sakhaei, Afshari, & Esmaili, 2013) ^[8].

The Objectives of this Study are

To examine the relationship between E-banking service quality and customer satisfaction.

To measure the effect of E-banking service quality on customer satisfaction.

Literature Review

According to survey questions given to 175 customers in Jordan, the study aimed to determine the impact of

electronic banking services on customer satisfaction. The statistical data from the survey questions asked about these six indicators and the findings indicate a favorable correlation between customer satisfaction levels and e-banking usage. The degree of customer satisfaction and e-banking usage are positively correlated with five factors (Altobishi, Erboz, & Podruzsik, 2018) [3].

This study aims to look at how Pakistani E-banking elements affect consumer satisfaction. With the help of a literature analysis, five SERVQUAL model-derived service quality dimensions—reliability, responsiveness, assurance, tangibles, and empathy—have been chosen as indicators of consumer satisfaction in online banking. According to the study's findings, there is a significant association between customer satisfaction and service quality characteristics in Pakistani e-banking, with assurance, responsiveness, and dependability receiving the most weight among the five aspects. By giving higher-quality services to their clients in today's competitive market, banks may obtain a competitive edge. This study has shown that service quality in E-banking results in satisfied consumers. (Toor, Hunain, Hussain, Ali, & Shahid, 2016) [10].

This study focuses on the following aspects of ease of use, information security and reliability, and their relationship to customer adoption of electronic services in order to examine the degree of customer satisfaction with electronic banking (e-banking) services in the Saudi banking sector and address issues with service quality. The study used an analytical and descriptive technique. In order to better understand these services and client expectations, it looked at several elements of the electronic services offered by Saudi Arabian banks while also using more recent research in the area as secondary data. The findings indicate that Saudi banks have significantly increased customer satisfaction by upgrading electronic service requirements, enabling electronic transactions, and boosting processing performance. Customers are not informed about the e-banking system and are not given recommendations. The findings of this study suggest some recommendations for enhancing the electronic services offered by Saudi Arabian banks in order to increase client satisfaction (AlHaliq & AlMuhirat, 2016) [2].

The research is being carried out in order to determine the effect of electronic banking service delivery on customer satisfaction in Ghana. The primary data were analyzed using SPSS Statistics version 21. Multiple regression analysis was used to examine the effect of e-banking service delivery on customer satisfaction in the selected institutions. A favorable association between consumer satisfaction and e-banking availability, dependability, and convenience is proven in this study. In order to satisfy and keep consumers, banks should provide them with continuous, dependable, and convenient e-banking services (Addai, Ameyaw, Ashalley, & Quaye, 2015) [1].

The main aim of the study is to evaluate how customer

satisfaction is influenced by the quality of the E-banking services. The survey's random sample method was chosen while taking into consideration the consumers' availability and comfort. The impact of the service quality component on customer satisfaction has been measured using the multiple regression method. The relative importance of each factor impacting customer satisfaction is examined in the article. The total regression model has been shown to fit data more well, and the relationship between the service quality component and customer satisfaction is statistically significant. If the consumer is happy with the current services, he will likely utilize them again and again. The study's findings lead researchers to the conclusion that tangibleness, credibility, responsiveness, security, and communication all have an influence on how satisfied customers are with E-banking services (Sharma, Singh, & Singh, 2020) [9].

Accordingly, the objective of this study is to determine how e-banking has affected customer satisfaction at private commercial banks in Sri Lanka's Galle area. Eleven of the initial 41 items were removed from the measurement model, which then demonstrated satisfactory reliability, convergent validity, and discriminant validity. According to the findings, customer satisfaction is affected positively by ATM banking, internet banking, online banking, credit cards, and debit cards, as well as negatively by telephone banking and mobile banking. This study has given academics insight into a brand-new research model that incorporates innovative e-banking techniques with organizational effectiveness. These results help bank leadership and policy makers increase public knowledge of and trust in e-banking practices (Buddhika, H. K. T, & T.S.L.W., 2020) [5].

Analyzing the effects of e-banking factors on customer satisfaction in Bangladesh is the goal of this study. The period of the research is from 2006 to November 2009 as this was the first time consumers had access to e-banking services. Based on the SERVQUAL model and the literature analysis, five service quality dimensions—reliability, responsiveness, assurance, empathy, and tangibles—have been defined. These factors have been brought to the test in e-banking to investigate the connection between customer happiness and service quality. The study demonstrates that these variables are the fundamental elements of service quality for customer satisfaction in electronic banking. The study additionally looks at how much reliability, responsiveness, and assurance contribute to satisfying e-banking consumers in Bangladesh. The null hypothesis is accepted and the alternative hypothesis is rejected since it can be seen from the statistical analysis that there is a relationship between customer satisfaction in e-banking and reliability, responsiveness, assurance, empathy, and tangibles (Nupur, 2010) [7].

Conceptual Framework

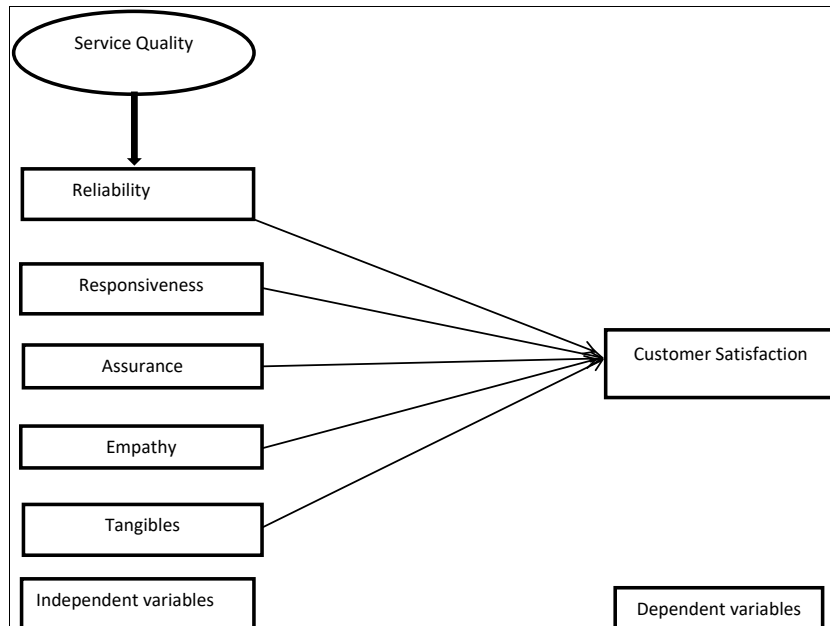


Fig 1

Research hypothesis

H₁: There is significant relationship between reliability and customer satisfaction.

H₂: There is significant relationship between responsiveness and customer satisfaction.

H₃: There is significant relationship between assurance and customer satisfaction.

H₄: There is significant relationship between empathy and customer satisfaction.

H₅: There is significant relationship between tangibility and customer satisfaction.

H₆: There is significant effect of reliability on customer satisfaction.

H₇: There is significant effect of responsiveness on customer satisfaction.

H₈: There is significant effect of assurance on customer satisfaction.

H₉: There is significant effect of empathy on customer satisfaction.

H₁₀: There is significant effect of tangibility on customer satisfaction.

Research Methodology

Research methodology includes the following structure: the research design, sample size, sampling technique, sources of data collection, data collection methods, tools used for data analysis. The study utilizes a quantitative approach to investigate the impact of E-banking service Quality and customer satisfaction. The quantitative aspect of the study involves questionnaires with different customers to examine

the relationship between E-banking service quality and customer satisfaction.

Research Design

Research design refers to the overall plan or strategy that a researcher uses to guide their study and answer their research questions or test their hypotheses. It outlines the methods, procedures, and techniques that will be used to collect and analyze data. This study uses Causal comparative research design to examine the relationship between E-banking service quality and customer satisfaction.

Population and sample

The participants of this study included 400 customers who use E-banking services. Convenience Sampling Technique were used to select the respondents.

Data collection instrument

The study was collected from primary sources using a structured questionnaire. The questionnaire included 26 items on a 5-point Likert scale and ranged from (strongly Disagree) to (strongly agree). The questionnaire was divided into 3 section i.e. Demographic profile to service quality to customer satisfaction. The questionnaire was distributed electronically using a google form. The reliability of the questionnaire, as measured by Cronbach's alpha and was 0.7 and above.

Data Analysis Tools

This study was based in descriptive and inferential methods for the presentation and analysis of data. Other descriptive statistics methods have been used, such as maximum, minimum, and standard deviation. To examine the relationships between demographic factors regarding the study's independent variables, a one-way ANOVA test was conducted. To examine the relationship between the variables, the Pearson's correlation test is used. Regression analysis is then used to evaluate the degree to which the

model fits the data, and the resulting p-values are then used to test the hypotheses.

Data Presentation and Analysis
Analysis of Demographic Profile of the Respondents

Table 1: Demographic Profile

		N	%
Gender	Male	123	30.8
	Female	277	69.3
	Total	400	100
Age	18-25	14	3.5
	26-40	281	70.3
	Total	400	100
Occupation	Student	87	21.8
	Housewife	19	4.8
	Private Employee	156	39.0
	Govt. Employee	31	7.8
	Business Profession	57	14.3
	Self Employed	45	11.3
	Others	5	1.3
	Total	400	100
Education Qualification	Intermediate	21	5.3
	Bachelors	170	42.5
	Masters	170	42.5
	Masters and above	39	9.8
	Total	400	100
Marital Status	Single	199	49.8
	Married	196	49.0
	Widow	5	1.3
	Total	400	100
Monthly Income	Less than 30,000	109	27.3
	30000-60000	142	35.5
	60000-90000	71	17.8
	90000-120000	45	11.3
	Above 120000	33	8.3
	Total	400	100

Reliability Test of Instrument

Table 2: Reliability Test

Variables	Cronbach's Alpha Value
Customer Satisfaction	0.773
Reliability	0.823
Responsiveness	0.818
Assurance	0.723
Empathy	0.789
Tangibles	0.787

The reliability test was conducted using cronbach’s Alpha and the Overall Cronbach’s Alpha is 0.7 which indicates the items used to measure the construct is reliable.

Descriptive Analysis

Table 3: Descriptive Statistics of dependent and independent variables

	CS	REL	RES	ASS	EMP	TAN
Minimum	1.25	1.4	1.2	1.2	1	1
Maximum	5	5	5	5	5	5
Mean	3.563	3.381	3.250	3.243	3.027	3.321
Std. Deviation	1.183	0.938	0.880	0.943	1.044	1.059

In the above table, we can see, in relation to the Customer Satisfaction, the average was 3.56 with a standard deviation of 1.18. For Reliability, the average was 3.38 with a standard deviation of 0.93. With respect to Responsiveness, the average was 3.25 with a standard deviation of 0.88. For

Assurance, the average was 3.24, with a standard deviation of 0.94. For Empathy, the average was 3.02 with a standard deviation of 1.04. Finally, with respect to Tangibles, the average was 3.32, along with a standard deviation of 1.05.

Correlation Analysis

Table 4: Correlation Analysis

	Customer Satisfaction	Reliability	Responsiveness	Assurance	Empathy	Tangibles
Customer Satisfaction	1	.620**	.533**	.106*	.524**	.586**
Reliability		1	.602**	.182**	.563**	.573**
Responsiveness			1	.176**	.551**	.688**
Assurance				1	0.098	.207**
Empathy					1	.606**
Tangibles						1
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 4 shows the result of correlation among the dependent and independent variables. Reliability (r = 0.620) and tangibles (r = 0.586) exhibit strong positive associations, emphasizing the importance of consistent service delivery and physical presentation. Responsiveness (r = 0.533) and empathy (r = 0.524) also show moderate positive correlations, highlighting the value of timely responses and empathetic interactions. While assurance (r = 0.106) demonstrates a weaker positive correlation, it remains a factor in customer satisfaction.

Multiple Regression Analysis

Table 5: Summary of Result of Multiple Regression Analysis

Model	Constant	REL	RES	ASS	EMP	TAN	R2	F	sig
Coefficient	0.466	0.373	0.091	-0.039	0.136	0.276	0.478	72.162	0.000*
Sig	(0.027)	(0.000)	(0.172)	(0.300)	(0.011)	(0.000)			
Vif		(1.848)	(2.204)	(1.057)	(1.814)	(2.302)			

Note. * Results are significant at 5 percent level of significance, ** Results are significant at 1 percent level of significance. Figure in the parentheses indicate level of significance and variance inflation factor respectively.

Table 5 depicts the result of regression analysis. The dependent variable is Customer Satisfaction and Independent Variables are Reliability, Responsiveness, Assurance, Empathy, Tangibles. The result presented in this table shows that sig. value of F statistics (F=72.162, Sig=0.000) which implies that model is significant at 1 percent level of significance. Likewise, the value R² is 0.478, it means the independent variables Reliability, Responsiveness, Assurance, Empathy, Tangibles explain 47.8% of variation in the dependent variable which is Customer Satisfaction and other variation is explained by other factors.

Reliability has a coefficient of 0.373 (p < 0.001), suggesting that for every unit increase in reliability, customer satisfaction increases by 0.373 units. Responsiveness has a coefficient of 0.091, which is not statistically significant (p = 0.172), indicating that there is no significant relationship between responsiveness and customer satisfaction in this model. Assurance has a coefficient of -0.039, also not statistically significant (p = 0.300), suggesting no significant impact on customer satisfaction. Empathy has a coefficient of 0.136 (p < 0.05), indicating that empathy positively influences customer satisfaction. Tangibles has a coefficient of 0.276 (p < 0.001), indicating a positive relationship between tangibles and customer satisfaction.

Table 6: Summary of Hypothesis Test

Statement	Hypothesis	P-Value	Remarks
There is significant relationship between reliability and customer satisfaction.	H ₁	0.000	Accept
There is significant relationship between responsiveness and customer satisfaction.	H ₂	0.000	Accept
There is significant relationship between assurance and customer satisfaction.	H ₃	0.000	Accept
There is significant relationship between empathy and customer satisfaction.	H ₄	0.000	Accept
There is significant relationship between tangibility and customer satisfaction.	H ₅	0.000	Accept
There is significant effect of reliability on customer satisfaction.	H ₆	0.000	Accept
There is significant effect of responsiveness on customer satisfaction.	H ₇	0.172	Reject
There is significant effect of assurance on customer satisfaction.	H ₈	0.300	Reject
There is significant effect of empathy on customer satisfaction.	H ₉	0.011	Accept
There is significant effect of tangibility on customer satisfaction.	H ₁₀	0.000	Accept

Model Diagnostic Tests

The various diagnostic test such as: Reliability test, Normality test, Homoscedasticity test, Multicollinearity test has been done before running the model which are shown below in the paper. Each of the diagnostic test fulfill its requirements.

Detection of Multicollineraty

The variance inflation factor of all independent variables (VIF_{REL}=1.848, VIF_{RES}=2.204, VIF_{ASS}=1.057, VIF_{EMP}=1.814, VIF_{TAN}=2.302) is less than 10 therefore the model is free from the problem of multicollinearity.

Normality Test

For the purpose of testing normality of residuals KS and SW test has been performed and the result of analysis has been reported which shows that the sig value of KS and SW test is more 0.05. So, the residuals are normally distributed.

Conclusions

In conclusion, this study aimed to measure the impact of e-banking on customer satisfaction examine the relationship between E-banking service quality and customer satisfaction and to measure the effect of E-banking service quality on

customer satisfaction. The research was conducted with 400 randomly selected respondents in both descriptive and inferential research statistical tool for the analysis of the data. It is found that Reliability, Empathy and Tangibility has positive significant effect on customer satisfaction. However, Responsiveness and Assurance has insignificant effect. The findings highlight the importance of prioritizing efforts to enhance reliability, empathy, and tangibility in service delivery to maximize customer satisfaction and ultimately improve bank & financial institutions and business performance. Future research may explore additional factors that contribute to customer satisfaction and investigate potential strategies for improving responsiveness and assurance to further enhance overall customer experiences. In summary, the research underscores the significance of various service quality dimensions in shaping customer satisfaction and provides valuable insights for businesses seeking to optimize their service delivery strategies to meet customer expectations and foster long-term loyalty.

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