

Electronic Banking and Its Impact on Customer Satisfaction of Nepalese Commercial Banks

Guna Raj Chhetri, Ph.D.

Associate Professor, Balkumari College, T.U., Chitwan

e-mail: grchhetri1@gmail.com

<https://orcid.org/0009-0004-5195-2228>

<https://doi.org/10.3126/pravaha.v29i1.71412>

Abstract

Electronic Banking and its impact on customer satisfaction of Nepalese commercial banks explores the relationship between internet banking and customer satisfaction. Internet banking allows customers to conduct real-time banking transactions electronically, offering convenience and accessibility.

Utilizing a descriptive and casual comparative research design, the study examines internet banking users across 20 commercial banks in Nepal, focusing on Nepal Investment Bank Limited, Nabil Bank Limited, and Himalayan Bank Limited. Through purposive sampling, 150 respondents were selected, with 50 from each bank, for primary data collection. The findings indicate high levels of satisfaction with online banking services, with respondents expressing agreement on various aspects such as ease of website navigation, meeting personal needs, and prompt service delivery. Correlation analysis reveals positive and significant relationships between customer satisfaction and key factors including efficiency, personal need fulfillment, reliability, responsiveness, site organization, and user friendliness. Findings suggest that a strong association between internet banking and customer satisfaction. These findings underscore the importance of internet banking in enhancing customer experience and satisfaction within the Nepalese commercial banking sector. Electronic banking and its impact on customer satisfaction of Nepalese commercial banks.

Keywords: *Correlation Analysis; Customer Satisfaction; Descriptive Research; Internet Banking; Nepalese Commercial Banks*

Cite this paper

Chhetri, G. R. (2023). Electronic Banking and Its Impact on Customer Satisfaction of Nepalese Commercial Banks. *Pravaha*, 29(1), 123-130.

Introduction

The Nepalese banking sector is currently experiencing a significant paradigm shift, with the emergence of electronic banking technologies reshaping customer satisfaction dynamics. In the context of Nepal, where traditional banking practices have long been the norm, the integration of electronic banking solutions represents a pivotal transformation in how customers perceive and engage with banking services. Customer satisfaction in the banking sector is a multifaceted concept, influenced by various factors such as the quality of services and products, employee behavior, service charges, and accessibility. Within the Nepalese context, where cash transactions have traditionally been prevalent due to factors like ease of use and familiarity, the adoption of electronic banking poses both challenges and opportunities for commercial banks.

The satisfaction of customers within the Nepalese banking sector is inherently tied to the ongoing process of consuming banking products and services. As highlighted by Kombo (2015), customer satisfaction is not a static phenomenon but rather a manifestation of ongoing interactions and experiences with a bank. The landscape of Nepalese commercial banking is undergoing a profound transformation with the rapid integration of electronic banking technologies. As highlighted by Thapaliya (2018), Khanal (2019), Shrestha (2020), and Thapa (2021), the

advent of electronic banking, including internet banking, mobile banking, and online payment systems, signifies a pivotal shift in how customers perceive and interact with banking services.

A study conducted in 2001 by Jun and Cai examined how Pakistani banks' profitability was affected by e-banking. According to their research, banks are now more profitable thanks to e-banking, which allows them to quickly cover their expenses and turn a profit. Additionally, it is not believed that clients' lack of literacy poses a significant barrier to their product delivery. Additionally, Agwu (2013) conducted a critical evaluation of Unity Bank PLC's e-banking platform and discovered that banks have an efficient e-banking system that has increased client satisfaction. Azeez (2011) then investigated the potential of online banking in poor nations. According to the survey, e-banking offers the Nigerian banking industry a number of consistent benefits. It also establishes rewards for transactions, such as bank transfers. Daniel (1998) examined online banking and the functioning of micro and small businesses in Costa Rica. The findings indicated that these businesses use the internet sparingly for day-to-day operations due to poor computer access and low internet service penetration. According to Daniel (1999), referenced in Isibor, Babajide, Akinjare, Oladeji, and Osuma (2018), online banking transactions have no appreciable effect on risk profile or performance. Thus, he came to the conclusion that big credit unions in the UK and Australia have not found that internet banking is a useful instrument for improving performance. In a similar vein, Garuba (2010) asserted that e-banking has improved customer happiness, enhanced operational effectiveness, shortened transaction times, improved competitive advantage, decreased operating costs, and ushered in rapid service delivery.

Despite the commendable efforts of banks to embrace digital innovations, challenges such as security concerns and technological infrastructure limitations persist. Nonetheless, with the government's strategic initiatives to support ICT infrastructure, there is a clear momentum towards digital transformation within the Nepalese banking sector.

Factors such as the accessibility of banking services, the efficiency of transaction processes, and the reliability of digital platforms all play crucial roles in shaping customer perceptions and satisfaction levels. As highlighted by Huat (2016), understanding these determinants is essential for formulating effective strategies to enhance customer satisfaction in the banking sector. In Nepal, the adoption of internet banking, mobile banking, and other electronic means of banking represents a strategic imperative for commercial banks seeking to retain and attract customers. The primary aim of this study is to assess customer satisfaction in internet banking services provided by Nepalese commercial banks, with specific objectives including examining the status of customer satisfaction, evaluating the relationship between key factors such as reliability, responsiveness, user-friendliness, and personal needs of services, and analyzing their impact on internet banking services.

Research Methods

The research design employed in this study encompasses both descriptive research and casual comparative research, aiming to elucidate customer satisfaction in internet banking services offered by Nepalese commercial banks and its necessity in the contemporary era. The population under study comprises customers utilizing internet banking services across 20 commercial banks operating in Nepal (www.nrb.org.np). However, for the purpose of this research, a purposive sampling technique was employed, selecting three prominent commercial banks: Nepal Investment Bank Limited, Nabil Bank Limited, and Himalayan Bank Limited. The sample size comprised 50 respondents from each bank, totaling 150 respondents for primary data collection.

Data collection procedures involved primary source, with primary data obtained through questionnaire administration. The collected quantitative data underwent analysis utilizing various statistical tools and techniques, including mean, standard deviation, and coefficient of variation, regression analysis, multiple regression analysis, and ANOVA (Analysis of Variance).

The research framework employed in this study depicted the relationship between independent variables (efficiency, personal needs, reliability, responsiveness, site organization, user friendliness) and the dependent variable (customer satisfaction) in internet banking services offered by Nepalese commercial banks.

Independent Variables

Dependent Variable

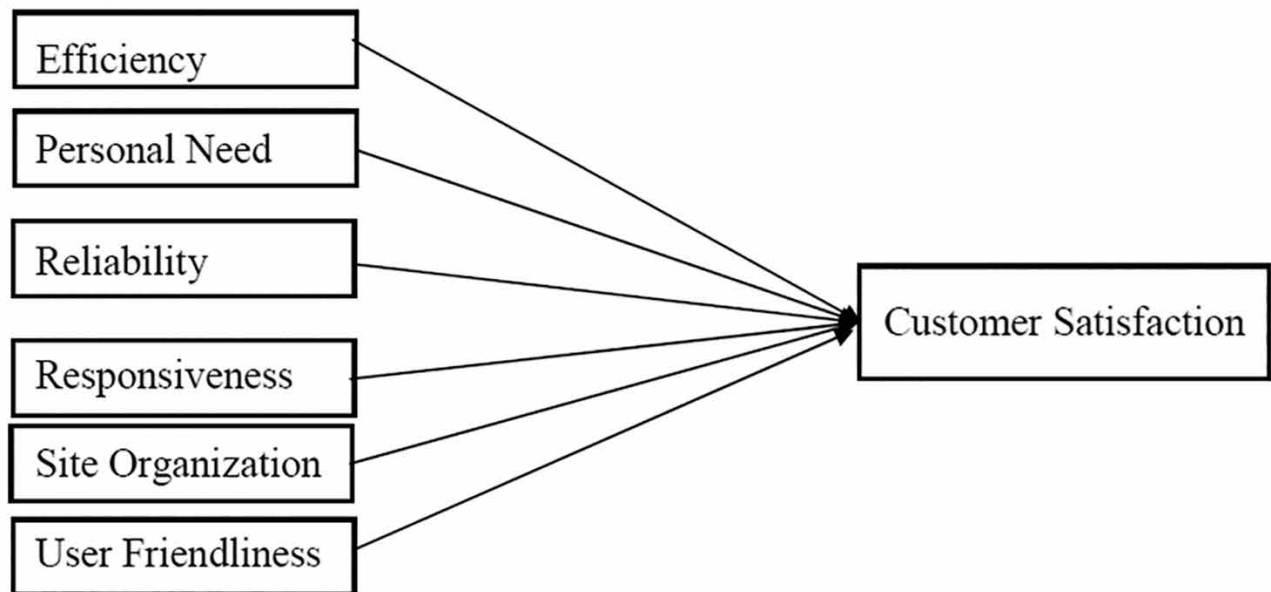


Figure 1: Conceptual frame work of Customer Satisfaction regarding the electronic banking of Nepalese Commercial Banks

Hypothesis Testing

- H1: There is a significant impact of efficiency on electronic customer satisfaction.
- H2: There is a significant impact of personal need on electronic consumer satisfaction.
- H3: There is a significant impact of reliability on electronic customer satisfaction.
- H4: There is a significant impact of responsiveness on electronic customer satisfaction.
- H5: There is a significant impact of site organization on electronic customer satisfaction.
- H6: There is a significant impact of user’s friendliness on electronic customer satisfaction.

Reliability and Validity

Validity and reliability of data were ensured through extensive investigations, emphasizing construct validity, thoroughness, accuracy, and external validity. Pretesting and piloting of instruments were conducted to assess and revise data collection instruments, ensuring consistency and reliability in data collection procedures across all respondent groups.

Data Analysis

Out of 150 respondents, 51.3% were male, and 48.7% were female. The majority of respondents (35.3%) fell within the 24-30 years age group, followed by 28% in the 18-23 years age group, with smaller proportions in higher age brackets. Regarding economic status, 45.3% of respondents reported earning between Rs. 10,000 to Rs. 15,000 monthly, while 30% reported earnings above Rs. 15,000, and 24.7% reported earnings below Rs. 10,000. Additionally, 45.3% of respondents held bachelor's degrees, 30% had attained master's degrees or higher, and 24.7% had completed education up to the +2 level (Table 1).

Table 1

Demographic Characteristic of Respondents

Characteristic	Frequency	Percent
Gender		
Male	77	51.3
Female	73	48.7
Age Group in years		
<18	8	5.4
18-23	42	28.0
24-30	53	35.3
31-36	21	14.0
37-42	15	10.0
>42	11	7.3
Income status		
Below Rs. 10000	36	24.7
Rs. 10000 to Rs. 15000	48	45.3
Above Rs. 15000	66	30.0
Education Level		
+2 Level	37	24.7
Bachelor Degree	68	45.3
Master and above	45	30.0

Source of Information and Uses of Internet Banking

Table 2 presents descriptive statistics regarding the sources of information and usage patterns of internet banking services in Nepal. The majority of respondents relied on print media (48%) as their primary source of information, followed by electronic media (24.7%), friends/relatives (22%), respective banks (4%), and TV/radio (1.3%). In terms of usage duration, 36% of respondents reported using internet banking for more than three years, 35.3% for less than one year, and 28.7% for 1-2 years.

Table 2

Source of Information and Uses of Internet Banking

Variables	Frequency	Percent
Sources of Information		
Respective Bank	6	4.0
Print Media	72	48.0
Electronic Media	37	24.7
Television/Radio	2	1.3
Friends/Relatives	33	22.0
Use of Internet Banking Service		
Less than 1 Year	53	35.3
1-2 Years	43	28.7
More than 2 Years	54	36.0

Correlation Analysis

Bivariate correlation analysis, employing Pearson correlation coefficients (r), was conducted to establish relationships between the dependent variable, Customer Satisfaction (CS), and independent variables: Efficiency (EF), Personal Need (PN), Reliability (REL), Responsiveness (RES), Site Organization (SO), and User Friendliness (UF). According to Taylor (1990), correlation strengths are interpreted as follows: $r \leq 0.35$ indicates weak correlation, $0.35 < r < 0.68$ indicates moderate correlation, and $r \geq 0.68$ indicates strong correlation. The

results revealed that Efficiency ($r = 0.790, p < 0.001$) exhibited a highly positive correlation with Customer Satisfaction. Similarly, Personal Need ($r = 0.763, p < 0.001$), Reliability ($r = 0.632, p < 0.001$), Responsiveness ($r = 0.567, p < 0.001$), Site Organization ($r = 0.580, p < 0.001$), and User Friendliness ($r = 0.742, p < 0.001$) also demonstrated positive correlations of varying degrees with Customer Satisfaction. These findings underscore the importance of efficiency, personal need fulfillment, reliability, responsiveness, site organization, and user friendliness in influencing and enhancing customer satisfaction in the context of internet banking services (Table 3).

Table 3

Pearson's Correlation coefficient between customer satisfactions with predictors

Variable	CS	EF	PN	REL	RES	SO	UF
CS	1	0.790**	.763**	.632**	.567**	.580**	.742**
EF		1	.780**	.626**	.570**	.623**	.732**
PN			1	.716**	.652**	.608**	.805**
REL				1	0.632**	.474**	.726**
RES					1	.543**	.671**
SO						1	.563**
UF							1

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

Regression Analysis

The findings from the analysis of the relationship between customer satisfaction and six different predictors independently revealed significant correlations. For efficiency, a high degree of positive correlation ($R = 0.79$) was observed, indicating a strong association between customer satisfaction and efficiency in internet banking. The coefficient of determination ($R^2 = 0.625$) suggests that 62.5% of customer satisfaction can be attributed to efficiency. Similarly, personal need demonstrated a high degree of positive correlation ($R = 0.763$), with 58.2% of customer satisfaction being influenced by personal need ($R^2 = 0.582$). Reliability exhibited a moderate degree of positive correlation ($R = 0.632$), with 40% of customer satisfaction attributable to reliability ($R^2 = 0.400$). Responsiveness also showed a moderate degree of positive correlation ($R = 0.567$), with 32.1% of customer satisfaction being affected by responsiveness ($R^2 = 0.321$). Site organization demonstrated a moderate degree of positive correlation ($R = 0.580$), with 33.6% of customer satisfaction influenced by site organization ($R^2 = 0.336$). Lastly, user friendliness exhibited a high degree of positive correlation ($R = 0.742$), with 55.1% of customer satisfaction attributed to user friendliness ($R^2 = 0.551$). These results underscore the importance of efficiency, personal need, reliability, responsiveness, site organization, and user friendliness in influencing customer satisfaction in internet banking (Table 4).

Table 4

Coefficients of determination of each model

Variable	R	R ²	SE
Efficiency	0.790	0.625	0.383
Personal Need	0.763	0.582	0.405
Reliability	0.632	0.400	0.485
Responsiveness	0.567	0.321	0.516
Site Organization	0.580	0.336	0.510
User Friendliness	0.742	0.551	0.419

The results of hypothesis testing examining the association between customer satisfaction and six different independent variables (efficiency, personal need, reliability, responsiveness, site organization, and user friendliness) in the context of internet banking. Linear regression analyses were conducted for each hypothesis, with the findings

indicating significant associations between customer satisfaction and each independent variable. The p-values for all tests were found to be <0.001, indicating a highly significant relationship between customer satisfaction and efficiency, personal need, reliability, responsiveness, site organization, but insignificant with user friendliness (p-value=0.71) in internet banking. These results highlight the importance of these factors in influencing customer satisfaction of internet banking services (Table 5).

Table 5

ANOVA of Customer Satisfaction with Efficiency, Personal need, Reliability, Responsiveness, Site organization, and User friendliness

Predictors	Model	SS	DF	MSE	F-value	P-value	Conclusion
Efficiency	Regression	36.24	1	36.24	246.49	<0.001	Significant
	Residual	21.76	148	0.147			
Personal Need	Regression	33.78	1	33.78	206.34	<0.001	Significant
	Residual	24.23	148	206.34			
Reliability	Regression	23.17	1	23.17	98.476	<0.001	Significant
	Residual	34.83	148	0.235			
Responsiveness	Regression	18.65	1	18.65	70.127	<0.001	Significant
	Residual	39.35	148	0.266			
Site origination	Regression	19.51	1	19.51	75.004	<0.001	Significant
	Residual	38.49	148	0.260			
User Friendliness	Regression	31.96	1	31.96	0.131	0.71	Insignificant
	Residual	26.04	148	0.176			

The present the results of relationship analyses between customer satisfaction and six independent variables (efficiency, personal need, reliability, responsiveness, site organization, and user friendliness) in the context of internet banking. The t-values for each relationship ranged from 8.374 to 15.70, with corresponding p-values of <0.001 for all tests, indicating highly significant associations between customer satisfaction and each independent variable. These findings confirm the strong and significant relationships between customer satisfaction and efficiency, personal need, reliability, responsiveness, site organization, and user friendliness in the realm of internet banking services (Table 6).

Table 6

Regression Coefficients of Efficiency on Customer Satisfaction with Efficiency, Personal need, Reliability, Responsiveness, Site organization, and User friendliness

Predictors	Model	Regression Coefficients	t-value	p-value
Efficiency	Constant	1.108	5.07	<0.001
	Efficiency	0.777	15.70	<0.001
Personal Need	Constant	1.743	10.278	<0.001
	Personal Need	0.669	14.365	<0.001
Reliability	Constant	-0.206	-0.470	<0.001
	Reliability	1.073	9.923	<0.001
Responsiveness	Constant	0.803	2.007	0.047
	Responsiveness	0.815	8.374	<0.001
Site origination	Constant	1.070	3.003	0.003
	Site Organization	0.718	8.660	<0.001
User Friendliness	Constant	0.275	0.953	0.342
	User Friendliness	0.955	13.48	<0.001

Discussion

The findings from Thapaliya (2018), Khanal (2019), Shrestha (2020), and Thapa (2021) shed light on various aspects of banking services in Nepal, particularly emphasizing the shift towards internet banking and the associated security measures. Thapaliya highlighted the dissatisfaction with the traditional banking system, citing long processing times as a significant concern among customers, driving the demand for faster and more secure banking services. Khanal pointed out the security measures implemented by banks offering online banking services, ensuring password protection, SSL protocol, and firewall setup for secure transactions. Shrestha's study revealed gaps in credit card facilitation within organizations, with most banks offering VISA and Master Card options. Thapa's study concluded that despite descriptive findings on credit card usage, further analytical research is warranted. In this study, reliance on print media as an information source was predominant, while respondents expressed high satisfaction with various aspects of online banking services. The positive and significant correlation coefficients between customer satisfaction and efficiency, personal need, reliability, responsiveness, site organization, and user friendliness underscore the importance of these factors in influencing overall customer satisfaction. Consequently, all hypotheses regarding these relationships were accepted, indicating the robustness of the relationships observed in the study.

Conclusion

This study examines the state of customer satisfaction in internet banking services provided by Nepalese commercial banks, with specific objectives focused on analyzing the relationships between efficiency, personal need, reliability, responsiveness, site organization, and user friendliness with customer satisfaction in internet banking. It underscores the growing importance of electronic banking among Nepalese commercial banks to remain competitive and attract new market segments. The findings highlight the adoption of internet banking as a strategic tool and innovative service by Nepalese banks. The study offers valuable insights for IT policymakers and commercial banks, aiding in the formulation of appropriate strategies and improvements in banking services. The conclusions drawn from the research emphasize the positive correlation between customer satisfaction and various aspects of internet banking. The implications of the study suggest the need for consumer awareness regarding internet banking technology and security measures, along with the enactment of new laws and regulations to safeguard consumer rights and enhance internet banking services in Nepal.

References

- Agwu, E. From reluctance to resistance of the adoption of internet banking services in selected cities of the United Kingdom. *International Journal of Customer Relationship Marketing and Management*, 4(4) (2013), pp. 41-56.
- Azeez, K. Cyber insecurity threatens Nigeria cashless economy drive, 2011, Online manual, <http://www.nationalmirroronline.net>
- Daniel, E. Online banking: winning the majority, *Journal of Financial Services Marketing*, 2(3), 1998, pp. 259-270.
- Daniel, E. Provision of electronic banking in the UK and the Republic of Ireland, *International Journal of Bank Marketing*, 17(2), 1999, pp. 142 – 149.
- Garuba, A.O. Cash lodgment in the Nigerian banking industry, *Benin Journal of Social Sciences*, 18(1), 2010, pp. 20-26.
- Huat, T. S. (2016). Customer Satisfaction of Internet Banking: A Case Study in Malacca. *Journals of Economics and Finance*, 3(5) 80-85.
- Isibor, A. A., Babajide, A. A., Akinjare, V., Oladeji, T., and Osuma, G. The effect of public debt on economic growth in Nigeria: An empirical investigation. *International Business Management*, 12(6), 2018, 436 – 441.
- Jun, M. and Cai, S. The key determinants of internet banking service quality: A content analysis, *The International Journal of Bank Marketing*, 19(7), 2001, pp. 276-91.
- Khanal, M. R. (2019). *Online Banking in Nepal*. Kathmandu: An Unpublished Masters' Degree Thesis Submitted

to T. U.

Kombo, F. (2015). Customer Satisfaction in the Kenyan Banking Industry. *Journal of International Studies*. 8 (2), 174-186.

Shrestha, I. (2020) *Comparative Study of Credit Card of Himalayan Bank Limited with Standard Chartered Bank Nepal Limited & NABIL Bank Limited*. Kathmandu: An Unpublished Masters' Degree Thesis Submitted to T. U.

Thapa, C. B. (2021). *Prospect and Challenges of Credit Card Business in the Banking Sector of Nepal*. Kathmandu: An Unpublished Masters' Degree Thesis Submitted to T. U.

Thapaliya, D. (2018). *Future Prospects of Online Banking in Nepal*. Kathmandu: An Unpublished Masters' Degree Thesis Submitted to T. U.