

# INVESTIGATING ELECTRONIC BANKING SERVICES ON CUSTOMER SATISFACTION IN COMMERCIAL BANKS

## PUSHPA NIDHI AMGAIN

Faculty Member of Prithvi Narayan  
Campus, TU

Mobile: 9856069090

email: amgainpushpanidhi84@gmail.com

## NARMADA KOIRALA

Research Scholar, Kanya Campus  
Pokhara, TU

Mobile: 9846818580

email: koiralanarmada@gmail.com

### KEYWORDS:

Convenience, customer satisfaction,  
responsiveness, service quality,  
technology acceptance model (TAM)

### ABSTRACT

This study aims to investigate of electronic banking services on customerssatisfactionincommercial banks in Syangja, Nepal. With the increasing reliance on digital banking, the research is grounded in the significance of service quality, convenience, security, cost, privacy, and responsiveness in shaping customers' experiences and overall satisfaction guided by Technology Acceptance Model (TAM) and SERVQUAL Model. A descriptive and causal comparative research design was used with a structured survey questionnaire as the instrument for data collection. The study surveyed 200 e-banking users from commercial banks, out of which 194 valid responses were obtained through random sampling. Quantitative methods, including descriptive statistics, correlation analysis, and regression analysis, were applied to evaluate the influence of key variables on customer satisfaction. The findings

revealed that privacy, responsiveness, convenience, and security significantly affect customer satisfaction, while cost showed no significant impact. The results aligned with both global and local empirical studies and supported the TAM and SERVQUAL theoretical frameworks. The study concludes that Nepalese banks should focus on enhancing digital infrastructure, data privacy, and customer support to improve satisfaction. The implications are relevant for researchers, bankers, and policymakers in developing more efficient and customer-oriented e-banking services. Future research direction could be gender as moderating variables the effect of e-banking services on customer satisfaction in Nepali commercial banks.

**JEL Classification:** G20, L86, M31

## INTRODUCTION

Electronic banking, sometimes known as e-banking, is the provision of banking products and services via electronic delivery channels therefore enabling consumers to make banking transactions from anywhere and at any time. It includes financial services like electronic fund transfers, mobile banking, online banking, and automated teller machines (Robinson, 2000; Ahmad & Albu, 2011). The development of e-banking has changed the financial services by allowing commercial banks to provide 24/7 services and lower costs and improve customer convenience (Guru et al., 2001; Sharma, 2011). Electronic banking is a financial innovation that allows customer to perform transactions digitally without visiting physical bank branches (Hussien & El Aziz, 2013; Kumar, 2022). The development of digital platforms has significantly enhanced the efficiency of traditional banking services, allowing for easier access to banking functions fund transfers and account management (Ahmad & Albu, 2011; Rashidi & Mansoori, 2015). E-banking service quality, especially in terms of convenience, cost, security, and responsiveness have a strong influence on customer satisfaction (Ghimire, 2021; Worku et al., 2016). The availability of 24/7 services via mobile or internet banking has reduced dependency on branch-based services (Pradhan, 2019; Shah, 2016), though challenges like system

errors and persist (Kampakaki & Papathanasiou, 2016; Sharma, 2011). Customers expect banks to protect their personal and financial data using technologies like encryption and multi-factor authentication (Hamid et al., 2018; Singh, 2020). Cost is a factor affecting customer perception of e-banking. While it generally reduces transportation and time costs, transaction charges can negatively impact user satisfaction (Rathi, 2022). Some commercial banks offer free services however, others impose fees on online transfers, bill payments, and similar transactions (Allada & Dubey, 2014; Kumbhar, 2011). The responsiveness of banks defines as their ability to promptly address customer issues and disputes plays role in satisfaction levels (Gaudel, 2021; Shah, 2016). Quick resolutions, helpful customer support, and proactive service enhance trust and encourage continued use of e-banking (Ahmad & Albu, 2011; Singh, 2020).

This study aims to assess how e-banking service factors such as convenience, cost, privacy, security, and responsiveness affect customer satisfaction in commercial banks within the Syangja district. The rapid advancement of financial technology has transformed client interactions with banking services through enhanced efficiency, security, and reduced transaction costs. However, in developing areas such as Syangja, customer satisfaction with e-banking services remains a significant issue, despite the increasing utilization (Ghimire, 2021). Customers' perceptions and satisfaction levels with e-banking are influenced by various factors, including service reliability, security threats, transaction costs, and the responsiveness of financial institutions. Moreover, there is a positive correlation between the quality of e-banking services and customer satisfaction in global level. The effectiveness of e-banking services in satisfying customers and identify the reasons behind their satisfaction is determined and guided by the available banking infrastructure of the region and the increasing digital knowledge (Rathi, 2022). The purpose of this study is to investigate the impact of electronic banking services on customers satisfaction. The rationale for this study growing importance of electronic banking on customer satisfaction within the financial sector in Syangja. As commercial banks adopt digital platforms, understanding the factors that influence customer perceptions and experiences becomes essential. This paper aims to help commercial

banks understand how specific service attributes like perceived cost, security, ease of use, and customer support affect customers satisfaction.

## REVIEW OF LITERATURE

Convenience plays a key role in how satisfied customers feel with e-banking services. It allows e-banking users to do banking anytime and from anywhere without visiting a bank branch. Features like 24/7 access, user-friendly platforms, and mobile banking apps help improve the customer experience by saving time and effort. Many researchers have found that when banking services more convenient, customers are more likely to be happy with the service (Hamid et al., 2018; Toor et al., 2016; Kumar, 2024).

The technology acceptance model (TAM), developed by Fred Davis in 1986, is one of the most widely used frameworks for understanding technology adoption behaviors. As an extension of the theory of reasoned action (TRA), TAM examined that individuals' behavioral intention to use a particular technology is primarily determined by two cognitive beliefs: perceived usefulness and perceived ease of use (Robinson, 2000; Rathi, 2022). These beliefs emphasized users' attitudes toward a banking system, which in turn influence their intention to use it and their actual system usage behavior (Kumar, 2024; Sharma, 2011). Perceived usefulness refers to the extent to which users believe that using a digital banking service will enhance the efficiency and effectiveness of their financial activities (Addai et al., 2015; Ahmad & Albu, 2011). Customers are more likely to adopt e-banking platforms if they perceive them as reliable, time-saving, and capable of improving transaction convenience. In rural and semi-urban regions, where physical bank access may be limited, the practical utility of e-banking plays a role in e-banking user attitudes and satisfaction (Gaudel, 2021; Pradhan, 2019). Thus, the convenience and cost-effectiveness of digital services directly support the TAM. The study revealed that convenience positively influences customer satisfaction. Likewise, reliability also has a favorable effect on customer satisfaction. In addition, ease of use significantly enhances customer satisfaction. Security was also found to have a positive effect on

customer satisfaction. Moreover, perceived or transactional benefits positively contribute to customer satisfaction (Regmi & Sah, 2025).

*H1: There is a significant relationship between convenience (C) and the customer satisfaction (CS) in e-banking.*

The cost of using e-banking services effects on customer satisfaction. If the services are affordable or free, customers feel more positive about using them. On the other hand, if commercial banks charge high fees for online transfers or payments, customers may feel dissatisfied. Studies have shown that lower costs and good service quality together lead to higher satisfaction among e-banking users (Sharma, 2016; Ahmad & Al-Zubi, 2011; Altobishi et al., 2018; Hamid et al., 2018).

*H2: There is significant relationship between Cost (Co) and customer satisfaction (CS) in e-banking.*

Privacy is important because customers want their personal and financial information to be kept safe. Banks use tools like passwords, auto-logouts, and personal verification to protect users' data. If customers trust that their information is secure and private, they feel more satisfied using e-banking. Research confirmed that protecting privacy leads to customer satisfaction (Hussien & Aziz, 2013; Poon, 2008; Hammoud et al., 2018).

*H3: There is statistically significant relationship between privacy (P) and customer satisfaction in e-banking.*

Security is one of the most important factors for customer trust and satisfaction in digital banking. People want to know their money and data are protected from hackers or fraud. Strong security features like encryption and multi-factor authentication help customers feel safer. Many studies have shown a strong link between security and customer satisfaction in e-banking (Hamid et al., 2018; Pradhan, 2019; Gaudel, 2021; Kumar, 2022).

*H4: There is a significant relationship between security and customer satisfaction in e-banking.*

Responsiveness refers to how quickly and effectively commercial banks respond to customer questions, problems, or complaints. When banks provide fast help through call centers, chatbots, or email, customers feel heard and supported. Research has shown that good responsiveness increases customer satisfaction with e-banking services (Dhungana et al., 2023; Kampakaki & Papathanasiou, 2016; Toor et al., 2016).

*H5: Responsiveness and customer satisfaction in e-banking are statistically significant.*

Hamid et al. (2018) and Hussien and El Aziz (2013), primarily examine e-banking service quality in other countries, leaving a gap in understanding how these factors influence customer satisfaction in Nepal. Gaudel (2021) and Pradhan (2019) explore e-banking adoption in Nepal, they focus on broader urban areas, neglecting the unique experiences and challenges faced by customers in commercial banks. Furthermore, most existing literature employs general service quality frameworks such as SERVQUAL (Kampakaki & Papathanasiou, 2016; Toor et al., 2016). However, there is lack of localized perspective to Nepal's banking infrastructure and customer expectation. The findings suggest that the use of e-banking services significantly enhances customer satisfaction by improving accessibility, convenience, and transaction efficiency (Bhattarai et al., 2025).

## MATERIALS AND METHODS

This study was based on a descriptive and causal comparative research design. The descriptive research design was used to assess the demographic profile of respondents with electronic banking service while the causal comparative research design was applied to determine the impact of electronic banking service constructs on customer satisfaction. The population for this study consisted of e-banking users in Syangja, Nepal. As of mid-January 2025, there were 20 commercial banks in Nepal. A convenience sampling method was used to select for 200 respondents. Data collection was done through online surveys (121 responses gathered via Google forms) and physical surveys (79 responses). Out of the total, 6 responses were incomplete, resulting in 194 valid responses for data analysis.

The data collection process took one month. The respondents were from key areas such as Putalibazar, Adhikhola, and Setidovan. While the sample is considered adequate for statistical analysis, the limitations of convenience sampling and restricted digital access are acknowledged.

**Table 1: Reliability Test**

Constructs	Number of Respondents	Cronbach's Alpha	Reliability Level
Convenience (C)	194	0.842	Good
Cost (Co)	194	0.781	Acceptable
Security (S)	194	0.869	Good
Privacy (P)	194	0.874	Good
Responsiveness (R)	194	0.829	Good
Customer Satisfaction (CS)	194	0.888	Good

*Note: Authors Calculation*

Table 1 illustrates the reliability test that all constructs exhibit acceptable to good levels of internal consistency based on Cronbach's Alpha values. Customer satisfaction shows the highest reliability value of 0.888 which reflects a strong consistency among its measurement items. Privacy and security demonstrate good reliability with alpha values of 0.874 and 0.869 respectively. Convenience and responsiveness follow with reliability scores of 0.842 and 0.829, both categorized as good. Meanwhile, cost presents the lowest reliability at 0.781, which is still acceptable. Given that all constructs exceed the minimum acceptable threshold of 0.70, the data collection instrument used in this study is considered reliable for measuring electronic banking service quality and customer satisfaction. The

primary source of data was first-hand information collected directly from respondents through a structured survey ensuring that the data reflects the current experiences and perceptions of customers using e-banking services in Nepali commercial banks. The data collection of instruments involved a structured questionnaire designed to gather both demographic and variable-specific data. Demographic information such as age, gender, occupation, and banking experience was collected. The construct was measured using a five-point Likert scale from 1 'strongly disagree' to 5 'strongly agree'. The collected data was analyzed using IBM SPSS version 26, employing various statistical techniques. Descriptive analysis was used to summarize demographic information of respondents. Correlation analysis was conducted to examine the relationships between electronic banking service constructs and customer satisfaction. Multiple regression analysis was used to determine the impact of e-banking services on customer satisfaction, thereby establishing the causal relationships within the study.

### **The Model**

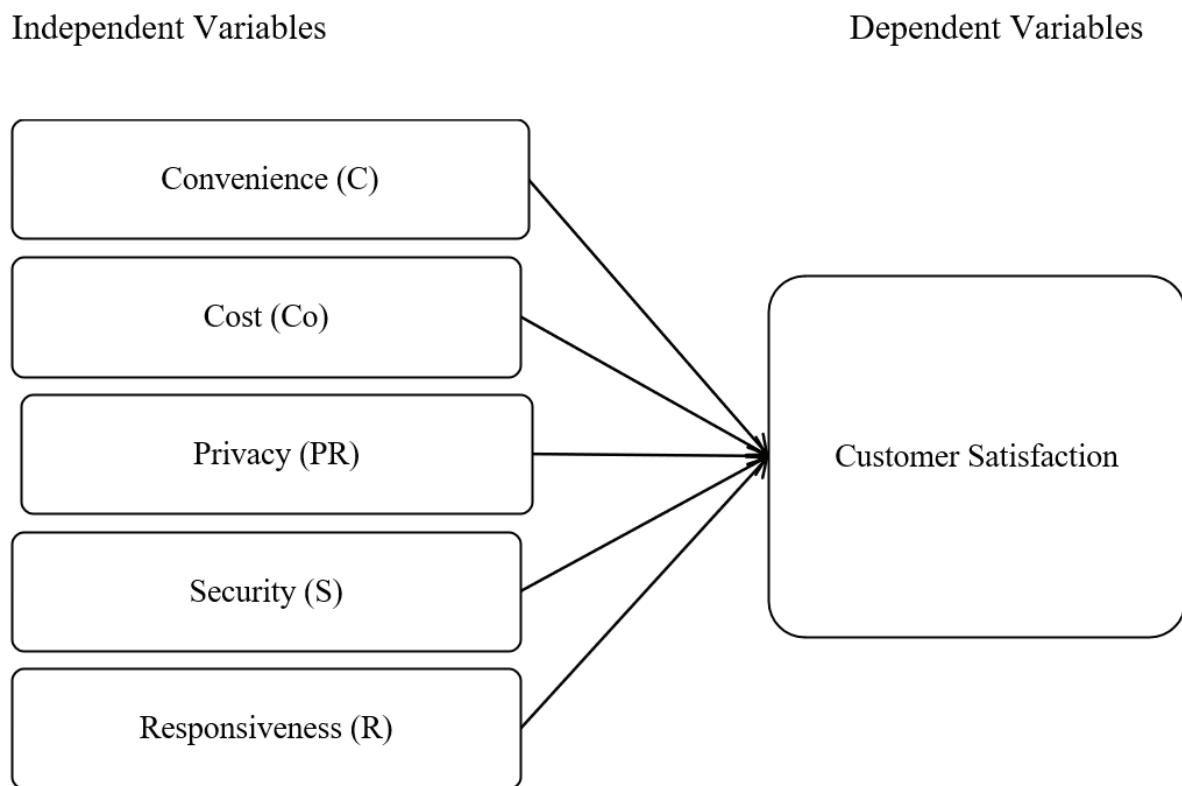
$$CS = \beta_0 + \beta_1 C + \beta_2 Co + \beta_3 PR + \beta_4 S + \beta_5 R + eit$$

Where, CS= customers satisfaction, C=convenience, Co = cost, PR = privacy, S= security, R= responsiveness, eit= error term

$\beta_0$ ,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$  and  $\beta_5$  are the beta coefficients of the explanatory variables to be estimated.

The research framework was based on the relationship between electronic banking service and customer satisfaction. In this study, independent variables included convenience, cost, privacy, security, and responsiveness for the study. The dependent variable was customer satisfaction (CS) in e-banking.

## Research Framework



Adapted from Adhikari (2024)

## RESULTS AND DISCUSSION

The respondent demographic profile serves as a foundational component of this study, which reflects the characteristics of individuals using electronic banking services. Demographic variables help to contextualize user preferences and satisfaction levels across diverse population segments along with banking experience and e-banking usage.

**Table 2: Demographic Profile of Respondents**

(Test Scale (N)=194)

Variables	Attributes	Frequency	Percentage
Age	18-24	71	36.60
	25-34	93	47.94
	35-44	25	12.89
	45-54	4	2.06
	55 and above	1	0.52
	Total	194	100.00
Gender	Male	90	46.39
	Female	104	53.61
	Total	194	100.00
Education	SLC/SEE	10	5.15
	Plus, Two/Intermediate	68	35.05
	Bachelor's Degree	65	33.51
	Master's Degree	48	24.74
	Other (please specify)	3	1.55
Occupation	Total	194	100.00
	Student	61	31.44
	Employed (full-time or part-time)	98	50.52
	Self-employed	23	11.86
	Unemployed	10	5.15
	Retired	2	1.03
	Total	194	100.00

	Below NPR 20,000	75	38.66
	NPR 20,000 - NPR 40,000	35	18.04
Income Level	NPR 40,001 - NPR 60,000	39	20.10
	NPR 60,001 - NPR 80,000	21	10.82
	Above NPR 80,000	24	12.37
	Total	194	100.00
Banking Experience	Less than 1 year	42	21.65
	1-3 years	65	33.51
	4-6 years	54	27.84
	7-10 years	20	10.31
	More than 10 years	13	6.70
	Total	194	100.00
	Daily	78	40.21
	Weekly	61	31.44
Frequency of Use	Monthly	26	13.40
	Rarely	29	14.95
	Total	194	100.00

*Note: Survey, 2025*

Table 2 illustrates the demographic profile of the respondents. The age distribution reveals that the majority of users fall within the 25–34 age group, comprising 47.94 percent, indicating that younger adults are the predominant users of e-banking platforms. This is followed by the 18–24 age group, which makes up 36.60 percent, further confirming the high adoption of digital banking among young. Gender-wise, there is a slightly higher proportion of female respondents (53.61 percent) compared to males (46.39 percent).

In terms of education, the largest segment of respondents has completed Plus Two/ Intermediate level (35.05 percent), followed closely by bachelor's degree holders (33.51 percent), and Master's degree holders (24.74 percent). This implies that a significant portion of e-banking users are relatively well-educated, which could contribute to better understanding and utilization of digital financial services. A smaller percentage completed only SLC/SEE (5.15 percent) or listed other qualifications (1.55 percent). Occupation-wise, the highest number of users are employed (50.52 percent), followed by students (31.44 percent), reflecting the active economic engagement and technological familiarity of these groups. Self-employed individuals account for 11.86 percent, while the unemployed and retired constitute 5.15 percent and 1.03 percent respectively. At income levels, 38.66 percent of respondents earn below NPR 20,000, and a further 18.04 percent fall within the NPR 20,000–40,000 range, suggesting that e-banking is also widely used among low-to-middle-income earners. Additionally, 20.10 percent earn NPR 40,001–60,000, while 10.82 percent and 12.37 percent fall in the NPR 60,001–80,000 and above NPR 80,000 ranges, respectively. In terms of banking experience, 33.51 percent of users have been using e-banking for 1–3 years, followed by 27.84 percent with 4–6 years of experience. Interestingly, 21.65 percent are new users with less than a year of experience, suggesting recent adoption trends. More seasoned users (7–10 years and above 10 years) make up 10.31 percent and 6.70 percent respectively.

The strength and direction of the relationships between electronic banking service factors: convenience (C), cost (Co), security (S), privacy (P), and responsiveness (R), and customer satisfaction (CS) in commercial banks.

**Table 3: Relationship Between Electronic Banking Services on Customers Satisfaction**

Variables	CS	C	Co	S	P	R
CS	1					
C		0.781**	1			
Co			0.663**	0.653*	1	
S				0.773**	0.746**	1
P					0.857**	1
R						0.704**
						1

\* Correlations are significant at the 0.01 level.

\*\* Correlations are significant at the 0.05 level.

Note: Authors Calculation

Table 3 illustrates that among the constructs, privacy (P) exhibits the strongest correlation with customer satisfaction, with a coefficient of 0.831. This implies that customers place more importance on the privacy of their personal and financial data when using e-banking services. Similarly, security (S) shows a strong positive relationship with customer satisfaction ( $r = 0.814$ ). Convenience (C) also shows a strong positive correlation with customer satisfaction, marked at 0.781, the value customers place on the ease of access, time-saving features, and usability of e-banking systems. The responsiveness (R) variable holds a moderately strong correlation with customer satisfaction ( $r = 0.721$ ). This means that efficient customer service and timely support contribute positively to consumer satisfaction. Cost (Co) has the lowest correlation with customer satisfaction among the factors, at 0.663. However, it represents a positive and moderate association. The interrelationships among the independent variables are also high, with the strongest being between privacy and security ( $r = 0.857$ ). This analysis confirmed that all e-banking

services significantly and positively influence on customer satisfaction, with privacy and security emerging as the most critical determinants.

The impact of electronic banking services on customer satisfaction is a critical area of investigation in the landscape of digital finance. In commercial banks, particularly in regions like Syangja, the effectiveness of electronic banking hinges on how well core service attributes convenience, cost, privacy, security, and responsiveness meet customer satisfaction. These factors not only influence the ease and efficiency of transactions but also affect users' trust and overall satisfaction with the banking experience.

**Table 4: Impact of Electronic Banking Service on Customers Satisfaction**

Constructs	Unstandardized Coefficients Beta	Std. Error	Standardized Coefficients Beta	t	Sig.	VIF
(Constant)	0.18	0.14		1.27	0.207	-
C	0.26	0.05	0.29	5.16	0.000	2.674
Co	(0.04)	0.06	(0.04)	(0.70)	0.482	2.622
S	0.16	0.09	0.15	1.89	0.060	5.367
P	0.42	0.07	0.39	5.61	0.000	4.101
R	0.19	0.06	0.18	3.19	0.002	2.603

Multiple R = 0.881, R Square = 0.777, Adjusted R Square = 0.771

Analysis of Variance (ANOVA) F = 130.997, Significant F = 0.000

Note: Authors Calculation

Table 4 illustrates that the impact of various electronic banking services such as convenience (C), cost (Co), security (S), privacy (P), and responsiveness (R)—on customer

satisfaction (CS) in commercial banks. The model demonstrates a strong explanatory power, as indicated by the multiple R value of 0.881, which denotes a high correlation between the observed and predicted values of customer satisfaction. Furthermore, the R square value of 0.777 indicates that approximately 77.7 percent of the variance in customer satisfaction can be explained by the combined effect of the five independent variables. The overall regression model is statistically significant, as shown by the ANOVA F-value of 130.997 with a p-value (Significant F) of 0.000, confirming that the model fits the data well.

Among the predictors, privacy (P) has the most significant and strongest positive impact on customer satisfaction, with a standardized beta coefficient of 0.39, a t-value of 5.61, and a significance level (p-value) of .000. This indicates that privacy-related concerns, such as data protection and confidentiality, are crucial determinants of e-banking satisfaction. Convenience (C) is the second most influential factor, with a standardized beta of 0.29, a t-value of 5.16, and a significant p-value of .000. It emphasized that the easy access, time-saving, and 24/7 availability in enhancing customer satisfaction. Responsiveness (R) also shows a statistically significant impact on customer satisfaction, with a standardized beta of 0.18, a t-value of 3.19, and a p-value of .002. This suggests that timely responses, efficient support, and customer service quality contribute positively to the e-banking experience. Security (S) has a positive but insignificant effect, with a standardized beta of 0.15, a t-value of 1.89, and a p-value of .060. The cost (Co) demonstrates a negative and statistically insignificant relationship with customer satisfaction, with a standardized beta of -0.04, a t-value of -0.70, and a p-value of .482. This indicates that the cost or fee structure of e-banking services does not significantly influence how satisfied customers feel.

Variance inflation factor (VIF) assess multicollinearity among the independent variables. Generally, a VIF value above 10 signals significant multicollinearity issues. Table 4 illustrates that all VIF values fall below that threshold value, with the highest being 5.367 for security and the lowest being 2.603 for responsiveness. Thus, the regression results are statistically reliable, and each variable's individual contribution to customer satisfaction can be interpreted with confidence.

**Table 5: Results of Hypotheses Test**

Hypothesis	Result	Remarks
H1: There is a significant relationship between convenience (C) and customer satisfaction (CS) in e-banking.	Accepted	Convenience has a significant positive impact on customer satisfaction ( $\beta_1 = .29$ , $t = 5.16$ , $p = .000$ ; $r = .781$ ).
H2: There is a significant relationship between cost (Co) and customer satisfaction (CS) in e-banking	Rejected	Cost does not have a significant impact on customer satisfaction ( $\beta_2 = -.04$ , $t = -.70$ , $p = .482$ ; $r = .663$ ).
H3: There is a statistically significant relationship between privacy (P) and customer satisfaction (CS) in e-banking.	Accepted	Privacy shows the strongest positive impact on customer satisfaction ( $\beta_3 = .39$ , $t = 5.61$ , $p = .000$ ; $r = .831$ ).
H4: There is a significant relationship between security (S) and customer satisfaction (CS) in e-banking.	Accepted	Security has a strong correlation but is only marginally significant ( $\beta_4 = .15$ , $t = 1.89$ , $p = .060$ ; $r = .814$ ).
H5: Responsiveness (R) and customer satisfaction (CS) in e-banking are statistically significant.	Accepted	Responsiveness has a significant positive effect on customer satisfaction ( $\beta_5 = .18$ , $t = 3.19$ , $p = .002$ ; $r = .721$ ).

*Note: Authors Calculation*

The study found that convenience (C) has a strong and statistically significant impact on customer satisfaction in e-banking services, with a standardized beta coefficient of 0.29 ( $p = .0000$ ). This supports hypothesis H1 and aligns with the correlation coefficient ( $r = 0.781$ ) between convenience and customer satisfaction, it means that the ability to

conduct transactions anytime, across devices, with time efficiency, significantly enhances user customer satisfaction. This finding the SERVQUAL model, were tangibles and reliability influence customer satisfaction. It also aligns with the technology acceptance model (TA), perceived ease of use is critical. Similarly, Rathi (2022) and Adhikari (2024) also highlighted convenience as a crucial in improving e-banking satisfaction in India and Nepal respectively.

Cost (Co) was not found to have a statistically significant effect on customer satisfaction in this study, with a p-value of .482 and a negative beta coefficient (-0.04), leading to the rejection of hypothesis H2. Although the correlation coefficient between cost and satisfaction is moderate ( $r = 0.663$ ), the regression analysis suggests cost factors do not directly predict customer satisfaction in the presence of other variables. This diverges slightly from Bhattarai (2023) and Kumar (2022), who emphasized cost-efficiency. However, in the context of TAM and SERVQUAL, while cost-effectiveness may enhance perceived value, it might not be a sufficient standalone factor to ensure satisfaction, especially when core service quality elements like security or responsiveness dominate.

Privacy (P) exhibited a strong positive relationship with customer satisfaction, with a standardized beta of 0.39 ( $p = .000$ ), the highest among all variables. The correlation with satisfaction was also very strong ( $r = 0.831$ ). These findings validate hypothesis H3 and emphasize the importance of secure handling of personal information in building customer trust. This result aligns with the SERVQUAL dimension of assurance and TAM's emphasis on trust and perceived security. Hammoud et al. (2018) and Adhikari (2024) support this view.

Security (S) demonstrated a strong relationship with satisfaction, with a correlation of .814 and a regression coefficient of 0.15, though slightly below the significance level ( $p = .060$ ). This suggests a near-significant influence, supporting hypothesis H4 with caution. Security features such as authentication methods, data protection, and fraud prevention are major drivers of customer confidence, aligning with both TAM and SERVQUAL's assurance component. Kampakaki and Papathanasiou (2016), Hamid et al. (2018), and

Kumar (2022) similarly identified security as a foundational pillar of e-banking satisfaction across different regions.

Responsiveness (R) was statistically significant with a beta value of 0.18 ( $p = .002$ ), confirming hypothesis H5. Correlation analysis ( $r = 0.721$ ) also supports the strong link between responsive service and satisfaction. Timely customer support, issue resolution, and feedback mechanisms are key responsiveness indicators under SERVQUAL. Pradhan (2019) reported customers were moderately satisfied, with issues in responsiveness and technical being major concerns. The study concluded that enhancing technical support and user interfaces would lead to better customer satisfaction outcomes in Nepali commercial banks.

The regression model's R Square value of 0.777 and adjusted R Square of 0.771 indicate that approximately 77.1 percent of the variance in customer satisfaction is explained by the five service factors analyzed (convenience, cost, security, privacy, and responsiveness). The model's F-value of 130.997 ( $p = .000$ ) suggests it is statistically significant overall. This comprehensive explanation of customer satisfaction through service quality dimensions validates both TAM and SERVQUAL frameworks as appropriate theoretical lenses for understanding e-banking satisfaction in Nepal. It mirrors findings by Ghimire (2021) and Gaudel (2021), who emphasized the same quality dimensions. With privacy, convenience, and responsiveness emerging as the strongest predictors, banks should prioritize improving security infrastructure, simplifying digital interfaces, and enhancing customer support systems. The insignificance of cost in this study suggests customers may be more concerned about value and experience than transaction charges. These conclusions are consistent with Adhikari (2024) and support it that competitive digital service quality not just pricing will drive future customer loyalty.

## CONCLUSIONS AND SUGGESTIONS

The study identified the demographic profile of the respondents using e-banking services. The majority of users were young adults aged 25–34 years, with a slightly higher proportion of female users. Most respondents were well-educated, mainly at the Plus Two and Bachelor's levels, and are primarily employed or students. E-banking services were commonly used by low-to-middle-income groups, with most users having 1–6 years of banking experience. The majority used e-banking frequently, either daily or weekly, demonstrating regular engagement with digital banking services. The study assessed the status of electronic banking service factors convenience, cost, security, privacy, and responsiveness among commercial bank customers in Syangja. The analysis revealed that overall customers held moderately positive perceptions toward the quality of e-banking services. Convenience and privacy were particularly well-regarded, indicating that banks had made progress in banking processes and safeguarding user data. However, issues were identified in responsiveness and cost-related satisfaction, highlighting areas where service delivery and transparency could be improved. The results show that banks have implemented e-banking services there is still to enhance customer experience through better customer support and value-driven cost structures.

The study analyzed the relationship between various electronic banking service dimensions and customer satisfaction and found that several service quality factors were positively associated with customer satisfaction. Convenience, privacy, and security showed that strong relationships with customer satisfaction. Responsiveness also showed a significant relationship, reflecting the importance of timely support and efficient communication in building trust. These findings align with established service quality and technology adoption theories, emphasizing that satisfaction depends on both technological capabilities and the service experience delivered by commercial banks. The study concluded that specific e-banking service factors significantly influence customer satisfaction. Among them, privacy and convenience were the most impactful, followed by responsiveness and security. However, cost did not have a significant impact indicating that while affordable customers place greater emphasis on safety, usability,

and responsive service. These insights suggest that commercial banks should focus on enhancing these prime dimensions to customer satisfaction and long-term customer loyalty in Syangja. Thus, this study emphasizes the need for continuous investment in technological infrastructure, robust security, and quality customer interaction. The implications are relevant for future researchers, bankers, investors, and other stakeholders. Researchers can build upon the current findings by exploring other dimensions such as user trust, mobile banking adoption, or the role of demographic factors. Investors should recognize the growing reliance on expectations from electronic banking in the financial and fintech. The study indicates that customers value secure, convenient, and responsive digital platforms. Investment in technology upgrades, cybersecurity measures, and digital infrastructure will likely yield long-term benefits in terms of customer acquisition and retention. Future research direction could be gender as moderating variables the effect of e-banking on customer satisfaction in Nepali commercial banks.

## REFERENCES

Addai, B., Ameyaw, B., Ashalley, E., & Quaye, I. (2015). Electronic banking and customer satisfaction: Empirical evidence from Ghana. *British Journal of Economics, Management and Trade*, 9(3), 1-8. <https://doi.org/10.9734/BJEMT/2015/19269>

Adhikari, N. B. (2024). Impact of electronic banking on customer satisfaction in Nepalese commercial banks. *Kalika Journal of Multidisciplinary Studies*, 6(1), 66–77. <https://doi.org/10.3126/kjms.v6i1.72383>

Ahmad, A.M., & Albu, H.A. (2011). E-banking functionality and outcomes of customer satisfaction: An empirical investigation. *International Journal of Marketing Studies*, 3(1), 9-12. <https://doi.org/10.5539/IJMS.V3N1P50>

Allada, V. K. & Dubey, R. (2014). Investigating the online customer satisfaction: The survey on clients in Jordon banking sector. *International Journal of Marketing Studies*, 10(2), 151-155. <https://doi.org/10.1504/IJSOM.2014.062232>

Bhattarai, B. (2023). *Service quality and its impact on customer satisfaction in electronic banking: A case study from Nepal* [Unpublished master's thesis]. Pokhara University.

Bhattarai, S., Prasad, K. S., Chaudhary, A. K., Ojha, P. R., Sahani, S. K., & Sharma, G. (2025). Impact of e-banking on customer satisfaction in Nepalese commercial banks. *Revista Electrónica de Veterinaria*, 26(1), 87–89. <https://doi.org/10.69980/redvet.v26i1.1769>

Dhungana, B. R., Adhikari, A., Ojha, D., Ranabhat, D., Lamichhane, K., & Acharya, S. (2023). Customer perception toward digital financial services: A case of Pokhara, Nepal. *Butwal Campus Journal*, 6(1), 1-11. <https://doi.org/10.3126/bcj.v6i1.62573>

Gaudel, D. (2021). Users' satisfaction of e-banking services in Nepal. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3850674>

Ghimire, S. (2021). *Evaluating the factors affecting customer satisfaction in electronic banking: Evidence from Nepal* [Unpublished master's thesis]. Tribhuvan University.

Guru, B. K., Vaithilingam, S., Ismail, N., & Prasad, R. (2001). Electronic banking in Malaysia: A note on evolution of services and consumer reactions. *Journal of Electronic Banking*, 48, 49-61. [https://doi.org/10.1007/978-3-322-86627-1\\_15](https://doi.org/10.1007/978-3-322-86627-1_15)

Hamid, A.A. M., Alabsy, N.M.A., & Mukhtar, M.A. (2018). The impact of electronic banking services on customer satisfaction in the Sudanese banking sector. *International Business Research*, 11(6), 102-110. <https://doi.org/10.5539/ibr.v11n6p102>

Hammoud, J., Bizri, R.M., & El Baba, I. (2018). The impact of e-banking service quality on customer satisfaction: Evidence from the Lebanese banking sector. *SAGE Open*, 8 (3), 15-24. <https://doi.org/10.1177/2158244018790633>

Hussien, M.I., & El Aziz, R.A. (2013). Investigating e-banking service quality in one of Egypt's banks: A stakeholder analysis. *TQM Journal*, 25(5), 557-576. <https://doi.org/10.1108/TQM-11-2012-0086>

Kampakaki, M., & Papathanasiou, S. (2016). Electronic-banking and customer satisfaction in Greece. The case of Piraeus Bank. *Annals of Management Science*, 5(1), 57-68. <https://doi.org/10.24048/ams5.no1.2016-57>

Kumar, R. (2022). Relationship between electronic banking and customer satisfaction. *International Journal of Multidisciplinary Research Review*, 1(3), 53-61.

Kumar, S. (2024). *Digital banking adoption and customer satisfaction: Insights from urban India* [Unpublished master's thesis]. University of Mumbai.

Kumbhar, V.M. (2011). Factors affecting the customers' satisfaction in E-banking: Some evidence from Indian banks. *Management Research and Practice*, 3(4), 1-14.

Raji, A. A., Zameni, A., & Abdulwakil, M.M. (2021). Effect of electronic banking in customer satisfaction in Kwara State, Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 11(7), 1571 – 1585. <https://doi.org/10.6007/IJARBSS/v11-i7/10258>

Rashidi, E., & Mansoori, D. E. (2015). Discussing the effects of internal banking on customer satisfaction. *Indian Journal of Fundamental and Applied Life Sciences*, 5(S2), 182-187.

Rathi, N. (2022). *Customer satisfaction and loyalty in digital banking: A study of Indian banks* [Unpublished master's thesis]. Indian Institute of Management.

Regmi, P., & Sah, P. (2025). Impact of e-banking practices on customer satisfaction in Nepalese commercial banks. *Nepalese Journal of Finance*, 12(1), 165–180. <https://doi.org/10.3126/njf.v12i1.82675>

Robinson, I. (2000). Bureaucratic versus non-bureaucratic organization: Explaining form, function and change in new forms of organizing. *Management and Organizational Studies*, 2(1), 33-40. <https://doi.org/10.5430/mos.v2n1p33>

Shah, K. K. (2016). Electronic banking: its use and challenge in Nepal. *Academic Voices: A Multidisciplinary Journal*, 5, 9–15. <https://doi.org/10.3126/av.v5i0.15845>

Sharma, H. (2011). Bankers' perspectives on E-banking. *National Journal of Research in Management*, 1 (1), 1-15.

Singh, P. (2020). *Understanding customer perceptions towards electronic banking services in India* [Unpublished master's thesis]. Punjab University.

Toor, A., Hunain, M., Hussain, T., Ali, S., & Shahid, A. (2016). The impact of e-relying on customer satisfaction: Evidence from banking sector of Pakistan. *Journal of Business Administration*, 5(2), 27-40. <https://doi.org/10.5430/jbar.v5n2p27>

Worku, G., Tilahun, A., & Tafa, M. (2016). The impact of electronic banking on customers' satisfaction in Ethiopian banking (the case of customers of dashen and wogagen banks in Gondar City). *Journal of Business and Financial Affairs*, 5(2). <https://doi.org/10.4172/21670234.1000174>