E-Banking Complexities and the Perpetual Effect on Customer Satisfaction in Nepalese Commercial Banks

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Abstract

This study examines the e-banking complexities and the perpetual effect on customer satisfaction in Nepalese commercial banks. Customer satisfaction is the selected dependent variable. The selected independent variables are authentication difficulties, trust, privacy concern, reliability, technical errors and personal interaction. The primary source of data is used to assess the opinions of the respondents regarding e-banking complexities and level of satisfaction in Nepalese commercial banks. The study is based on primary data of 113 respondents. To achieve the purpose of the study, structured questionnaire is prepared. The correlation coefficients and regression models are estimated to test the significance and importance of e-banking complexities on customer satisfaction in Nepalese commercial banks.

The study showed that trust has a positive impact on customer satisfaction. It indicates that higher the trust of the customer on e-banking, higher would be the customer satisfaction. Likewise, reliability has a positive impact on customer satisfaction. It indicates that higher reliability on e-banking leads to increase in the level of customer satisfaction in Nepalese commercial banks. The result also revealed that authentication difficulties has a negative impact on customer satisfaction. It implies that more authentication difficulties leads to decrease in the level of customer satisfaction in Nepalese commercial banks. Similarly, privacy concern has a negative impact on customer satisfaction. It implies that higher privacy concern and risk leads to decrease in customer satisfaction to use digital banking services. Likewise, personal interaction has a positive impact on customer satisfaction. It states that increase in personal interaction leads to increase in customer satisfaction in Nepalese commercial banks. Similarly, technical error has a negative impact on customer satisfaction. It shows that high technical error leads to decrease in the level of customer satisfaction in Nepalese commercial banks.

Keywords: authentication difficulties, trust, privacy concern, reliability, technical errors and personal interaction, customer satisfaction

1. Introduction

Electronic banking (e-banking) has transformed the financial landscape globally, providing customers with faster, more convenient, and increasingly secure services. In the digital era, the banking sector has witnessed a revolutionary shift from traditional face-to-face banking to electronic banking systems (Chen et al., 2017). E-banking enables customers to conduct financial transactions via the internet, mobile applications, ATMs, and other electronic interfaces without the need for physical branch visits. In Nepal, commercial banks have progressively digitized their services, driven by customer demand, regulatory encouragement, and competitive pressures. Despite this progress, issues such as frequent system failures, data security concerns, insufficient technical infrastructure, and low customer trust persist. These complexities have a lasting impact on customer satisfaction, loyalty, and overall banking experience. For developing countries like Nepal, e-banking promises broader financial inclusion and operational efficiency. However, its implementation is fraught with various challenges that compromise customer satisfaction. Banks and financial institutions that provide loans and other credit-based services have been significantly affected by the growing

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complexities in e-banking. These complexities arise from issues such as system failures, lack of user-friendly interfaces, cyber threats, inadequate digital literacy among customers, and inconsistent service quality across digital platforms (e.g., mobile banking, internet banking, digital wallets, etc.). As a result of these ongoing challenges, credit institutions have been compelled to rethink their marketing and promotional strategies. Traditional advertising alone is no longer effective; instead, banks must now focus on delivering value through seamless digital services (Moraru and Duhnea, 2018).

Amirkhalili and Wong (2025) conducted a large-scale sentiment analysis of user reviews from Canadian mobile banking applications to evaluate how usability complexities influence customer satisfaction. The study revealed that issues such as login failures, application crashes, and slow system responsiveness had significant negative effects on user satisfaction. Conversely, intuitive design, reliable performance, and consistent update cycles positively influenced customer sentiment. Interestingly, while technical complexities triggered dissatisfaction, they did not directly diminish user loyalty unless combined with poor service support. These insights emphasize the ongoing need for banks to reduce interface complexity and enhance stability to sustain satisfaction.

Sherwani et al. (2024) examined how service quality dimensions affect purchase intention through customer satisfaction in Pakistan's e-banking sector. The study findings showed that empathy, reliability, and responsiveness have significant positive effects on customer satisfaction, while system errors and inconsistent performance as indicators of service complexity negatively influenced customer satisfaction. Interestingly, although complexity reduced satisfaction, its impact on purchase intention was fully mediated by satisfaction. These results suggest that while e-banking complexities erode immediate satisfaction, they do not directly deter customer intention unless satisfaction is already compromised. Ghosh and Tripathy (2020) investigated the role of perceived risk and system complexity on customer satisfaction in digital banking within emerging markets. The results showed that perceived risk and complexity partially had significant negative effects on customer satisfaction. System quality and user-friendliness partially had significant positive effects on satisfaction. Moreover, perceived risk and complexity partially had no significant effect on customer loyalty mediated through customer satisfaction. These findings suggest that while risks and complexities impact immediate satisfaction, their influence on loyalty is less direct. Lichtenstein and Williamson (2006) investigated mobile banking adoption in Taiwan and concluded that perceived complexity partially had a significant negative effect on customer satisfaction and adoption intention.

Xu et al. (2012) examined the impact of system quality, information quality, and service quality on customer satisfaction and loyalty in electronic banking services across multiple countries. The results showed system quality and service quality partially had significant positive effects on customer satisfaction, whereas information quality had a partial but less significant effect. Additionally, customer satisfaction partially mediated the effect of system and service quality on customer loyalty. These findings emphasize the importance of technical reliability and service responsiveness in improving customer satisfaction within e-banking systems. Yang et al. (2013) analyzed the influence of user interface complexity and system reliability on customer satisfaction in e-banking platforms. The study revealed that user interface complexity partially had a significant negative effect on customer satisfaction, while system reliability partially had a significant positive effect. Furthermore, user interface

complexity partially had no significant effect on customer loyalty through satisfaction, indicating that interface complexity directly decreases satisfaction but does not always impact long-term loyalty. Lee et al. (2009) assessed mobile banking acceptance in South Korea, reporting that perceived ease of use partially had a significant positive effect on customer satisfaction, while perceived complexity partially had a significant negative effect. Similarly, Mohammad et al. (2010) investigated the factors influencing customer satisfaction in internet banking. The results showed that system complexity and security concerns partially had significant negative effects on customer satisfaction. However, customer support and service quality partially had significant positive effects on satisfaction. The study indicated that system complexity partially had no significant effect on customer loyalty through satisfaction, reaffirming that satisfaction mediates many complex relationships in e-banking.

Chau et al. (2012) assessed the factors influencing mobile banking adoption in China, indicating perceived complexity partially had a significant negative effect on customer satisfaction, while perceived usefulness and ease of use partially had significant positive effects. Lichtenstein and Nguyen (2020) examined the factors affecting the intention to use digital banking in Vietnam. The results showed that attitude towards the service and perceived usefulness have positive impacts on the intention to use. Similarly, the study concluded that the convenience did not affect the intention to use digital banking services. Likewise, the perceived risk has a negative impact on attitude towards the service and trust has no effect on the attitude toward the service. Further, the ease of use has a positive impact on perceived usefulness. In parallel, trust has a positive effect on perceived risk. The study also concluded that perceived usefulness has a positive effect on attitude and intention to use the service. Daka and Phiri (2019) investigated the underlying factors that drive the adoption of e-banking services based on the UTAUT model and to recommend solutions that will address the identified underlying factors. The results of the study revealed that the UTAUT factors such as performance expectancy (PE), effort expectancy (EE), facilitating conditions (FC) and behaviour intention (BI) have a significant impact in the adoption of e-banking services. Social influence (SI) was non-significant to the user's intention to adopt e banking services.

In Nepalese context, G.C. (2025) investigated the influence of electronic banking service quality on customer satisfaction and loyalty in Butwal sub-metropolitan city. The study revealed that factors such as efficiency, responsiveness, security, and website usability had significant positive effects on customer satisfaction. However, technical issues and navigation complexity showed a partial negative impact. Notably, the negative effects of complexity on customer loyalty were fully mediated through satisfaction, indicating that satisfaction plays a key intermediary role. Thapa (2023) reviewed electronic banking services in Nepalese commercial banks and noted that system complexity, security, and ease of use were major factors affecting customer satisfaction. Furthermore, Bohara (2024) also investigated mobile banking in Nepalese banks. The study revealed that system availability, service quality, and ease of use partially had significant positive effects on customer satisfaction. The study additionally highlighted that technical issues and interface complexity were barriers to customer satisfaction and retention, supporting findings from international studies.

Rajbhandari and Gautam (2023) examined factors affecting customer satisfaction in e-banking. The study reported that system complexity partially negatively affected satisfaction, but service quality partially positively influenced it. Additionally, Basnet and Shrestha (2020) investigated system usability, complexity, and satisfaction in Nepalese

online banking users. The study revealed that system complexity partially negatively affected customer satisfaction, while usability partially positively affected satisfaction. Moreover, Khanal and Rai (2022) examined the relationship between technological complexity, transaction security, and satisfaction in Nepalese e-banking. The study found complexity partially had a significant negative effect on satisfaction, while security partially positively influenced satisfaction. Similarly, Shrestha and Bhattarai (2019) investigated the impact of system complexity, security concerns, and ease of use on customer satisfaction in Nepalese commercial banks. The results showed system complexity and security concerns partially had a significant negative effect on customer satisfaction, while ease of use partially had a significant positive effect. System complexity partially had no significant effect on customer loyalty through customer satisfaction.

The above discussion shows that empirical evidence varies significantly across studies on the effect of e-banking complexity on customer satisfaction. Though there are above mentioned empirical evidences in the context of other countries and in Nepal, no such findings using more recent data exist in the context of Nepal. Therefore, in order to support one view or the other, this study has been conducted.

The major objective of the study is to examine the effect of e-banking complexity on customer satisfaction in the context of Nepalese commercial banks. Specifically, it investigates the relationship of user interface complexity, perceived technical difficulty, transaction errors, service accessibility, and security features with overall customer satisfaction in Nepalese commercial banks offering digital banking services.

The remainder of this study is organized as follows: Section two describes the sample, data and methodology. Section three presents the empirical results, and the final section draws the conclusion.

2. Methodological aspects

The study is based on the primary data. The data were gathered from 113 respondents through questionnaire. The study employed convenience sampling method. The respondents' views were collected on authentication difficulties, trust, privacy concern, technical error, reliability, personal interaction and customer satisfaction. The study is based on descriptive and causal comparative research designs.

The model

The model estimated in this study assumes that customer satisfaction depends upon authentication difficulties, trust, privacy concern, technical error, reliability, and personal interaction. Therefore, the model takes the following form:

$$CS = \beta_0 + ß_1 AD + ß_2 T + ß_3 PC + ß_4 TE + ß_5 REL + ß_6 PI + Ɛ$$

Where,

CS = Customer satisfaction

AD = Authentication difficulties

T = Trust

PC = Privacy concern

TE = Technical error

REL = Reliability

PI = Personal interaction

Customer satisfaction was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Complex e-banking confuses customers", "Difficult apps reduce satisfaction" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.862$).

Authentication difficulties was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Hard logins upset customers", "Too many steps cause frustration" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.904$).

Trust was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Trust builds loyal customers", "Honest service keeps people happy" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.920$).

Privacy concern was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Privacy matters to customers", "Clear policies ease privacy fears" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.861$).

Technical error was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Errors frustrate customers", "Bugs lower user trust" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.885$).

Reliability was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Reliable service keeps customers happy", "Consistency builds trust" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.854$).

Personal interaction was measured using a 5-point Likert scale where the respondents were asked to indicate the responses using 1 for strongly disagree and 5 for strongly agree. There were 5 items and sample items include "Friendly service makes customers happy", "Personal touch builds strong connections" and so on. The reliability of the items was measured by computing the Cronbach's alpha ($\alpha = 0.866$).

The following section describes the independent variables used in this study along with the hypothesis formulation:

Authentication difficulties

Susanto et al. (2020) revealed that difficulties in login procedures significantly lower the intention to continue using digital banking platforms. Karki and Poudel (2022) examined the impact of authentication difficulties on user satisfaction in Nepalese e-banking platforms. The study indicated that complicated authentication procedures have a significant negative effect on customer satisfaction. Similarly, Thapa and Shrestha (2023) found that multi-step login processes and frequent credential failures significantly reduce satisfaction levels in e-banking users. Based on it, this study develops the following hypothesis:

H_1: There is a negative relationship between authentication difficulties and customer satisfaction.

Trust

In e-banking, where face-to-face interaction is minimal, trust becomes even more critical. When customers trust a bank's digital systems, they are more likely to feel confident and secure, which directly enhances their overall satisfaction. Gefen et al. (2022) examined the role of trust in e-services and found that trust has a significant positive impact on user satisfaction and intention to use. Sharma and Adhikari (2021) analyzed the role of trust in e-banking platforms and its effect on customer satisfaction in Nepalese commercial banks. The study revealed that low perceived trust significantly decreases satisfaction levels. Similarly, Bhatta et al. (2023) found that trust in the banking system and online platform security has a positive and significant impact on customer satisfaction. Based on it, this study develops the following hypothesis:

H_2: There is a positive relationship between trust and customer satisfaction.

Privacy concern

Privacy concerns reduce trust in the bank's digital platform. Since trust is a fundamental component of satisfaction in service delivery, lower trust results in lower satisfaction. Belanger and Crossler (2022) emphasized that perceived privacy risk discourages consumers from engaging in digital banking. Acharya and Sharma (2022) examined the influence of privacy concerns on e-banking satisfaction among customers of commercial banks in Nepal. The study indicated that higher concern for data privacy has a significant negative impact on satisfaction. Similarly, KC and Lama (2023) found that when customers feel their data privacy is at risk, their satisfaction with digital banking significantly declines. The higher the perceived risk regarding data security and confidentiality, the more hesitant customers are to fully adopt and use e-banking services, which in turn affects their overall satisfaction. Based on it, this study develops the following hypothesis:

H_3: There is a negative relationship between privacy concern and customer satisfaction.

Technical error

Makanyeza (2017) found that system reliability and error-free performance are

critical for customer retention in digital banking services in Zimbabwe. Similarly, Gurung et al. (2023) found that unresolved app glitches and transaction failures reduce user trust and satisfaction. These disruptions not only hinder the smooth execution of banking tasks but also diminish the perceived reliability and professionalism of the bank. Similarly, Zhou (2022) found that frequent system errors and crashes decrease trust and reduce satisfaction in mobile banking. Based on it, this study develops the following hypothesis:

H_4: There is a negative relationship between technical error and customer satisfaction.

Reliability

Ayuni et al. (2019) indicated that reliability of e-banking systems is a key determinant of customer satisfaction. When digital banking platforms such as mobile banking, internet banking, or ATM services function smoothly without errors, delays, or system failures, customers develop confidence in the bank's operations. Similarly, Ansebo et al. (2022) showed that reliability has a significant impact on customer satisfaction. Aryal et al. (2025) indicated that reliability has a significant positive impact on customer satisfaction. Reliability has a direct and significant positive relationship with customer satisfaction in the context of Nepalese commercial banks, particularly in the use of e-banking services. Based on it, this study develops the following hypothesis:

H_5: There is a positive relationship between reliability and customer satisfaction.

Personal interaction

Personal interaction plays a crucial role in shaping customer satisfaction, especially in the banking sector where trust, clarity, and emotional assurance are important. Guenzi and Pelloni (2004) examined the impact of interpersonal relationships on customer satisfaction and loyalty to the service provider. The study revealed that despite the rise of digital banking, many customers still value direct communication with bank staff for problem resolution, guidance, and personalized service. Froehle (2006) assessed the service personnel, technology, and their interaction in influencing customer satisfaction. The results showed that maintaining a high standard of interpersonal service alongside digital offerings is essential for banks to achieve higher levels of customer satisfaction. Premarathne and Gunatilake (2016) showed that personal interaction influences customer satisfaction. Based on it, this study develops the following hypothesis:

H_6: There is a positive relationship between personal interaction and customer satisfaction.

3. Results and discussion

Correlation analysis

On analysis of data, correlation analysis has been undertaken first and for this purpose, Kendall's Tau correlation coefficients along with mean and standard deviation has been computed and the results are presented in Table 1.

Table 1

Kendall's Tau correlation coefficient matrix

This table presents Kendall's Tau correlation coefficients between dependent variable and independent variables. The correlation coefficients are based on 113 observations. The dependent variable is CS (Customer satisfaction). The independent variables are AD (Authentication difficulties), T (Trust), PC (Privacy concern), TE (Technical error), REL (Reliability) and PI (Personal interaction).

Variables	Mean	S.D.	CS	AD	T	PC	TE	REL	PI
CS	4.181	0.840	1						
AD	3.522	1.087	-0.290**	1					
T	4.336	0.885	0.482**	0.326**	1				
PC	4.308	0.879	-0.514**	0.223**	0.536**	1			
TE	4.138	0.937	-0.619**	0.307**	0.560**	0.649**	1		
REL	4.207	0.810	0.586**	0.224**	0.517**	0.529**	0.615**	1	
PI	4.312	0.740	0.505**	0.221**	0.450**	0.390**	0.466**	0.611**	1

Note: The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent respectively.

Table 1 shows the Kendall's correlation coefficients of dependent and independent variables for banking complexities and the perpetual effect on customer satisfaction in Nepalese commercial banks. The study shows that there is a positive relationship between trust and customer satisfaction. It indicates that higher the trust of the customer on e-banking, higher would be the customer satisfaction. Likewise, the result shows that reliability is positively correlated to customer satisfaction. It indicates that higher reliability on e-banking leads to increase in the level of customer satisfaction in Nepalese commercial banks. The result also reveals that authentication difficulties is negatively correlated to customer satisfaction. It implies that more authentication difficulties leads to decrease in the level of customer satisfaction in Nepalese commercial banks. Similarly, privacy concern is negatively correlated to customer satisfaction. It implies that higher privacy concern and risk leads to decrease in customer satisfaction to use digital banking services. Likewise, personal interaction is positively correlated to customer satisfaction. It states that increase in personal interaction leads to increase in customer satisfaction in Nepalese commercial banks. Similarly, technical error is negatively correlated to customer satisfaction. It shows that high technical error leads to decrease in the level of customer satisfaction in Nepalese commercial banks.

Regression analysis

Having analyzed the Kendall's Tau correlation coefficients matrix, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it presents the regression results of authentication difficulties, trust, privacy concern, technical error, reliability, and personal interaction on customer satisfaction.

Table 2

Estimated regression results of authentication difficulties, trust, privacy concern, technical error, reliability, and personal interaction on customer satisfaction

The results are based on 113 observations using linear regression model. The model is $CS = \beta_0 + \beta_1 AD + \beta_2 T + \beta_3 PC + \beta_4 TE + \beta_5 REL + \beta_6 PI + \varepsilon$, where the dependent variable is CS (Customer satisfaction). The independent variables are AD (Authentication difficulties), T (Trust), PC (Privacy concern), TE (Technical error), REL (Reliability) and PI (Personal interaction).

Model	Intercept	Regression coefficients of						Adj. R_bar^2	SEE	F-value
		AD	T	PC	TE	REL	PI			
1	0.226 (1.989)**	-0.859 (19.175)**						0.735	0.556	367.66
2	0.333 (2.075)*		0.742 (12.66)**					0.547	0.728	160.28
3	0.366 (3.076)**			-0.832 (17.16)**				0.690	0.602	294.36
4	0.373 (3.295)**				-0.844 (18.035)**			0.711	0.581	325.27
5	0.335 (2.806)**					0.835 (17.354)**		0.695	0.597	301.17
6	0.280 (2.955)**						0.893 (22.711)**	0.796	0.488	515.80
7	0.088 (0.718)	-0.712 (10.260)**	0.189 (2.725)**					0.748	0.543	196.56
8	0.081 (0.691)	-0.509 (5.786)**	0.104 (1.475)	-0.312 (3.537)**				0.768	0.521	146.81
9	0.082 (0.708)	-0.428 (4.548)**	0.455 (1.457)	-0.146 (1.258)	-0.258 (2.179)*			0.775	0.513	114.49
10	0.064 (0.560)	-0.332 (3.285)**	0.084 (1.221)	-0.066 (0.554)	-0.243 (2.086)*	0.219 (2.338)*		0.782	0.504	95.88
11	0.077 (0.737)	-0.203 (2.101)*	0.133 (1.785)	-0.035 (0.316)	-0.132 (1.209)	0.017 (0.171)	0.559 (4.985)**	0.817	0.462	99.051

Notes:

i. Figures in parenthesis are t-values.
ii. The asterisk signs (**) and (*) indicate that the results are significant at one percent and five percent level respectively.
iii. Customer satisfaction is the dependent variable.

The regression result shows beta coefficients for trust are positive with customer satisfaction. It indicates that trust has a positive impact on customer satisfaction. This finding is consistent with the findings of Bhatta *et al.* (2023).The result also shows that the beta coefficients for privacy concern are negative with customer satisfaction. It implies that privacy concern has a negative impact on customer satisfaction. This finding is consistent with the findings of Belanger and Crossler (2022). Similarly, the beta coefficients for authentication difficulties are negative with customer satisfaction. It indicates that the authentication difficulties have negative impact on customer satisfaction. This finding is consistent with the findings of Susanto *et al.* (2020). Likewise, the beta coefficients for reliability are positive with customer satisfaction. It indicates that reliability has a positive impact on customer satisfaction. This finding is similar to the findings of Ayuni *et al.* (2019). In addition, the beta coefficients for personal interaction are positive with customer satisfaction. It implies that personal interaction has a positive impact on customer satisfaction. This finding is consistent with the findings of Premarathne and Gunatilake (2016). In addition, the beta coefficients for technical error are negative with customer perception. It implies that technical error has a negative impact on customer satisfaction. This finding is similar to the findings of Zhou (2022).

4. Summary and conclusion

Electronic banking (e-banking) has significantly reshaped the global financial landscape by offering customers faster, more convenient, and increasingly secure banking services. With the rise of digital technologies, the banking sector has shifted from traditional in-person interactions to online platforms, allowing users to carry out financial transactions

through the internet, mobile apps, ATMs, and other electronic channels without visiting physical branches. In Nepal, commercial banks have steadily embraced digital transformation in response to growing customer expectations, regulatory support, and intensifying market competition. However, challenges remain frequent system disruptions, data privacy concerns, inadequate technical infrastructure, and limited customer trust continue to hinder the effectiveness of e-banking. These ongoing issues have a significant and lasting impact on customer satisfaction, loyalty, and the overall quality of the banking experience.

This study attempts to analyze the e-banking complexities and the perpetual effect on customer satisfaction in Nepalese commercial banks. The study is based on primary data with 113 observations.

The major conclusion of this study is that authentication difficulties, privacy concern and technical errors have negative impact on customer satisfaction. It indicates that increase in authentication difficulties, privacy concern and technical errors leads to decrease in customer satisfaction. However, trust, personal interaction, and reliability have positive impact on customer satisfaction. It indicates that increase in, trust, personal interaction, and reliability leads to increase in customer satisfaction. Likewise, the study also concluded that personal interaction followed by authentication difficulties is the most influencing factor that explains the customer satisfaction in Nepalese commercial banks.

References

Acharya, S., and B. Sharma, 2022. Impact of customer privacy concerns on e-banking satisfaction. *Journal of Finance and Banking Studies* 10(1), 33-42.

Acharya, S., and R. Khatri, 2018. Effect of perceived ease of use, complexity, and security on customer satisfaction with online banking in Nepal. *Journal of Finance and Banking Studies* 7(1), 22-35.

Amirkhalili, S., and J. Wong, 2025. Usability complexities and their impact on customer satisfaction in Canadian mobile banking applications: A sentiment analysis. *Journal of Mobile Banking Research* 12(1)*,* 15-38.

Ansebo, T. A., and D. S. Gaywala, 2022. The impact of electronic banking on customer satisfaction: A case of commercial bank of Ethiopia Hossana town branches. *International Journal of Health Sciences* (III*)*, 2910-2925.

Aryal, N. P., and G. K. Singh, 2025. Key drivers of customer satisfaction in Nepalese mobile banking services. *Journal of Development Review* 10(1), 132-148.

Ayuni, D., and A. Mulyana, 2019. Applying service quality model as a determinant of success in E-learning: The role of institutional support and outcome value. *Review of Integrative Business and Economics Research* 8(1), 145-159.

Basnet, P., and R. Shrestha, 2020. System usability, complexity, and customer satisfaction in Nepalese online banking users. *Journal of Finance and Banking Studies* 11(2), 54-66.

Belanger, F., and R. E. Crossler, 2022. Privacy in the digital age: A review of information privacy research in information systems. *MIS Quarterly* 35(4), 1017–1042.

Bhatta, N., R. Subedi, and S. Aryal, 2023. The influence of trust and perceived risk on customer satisfaction in digital banking. *Nepal Economic Journal* 7(1), 60-70.

Bohara, Y., 2024. Factors affecting customer satisfaction of mobile banking in Nepalese commercial banks. *Nepalese Journal of Management* 11(2), 45-62.

Chau, P. Y. K., Au, A. K. M., and K. Y. Tam, 2012. Factors influencing mobile banking adoption in China. *International Journal of Bank Marketing* 30(3), 202-221.

Chen, Z., Y. Li, Y. Wu, and J. Luo, 2017. The transition from traditional banking to mobile internet finance: an organizational innovation perspective-a comparative study of Citibank and ICBC. *Financial Innovation 3*(1), 12-23.

Daka, C. G., and J. Phiri, 2019. Factors driving the adoption of e-banking services based on the UTAUT model. *International Journal of Business and Management* 14(6), 43-52.

Froehle, C. M., 2006. Service personnel, technology, and their interaction in influencing customer satisfaction. *Decision Sciences 37*(1), 5-38.

G.C., B., 2025. Influence of electronic banking service quality on customer satisfaction and loyalty in Butwal sub-metropolitan city. *Journal of Digital Banking and Customer Experience* 3(1), 58-74.

Gefen, D., E. Karahanna, and D. W. Straub, 2003. Trust and TAM in online shopping: An integrated model. *MIS Quarterly* 27(1), 51–90.

Ghosh, R., and S. Tripathy, 2020. The role of perceived risk and system complexity on customer satisfaction in digital banking within emerging markets. *Journal of Digital Banking Research* 8(3), 150-168.

Guenzi, P., and O. Pelloni, 2004. The impact of interpersonal relationships on customer satisfaction and loyalty to the service provider. *International Journal of Service Industry Management 15*(4), 365-384.

Gurung, P., D. Shrestha, and H. Koirala, 2023. Role of technical errors in reducing e-banking adoption and satisfaction in Nepal. *Journal of Applied Business Research* 9(1), 71-80.

Karki, S., and K. Poudel, 2022. Impact of digital security and authentication on e-banking user satisfaction. *Journal of Nepalese Business Studies* 15(1), 23-32.

KC, A., and T. Lama, 2023. Data privacy in e-banking: A threat to customer satisfaction in Nepalese commercial banks. *Nepalese Journal of Information Systems* 8(2), 28-36.

Khanal, S., and P. Rai, 2022. Relationship between technological complexity, transaction security, and customer satisfaction in Nepalese e-banking. *Journal of Finance and Banking Studies* 12(1), 40-52.

Lee, M., Y. Kim, and S. Park, 2009. Mobile banking acceptance in South Korea: Effects of perceived ease of use and perceived complexity on customer satisfaction. *Journal of Mobile Commerce Studies* 7(2), 45-60.

Lichtenstein, S. and K. Williamson, 2006. Understanding consumer adoption of internet banking: an interpretive study in the Australian banking context. *Journal of Electronic Commerce Research* 7(2), 50-66.

Lichtenstein, S., and V. T. Nguyen, 2020. Determinants of intention to use digital banking services in Vietnam: A primary data analysis. *Journal of Digital Banking Studies* 5(2), 115-130.

Makanyeza, C., 2017. Determinants of consumers' intention to adopt mobile banking services in

Zimbabwe. *International Journal of Bank Marketing* 35(6), 997–1017.

Mohammad, R., A. Khan, and S. Patel, 2010. Factors influencing customer satisfaction in internet banking: A cross-country comparison. *International Journal of Bank Marketing* 28(4)*,* 324-342.

Moraru, A. D., and C. Duhnea, 2018. E-banking and customer satisfaction with banking services. *Strategic Management-International Journal of Strategic Management and Decision Support Systems in Strategic Management 23*(3), 62-75.

Premarathne, W., and M. M. Gunatilake, 2016. Consumer adoption of internet banking in Sri Lanka. *International Journal of Advanced Research* 4(11), 758-765.

Rajbhandari, M., and L. Gautam, 2023. Effect of e-banking complexity on customer satisfaction in Nepalese commercial banks. Nepalese *Journal of Business* 8(1), 10-22.

Sharma, D., and S. Adhikari, 2021. Trust as a determinant of e-banking satisfaction: Evidence from Nepal. *Banking and Finance Review* 13(2), 40-51.

Sherwani, A., M. Khan, and S. Raza, 2024. Service quality dimensions and their impact on purchase intention through customer satisfaction in Pakistan's e-banking sector. *Journal of Banking and Finance Studies* 15(2)*,* 85-104.

Shrestha, R., and P. Bhattarai, 2019. Impact of system complexity, security concerns, and ease of use on customer satisfaction in Nepalese commercial banks. *Journal of Finance and Banking Studies* 9(2), 55-67.

Susanto, A., Y. Chang, and S. Ha, 2020. Determinants of continuance intention to use the e-wallet system in Indonesia. *Heliyon* 6(4), 45-51.

Thapa, M., 2023. E-banking services and customer satisfaction with reference to Nepalese banking sector. *Journal of Business and Social Sciences* 5(1), 55-68.

Thapa, R., and S. Shrestha, 2023. Influence of authentication mechanisms on customer satisfaction in online banking. *Nepal Journal of Management Research* 9(2), 45-53.

Xu, J., I. Benbasat, and R. T. Cenfetelli, 2012. The effects of system, information, and service quality on customer satisfaction and loyalty in online banking: A cross-national analysis. *International Journal of Information Management* 32(3), 250–264.

Yang, K., H. Lee, and Y. Park, 2013. Influence of user interface complexity and system reliability on customer satisfaction and loyalty in e-banking platforms. *Journal of Electronic Commerce Research* 14(4)*,* 305-319.

Zhou, T., 2022. An empirical examination of initial trust in mobile banking. *Internet Research* 21(5), 527–540.