

Factors Influencing Adoption of Internet Banking in Kathmandu Valley

Medhabi Sigdel*

Abstract

This study examines the factors influencing adoption of internet banking in Kathmandu Valley. Internet banking is selected as the dependent variable. Similarly, trust, convenience, reliability, ease of use, security and time saving are selected as the independent variables. The primary source of data is used to assess the opinions of the respondents regarding the factors influencing adoption of internet banking in Kathmandu valley. This study is based on primary data with 123 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 different factors influencing adoption of internet banking in Kathmandu Valley.

The study revealed that trust has a positive impact on adoption of internet banking. It means that increase in trust leads to increase adoption of internet banking. Similarly, time saving has a positive impact on adoption of internet banking. It indicates that increment of time saving leads to increase in adoption of internet banking. Moreover, this study showed security has a positive impact on adoption of internet banking. It means that high security leads to increase in adoption of internet banking. Likewise, reliability has a positive impact on adoption of internet banking. It shows that higher the reliability, higher would be the adoption of internet banking. Similarly, ease of use has a positive impact on adoption of internet banking. It shows that increment in ease of use leads to increase in adoption of internet banking. On the other hand, convenience has a positive impact on adoption of internet banking. It means that higher the convenience, higher will be the adoption of internet banking.

Keywords: trust, convenience, reliability, ease of use, security, time saving, internet banking

1. Introduction

Gurau (2002) stated the term internet banking refers to the use of the internet as a distribution channel for banking products or services. Similarly, Tan and Teo (200) stated that internet banking allows customers to perform a wide range of banking transactions electronically via the bank's Web site. As a result, registered Internet banking users can perform common banking transactions such as writing checks, paying bills, transferring funds, printing statements, and inquiring about account balances. Similarly, Weir *et al.* (2006) stated that internet Banking (eBanking) services exist as Web-based user-interfaces that allow customers to use remote access to manage their bank accounts and transactions. The study also confirmed that the role of metaphor

* Ms. Sigdel is a Freelance Researcher, Kathmandu, Nepal. E-mail: medhs900@gmail.com

is of major importance in driving the design of usable P3P functionality in eBanking. According to Grabner-Kräuter and Faullant (2008), internet banking allows customers to conduct a wide range of banking transactions electronically via the bank's website – anytime and anywhere, faster, and with lower fees compared to using traditional, real-world bank branches.

According to Khalfan *et al.* (2006), security and data confidentiality issues have been a major barrier in internet banking. As the banking sector was reluctant to use e-commerce applications and they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control. Likewise, a strong banking industry is significant in every country and can significantly support economic growth over efficient financial services (Salehi and Azary, 2008). Moreover, Ganesan and Vivekanandan (2009) stated that the customers and their transactions are, by necessity, extremely sensitive; thus, doing business via a public network introduces new challenges for security and trustworthiness. Similarly, Sanchez and Gallie (2010) argued that difficulty, trust, compatibility, third-party concerns and group influence are important factors influencing internet banking usage. Similarly, different factors are positively and negatively related to the internet banking usage. Moreover, Shantha (2019) showed that client perceptions of internet banking are significantly influenced by accessibility, affordability, simplicity of use and bank operations.

Similarly, Rahi *et al.* (2020) pointed that internet banking has brought several advantages. Some of these advantages are inexpensive delivery of services, user-friendliness, real-time up-grading of customers' data, easy verification of transactions, global connectivity, and online banking services. Moreover, Alam *et al.* (2009) examined the relationship between Internet banking adoption and its six factors, namely awareness, ease of use, security, cost, reluctance to change and accessibility. The study revealed that four factors are significantly important to the adoption of Internet banking. Similarly, Al-Rfou (2013) found that there is a significant relationship between ease of use, security and privacy and quality of internet connection with the usage of internet banking. Furthermore, Golsefid and Kiakalayeh (2016) revealed that perceived usefulness and ease of use are two important factors that were identified in the acceptance of mobile banking.

Moreover, Liao and Cheung (2002) identified convenience as a significant quality attribute in the perceived usefulness of internet banking, which positively influences consumers' willingness to use internet-based e-banking. Furthermore, Bashir and Madhavaiah (2015) examined the consumer attitude and behavioral intention toward internet banking adoption

in India. The study revealed a direct and significant effect of perceived website design on perceived ease of use. Similarly, Cudjoe *et al.* (2015) examined the determinant of mobile banking adoption among bank customers in Ghana, with a specific emphasis on Access Bank. The study showed that perceived credibility and perceived financial cost have a stronger effect on consumer intention to adopt and use mobile banking services than perceived usefulness and perceived ease of use. Furthermore, Mohamed (2015) examined the factors influencing the adoption of internet banking. The findings showed that adoption/ non-adoption decision is highly influenced by attitude toward Change and Perceived benefit.

Similarly, Jayasiri *et al.* (2016) examined the awareness and usage of internet banking facilities in Sri Lanka. The study revealed that lack of knowledge on accessing the Internet and lack of facilities for Internet access have negative attitude towards e-banking. According to Agarwal and Prasad (1998), Internet banking services allow customers to access their banking accounts from any location and at any time of the day, it gives advantage to customers to be able to manage their finances properly and in a more convenient way. Moreover, Sathye (1999) confirmed that security concerns are a burning issue for financial transactions done over the Internet. Thus, it is expected that only individuals who perceive using Internet banking as low risk undertaking would adopt it. Further, Cooper (1998) identified that security risk is one of the major barriers to the adoption of Internet banking.

Similarly, Elhajjar and Ouaida (2020) explained the factors affecting mobile banking adoption. The study concluded that digital literacy, resistance to change, perceived risk, perceived ease of use and perceived usefulness were found to be the main variables affecting users' attitudes toward the adoption of mobile banking. Further, Razak *et al.* (2021) examined the factors influencing the adoption of online banking services in the Klang Valley. The study showed that consumers' propensity to trust is the main determinant that influence intention to use online banking services, followed by the perceived usefulness and perceived ease of use. Moreover, Kessy (2021) examined the adoption of internet banking services in Tanzania. The study concluded that social environment, technology exposure and system capability are positively related to the adoption of internet banking services by customers.

Ramavhona and Mokwena (2016) found that perceived compatibility, trialability and external variables such as awareness and security have significant influence in the adoption of Internet banking. Similarly, Athanassopoulous *et al.* (2001) concluded that price, transaction speed, and a bank's reputation are important criteria for the adoption of Internet banking. Further, Daniel (1999)

stated that convenience has a significant role in adoption of internet banking. According to Selase and Benedict (2021), Perceived ease of use, perceived usefulness and trust were found to be the key drivers influencing customer's attitudes toward Internet Banking. Moreover, Alalwan *et al.* (2016) concluded that perceived usefulness, trust and self-efficacy are all found to be significant factors in predicting behavioral intention of using internet banking. Further, AlKailani (2016) found that perceived risk and perceived trust are the most influential factors affecting the use of internet banking. Moreover, Metwally (2013) reported that banks' customers' decision to use internet banking services has significance relation with the ease of use followed by usefulness, trust and credibility of the service.

Further, Fathima (2022) revealed that demographic variables have significant influence on perception of consumer on internet banking adoption. Moreover, Lichtenstein and Williamson (2006) showed that convenience is the main motivator for consumers. Moreover, Mattila *et al.* (2003) found that household income and education have a significant effect on the adoption of IB among mature consumers. Furthermore, Hanafizadeh and Khedmatgozar (2012) found that except for social risk, other dimensions of the perceived risk have significantly negative effect on the intention of IB adoption. The study also concluded that the dimensions of customers' perceived risk play a mediating role and the positive effect of IB awareness and IB adoption intention. Likewise, Kasarani and Bisht (2012) revealed that perceived risk has a negative impact on behavioral intention of internet banking adoption and trust has a negative impact on perceived risk.

Similarly, Ramayah *et al.* (2002) stated that namely, prior experience, training, perceived risk, awareness, cost and external pressure has an influence on adoption of Internet banking. Furthermore, Zhao (2008) concluded that attitude is a significant factor that influences the intention to continue using Internet banking. Moreover, Khedmatgozar and Shahnazi (2018) found that factors decreasing the intent to adopt internet banking include performance, privacy, security, financial, time, and social risks respectively. Furthermore, Shi *et al.* (2008) concluded that attitude plays a mediating role between institutional pressures and IB adoption.

In the context of Nepal, mostly the security concerned, absence of proper understanding about internet banking services, lack of an adequate number of services in internet banking service, infrastructure and electricity shortage are the major barriers for internet banking in Nepal (Shah, 2016). Moreover, Durgapal and Bhatta (2016) found that among the service quality dimensions assurance and tangibility there is no significant differences

between banks. Furthermore, Sthapit and Bajracharya (2019) discovered that customer perception of usefulness, ease of use and risks have impacted on the adoption and use of e-banking services. Further, Pokhrel *et al.* (2020) showed that perceived ease of use has a significant effect on attitude towards mobile banking. Furthermore, Adhikari (2019) confirmed that convenience, time savings, security and communication are the determinants of e-banking in Nepal.

The above discussion shows that the empirical evidences vary greatly across the studies on the factors influencing adoption of Internet banking. 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 main purpose of the study is to analyze the factors influencing adoption of Internet banking in Kathmandu Valley. Specifically, it examines impact of trust, convenience, reliability, ease of use, security and time saving on adoption of internet banking.

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 123 respondents through questionnaire. The respondents' views were collected on of trust, convenience, reliability, ease of use, security and time saving on adoption of internet banking. The study used descriptive and casual comparative research designs.

The model

The model estimated in this study assumes that adoption of internet banking depends on trust, convenience, reliability, ease of use, security and time saving. Therefore, the model takes the following form: The following section describes the independent variables used in this study.

$$G = \beta_0 + \beta_1 S + \beta_2 TS + \beta_3 EAU + \beta_4 C + \beta_5 R + \beta_6 T + e$$

Where,

S = Security

TS = Time saving

EOU = Ease of use

C = Convenience

R = Reliability

T = Trust

Security 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 are 5 items and sample items include “I believe my internet banking system is secure, “I believe my Atm number and confidential information are secured and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.708$).

Time saving 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 are 5 items and sample items include “It takes me a lot of time to learn how to use internet banking, “I have to waste a lot of time fixing payment errors and setup errors and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.521$).

Ease of use 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 are 5 items and sample items include “Learning to use internet banking was easy for me, “It is easy to use internet banking to accomplish transaction activities and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.777$).

Convenience 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 are 5 items and sample items include “I feel making payments through internet banking is convenient, “I feel internet banking is more convenient than traditional methods of payment and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.768$).

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 are 5 items and sample items include “Can rely on the accuracy of the information provided in the E-banking applications of the bank, “The contents of e-banking applications are up to date and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.690$).

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 are 5 items and sample items include “I believe the internet banking site is trustworthy, “I believe internet banking keeps its promise and commitments and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.864$).

Internet banking 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 are 5 items and sample items include “Internet banking gives me greater control of my finances than other banking options, “Internet banking is more accessible than other banking options and so on. The reliability of the items was measured by computing the Cronbach alpha ($\alpha = 0.781$).

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

Security

Cunningham and Gerrard (2003) indicated that one of the most important future challenges facing individuals or customers of a bank is the fear of higher risks associated with using the web for banking and financial transaction. Similarly, Giovanis *et al.* (2012) stated that security of consumers’ information and activities plays the most dominant role in the acceptance of customers’ perceptions towards Internet Banking. Moreover, Singh (2006) stated that without the perception of security, there will be little trust in banking and transactions on the Internet. Further, Casalo *et al.* (2008) showed that security plays a vital role in the acceptance of Internet Banking. Similarly, Twum and Ahenkora (2012) found that customer perception of internet banking security is significantly related to usage and is significantly affected by trust of the system and trust of the provider. Furthermore, Mukhtar (2015) stated that security in online banking services is an important factor in order to change customers’ perception of internet banking from negative to positive. The study also found that there is no security system during the transaction process, it will be hard for the customers to give trust the service providers. Based on it, the study develops the following hypothesis:

H₁: There is a positive relationship between security and users’ adoption of internet banking.

Time-saving

Polataglu and Ekin (2001) found that time savings are perceived to be larger when customers use the internet banking service more often and for larger transactions. Moreover, new technological advancements have introduced varieties of changes in the world and business era (Qureshi *et*

al., 2008). Further, Lee (2009) found that time plays an important role in adopting mobile banking service by the users. Furthermore, banks should consider reducing the inconvenience, minimizing the cost of transactions and time-saving to be important in internet banking (Kaleem and Ahmad, 2008). Similarly, Tan and Teo (2000) stated that internet banking is a convenient and effective application that allows any individual customer retail or corporate to manage his/her accounts 24 hours a day, and it is accessible from any location as long there is access to the Internet and the information provided is current and immediate without any intermediary situation needed. Based on it, the study develops the following hypothesis:

H₂: There is a positive relationship between time-saving and users' adoption of internet banking.

Ease of use

Ease of use is one of the critical factors that determines the success of internet banking and is also critical for the development and as well as delivery of internet banking services to the customers of internet banking (Al-Hajri and Tatnall, 2008). According to Guriting and Ndubisi (2006), the perceived ease of use and perceived usefulness factors are considered to be fundamental in determining the acceptance and use of various information technologies. Jahangir and Begum (2008) found that there is a significant impact of ease of use on customer perception. However, a different trend was observed that no correlation was found between ease of use and Internet technology due to the high visibility of technology (Agarwal and Prasad, 1997). Furthermore, Kam and Riquelme (2007) stated that daily and frequent IB users are more pleased with "ease of use" and "aesthetics" and tend to use IB more for electronic fund transfer and foreign exchange transactions than the less frequent users. Based on it, this study develops the following hypothesis:

H₃: There is a positive relationship between ease of use and users' adoption of internet banking.

Convenience

According to Liao and Cheung (2002), the convenience of use has a positive impact on customer perception towards internet banking. Similarly, Eastin (2002) found that perceived convenience is the strongest predictor of online banking usage. The result also revealed that the convenience to use internet banking has a significant impact on customers' perceptions. Further, Sagib and Zapan (2014) revealed that convenience has a significant impact on customer perception towards internet banking. Moreover, Khare *et al.* (2012) revealed that the convenience to use internet banking has a significant impact

on customers' perceptions. Furthermore, Ramsay and Smith (1999) stated that convenience is one of the dominating factors in transaction channel preferences and a key determinant of consumer satisfaction. According to Liao and Cheung (2002), the convenience of use has a positive impact on customer perception towards internet banking. Based on it, this study develops the following hypothesis:

H₄: There is a positive relationship between convenience and users' adoption of internet banking.

Reliability

Yang and Fang (2004) stated that reliability, responsiveness, competence, ease of use, security, and product portfolio has significance effect in adoption of internet banking. Moreover, Khan and Mahapatra (2009) revealed that reliability is identified as a factor affecting internet banking. Nochai and Nochai (2013) found that internet banking is highly influenced by reliability. Omar *et al.* (2011) found that customers prefer Internet Banking (IB) services over branch banking due to reliability. Based on it, this study develops the following hypothesis:

H₅: There is a positive relationship between reliability and users' adoption of internet banking.

Trust

Trust is 'the belief that the promise of another can be relied upon and that, in unforeseen circumstances, the other will act in a spirit of goodwill and in benign fashion toward the Trustor' (Suh and Han, 2002). Trust can be defined as generalized expectancy that the word, promise, oral or written statement of another individual, or group can rely upon (Kura *et al.*, 2009). Further, Nor and Pearson (1970) found that trust have a significant positive effect on attitude toward using Internet banking. According to Liang *et al.* (2008), consumers exercise repurchases behaviors when they have trust in the retailer. Moreover, Wu and Chen (2005) stated that trust in technologies positively influences their intention to use the technology since they perceive it as safe, reliable, and trustworthy and they decide to use the internet banking-based technology. Based on it, this study develops the following hypothesis:

H₆: There is a positive relationship between trust and users' adoption of internet banking.

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 means and standard deviations have been computed, and the results are presented in Table 1.

Table 1

Kendall’s Tau correlation coefficients matrix

This table presents Kendall’s Tau coefficients between dependent and independent variables. The correlation coefficients are based on 123 observations. The dependent variable is IB (Internet banking). The independent variables are S (Security), TS (Time-saving), EOU (Ease of use), C (Convenience), R (Reliability) and T (Trust).

Variables	Mean	S.D.	IB	S	TS	EOU	C	R	T
IB	1.942	0.577	1						
S	2.381	0.645	0.147*	1					
TS	2.473	0.584	0.101	0.403**	1				
EOU	1.974	0.602	0.452**	0.194**	0.197**	1			
C	1.912	0.608	0.503**	0.174**	0.123	0.608**	1		
R	2.194	0.564	0.340**	0.350**	0.225**	0.265**	0.277**	1	
T	2.173	0.706	0.368**	0.272**	0.299**	0.335**	0.280**	0.528**	1

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

Table 1 reveals that security is positively correlated to internet banking. It indicates that security influence the adoption of internet banking. The result also reveals that time-saving is positively correlated to internet banking. It indicates that time-saving in the organization leads to increase in the adoption of internet banking. Similarly, ease of use is positively correlated to the adoption of internet banking. It indicates that ease of use leads to increase in the adoption of internet banking. Likewise, convenience is positively correlated to internet banking. It indicates that convenience for customers leads to increase in the adoption of internet banking. Further, reliability is positively correlated to the adoption of internet banking. It indicates that maintaining reliable relations helps to increase in adoption of internet banking. Moreover, trust is positively correlated to internet banking. It indicates that trust helps to increase the rate of adoption of internet banking.

Regression analysis

Having indicated the Kendall’s Tau correlation coefficients, the regression analysis has been carried out and the results are presented in Table 2. More specifically, it shows the regression result of security, time-saving, ease of use, convenience, reliability and trust in internet banking.

Table 2

Estimated regression results of security, time-saving, ease of use, convenience, reliability, and trust in internet banking

The results are based on 123 observations using a linear regression model. The model is $IB = \beta_0 + \beta_1 S + \beta_2 TS + \beta_3 EOU + \beta_4 C + \beta_5 R + \beta_6 T + e$, where the dependent variable is IB (Internet banking) and the independent variables are S (Security), TS (Time-saving), EOU (Ease of use), C (Convenience), R (Reliability) and T (Trust).

Model	Intercept	Regression coefficients of						Adj. R ²	SEE	F-value
		S	TS	EOU	C	R	T			
1	1.390 (7.243) **	0.233 (3.000) **						0.062	0.552	9.002
2	1.580 (7.077) **		0.148 (1.685)					0.015	0.566	2.838
3	0.983 (6.292) **			0.510 (7.066) **				0.286	0.481	49.927
4	0.920 (6.559) **				0.536 (0.070)			0.322	0.469	59.024
5	1.009 (5.337) **					0.428 (5.116) **		0.171	0.519	26.178
6	1.168 (7.723) **						0.358 (5.404) **	0.188	0.514	29.205
7	1.354 (5.704) **	0.221 (2.459) *	0.026 (0.262)					0.054	0.554	4.501
8	0.844 (3.816) **	0.119 (1.496)	0.058 (0.667)	0.487 (6.349) **				0.288	0.481	17.420
9	0.693 (3.216) **	0.100 (1.314)	0.050 (0.606)	0.240 (2.367) *	0.347 (3.536) **			0.350	0.459	17.455
10	0.552 (2.515) *	0.32 (0.402)	0.068 (0.825)	0.216 (2.163) *	0.311 (3.185) **	0.211 (2.379) *		0.375	0.450	15.647
11	0.575 (2.647) *	0.037 (0.470)	0.098 (1.194)	0.190 (1.910)	0.307 (3.188) **	0.099 (0.946)	0.159 (1.970) *	0.390	0.445	14.007

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. Organizational performance is dependent variable.

Table 2 shows the beta coefficients for security are positive with internet banking. It indicates that security has a positive impact on adoption of internet banking. This finding is consistent with the findings of Vij (2003). Likewise, the beta coefficients for time saving are positive with internet banking. It indicates that time saving has a positive impact on internet banking. In addition, the beta coefficients for ease of use are positive with internet banking. It indicates that ease of use has a positive impact on internet banking. This result is consistent with the findings of Jahangir and Begum (2008). Further, the beta coefficients for convenience are positively related with internet banking. It indicates that convenience has positive impact on internet banking. This finding is consistent with the findings of Liao and Cheung (2002). In addition, the beta coefficients for reliability are positive with internet banking. It indicates that reliability has a positive impact on internet banking. This finding is consistent with the findings of Khan and Mahapatra (2009).

4. Summary and conclusion

The term internet banking refers to the use of the internet as a distribution channel for banking products or services, including traditional services, such as opening an account or transferring funds among different accounts, as well as new banking services, such as bill payment, which permit bank customers to make payments and receive bills on a bank's website (Gurau, 2002). Internet banking services as a secondary channel of delivery enhances banks' efforts to significantly reduce operating costs through the reduction of physical branch networks and streamlining of labor which is expected to significantly improve service provision and ultimately lead to customer satisfaction and retention (Khalfan *et al.*, 2006).

The study attempts to examine factors influencing the adoption of internet banking in Kathmandu valley. The study is based on primary data with 123 observations.

The study showed that transaction convenience, reliability, ease of use, security, trust, and time-saving are positively correlated to the internet banking. This indicates that transaction convenience, reliability, ease of use, security, trust, and time-saving in the organization leads to increase in the adoption of internet banking in Kathmandu valley. The study also concludes that transaction convenience followed by security and reliability are the most influencing factors that affect the adoption of internet banking in Kathmandu Valley.

References

- Adhikari, K. P., 2019. Determinants of E-Banking in Nepal. *Management Dynamics* 22(1), 89-94.
- Agarwal, R., and J. Prasad, 1997. The role of innovation characteristics and perceived voluntariness in the acceptance of information technologies. *Decision Sciences* 28(3), 557-582.
- Agarwal, R., and J. Prasad, 1998. A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research* 9(2), 204-215.
- Alam, S. S., R., Musa, and F. Hassan, 2009. Corporate customers' adoption of internet banking: Case of Klang Valley business firm in Malaysia. *International Journal of Business and Management* 4(4), 13-21.
- Al-Hajri, S., and A. Tatnall, 2008. Technological innovation and the adoption of Internet banking in Oman. *EJOV: The Electronic Journal for Virtual Organization and Networks* 10(25),59-83.
- AlKailani, M., 2016. Factors affecting the adoption of internet banking in Jordan: An

- extended TAM model. *Journal of Marketing Development and Competitiveness* 10(1), 39-44.
- Al-Rfou, A. N., 2013. The usage of internet banking evidence from Jordan. *Asian Economic and Financial Review* 3(5), 614-623.
- Al-Sharafi, M. A., R. A. Arshah, F. A. Herzallah, and Q. Alajmi, 2017. The effect of perceived ease of use and usefulness on customers intention to use online banking services: The mediating role of perceived trust. *International Journal of Innovative Computing* 7(1), 9-14.
- Athanassopoulous, A., S. Gounraris, and V. Sthaakopouolos, 2001. Behavioral responses of customer satisfaction: An empirical study. *European Journal of Marketing* 35(5), 687-707.
- Bashir, I., and C. Madhavaiah, (2015). Consumer attitude and behavioural intention towards Internet banking adoption in India. *Journal of Indian Business Research* 7(1), 67-102.
- Calisir, F., and C. A. Gumussoy, 2008. Internet banking versus other banking channels: Young consumers' view. *International Journal of Information Management* 28(3), 215-221.
- Casaló, L. V., C. Flavián, and M. Guinalú, 2008. The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. *International Journal of Bank Marketing* 26(6), 399-417.
- Cooper, J. R., 1998. A multidimensional approach to the adoption of innovation. *Management Decision* 36(8), 493-502.
- Cooper, R. G., and R.W. Zmud, 1990. Information technology implementation research: A technological diffusion approach, *Management Science* 36(2), 123-139.
- Cudjoe, A. G., P. A., Anim, and J. G. N. T. Nyanyofio, 2015. Determinants of mobile banking adoption in the Ghanaian banking industry: A case of access bank Ghana limited. *Journal of Computer and Communications* 3(2), 1-13.
- Cunningham, J. B., and P. Gerrard, (2003). The diffusion of Internet banking among Singapore consumers. *International Journal of Bank Marketing* 21(1), 16-28.
- Daniel, E., (1999). Provision of electronic banking in the UK and the republic of Ireland. *International Journal of Bank Marketing* 17(2), 72-83.
- Durgapal, B. P., and K. R. Bhatta, 2016. A multiple comparison of service quality between public, foreign venture and private sector banks in Nepal. *IOSR Journal of Business and Management* 18(10), 109-20.
- Elhajjar, S., and F. Ouaida, 2020. An analysis of factors affecting mobile banking adoption. *International Journal of Bank Marketing* 38(2), 352-367.
- Fathima, A., 2022. Influence of demographic variables on determinants of internet banking adoption. *ECS Transactions* 107(1), 56-71.

- Ganesan, R., and K. Vivekanandan, 2009. A secured hybrid architecture model for internet banking (e-banking). *Journal of Internet Banking and Commerce* 14(1), 1-17.
- Giovanis, A. N., S. Binioris, and G. Polychronopoulos, 2012. An extension of TAM model with IDT and security/privacy risk in the adoption of internet banking services in Greece. *EuroMed Journal of Business* 7(1), 24-53.
- Golsefid, F. A., and F. D. Kiakalayeh, 2016. Factors affecting the acceptance of mobile banking by customers' case study: The branches of Tejarat bank in Rasht city. *Mediterranean Journal of Social Sciences* 7(1), 518-518.
- Grabner-Kräuter, S., and R. Faullant, 2008. Consumer acceptance of internet banking: The influence of internet trust. *International Journal of Bank Marketing* 26(7), 483-504.
- Gurau, C., 2002. Online banking in transition economies: The implementation and development of online banking systems in Romania. *International Journal of Bank Marketing* 20(6), 285-96.
- Guriting, P., and N. O. Ndubisi, 2006. Borneo online banking: Evaluating customer perceptions and behavioural intention. *Management Research News* 29(1/2), 6-15.
- Hanafizadeh, P., and H. R. Khedmatgozar, 2012. The mediating role of the dimensions of the perceived risk in the effect of customers' awareness on the adoption of Internet banking in Iran. *Electronic Commerce Research* 12(1), 151-175.
- Jahangir, N., and N. Begum, 2008. The role of perceived usefulness, perceived ease of use, security and privacy and customer attitude to engender customer adaptation in the context of electronic banking. *African Journal of Business Management* 2(2), 32-40.
- Jayasiri, N. K., and N. J. Kariyawasam, 2016. Awareness and usage of internet banking facilities in Sri Lanka. *International Journal of Scientific Research and Innovative Technology* 3(6), 173-186.
- Kaleem A., and S. Ahmad, 2008. Bankers' perceptions of electronic banking in Pakistan. *Journal of Internet Banking and Commerce*, 13(1), 1-16.
- Kam, B. H., and H. Riquelme, 2007. An exploratory study of length and frequency of Internet banking usage. *Journal of Theoretical and Applied Electronic Commerce Research* 2(1), 76-85.
- Kesharwani, A., and S. Singh Bisht, 2012. The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model. *International Journal of Bank Marketing* 30(4), 303-322.
- Kessy, S. S., 2021. Adoption of internet banking service in Tanzania. *University of Dar es Salaam Library Journal* 16(1), 84-97.
- Khalfan, A., S.Y., Y. Yaqoub, AlRefaei, and M. Al-Hajery, 2006. Factors influencing the adoption of Internet banking in Oman: A descriptive case study analysis.

International Journal of Financial Services Management 1(2), 155–172.

- Khan, M. S., and S. S. Mahapatra, 2009. Service quality evaluation in internet banking: An empirical study in India. *International Journal of Indian Culture and Business Management* 2(1), 30-46.
- Khare, A., A. B. Mishra, and T. Singh, 2012. Indian customers' attitude towards trust and convenience dimensions of internet banking. *International Journal of Services and Operations Management* 11(1), 107-122.
- Khedmatgozar, H. R., and A. Shahnazi, 2018. The role of dimensions of perceived risk in adoption of corporate internet banking by customers in Iran. *Electronic Commerce Research* 18(2), 389-412.
- Kura, K. M., F. M. Shamsudin, and A. Chauhan, 2016. Organisational trust as a mediator between perceived organisational support and constructive deviance. *International Journal of Business and Society* 17(1), 1-18.
- Lee, KC., and N. Chung, 2009. Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective. *Interacting with Computers* 21(6), 385-392.
- Liang, C. J., H. J. Chen, and W. H. Wang, 2008. Does online relationship marketing enhance customer retention and cross-buying? *The Service Industries Journal* 28(6), 769-787.
- Liao, Z., and M.T. Cheung, 2002. Internet-based e-banking and consumer attitudes: An empirical study. *International Journal of Information Management* 19(1), 63-74.
- 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), 50-58.
- Mastran, S., 2021. Opportunities and challenges of online banking in Nepal. *The Batuk* 7(2), 37-51.
- Mattila, M., H. Karjaluo, and T. Pentto, 2003. Internet banking adoption among mature customers: Early majority or laggards. *Journal of Services Marketing* 17(5), 514-528.
- Metwally, E. K., 2013. An assessment of users' acceptance of internet banking: An empirical case of Egypt. *American Academic and Scholarly Research Journal* 5(5), 132-154.
- Mohammad, H. I., 2015. 7PS marketing mix and retail bank customer satisfaction in northeast Nigeria. *British Journal of Marketing Studies* 3(3), 71-88.
- Nochai, R., and T. Nochai, 2013. The impact of internet banking service on customer satisfaction in Thailand: A case study in Bangkok. *International Journal of Humanities and Management Sciences (IJHMS)* 1(1), 101-105.
- Nor, K. M., and J. M. Pearson, 1970. The influence of trust on internet banking

- acceptance. *The Journal of Internet Banking and Commerce* 12(2), 1-10.
- Omar, A., N. Sultan, K. Zaman, N. Bibi, A. Wajid, and K. Khan, 2011. Customer perception towards online banking services: Empirical evidence from Pakistan. *Journal of Internet Banking and Commerce* 16(2), 511-522.
- Parsuraman, A., 1985. A conceptual model of service excellence and its implications for future growth. *Journal of Marketing* 49(1), 1-10.
- Pokhrel, L., D. Adhikari, and A. K. Mishra, 2020. Adoption of mobile banking among users in Kathmandu valley: Lens of technological acceptance model. *NOLEGEIN Journal of Management Information Systems* 3(2), 1-7.
- Polatoglu, V.N., and S. Ekin, 2001. An empirical investigation of the Turkish Consumers. Acceptance of internet banking services. *International Journal of Bank Marketing* 19(4), 156-165.
- Qureshi, T.M., M. K. Zafar, and M. B. Khan, 2008. Customer acceptance of online banking in developing economies. *Journal of Internet Banking and Commerce* 13(1), 1-9.
- Rahi, S., M. A. Ghani, and A. H. Ngah, 2020. Factors propelling the adoption of internet banking: the role of e-customer service, website design, brand image and customer satisfaction. *International Journal of Business Information Systems* 33(4), 549-569.
- Ramavhona, T. C., and S. Mokwena, 2016. Factors influencing internet banking adoption in South African rural areas. *South African Journal of Information Management* 18(2), 1-8.
- Ramayah, T., K. Rouibah, M. Gopi, and G. J. Rangel, 2009. A decomposed theory of reasoned action to explain intention to use Internet stock trading among Malaysian investors. *Computers in Human Behavior* 25(6), 1222-1230.
- Razak, D. A., R. A. Hamid, N. I. T. Azhari, and P. S. Q. Sonari, 2021. factors influencing the adoption of online banking services in the Klang valley. *Asian Journal of Research in Business and Management* 3(3), 50-66.
- Sagib, G. K., and B. Zapan, 2014. Bangladeshi mobile banking service quality and customer satisfaction and loyalty. *Management and Marketing* 9(3), 331-346.
- Salehi, M., and Z. Azary, 2008. Fraud detection and audit expectation gap: Empirical evidence from Iranian bankers. *International Journal of Business and Management* 3(10), 65-77.
- Sanchez Carlos, R., and B. Gallie Jean, 2010. Adoption of internet banking: evidence from France. *International Journal of Management and Marketing Research* 3(3), 107-117.
- Santouridis, I., and M. Kyritsi, 2014. Investigating the determinants of internet banking adoption in Greece. *Procedia Economics and Finance* 9(1), 501-510.
- Sathye, M., 1999. Adoption of Internet banking by Australian consumers: An

- empirical investigation. *International Journal of Bank Marketing* 17(7), 324-334.
- Selase, A. M., and A. Benedict, 2021. An assessment of customer attitude towards internet banking in Ghana. *International Journal of Economics, Business and Management Research* 5(7), 113-136.
- Shah, K. K., 2016. Electronic banking: Its use and challenge in Nepal. *Academic Voices: A Multidisciplinary Journal* 5(1) 9–15.
- Shantha, A., 2019. Customer perception on internet banking: With special reference to bank of Ceylon in Sri Lanka. *International Journal of Research in Engineering, IT and Social Sciences* 9(5), 269-280.
- Shi, W., N. Shambare, and J. Wang 2008. The adoption of internet banking: An institutional theory perspective. *Journal of Financial Services Marketing* 12(4), 272-286.
- Singh, S., 2006. The social dimensions of the security of Internet banking. *Journal of Theoretical and Applied Electronic Commerce Research* 1(2), 72-78.
- Sthapit, A., and N. Bajracharya, 2019. Customer perception towards adoption of e-banking services in Kathmandu: A survey of business school students. *Journal of Business and Social Sciences Research* 4(1), 13-26.
- Suh, B., and I. Han, 2002. Effect of trust on customer acceptance of Internet banking. *Electronic Commerce Research and Applications* 1(3-4), 247-263.
- Tan, M., and T. S. H. Teo, 2000. Factors influencing the adoption of internet banking. *Journal of the Association for Information Systems* 1(1), 31-42.
- Twum, F., and K. Ahenkora, 2012. Internet banking security strategy: Securing customer trust. *Journal of Management and Strategy* 3(4), 78-85.
- Vij, M., 2003. The new world of banking a paradigm shift. *Journal of Management Research* 3(3), 139-145.
- Weir, C. S., J. N. Anderson, and M. A. Jack, 2006. On the role of metaphor and language in design of third-party payments in eBanking: Usability and quality. *International Journal of Human-Computer Studies* 64(8), 770-784.
- Wu, L., and J. L. Chen, 2005. An extension of trust and TAM model with TPB in the initial adoption of on-line tax: An empirical study. *International Journal of Human-Computer Studies* 62(6), 784-808.
- Yang, Z., and X. Fang, 2004. Online service quality dimensions and their relationships with satisfaction: A content analysis of customer reviews of securities brokerage services. *International Journal of Service Industry Management* 15(3), 302-326.
- Zhao, A. L., S. Hanmer-Lloyd, P. Ward and M. M. Goode, 2008. Perceived risk and Chinese consumers' internet banking services adoption. *International Journal of Bank Marketing* 26(7), 505-525.