

Impact of Electronic Banking on Customer Satisfaction in Nepalese Commercial Banks

***Nabin Bahadur Adhikari**

ABSTRACT

E-banking is one of the fastest adopted tools even by Nepalese customers. Due to its different features, it became most popular tool in Nepal in a very short time reaching numbers of customer meeting their needs. . Customer satisfaction can be effected by number of items. The focus of this study is to examine the relationship and impact of electronic banking on the customer satisfaction in Nepalese commercial banks. The basis of this study is primary sources of data, which are collected through questionnaire. An online questionnaire survey was conducted to gather the data and 112 complete responses were gathered from Universities/ Colleges located in Pokhara valley. The descriptive and causal research design was used. The collected data were analyzed and interpreted with the help of different statistical tools and IBM SPSS software. The descriptive and inferential statistical was used. The independent variable was considered as convenience, cost, privacy, security and responsiveness and the customer satisfaction is considered as dependent variable. The result emphasizes that there is positive and significant relationship between the variables. In addition, it is argued that no significant relation between customer satisfactions to 'privacy'. Moreover, all the dependent and independent variables found to have positive relation to each other. As a result, the research recommends that customer satisfaction on e-banking system is statistically significant with convenience, responsiveness, cost and security but not with privacy.

Keywords: Commercial bank, customer, E-banking, satisfaction, security

INTRODUCTION

The competition within the banking sector has expanded over the several years. Banks are introducing creative tools and methods to achieve customer satisfaction and retention in order to stay competitive for that electronic banking is one important instrument to do so. E-banking is the mechanized delivery of latest and conventional banking services immediately to the customers with electronic and interactive communication channels (Toor et al., 2016). Technology has assumed a very important role currently. With the development of the technology, E-Banking is perhaps the latest technologies embraced by the bank electronically to meet customer's expectations. Electronic banking is process of carrying out several banking activities by electronic channels such as telephone, internet and mobile phone (Sharma, 2011).

Customer satisfaction refers to the number of customer whose reported experience with the products and services offered by the firm exceeds the predefined satisfaction goal (Farris et al., 2010). It is the degree to which consumer gets happy with the product and services given by a firm (Worku et al., 2016).

E-banking is a recent development in Nepalese business environment, which surely invites a lot of questions and dilemmas regarding the adoption of E-Banking as it invited a paradigm shift from traditional banking with direct human interactions to screen interactions. Kumbhar (2011), has focused that issues such as machine out of order, lack of appropriate alternative system that replaces ATM service when temporary difficulties arise in the machine, and innovations, resistant to technology changes by consumers and service providers because of fear of risk causes doubt in consumer minds, thereby affecting their level of satisfaction. This research article aims to examine the relationship of convenience, cost, privacy, security and responsiveness as independent variables with customer satisfaction and examine the impact of convenience, cost, privacy, security and responsiveness on customer satisfaction.

An IT application known as E-Banking has been launched by banking industry to fulfill the increasing demands of their customers and additionally to meet the trend of technological innovation in latest years (Addai et al., 2015). A banking system that allows users to examine account details, pays bills online, and transfer money. One significant advancement in the banking industry is electronic banking, or e-banking. It is thought that the availability of online banking services helps banks build and maintain relationships with their clients. Electronic banking services provide banks with many more benefits, including increased client loyalty, market segmentation, new product and service innovation, and more efficient marketing and communication at reduced costs (Robinson, 2000). According to Ahmand and Al Zubi

(2011), the procedure via which a consumer can conduct banking transactions electronically without physically visiting a financial institution is referred to as “e-banking.” E-banking, as opposed to traditional banking channels that provide services through physical branches, uses the internet to provide users with standard banking services such account opening, money transfers, and electronic bill payment. It is an example of how the revolution in information and communication is changing the paradigm and pattern of banking, resulting in faster financial services and a reduction in wasteful spending. With e-banking, you can access banking services around-the-clock via methods like direct deposits into checking or savings accounts or automated teller machines (ATMs) that require a personal identification number (PIN). The banking industry has changed due to technology, moving from traditional branch banking to a more contemporary method that uses e-banking tools including ATMs, online utility payments, and loan applications, among others. Customers of the bank are provided with the option to access their account, carry out their transactions, and order products for delivery online. The forms of electronic banking are; mobile banking (Shah, 2016), ATM banking (Bastola, 2020), and telebanking (Guru et al., 2002; Tatum, 2021).

There is need of modification of the basis of competitive environment as the transition from traditional banking practices to electronic banking intensifies. Account entry, account management, account usage or purchase, easy to use, privacy and security are the primary determinants of electronic banking for the customer satisfaction. The bank management will increase acceptance and satisfaction among users of E-Banking to enhance business transaction management (Kumar, 2022). Customer satisfaction is an individual’s general attitude toward the service and service provider (Robinson,2000), it is the set of favourable and unfavourable feeling with which customer view towards the service and goods (Newstrom & Davis, 2007). The effects of six independent variables on customer satisfaction: ease of use, protection, customer care facilities, speed, content and design play an important role in customer satisfaction (Mchomba, 2018), reliability of service quality, ease to use, responsiveness, and trust are the positively and significantly related with the customer satisfaction (Allada & Dubey, 2014). According to Worku et al. (2016) the user of E-Banking are young, educated, working students and they are loyal towards the service of bank, reduced bank hall frequency for banking operation, reduce customer waiting time, so they are satisfied. Moreover Rashidi and Mansoori (2015) also highlighted that customers’ satisfaction with internet banking is increased compared to normal banking satisfaction.

The convenience of E- banking has positive effect on the customer satisfaction and

retains clients (Addai et al., 2015). Most of the mobile banking users are satisfied with the service provided by their banks due to the easiness in Nepal (Sherpa, 2015). Mchomba (2018) in his empirical study conducted in Tanzania used six different independent variables that affect satisfaction and major one is ease of use. The result reveals that easiness has the positive and significant effect on customer satisfaction in e-banking. Similarly, Altobishi et al. (2018) and Hammound et al. (2018) also used six indicators for satisfaction and major one is ease of use and found customer satisfaction was positive in Jordan's banking sector. These studies collectively highlight the critical role of convenience in enhancing customer satisfaction in e-banking, leading to the following hypothesis.

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

Cost is considered to be one of the most important factors for customer satisfaction, as customer compares cost with the quality of services presented by various bank service providers (Sharma, 2016). Ahmad and Al-Zubi (2011) has states that the potential competitive benefit of e-banking is to deliver high-quality services at lower prices to meet the needs of customers. Altobishi et al. (2018) and Hamid et al. (2018) both consider cost as one of the important factor that affect customer satisfaction and most influential factors in E-Banking for customer satisfaction. The above mentioned articles collectively highlight the critical role of cost in enhancing customer satisfaction in e-banking, leading to the following hypothesis.

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

According to Hussien and Aziz (2013), Privacy is a degree to which clients trust that the website is protected from disruption and that personal information is ensured. Electronic technology is the most commonly known aspect of secure information privacy at all banks sites, strengthened by a combination of various unique identifiers, such as a password, a memorable date, mother's maiden name, or a few minute of inactivity, which automatically logs customers off the account (Poon, 2008). Hammound et al. (2018) in his empirical study found that there is a significant impact of privacy on customer satisfaction. The study collectively highlight the critical role of privacy in enhancing customer satisfaction in e-banking leading to the following hypothesis.

H3: There is statistically significant relationship between Privacy (P) and customer Satisfaction (CS) in E-Banking.

Hamid et al., (2018) conducted an empirical study on Hatton National Bank, Colombo

District, Sri Lanka and focused on five sectors that affect customer satisfaction for E-Banking service. One of them was security. There was positive correlation between the variables including security and their level of significance was below 0.05 and concluded that the most influential factors in E-banking for customer satisfaction. Pradhan (2019) in Nepal also used ease of use, website contents and security of services as independent variable for customer satisfaction from E-banking. Moreover, Gaudel (2021) in his paper concluded that security personalization had positive significant impact on the customer satisfaction in Nepal. Kumar (2022) in his empirical study highlighted security of service that effect customer satisfaction. The hypothesis based on the above study which leads customer satisfaction considering security is following.

H4: There is a significant relationship between Security (S) and Customer satisfaction in E-Banking.

Kampakaki and Papathanasiou (2016) in his empirical research use a modified SERVQUAL model and they have highlighted the responsiveness as one of the crucial factor that effect on customer satisfaction due to the use of E-Banking. Furthermore there is positive and strong relationship between customer satisfaction and service quality. Toor et al. (2016) described the five service quality dimensions derived from the SERVQUAL model were; responsiveness, tangibles, assurance, reliability and empathy, which were taken as forecasters of customer satisfaction in e-banking. The reliability, assurance and responsiveness had produced the most significant results whereas tangibles and empathy had not shown significant relation. The another hypothesis for this research article is as follows;

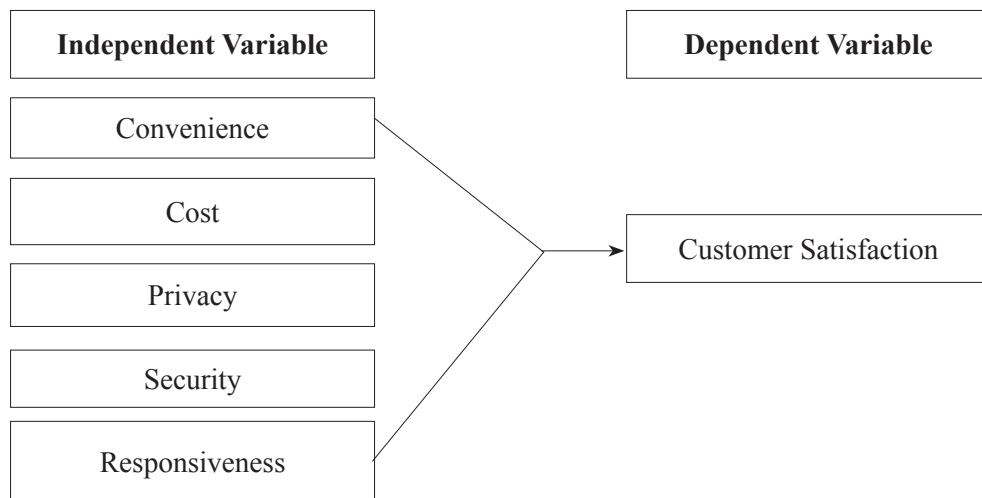
H5: Responsiveness (R) and customer satisfaction (CS) in E-Banking are statistically significant.

Several searchers have been conducted research on e-banking effects on customer satisfaction in developed countries by consider various construct that affect on customer satisfaction. Hammound et al. (2018) focused on the attributes like; efficiency, reliability, responsiveness and communication, ease of use, security and privacy. Hamid et al. (2018) took convenience, security, reliability, responsiveness and fees and charges, Raji (2021) consider responsiveness and security in customer satisfaction. Similarly, Gaudel, (2021), Pradhan (2019) highlighted on products, perceived ease of use, design of website, security and privacy, perceived cost, responsiveness and computer self-efficacy. This research paper has used convenience, cost, privacy, security and responsiveness factors as the construct of customer satisfaction on e-banking in Nepal. The conceptual framework for this research is

presented with the help of following figure.

Figure 1

Conceptual Framework



DATA AND METHODS

The primary method of data collection for this study is survey design. The methodology utilized in this study is quantitative technique (descriptive research design) to ascertain the relationship between the variables and a causal research design to demonstrate how the independent variable affects the dependent variable. Primary is the main source of information and data for this study.

The data are collected through survey questionnaire. The population for this research paper is the customers who are using e-banking in universities/campus located in Pokhara and the convenience sampling techniques was used to collect data. The sample size was 112. The questionnaire along with the covering letter were sent to the students through email and personal visit and also used social media like messenger those who are in the personal list of researcher contact. The form of questionnaire was closed ended. The demographic information was collected by using nominal question method with number of options to choose. A 7 point Likert-Scale was preferred because respondents can unambiguously understand it and level discriminate well between constructs, respondents' degree of agreement or disagreement.

The IBM SPSS Statistics version 20 was utilized to construct a descriptive and causal analysis based on quantitative data for this study. The samples (demographics) and overall

findings were described using descriptive analysis via frequencies, percentages, means, and standard deviations. In addition, the internal consistency and reliability were assessed using the Cronbach’s alpha coefficient; additional data analysis was conducted using multiple regression models and Pearson correlation. A normality test was conducted on the primary variables to confirm the normality of the acquired data.

Model Specification

The econometric model employed in this study tries to analyze the relationship between various constructs and customer satisfaction. The given regression model is applied in the study to examine the empirical effect of convenience, cost, privacy, security and responsiveness on the customer satisfaction among the university/collage students in Pokhara.

$$CS = \alpha + \beta_1 C + \beta_2 Co + \beta_3 P + \beta_4 S + \beta_5 R + \epsilon$$

In this model, the dependent variable is customer satisfaction (CS) where as the independent variables are consider as convenience (C), cost (Co), privacy (P), security (S), responsiveness (R) and the symbol (ϵ) denotes the error term.

RESULTS AND DISCUSSION

The data collected from the respondents are presented in the subsequent table followed by the description of data mentioned in the table.

Table 1

Profile of Respondents

N = 112

Character	Category	Occurrence	Percentage
Age Group	Less than 30	103	92.96
	Above 30	09	8.04
Gender	Male	39	39.35
	Female	73	73.65
Marital Status	Unmarried	69	62
	Marred	43	38
Education Level	Bachelors	79	71
	Masters	33	29
Level of Income	Below Rs. 20k	29	26
	Rs. 20k –Rs. 30k	27	24
	Rs. 30k – Rs. 40k	12	11

Character	Category	Occurrence	Percentage
Length of using E-Banking	Rs. 40k – Rs. 50k	5	4
	Above Rs. 50k	6	5
	Dependent on Family Income	33	29
	Less than 1 year	10	9
	1 to 3 years	51	45
	4 to 6 years	40	36
Frequency of Transaction	More than 6 years	11	10
	Once a month	17	15
	Twice a month	34	30
	Thrice a month	32	29
	Four times a month	28	25
Familiarity with E-Banking services	More than 4 times a month	1	1
	ATM Banking	102	91
	Telephone Banking	14	13
	Mobile Banking	96	86
	Point of Sales	5	4
	Internet Banking	15	13
Most used E-Banking Services	Other	4	4
	ATM Banking	33	29
	Internet/Online Banking	5	4
	Mobile Banking	74	66
	Usage of E-Banking Service	Check account information	112
	View recent transaction	100	89
	View bank statement	112	100
	Order cheque book	2	2
	Fund transfer	112	100
	Pay utilities bills	112	100
	Purchase goods	98	88
	Other	9	8

Survey, 2024

The characteristics such as age, gender, marital status, educational level, level of income,

length of using E-banking, frequency of transaction, familiarity with E-banking services, most used E-Banking services and usage of E-Banking services were asked to the respondents in the questionnaire. Most of the respondents were female (73.65%, n = 73) below the age category of 30 (92.96 %, n=103), most of the respondents' education qualification is bachelor (71%, n=79), the highest income level of respondents are below 20k (26%, n=29) and still the most of the respondent are dependent on their family's income (29%, n = 33). The respondents' experience of using e-banking is 1 to 3 year (45%, n= 51), the frequency of transaction is thrice a month (29%, n =32), most of the respondents are familiar with ATM banking (91%, n = 102), the most used E-banking service by the respondent is mobile banking (66%, n=74), the highest mode of the usages of E-banking by the respondents are check account information, view bank statement, fund transfer and pay utilities bills.

Table 2

Mean Standard and Inter-Correlation of Study Variables

Characteristics	Mean	S.D.	CS	C	Co	P	S	R
CS	5.44	1.56	1					
C	5.33	1.58	.747**	1				
Co	4.89	1.66	.710**	.706**	1			
P	4.77	1.71	.684**	.702**	.682**	1		
S	5.01	1.58	.763**	.727**	.715**	.766**	1	
R	4.65	1.70	.694**	.574**	.590**	.626**	.651**	1

** Correlation is significant at the 0.01 level

Table 2 demonstrates mean, standard deviation and correlation of the study variables. The table explains that there was a strong relationship between Convenience and Customer Satisfaction, Cost and Customer Satisfaction, Privacy and Customer Satisfaction, Security and Customer Satisfaction and Responsiveness and Customer Satisfaction as their correlation was found to be 0.747, 0.710, .684, .763 and .694 which is more than .6 respectively. Customer satisfaction (CS) and Security (S) was highly correlated. Among independent variables, Security (S) and Convenience (C) were highly correlated whereas there was lowest correlation between Privacy (P) and Responsiveness (R). This result was supported with Rashidi and Mansoori (2015). Additionally, the each constructs is positively correlated with each other.

Table 3

Impact of Constructs on Customer Satisfaction

Independent Variables	Unstandardized Coefficient		Standardized Coefficient		
	Beta	Error	Beta	t	Sig.
(Constant)	0.460	0.218		2.113	0.036
C	0.295	0.059	0.287	4.979	0.000
Co	0.155	0.055	0.159	2.817	0.005
P	0.010	0.066	0.009	0.150	0.881
S	0.289	0.070	0.268	4.155	0.000
R	0.249	0.048	0.255	5.210	0.000

$R^2R^2 = 0.715$, Adjusted $R^2R^2 = 0.709$, F -Statistics = 114.781, $p < 0.05$

The multiple regression analysis was conducted to verify the impact of all the five predictors (C, Co, P, S and R) on customer satisfaction.

$$CS = 0.460 + 0.295 \beta_1 + 0.155 \beta_2 + 0.010 \beta_3 + 0.289 \beta_4 + 0.249 \beta_5$$

Based on the regression equation established, when all factors (C, Co, P, S and R) are held constant at one, the customer satisfaction would be 0.460. The data finding analyzed also indicates that when all the other independent variables are held at one, a unit increase on C lead to 0.295 increases in customer satisfaction, a unit increase in Co. will leads to 0.155 increase in CS, a unit increase in P will leads to 0.010 increase in CS, similarly, a unit increase in S leads to 0.289 increase in CS and per unit increase in R leads to a 0.249 increase in CS. Hence the major influencing role is played by the C. The significant factors here are C, Co, S and R at 5 % level of significance and 95% level of confidence except P.

Table 3 shows that the fitted model or all five predictors together explain around 71.5% of the total variation of the dependent variable (CS). Similarly adjusted R square is 0.709 which means 70.9% variation in customer satisfaction is explained by independent variables after adjusting degree of freedom. The value of F-Statistics is 114.781 and is significant at the level of 0.005. The result indicated that the developed regression model is statistically significant that it can be relied upon to describe the influence of C, Co, P, S and R on the customer satisfaction. That means C, Co, S and R are significant measures of customer satisfaction. The result is consistent with the finding of Addai et al., (2015).

Table 3 depict that sig. value of beta coefficient of E-banking convenience is .000, which

is less than p-value (.05). So, the H1 is accepted. Therefore, there is a significant relationship between E-banking convenience and customer satisfaction. This result was supported by Addai et al. (2015), Sherpa (2015), Mchomba (2018), Altobishi et al. (2018), Hammound et al. (2018) and Raji (2021). H2 is also accepted because the sig. value of beta coefficient of E-banking Cost is 0.05 which is equal to p-value. Hence, there's significant relationship between Ebankings' cost and customer satisfaction which is consistent with the findings of Sharma (2016), Ahmad & Al-Zubi (2011), Altobishi et al. (2018) and Hamid et al., (2018).

The sig. value of beta coefficient of E-banking Privacy is .881, which is more than p-value .05. Hence, the H3 is rejected. Therefore, there is no significant relationship between E-banking and customer satisfaction. The result is inconsistent with Hammound et al., (2018) because in his empirical study he establishes that there is significant impact of privacy on customer satisfaction. In the same table sig. value of beta coefficient of E-banking security is .000 which is less than p-value .05. So, the H4 is also accepted. Therefore, there's a significant relationship between E-banking security and customer satisfaction. The result is consistent with the findings of Hamid et al. (2018), Pradhan (2019), Gaudel (2021) and Kumar (2022). The H5 is also accepted because the sig. value of beta coefficient of e-banking responsiveness is .000 which is less than p-value .05. Hence, there is a significant connection between E-banking responsiveness and customer satisfaction. The result is consistent with the research conducted by Kampakaki & Papathanasiou (2016) and Toor et al. (2016).

CONCLUSIONS

The research found that there's positive and significant relationship between customer satisfaction and convenience, customer satisfaction and cost, customer satisfaction and privacy, customer satisfaction and cost, customer satisfaction and privacy, customer satisfaction and security, customer satisfaction and responsiveness in Nepalese commercial banking. Hence, it can be conclude that satisfaction of customer of Nepalese commercial e-banking service is significantly correlated between these factors.

Overall, the formulated hypotheses are acceptable, only one hypothesis is rejected but the correlation indicator is positive. It is concluded that there is a significant relationship between the customer satisfactions and independent variables; convenience, cost, security and responsiveness but privacy is not accepted. Therefore it can be concluded that to enhance the number of users active participating in e-banking, the service providers should focus on the convenience as well as the security; the users are more concerned about their convenience

and security while using e-banking services. It is necessary to build e-banking services more convenient and secured and service provider must update the security features timely and effectively.

REFERENCES

- Addai, B., Ameyaw, B., Ashalley, E., & Quaye, I. (2015). Electronic banking and customer satisfaction: Empirical evidence from Ghana. *British Journal of Economics, Management & Trade*, 9(3), 1-8.
- 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.
- 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.
- Bastola, E. R. (2020). *Banking in Nepal*. Khabarhub.com. <https://english.khabarhub.com/2020/23/70142>.
- Farris, P.W., Bendle, N.T., Pfeifer, P.E., & Reibstein, D.J. (2010). *Marketing metrics: The definitive guide to measuring marketing performance*. Pearson Education.
- Gaudel, D. (2021). Users' satisfaction of e-banking services in Nepal. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3850674>.
- 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 Bankinh*, 48, 49-61. 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.
- Hammound, 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).
- 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.
- Kampakaki, M., & Papanthasiou, S. (2016). Electronic-banking and customer satisfaction in Greece. The case of Piraeus Bank. *Annals of Management Science*, 5(1), 57-77.
- Kumar, R. (2022). Relationship between electronic banking and customer satisfaction.

International Journal of Multidisciplinary Research Review, 1(3), 53-61.

- Kumbhar, V.M. (2011). Factors affecting on customers' satisfaction in E-banking: Some evidences from Indian banks. *Management Research & Practice*, 3(4), 1-14.
- Mchomba, D.A., (2018). *The impacts of electronic banking on customer satisfaction in Tanzaina banking industry: The case of NMB bank* [Doctoral dissertation, The Open University of Tanzania].
- Pradhan, S. (2019). Customer satisfaction towards e-banking services offered by Nepal SBI Bank Ltd: A case atudy of Nepalese commercial bank. Munich GRIN Verlag. <https://www.grin.com/document/504153>.
- Raji, A. & Zameni, A. (2021). Effect of electronic banking in customer satisfaction in Kwara State, Nigeria. *International Journal of Academic Research in Business and Social Sciences*. Doi: <http://dx.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.
- 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.
- Shah, K.K. (2016). Electronic banking: its use and challenge in Nepal. *Academic Voices: A Multidisciplinary Journal*, 5, 9-15.
- Sharma, H. (2011). Bankers' perspectives on E-banking. *National Journal of Research in Management*, 1 (1), 1-15.
- Sharpa, P. (2015). *Development and impact of mobile banking in Nepal*. [An unpublished bachelor's thesis, Turku University of Applied Sciences].
- Tatum, D. (2021). *Liberalism and transformation: The global politics of violence and intervention*. University of Michigan Press.
- 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. Doi: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 & Financial Affairs*,5(2). DOI: 10.4172/2167-0234.1000174
- Newstrom, J., & Davis, K. (2007). *Organizational behavior: Human behavior at work*. McGraw-Hill.