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Online Shopping in Kathmandu Valley: Users' Knowledge, Challenges and Way Forward

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Abstract

E-payment users are expanding all over the world as a result of globalization and improved ICT facilities. Nepal has a 63 percent internet penetration rate, with 3, 59, 12,019 people using mobile services. In order to identify issues and managerial solutions of online purchasing in the Kathmandu valley, for the study, a sample of 295 e-payment users was chosen. A descriptive data analysis was carried out using the survey method. The result revealed that 95 percent of users were aware of the use of an e-payment system in Kathmandu valley. 40.13 percent of users agreed that they faced challenges while using the e-payment system. Some of the major challenges are slow internet penetration, an ineffective legal framework, a low literacy rate, and traditional payment methods. Similarly, improving security, reinforcing government policies, providing adequate internet access, and promoting digital literacy can be used to address issues with the e-payment system. The findings revealed that while 95% of e-payment users are aware of online payment systems, there is still room for improvement for the remaining 5%.

Keywords: Online shopping; E-payment; Awareness; Challenges.

1. Introduction

The growing rate of globalization and progress in ICT are the two most powerful forces affecting the world economy and trade at the moment. In the last few years the exponential expansion in ICTs has dramatically changed the business world and the resulting rapid emergence of electronic trade (EC). It was emphasized that e-commerce has now reached a stage of change in the development of revolutionary ideas (Kaynak *et al.*, 2005).The position of an electronic payment system is critical in the exponential increase in the number of users on the Internet and the transition to the Cloud. Some of the properties of paper cash which the electronic payment method should have include confidentiality, transferability and funicity (breaking broad to minor denominations). Cryptographic primitives are used in electronic payment systems based on security considerations. To effectively use a payment system on the internet, the code effort must be configured to use these primitives (Anand and Madhavan, 2000).

The payment system is the foundation for the development of the financial sector and national information infrastructure, a key group of strategic information systems that contribute to economic development, especially in emerging economies. It was made a key goal for developing countries' central banks to increase their ability to become major financial centers and to boost national financial infrastructures (Khiaonarong, 2000).Online payment systems are in the presence of a third party, usually a bank, that ensures the validity of the coins being transferred, the transfer of electronic money between the payer and payee (Anand and Madhavan, 2000; Devkota *et al.*, 2021). Electronic payment systems securely process such payments and can be implemented by merchants themselves on their own web servers or alternatively, they can be provided to merchants by third party e-payment service providers (Wright, 2002).E-payment strategies have a range of favorable characteristics, including security, reliability, scalability, anonymity, acceptability, privacy, effectiveness and convenience, in contrast with traditional payment methods. EPS has become accepted and is deployed worldwide. Countries like France, the United States and UK have grown fully, while regions like Asia-Pacific give the industry an opportunity for growth (Kim *et al.*, 2010).

The exponential growth of the online economy in recent years makes it extremely important to pay for open networks. The potential for operational efficiency, ease, security of privacy and direct customer access irrespective of geography would lead to rapid growth in electronic Payment. To order to replace conventional cash in the physical world as a means of payment in the virtual world electronic payment is debated. Unless the system is carefully conceived, it could not be simpler and cheaper to use electronic cash than traditional cash and electronic

payments. Furthermore, electronic payment over telecommunications and e-commerce data networks may be used without compromising consumer privacy (Zheng and KeFei, 2002).

According to the Nepal Telecom Authority, Nepal has a 63 percent Internet penetration rate (NTA). As a result, the number of Internet users must be significantly larger than NTA's estimates. According to the same data, 3, 59, 12,019 customers from various mobile operators use mobile services. In the case of Nepal, no corporation tends to make specific use of technological and innovative performance measures explicitly in the organizational performance process (Dahal *et al.*, 2020). So, there is an enormous difference between internet penetration and financial exposure for consumers. Financial exposure is only 61 percent of which is officially banked at only 40 percent, with 21 percent using other structured outlets. In order to improve financial access in Nepal, the government has used many initiatives, including Grameen Bank, Wholesale Micro Finance, Directed Lending, project-based Micro Credit and Cooperative. Nonetheless, these services have not been successful until now (Dahal, 2018). The risks of cyber threats and vulnerabilities are growing, and Nepalese bank payment system poses an exceptionally difficult problem of data privacy and security breaches. The framework / baseline for improving its cyber security environment therefore cannot be properly followed.

The largest difficulties facing banks around the world today are information security and safety. When it comes to cyber security, the first thing that comes to mind is "cybercrime." In addition to a number of initiatives, cyber security is a matter of great concern to many people. Government and private companies take several steps to avoid cybercrime (Dangol and Kautish, 2019). This paper then focuses on determining all the factors that may have influential effect on the e-payment system of Nepal and the people's perception towards it. This study is not the first of the kind in the e-payment sector but it unveils the important determinants of the perception of the users- who are the crucial part in the overall effectiveness in the e-payment system. Further, the analysis and findings of this study help bank decision makers, financial service providers, internet banking system developers, and practitioners in developing effective policies to improve their overall strategy for the proper implications of the online payment system.

The study is further divided into three parts. Second section of the study includes literature review, third section includes methods.

2. Literature Review

With the passage of time, technology has grown to the point where it has impacted the financial services sector, as well as other industries. To stay competitive in current market, every business must keep up with new technologies. Existing or the new players in the financial, industrial and various service sectors are into the aim to expand and protect their customer base and in order to achieve that aim they should also be aware about the advances in information technology. From many years, the advancement of the technologies has empowered the distribution and administration of financial services. In the context of online banking it is now being the latest and potential channel of financial service distribution examined both traditional and new players. Regardless of all the exertions, these banking services are still unremarked by the end users. Hence, the study of customer's perception is the main point to be studied for successful online banking facilities (Agarwal *et al.*, 2009).

Payment systems are a subset of strategic information systems that contribute to economic development and serve as the foundation for the financial sector and the development of national information infrastructure, particularly in emerging economies. In developing countries, this has become the central bank's key concern to strengthen national financial facilities and broaden their capacity to become major financial centers (Khiaonarong, 2000). However, effective e-commerce payment systems vary and rely on a country's culture and infrastructure. Factors that influence consumers in visiting and making transactions on e-commerce through e-payment system are important to determine. Therefore, Junadi and Sfenrianto (2015) propose a model of factors in their study which influence the intention of consumers in Indonesia to use an e-payment system. There have recently been a variety of e-payment systems on the internet. While different safety measures and frameworks for these EPS have been developed, several security problems remain.

To attract and retain e-payment users, it is critical to strengthen consumer expectations about security and maintain consumer confidence through e-payment transactions (Kim *et al.*, 2010). Hence, distinct marketing strategies should be applies for these different categorized non-adopters of EPS (Laukkanen *et al.*, 2008).Resistance may also occur in successful innovations, suggesting that innovation resistance is perceived to be a normal consumer reaction to the changes required by innovation in current behaviors or practices. It can therefore be concluded that aversion to technology influences the desires of customer to take advantage of innovation (Laukkanen *et al.*, 2008). According to the theory of expectation confirmation, users are satisfied when their expectations are confirmed and then further Performance expectation will have effect on user satisfaction. In addition, this theory says satisfaction is a strong predictor of the intention to continue. Numerous studies have supported the effect of satisfaction on user behavior (Zhou, 2011).

When the e-market is implemented, it involves not only the use of technology, but also the transition of interconnected confidentiality-producing processes, as well as a shift in economic and cultural perceptions of how a market system functions. Because mistrust lies in cultural beliefs that remain for decades, we must be mindful of the need to which value-based fears, so that e-market acceptance can be maximized (Hsiao, 2003).Dimensions of service quality Privacy, responsiveness, security, compliance and reliability affect customer satisfaction positively and significantly, and are proof of customer satisfaction. The most important effect on customer satisfaction has been the privacy. This means that users must trust that their personal data are secured and protected on the website of the bank and that their bank will not misuse their information (George and Kumar, 2014).Publicity has the maximum

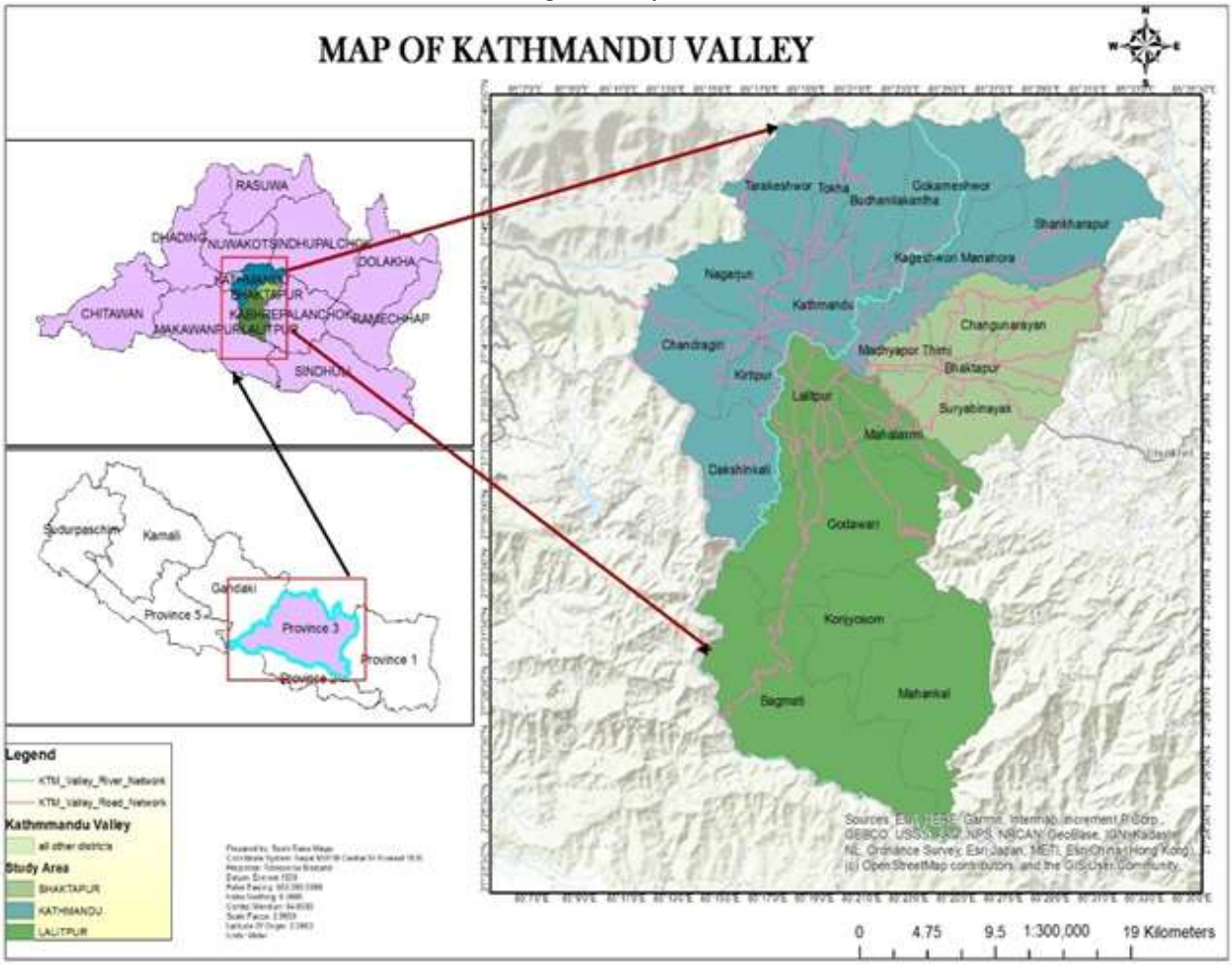
impact for customers with a saving bank account, while friends, family and peer groups are more influential in their e-banking behavior (Agarwal *et al.*, 2009).likewise, on the study conducted by Loureiro *et al.* (2014) it was found that the customers behavior or their intention to refer the banking service to others and to continuing the use of internet banking are mainly persuaded by their trust and commitment, and also their wish to hold onto the valued relationship.

3. Research Methods

3.1. Study Area and Population

To carry out the research The Kathmandu Valley is chosen as the study area. The Kathmandu Valley is Nepal's most developed and populous region. Many offices and headquarters are in the valley and become Nepal's economic hub (Tandukar *et al.*, 2021). The study area of this research was taken from Bagmati Province. It is located between the latitudes 27 ° 32'13 "and the latitudes 27 ° 49'10" to the North and the range 85 ° 11'31 "and 85°31’38” to the east, at a height of 1,300 meters above the sea level (Figure 1). It has an area of 899 square kilometres, with three areas, Kathmandu, Lalitpur, and Bhaktapur, and the entire valley has an area of 665 square kilometers (Adhikari *et al.*, 2021).

Figure-1. Study Area



As seen in Figure 1 also we can see that Kathmandu valley of province three is selected as a study area. Up to this review period, NRBs are authorized to act as payment institutions to all 27 commercial banks, 15 development banks and five finance firms. Likewise, 10 non-bank institutions are accredited as institutes of payment. Four of them include suppliers of payment systems, four are network operators of payment. In 2075/76, there was a 64% rise in the number of mobile banking subscribers, to 8347187 (NRB, 2019). Moreover, the number of subscribers of online banking grew 10% and rose to 344 917. The rise of mobile banking is promising and indicates that mobile payment services are favored by people. As the users of the e-payment services are increasing there is not exact number of users identified. Hence, it is considered that all of the individuals who use e-payment services to make various payments are study population here.

3.2. Sample Size Determination

Sarmah and Hazarika (2012) termed Sample size determination as the way of selecting the number of observations for the study. Same scholar also stated that it is important because it helps to make inference about population from a sample. The most pertinent sampling issue is the number of sample size required. The solution to this issue is determined by a number of factors, including the purpose of the study, population size, the possibility of

choosing a "poor" sample and the sampling error that may be permitted (Israel, 1992). Level of precision, also called sampling error, is the range in which the population's true value is calculated. This range is mostly expressed in percentage points (e.g., ±5%). If a confidence level of 95 % is selected, 95 out of 100 samples will have the true population value within the specific range stated. There's always a risk you get that the sample doesn't represent the true population value (Israel, 1992).

The formula for sample size determination is adopted from (Israel, 1992) as $n= z^2pq/e^2$. Where, n= sample size required for study, Standard tabulated value for 5% level of significance (z) = 1.96, p= Prevalence or proportion of an event 50 % = 0.50 (More et al., 2012), So, p = 0.50, q= 1-p, = 0.50. Here, allowable error that can be tolerated (e) = 6 %. It gives total population for the study no= $z^2pq/e^2 = (1.96)^2 \times 0.50 \times 0.50/ (0.06)^2 = 266.78$. We have incorporated non-response error 5%, i.e. 266.78*5/100 = 13.34. It results that the sample size should take for this study is (266.78+13.34) = 280.12 ~280. Hence, the intended sample size of the study was 280 at 6% error. Based on the sample sized determination, the questionnaire survey was conducted among 295 participants, which is further discussed in this chapter.

3.3. Research Instrument

The primary instrument in this analysis is the standardized interview questionnaire. Primary data from the questionnaire sample is obtained. In order to cover the concerns of the field of study, the Questionnaire was prepared. The banking customers have prepared, performed and conducted interviews for data collection with a formal questionnaire. The purpose of the study was related to every question used for data collection. Key Informants Interview (KII) was used for the research tools. KII was carried out to ensure that the work carried out discussed field issues. Questionnaires have been exchanged with users of the Kathmandu Valley e-payment system. Pretest formulated questionnaires were taken on 10% of the sample before the data collection process began. The consstructed questionaire was managed and collected through the KOBO Tool Box.

3.4. Data Analysis Techniques

It is carried out based upon descriptive analysis and the satisfaction index. It is based on a simple calculations using MS Excel. The data analysis includes identification of the users' status on e-payment system, construction of satisfaction index challenges and managerial solution for effective e-payment system. In descriptive statistics the sociodemographic variables, satisfaction index, determinants or say the dependent and independent variables and also the managerial solutions are described through various tables and graphs. The satisfaction level of e-payment users is calculated by the satisfaction index in this report, which comprises four major parameters, i.e. users' attitude and behaviors, compatibility and price value. Then both of these three dimensions are evaluated at three ranges that are less satisfied, moderately satisfied and highly satisfied. The ranking is shown by the index number. The 0-49 index is graded as less satisfied, the 50-74 index as moderately satisfied, and the 75-100 value index as highly satisfied. For the index, each respondent with the answers to the given question is first calculated separately. In comparison with the users, further satisfaction level is then measured in conjunction with the gender, showing the percentage of male and female users' satisfaction level.

4. Results and Discussion

4.1. Socio-Demographic Characteristics

General information on the surveyed e-payment users is included under the personal characteristics of users. Various variables such as gender, age, level of education, occupation and level of income were examined. The questionnaire survey was conducted among 295 e-payment users. Gender is one of the influencing factors for the use of e-payment. In this study the composition of male and female was 59% and 41% respectively which reflects that there is gender balanced e-payment users. In the study conducted by Teoh *et al.* (2013) total 200 respondents were targeted and among them majority were male and majority (66.10%) of e-payment users were from the age in between 21-30 years. Whereas on the previous study of similar nature conducted by Agarwal *et al.* (2009) it was found that majority of participants (56.5 percent) belonged to the 31-45 age group. For people to be efficiently able to use e-payment system the education level also matters most. Among e-payment users 37.62% have completed bachelor's level of education. In comparison to previous research finding 62.5 percent of respondents were in college and 13.6 percent were in high school. Lee (2009) It was also found students were the major (34.91) users of e-payment systems and government employees were the lowest users (3.72%).

Table-1. Socio-Demographic Characteristics

Title	Number	Percentage
Gender		
Male	174	59
Female	121	41
Age		
Below 20	36	12.20
21 – 30	195	66.10
31 – 40	39	13.22
41 – 50	22	7.45
Above 50	3	1.01
Education Level		
Uneducated	6	2.03
Primary	13	4.40
Lower Secondary	8	2.71
Up to SEE/ SLC	24	8.13
Intermediate (or 10+2)	69	23.38
Bachelor's	111	37.62
Masters	59	20
Above Master's	5	1.69
Profession		
Banking and Finance	19	6.44
Housewife	16	5.42
Health Professionals	13	4.40
Students	103	34.91
Government Employee	11	3.72
Industrial Employee	17	5.76
Business	25	8.47
Teaching	24	8.1
Others	67	22.71

4.2. User's Status on Electronic Payment System

An important part of driving all facets of the economy is the growth of the digital financial services environment. Online processing will support clients who do not have access to traditional branches. Digitization provides a lot of benefits, from enhancing access to financial institutions to improving the method of tax collection, to driving economic development (e-sewa, 2020). Here in Table number 2 the status of e-payment system is mentioned and in Table 3 the number of customers on payment channel is mentioned.

Table-2. Status of E-payment System in Nepal

Dates	Events
1880	Establishment of Tejarath Adda
1937	Era of modern financial system begun with the establishment of Nepal Bank Limited
1956	Modernization of financial system speed up after the establishment of Nepal Rastra Bank
1968	Establishment of Clearing House
1990	Nabil Bank introduced card banking
1995	Himalayan bank introduced ATM
2001	Smart Choice Technology(SCT) was established
2002	Kumari Bank introduced internet banking
2004	Laxmi bank introduced SMS banking
2009	launch of eSewa by F1 Soft International

Source: Timilsina (2019)

The history of the payments system in Nepal traces back to nearly two and a half centuries, when King Prithivi Narayan Shah developed Kaushi Tosha Khana to encourage state payments. A systematic solution to incorporating general banking emerged with the foundation of Tejarath Adda in 1880, following Kaushi Tosha Khana. Then the new era of the modern financial system begun with the establishment of the Nepal Bank Limited. After the establishment of the NRB (Nepal Rastra Bank) as the central bank of the country in 1956 the modernization of the financial system speed up. In 1968, the NRB launched the NRB Clearing House that can be seen as a crucial step in the development of the country's advanced payment systems. A further breakthrough in the Nepalese payment system emerged in 1990 with the implementation of digital payments in the region. With the introduction of a credit card in 1990, Nabil bank launched card banking for the very first time as in economy. First ever ATM was launched in the nation by the Himalayan Bank in 1995. Smart Choice Technology (SCT) was developed in 2001 in an attempt to automate card banking across the SCT network between banks and financial institutions. This has been succeeded

by other modes of automated banking, such as Laxmi Bank's SMS banking in 2004 and Kumari Bank's internet banking in 2002.

Before the rise of eSewa in 2006, the payment system had been under the ultimate domination of banks and financial institutions. In 2009, consumers were able to pay, deliver and withdraw money through their cell phone and internet despite any bank account following their service as a digital wallet (Timilsina, 2019).

Table-3. Number of Customers on Payment Channels

Channel	Institution	July 2015	July 2016	July 2017	July 2018	July 2019
ATM	A Class	1,483	1,661	1,874	2,552	2,951
	B Class	213	230	177	209	318
	C Class	25	17	30	30	47
	Total	**1,721**	**1,908**	**2,081**	**2,791**	**3,316**
Mobile Banking	A Class	997,463	1,604,578	2,438,222	4,711,097	7,406,802
	B Class	56,994	133,561	217,432	351,796	909,512
	C Class	13,846	16,427	14,078	23,176	30,873
	Total	**1,068,303**	**1,754,566**	**2,669,732**	**5,086,069**	**8,347,187**
Internet Banking	A Class	396,362	489,835	766,958	816,074	888,268
	B Class	17,386	23,036	14,634	14,634	24,124
	C Class	1,714	2,594	2,159	3,594	4,952
	Total	**415,462**	**515,465**	**783,751**	**834,902**	**917,344**

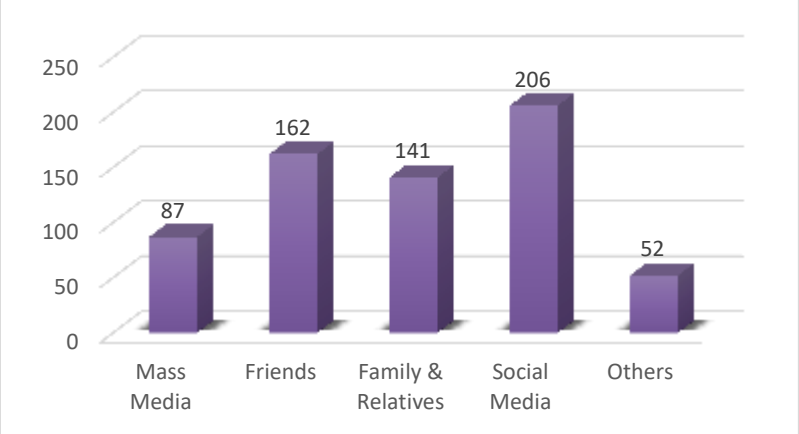
Source: Nepal Rastra Bank Message from Executive Director (2019)

In table number 3 we can see that the highest number of users are the user of the mobile banking facilities and the rate of the users are increasing as the year passes. The second highest used payment channel was then internet banking and the users of the internet banking are also increasing as the year passes. Through the number of the figures of the users presented in above table we can clearly say that the customers of these e-payment channels are increasing. This section of the study deals with Knowledge and level of awareness of the respondents regarding the e-payment system available in Nepal. This part of the study portrayed the level of awareness, general understanding and trainings received by them on e-payment.

4.3. Users of E-payment System Their Knowledge and Awareness Medium

Previously it was found that approximately 69% of respondents don't have experience using internet transactions (Lee, 2009). Where as in this study, among total number of 295 respondents 51 respondents haven't used any e-payment gateways available in Nepal whereas, 244 respondents have used e-payment gateways available in Nepal which represents that majority of the respondents have experience of using e-payment system. 280 respondents which is 95% of the total respondents have heard about e-payment system and remaining 15% are not aware about e-payment system which conclude that there is still areas for the awareness. Most of the people have heard about the e-payment system from social media which is 206 number of respondents and lowest number of respondents which is 52 number of respondents have got knowledge about e-payment from other source of medium.

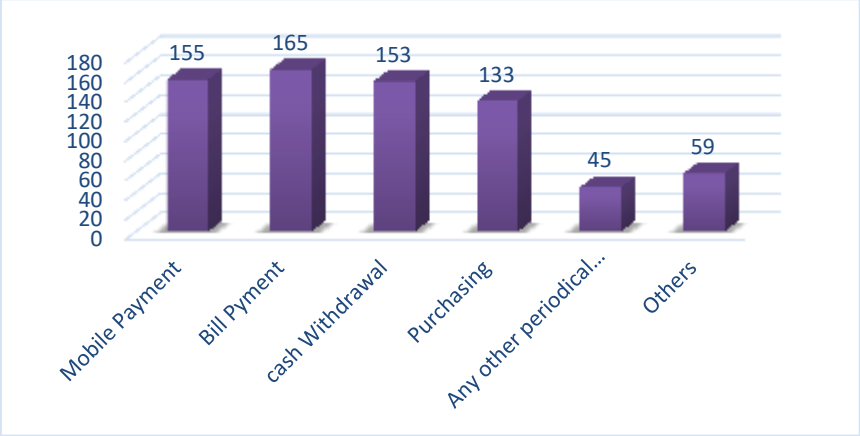
Figure-2. Awareness Medium



4.4. Use of E-payment Gateway, E-payment Transaction and its Frequencies

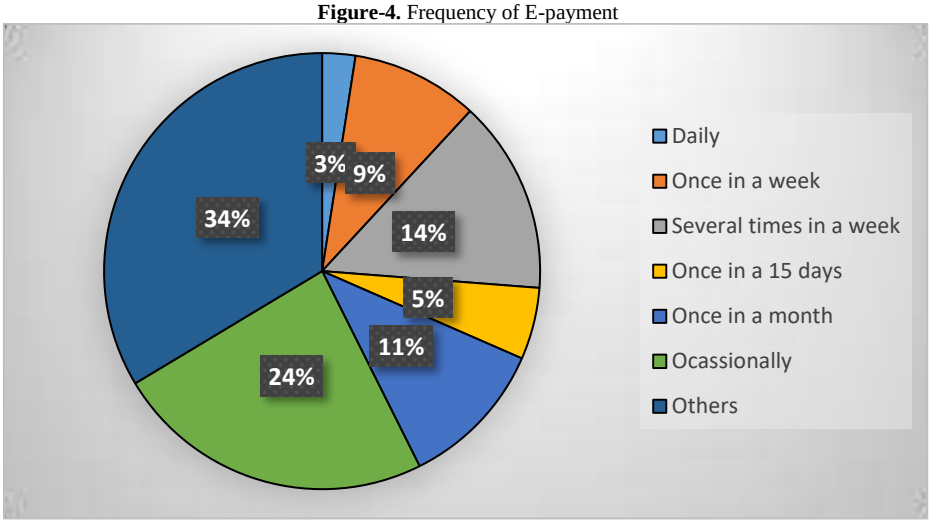
From the question asked to all the respondents it was found that among all the 295 respondents and among 244 users majority of the users use e-wallet which is of 114, 112 were the users of debit card, 12 users use credit card, 1 user use e-cheque and remaining 5 use other e-payment medium. Most of the people use e-payment in order to pay their bills. Likewise, 155 respondents used e-payment to make the mobile payment, 153 use to withdraw cash, 133 use to purchase, 45 use to make the periodical payment and 59 use to make other transactions.

Figure-3. E-payment Transaction



In similar kind of study it was found that the majority of the users use e-payment once time every week at least (Lee, 2009). The finding of this study is presented in figure number 7 which shows how frequently users use e-payment system to make their financial transactions. We can see that the 34% of the respondents use e-payment system in other time period whereas, 24% of the respondents use e-payment system occasionally, and the lowest respondents use e-payment system daily which is 3%.

Figure-4. Frequency of E-payment



4.5. User's Electronic Payment Satisfaction Index

Under satisfaction index we have analyzed and considered various variables that further helps to depict the satisfaction level of the users on e-payment system. The discussed variables under this topic are Users' attitude and behaviors, compatibility and price value. Under these heading following table number 3 helps to determine and analyze the satisfaction level of all the e-payment users. In table below we can see that under users attitude and behaviors dimension in questionnaire total three questions were asked to the respondents and among 244 respondents who have used e-payment system 144 respondents had answered that their expectations are met by the online payment services, 23 answered that their expectation were not met and 77 respondents were not sure under this question.

Table-4. Satisfaction Index

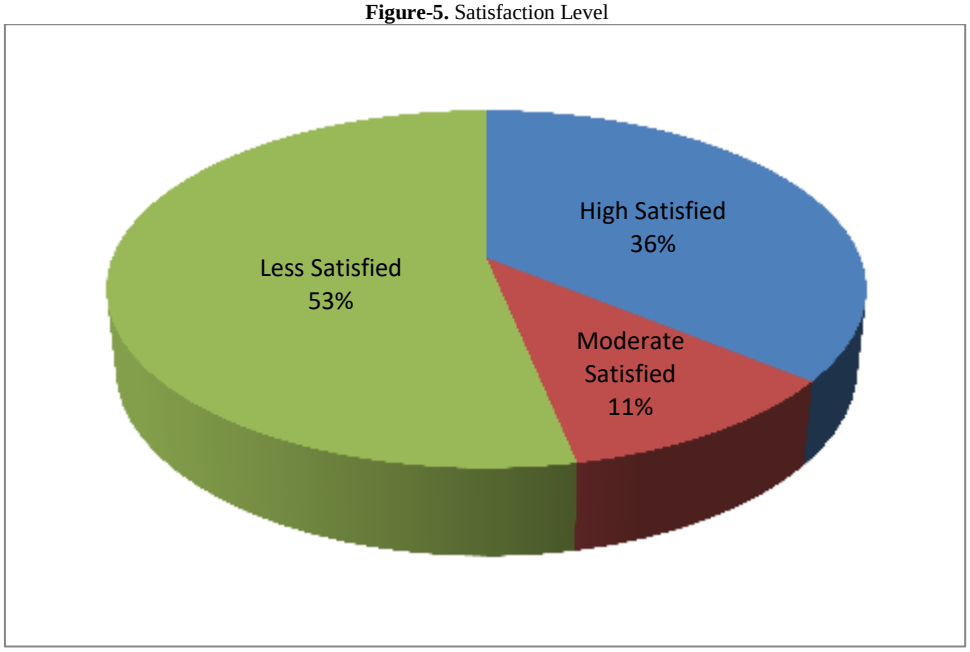
A	Users' Attitude and Behaviors	Yes	No	Not sure
	My expectations are met by online payment services.	144	23	77
	The use of online services is appealing to me.	163	8	73
	I achieve faster loyalty with e-payment system.	122	19	103
B	Compatibility			
	The use of e-payments is compatible with every aspect of my life.	125	25	94
	My current situation is entirely consistent with e-payment usage.	116	36	92
	I think it fits the way I like to shop using e-payment.	129	21	94
C	Price value			
	E-payment is reasonably priced.	162	28	54
	Mobile payment is a good value for the money.	158	15	71
	At the current price, mobile payment provides a good value.	154	19	71

Likewise, 163 respondents found the e-payment system appealing, 8 didn't found it appealing and remaining 73 were not sure about this. Also, 122 achieves faster loyalty, 19 didn't achieve faster loyalty and 103 were not sure here.To move ahead, under compatibility dimension for 125 users e-payment was compatible with their every aspect of their life, for 25 respondents it was not compatible and 94 were not sure about this. Further, for 116 respondents their current situation was entirely consistent with e-payment, for 36 respondents it was not consistent and remaining 92 respondents were not sure on this. Likewise, for 129 respondents e-payment fits the way they like to shop using e-payment, for 21 it doesn't fit and remaining 94 were not sure on this.

4.6. Satisfaction Level

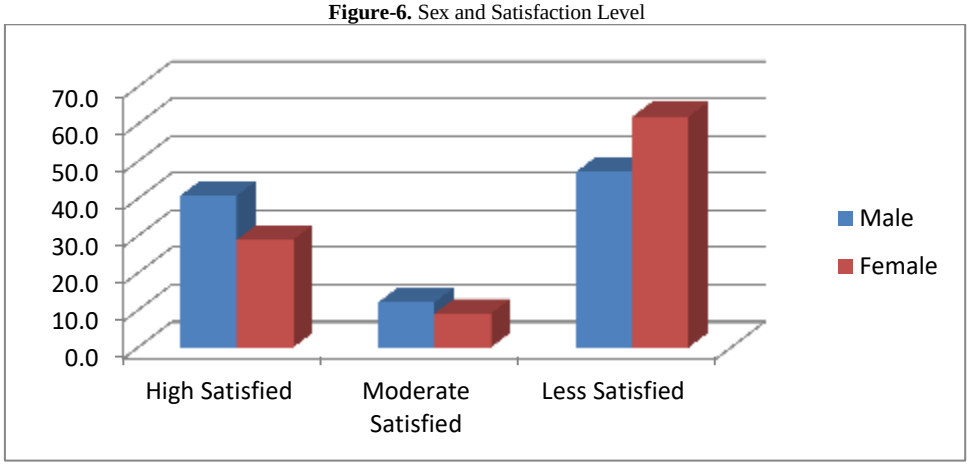
Through calculating the satisfaction index the satisfaction level of the users were identified. From figure 8 we can see that less number of respondents which is 32 number of respondents are only moderately satisfied, likewise 157 and 106 are less and highly satisfied respectively.

Figure-5. Satisfaction Level



Here the comparison is made between the sex of the respondents and the satisfaction level. From the figure number 9 we can see that the higher number of respondents are male. The satisfaction level of the male users are also then analyzed here and same as to the female respondents. As the below figure displays total 71 number of male respondents are highly satisfied, 21 are moderately satisfied and 82 number of male respondents are less satisfied. Then in terms of the female respondents 35 number of female respondents are highly satisfied, 11 are moderately satisfied and remaining 75 number of female respondents are less satisfied.

Figure-6. Sex and Satisfaction Level



4.7. Challenges and Managerial Solution for Effective Electronic Payment System

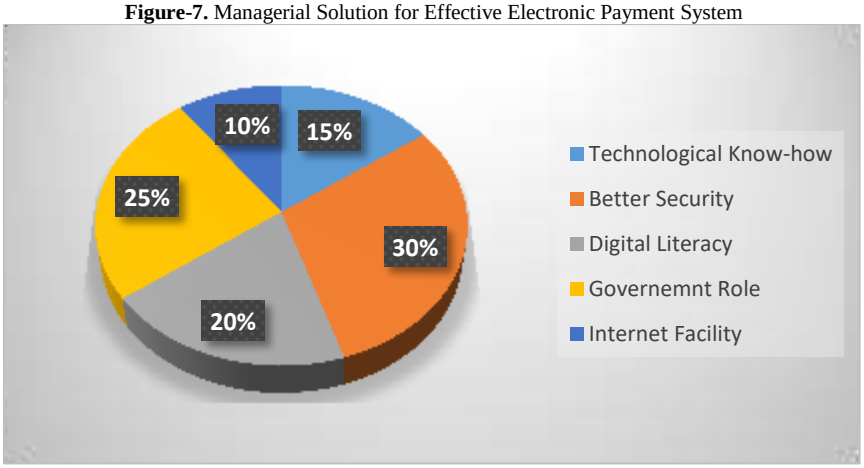
There are numerous challenges on the way towards the development of the e-payment system era in our country Nepal. Majority (48.13%) of respondents have strongly agreed upon the challenges regarding security issues as major challenge for development of e-payment in Nepal. Likewise, low internet penetration, inappropriate legal framework, low literacy rate, traditional way of payment and other mentioned challenges are considered as the main hurdles in e-payment system simultaneously. Further low internet penetration (42.03%) with reflect another most impactful force for barrier in development of the e-payment system.

Table-5. Challenges of E-payment System

Challenges	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The fact that Nepalese company uses cash for most of their transactions is the practice of people.	5	5	49	130	106
Nepalese banks use very little innovative products and marketing techniques. They are very unadventurous.	2	8	63	108	114
Security issue is one of the major challenges in the development of e-payments in Nepal	4	5	40	104	142
Low Internet penetration and improper telecom prevent the smooth development and improvement of e-payments.	1	8	43	119	124
Failure to provide an appropriate legal and regulatory structure for e-payments: current legislation does not cover electronic contracts and signatures.	5	5	50	118	117
The lower literacy rate poses a serious obstacle to e-payment, as it prevents banking services being made accessible.	4	2	45	130	114
The per capita cost of access to the Internet is a key factor.	2	7	73	128	85
The lack of reliable power supply is a major challenge for e-payments and e-banking to work properly	4	11	61	129	90

Some of the respondents suggested that the e-payment was manageable and some thinks that the e-payment was not manageable but majority of thinks that the e-payment system was manageable.

Figure-7. Managerial Solution for Effective Electronic Payment System



30% of the respondents mentioned that the security must be strong so that the e-payment could be trustable. The second most strategical implication suggested was that the government role as a facilitator and regulator. In order to restructure the nation's payment system and set up the trading platform to mitigate financial and structural risks and encourage efficiency, NRB and all the government should take appropriate measures. Other primary management techniques were considered to be digital literacy. The nature of the digital payment system must be clarified to all Nepalese people. Obviously, it is necessary to have sufficient internet facilities to operate the e-payment transactions so that the digital payment process can be reliable and successful. It was also proposed that it was important to upgrade the e-payment service provider to the new technology. They should be capable of supplying their clients with the latest technical equipment

5. Conclusion

The results in the study have revealed that respondents are aware about e-payment system in Kathmandu valley. However, the rooms for improvement are still available which would further help to enhance e-payment system in Nepal and to aware those respondents who are not aware about e-payment system. It was also found in Nepal, there are more male e-payment system users compared to females. This can be because male still are dominant to shopping for household purpose, paying bills for utilities and so on. Major challenge identified in the sector of security. If secured e-payment is assured by government and related organizations it would be factor to motivate users in using e-payment system. Likewise, for proper use of e-payment system and strengthen the sector proper internet facilities should be provided, digital literacy is required, government should make rules and policies accordingly.

References

Adhikari, D. B., Shakya, B., Devkota, N., Karki, D., Bhandari, U., Parajuli, S. and Paudel, U. R. (2021). Financial hurdles in small business enterprises in Kathmandu Valley. *Modern Economy*, 12(6): 1105-18.

Agarwal, R., Rastogi, S. and Mehrotra, A. (2009). Customers' perspectives regarding e-banking in an emerging economy. *Journal of Retailing and Consumer Services*, 16(5): 340–51. Available: https://doi.org/10.1016/j.jretconser.2009.03.002

Anand, R. S. and Madhavan, C. E. V. (2000). An online, transferable e-cash payment system. Lecture notes in computer science (including subseries lecture notes in artificial intelligence and lecture notes in bioinformatics). 1977: 93–103. Available: https://doi.org/10.1007/3-540-44495-5_9

Dahal (2018). Digital payment system in nepal: Challenges and opportunities. Available: https://blog.khalti.com/fintech-trends/digital-payment-system-in-nepal-challenges-opportunities/

Dahal, Bhattarai, G. and Karki, D. (2020). Determinants of technological and innovation performance of the nepalese cellular telecommunications industry from the customers' perspective. *Advances in Science, Technology and Engineering Systems Journal*, 5(6): 1013-20.

Dangol, S. and Kautish, S. (2019). It security related issues and challenges in electronic payment system in Nepal: a study from customer ' s perspective. 1(2): 85–103.

Devkota, N., Budhathoki, A., Paudel, U. R., Adhikari, D. B., Bhandari, U. and Parajuli, S. (2021). Online trading effectiveness in nepal share market: Investors awareness, challenges and managerial solution. *Asian Journal of Economics, Business and Accounting*, 21(5): 90-98.

e-sewa (2020). eSewa: providing digital payments for all in Nepal. Available: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2018/05/eSewa-Providing-digital-payments-for-all-in-Nepal.pdf

George, A. and Kumar, G. S. G. (2014). Impact of service quality dimensions in internet banking on customer satisfaction. *Decision*, 41(1): 73–85. Available: https://doi.org/10.1007/s40622-014-0028-2

Hsiao, R. (2003). Technology fears : distrust and cultural persistence in electronic marketplace adoption. 12: 169–99. Available: https://doi.org/10.1016/S0963-8687(03)00034-9

Israel, G. D. (1992). Determining sample size. *Qualitative Health Research*, 10(1): 3–5. Available: https://doi.org/10.1177/104973200129118183

Junadi and Sfenrianto (2015). A model of factors influencing consumer's intention to use e-payment system in Indonesia. *Procedia Computer Science*, 59((Iccsci)): 214–20. Available: https://doi.org/10.1016/j.procs.2015.07.557

Kaynak, E., Tatoglu, E. and Kula, V. (2005). An analysis of the factors affecting the adoption of electronic commerce by SMEs: Evidence from an emerging market. *International Marketing Review*, 22(6): 623–40. Available: https://doi.org/10.1108/02651330510630258

Khiaonarong, T. (2000). Electronic payment systems development in Thailand. *International Journal of Information Management*, 20(1): 59–72.

Kim, C., Tao, W., Shin, N. and Kim, K. S. (2010). An empirical study of customers' perceptions of security and trust in e-payment systems. *Electronic Commerce Research and Applications*, 9(1): 84–95.

Laukkanen, P., Sinkkonen, S. and Laukkanen, T. (2008). Consumer resistance to internet banking: Postponers, opponents and rejectors. *International Journal of Bank Marketing*, 26(6): 440–55. Available: https://doi.org/10.1108/02652320810902451

Lee, M. C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications*, 8(3): 130-41.

Loureiro, S. M. C., Kaufmann, H. R. and Rabino, S. (2014). Intentions to use and recommend to others: An empirical study of online banking practices in Portugal and Austria. *Online Information Review*, 38(2): 186–208. Available: https://doi.org/10.1108/OIR-01-2012-0100

NRB (2019). Payment systems oversight report.

Sarmah, H. K. and Hazarika, B. B. (2012). Importance of the size of Sample and its determination in the context of data related to the schools of greater Guwahati. *Bull. Gauhati Univ. Math. Assoc.*, 12: 55-76.

Tandukar, H., Devkota, N., Khanal, G., Padda, I. U. H., Paudel, U. R., Bhandari, U. and Parajuli, S. (2021). An empirical study in nepalese commercial bank's performances on green banking: An analysis from the perspective of bankers. *Quest Journal of Management and Social Sciences*, 3(1): 49-62.

Teoh, W. M. Y., Chong, S. C., Lin, B. and Chua, J. W. (2013). Factors affecting consumers' perception of electronic payment: an empirical analysis. *Internet Research*, 23(4): 465-85.

Timilsina, S. (2019). Payments system development in Nepal. Souvenir of Rastriya Banijya Bank Limited Upahar. *Magazine of Economics and Management*, 56(1): 89-94.

Wright, D. (2002). Comparative evaluation of electronic payment systems. *Infor*, 40(1): 71–85. Available: https://doi.org/10.1080/03155986.2002.11732642

Zheng, H. and KeFei, C., 2002. "Electronic payment in mobile environment." In *Proceedings. 13th International Workshop on Database and Expert Systems Applications IEEE.* pp. 413-17.

Zhou, T. (2011). Understanding mobile internet continuance usage from the perspectives of UTAUT and flow. *Information Development*, 27(3): 207–18. Available: https://doi.org/10.1177/0266666911414596