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FUTURE PROSPECT OF ONLINE BANKING IN NEPAL

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Abstract

Online banking is very important in a country like USA, Australia, Europe and many more developed countries. But countries like Nepal, India, Pakistan, Bangladesh, Srilanka and Bhutan which are under developed or developing countries are still struggling with internet access and electricity are slowly moving towards internet world and online banking. This research aim is to find out the reason of not using online banking in a country, where literature percentage is more than 50%. For this purpose, we have combined four popular theories which are mostly used in our theory that are literature of technology acceptance, including technology acceptance model, theory of consumer behavior, theory of reason action and innovation diffusion theory. Combining of all above mentioned theories and structures, theories construct. Our research model includes product information, ease of use, risk analysis, cost factor, feasibility of the existing service and access to internet and electronic devices.

Primary data for this empirical study was gathered by taking interview of different sectors people and analysis was done through comparing of local app e-sewa and khalti.com with A category bank online banking facilities and services. The empirical analysis shows that internet access and electronic devices have significant effect on usage intention. However, ease of use was found as the strong predictor of perceived enjoyment, and perceived ease of use and perceived compatibility were found as a significant predictor of perceived usefulness of online banking.

Keywords: Online banking, theory of consumer behavior, online transaction, internet access, technology, electric devices.

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CHAPTER 1: INTRODUCTION

Chapter summary

The purpose of conducting this research is to see how internet banking has progressed over time and what are the challenges to the adoption of online banking in developing countries like Nepal. The introductory chapter of this research thesis focuses on describing what is online banking along with the numerous characteristics associated with it. The historical background of online banking along with its origin in Nepal has been explained. Then the features of online banking include all the services that banks provide under online banking. The benefits of online banking and the risks associated with it have been explained in an attempt to better understand the service of online banking through a risk-benefit analysis. Further, the problem discussion section of the chapter determines what were the problems which users and firms face in the adoption of online banking in developing countries like Nepal. accordingly, the research purpose and research question and significance of the study focus on the purpose of conducting the research and its importance from a theoretical and practical perspective.

History of banking.

According to the history the word bank was derived from an Italian word banco. the meaning of the banco is benches. The Italian traders used to sit on the benches to receive and lend the metals, stamped notes and other type of money for trading purpose. Those transactions were the first and early stages of banking in the world. Many years ago, the banking system was not like today's advance banking system. People at that time was unaware of the fact that what will be the future of this merchant dazing system will be. The bench trading introduced to keep precious metals and documents like property wills in the lockups. Moreover, the main purpose was to reduce the risk of theft of precious metals during the age of barter system. Many traders have to travel on horses and camels on the land. There was a constant fear of theft and looted by criminals. So these bench merchants keep people precious metals and give them the paper with their stamps on it. when these papers were produced to these merchants again by someone else. Then these merchants pay back the certain commodity which was held behind that stamped document. Other guarantee documents of notes were then taken to

the maker which is liable to pay the certain amount written on the paper after checking the means of paper is valid.

1.1 Background Description

1.1.1 What is online banking?

Online banking refers to the use of internet for the purpose of performing various banking activities via websites, mobile applications and other electronic sources associated with a particular bank (Khatri og Dhungel, 2013). Online banking means internet banking or e-banking, which offers the customer to check their balance in their account, fund transfer among the accounts, apply the loan application downloading transaction information, trade stocks or mutual funds (King et al., 2004).The Internet service is the major source of online banking. without internet facility it cannot be done.It can be defined as the source of virtual connection of two or more computers in order to share information and data . It was previously being used for military purposes only. Then it was later introduced for the civillian . Most of the people at its earlier stages was using internet for communications and multimedia purposes only. With the evolution and research in the internet speed and connectivity it was later introduced in banks to interlink the branches of the same banks branches to increase the services like getting banks statement and other basic services. Now the days the online banking which was previously only available under the roof of banks is available at our homes in the form of online banking. We can share assets, transfer funds and securities and more over we can use online banking to do whatever was only possible inside the banks before.

The idea of e-banking incorporates a wide range of banking exercises performed through electronic networks. It is the latest conveyance channel of banking administrations which is utilized for both business-to-business (B2B) and business-to-client (B2C) exchanges. In true sense, e-banking incorporates exercises like installment of bills and solicitations, exchange of assets between accounts, applying for a credit, installment of advance portions, sending assets to outsiders by means of messages or web associations paying little attention to where the customer is found.

The meaning of e-banking shifts among scientists halfway in light of the fact that electronic financial alludes to a few sorts of services through which a bank client can demand data and do most retail banking administrations by means of personal computers, televisions or cell phones (Daniel, 1999).

With the evolution of online banking our precious time is safer, and we can perform multiple task at the same time. Imagine we need to withdraw a money from banks, and we need to go to the bank in bank timing else we cannot have our money till next working day. Now with the evolution on online banking we have our money safe in the banks and we can use it at any time of the days to pay back our daily liabilities without the need of cheque books and banking hours.

1.1.2 History of online banking

As the world is technologically advancing in every field, the banking sector has also evolved over time. Advancements in information technology have been very rapid and intense. Previously, the world was only familiar with traditional banking methods and every banking customer had to personally, physically go to the bank branch to get any services or to operate his/her bank account. These traditional banking methods were with quite limitations as all bank branches closed around 4-5 p.m., after which people were unable to operate their bank account or utilize any services until the next morning when the bank opens again. However, all these limitations have been overcome as the banking sector has now technologically advanced and adopted online banking, also called internet banking or e-banking (Furst et al., 2001).

If acceptance towards technological developments in various fields is compared, it can be seen that people have more rapidly adapted towards using internet facilities in the finance industry as compared to other fields. Researchers have found that after the invention of electricity in 1873, its full adoption world wide took almost 46 years. The adoption periods are very high for other inventions as well, such as 35 years for telephones, 22 years for radios and 16 years for the adoption of Personal Computers (PCs). However, the adoption of the world wide web took only 6 years (Pyun et al., 2002). The reason behind adoption of online banking in such speed is due

to the gap which was clearly seen in the traditional banking system. The online or e-banking has totally changed the idea of traditional banks where guards with gun were standing outside the door of the banks and checking each and every customer for hazardous things not to be taken inside the banks. then comes a que for the cashier. then come the constrain of sign is not matching in the cheques and we then cheque is returned without being cashed due to the minor difference in the signature. Imagine when you have to pay a utility bill and you have to stand in the line outside banks under the sun for hours to get your bill paid on the date. This was the condition in Developing countries like Pakistan, Nepal, India, Bangladesh till 2010. The gap was there people were looking for the solution and then technology helped out and reduced the traffic of people from hundreds of customers visiting their banks to only dozens of customers visiting branches. With this evolution the number of employees inside the bank has greatly reduced and there will be such time coming when there will be one employee for each bank. The size of the banks will also reduce as all the services are becoming online. Going to banks for opening bank accounts is the first and the last reason which will be left behind for banking sector. The rest concern of the banks will be internal.

Similarly, internet banking has evolved simultaneously alongside the development of world wide web. The idea of online banking was first developed in 1980s in Europe and United States when various banking organizations started research and experiments on what they called 'home banking' at that time. This included the use of fax machines and telephones for the operation of banking services and as a facility for banking customers. Home banking then further developed as internet became widespread (Juergen og Eberhard, 1998).

The first organization to launch internet banking service in the United Kingdom was the Nottingham Building Society (NBS). The NBS launched online banking in 1983. Initially, the facility was not developed to much extent and was limited only to certain of transactions and funds transfer which bank account holders could operate. In the United States, online banking service was first launched by a financial institution, namely Stanford Federal Credit Union, in October 1994 (Pyun et

al., 2002). In Latin America, the first internet banking project was launched by the Deutsche Bank in 1996 (UNCTAD, 2002).

Since then internet banking has been growing rapidly all across the world. In May 1995, there was only one or two banking organizations worldwide that offered online banking service but in May 2002, the number grew to 6000 financial institutions across the world that provided internet banking service. And today the number of banks providing online banking services worldwide is limitless. Similarly, only 50 financial institutions had websites worldwide in 1995, whereas in May 2002, about 14000 financial institutions had websites (Anesti, 2004).

Metric	May 1995	May 2002
Financial institutions with web banking worldwide	1	6000
Financial institutions with websites worldwide	50	14000

Table 1.1. Web banking in 1995 and 2002 (Online Banking Report: Internet Strategies for Financial Institutions (2002))

1.1.3 Growing trends in online banking

Online banking has become a global phenomenon as its usage, all over the world, has significantly increased over the past few years. The world has seen a shift in the trends of banking as people are now moving towards online banking in contrast to branch banking. Most of the functions and activities of banks are now being performed via e- banking or online banking. The technological advancement that the world has seen in the past decade is the major contributor to this shift towards electronic banking. Moreover, as more and more banks are venturing into the electronic arena, a race to access new opportunities, in order to excel in the field, has started (Banstola, 2007).

Although the culture of internet banking is more common in developed countries where technology has significantly advanced and people are becoming more and more aware of the benefits of internet banking, yet the developing states are also not lagging behind in this trend. States like India, South Korea, Pakistan, Bangladesh and Nepal have shown rising trends in the use of online banking by various bank

account holders (Baten og Kamil, 2010). Most of the banks in Pakistan are now offering online e banking. you can transfer funds and pay bills while sitting at your home computer or on mobile app. You can pay utility bills and apply loans while sitting at home. Other services includes bank statement. reconciliation statement. monthly expenses as well. The major name in the online banking is muezzin bank which is the first bank which provided online banking free of cost in Pakistan while the rest of the bank were charging some amount when they started online banking. That was the reason which give boost to Meezan bank .Now a day they have 8500 employees with 660 branches in 159 different cities of Pakistan. It has become the first and the largest Islamic bank in Pakistan.

1.1.4 Origin of online banking in Nepal

In 1937, banking began in Nepal with the establishment of the first bank, that is the Nepal Bank, Ltd. After that, it took nearly 58 years for the banking sector in Nepal to initiate online banking. In 1994, Mercantile private limited introduce the ISP and started email service for commercial purpose (Yadav, 2004). The Himalayan Bank, Ltd. was first in line in this regard, as it was the first bank to introduce the Automated Teller Machine (ATM) and telebanking in 1995. However, it was not until 2002, that online banking was properly started in Nepal by the Kumari Bank, Ltd (Mishra, 2008).

Although it has been more than 10 years since online banking was initiated in Nepal, but still e-banking has not gained much popularity in the country as majority of the backward areas in Nepal do not have appropriate internet facilities. Some of the major cities like Katmandu, Biratnagar, and Pokhara do have good internet connections, people still rely on using traditional banking methods. Majority of the banks in the cities do provide online banking facilities, still e-banking in Nepal is in its early stages and most of the bank account holders using traditional banking methods instead of online banking. According to a study, out of the 100,000 internet users living in Kathmandu Valley, Nepal, only 3000 users use online banking (Banstola, 2007). Kathmandu is the capital of Nepal yet only 3000 consumer were

reported that are using e-banking or online banking. It clearly states that people of Nepal are still unaware of the Online banking services and the reason behind this is lack of knowledge, uneducated people and slow or no internet connection. Those countries which are having good internet services are going to be more in online services than other countries.

In Europe, US, Australia and Japan online banking is getting popular because of its fast and reliable service. Customers are performing their banking activities electronically through the use of internet by the means of their personal computer or laptop at a time when they are flexible, and this is for those who have a hard time managing time during their work time. (Deitel et al, 2001) . Same is the case in Sweden, Denmark, Ireland, Finland and Norway. People are using online banking services and hardly visit their banks physically during a whole year. It is because people are having less time in their tight schedule and they don't want to waste their time without any serious issue.

According to the Statista (2017) report, Norwegian people are using access to online banking sites with 92% and with this Norway is the strongest country in using online banking penetration in Europe followed by two countries like Denmark and Netherlands with 90% and 89% (Statista, 2017).

According to the report of Nepal telecom authority (NTA) the usage of internet is 63% which is large, as per the population in 2017. Nepal is an underdeveloped country with a literacy rate of 66% as per the CBS report. As per the population of Nepal, mobile banking customers are 3,999,803 and internet banking customers are 784,286 in which 4% of customers use mobile phone for online banking to open an account and 1.13% of customers used the internet for bills payment, similarly 2% of customers use online banking to buy something in the past year (Koirala, 2018).

The banking sector is drastically growing in Nepal, but online banking is still in its infancy. Banks are investing a huge amount of money on technology and have got success only in ATM but they have still not promoted enough online banking. If the banks can see the future prospects of online banking, then they can give the society huge relief and make a huge amount of profit (Banstola, 2007). The banks in Nepal are reluctant

to see the scope and benefits of online banking. They are not promoting online banking. They don't know how much potential profit is lying under the head of Online banking. Banks are investing so much in infrastructure but not investing in the online banking as this will largely reduce their operating cost and largely increase their profits.

1.1.5 Features of online banking

The features of online banking include various options, facilities and capabilities that are available to a banking customer to carry out any banking work via use of the online banking methods. Online banking has now become so diverse that almost each and every banking work can be carried out by the help of the internet. The various features of online banking are as follows:

1. Transactional: Transactional features include performance of a financial transaction such as account-to-account transfer, applying for a bank loan, payment of bills, etc.
 - Third party payments.
 - Funds transfer between different customer accounts and accounts of various types.
 - Purchase or sale of investments.
 - Applications for loans.
 - Repayments of enrollments.
2. Non-transactional: Non-transactional features include viewing of a person's account status and other statistics.
 - Viewing recent credit or debit transactions.
 - Viewing and downloading bank statements.
 - Co-browsing.
 - Viewing cheque links.
3. Management of multiple users with varying levels of authority.
4. Management of joint accounts on multiple devices.
5. Financial institutional administration.
6. Transaction approval services.

7. Personal financial management support (Koskosas, 2011).

1.1.6 Benefits of Online Banking

The service of online banking provided by banks to their customers and account-holders is beneficial not only for the bank but also to the customers together with the numerous practical and economic benefits that it brings (Cronin, 1998). Reduced business operating cost. Increased efficiency level. More customer involvement in experiential knowledge. Customer self dependability

1. Benefits from bank's point of view:

- **Reduction in business cost:** According to a survey conducted by Booz, Allan and Hamilton, the average daily cost of conducting routine activity at a bank service branch is about \$1.07 per transaction. However, when a similar transaction is carried out via the internet on an online platform, the cost is reduced to 1.5 cents (Nathan, 1999). Less employees are required in the bank. As more and more people will start using their personal computer to perform transactions.
- **Less time and labor costs:** Similarly, when a bank offers an online service for its customers, the number of customers physically coming to bank branches is reduced, thus decreasing the need of more physical labor and personnel at the branch to address a greater number of customers (Echikson, 2001). No need for guards and other labor along with safety measure as more people start using online banking system to make their transaction at their flexible timing sitting at their own home, offices and places.

2. Benefits from customer's point of view:

- **24-hour availability:** The online banking service allows the banking customer to access the bank's service at any time of the day without any limits. This proves to be a great convenience for customers who may not be able to visit a local bank branch during the working hours. So, flexibility will be increased. Whenever customer gets time he can perform transaction or certain operations by himself.

- **Reduced cost in accessing banking services:** With the help of online banking, a customer is able to access the banking service just by touching a few buttons on his mobile phone or personal computer, instead of being required to physically go to a local bank branch. This reduced the time cost as well as the economic costs of accessing banking services for the customer (Guru, 2002). Reduced time physical appearance and transportation cost as well. It is also ecologically excellent idea to reduce traffic reduce pollution and reduce transactional time.
- **Ease of use:** Online banking is easier to use as compared to traditional banking because less information is needed to be inputted at the time of transactions. Moreover, every banking service is just available on the touch of a finger. A customer can access any kind of banking service, whether it be transactions, funds transfer or viewing bank statements, at any time and in the simplest way possible (Koskosas,2011). Online banking is far more easy to access .far more easy to use. takes less time to log in as compare to physically appearing inside branch.

1.1.7 Risks associated with online banking

Online banking with all its benefits has become increasingly popular among the masses. Although it has proved to be extremely beneficial for the public and made all the banking services easily accessible and operable, however, it also comes with its risks. Though the benefits of online banking have outweighed its risks, still one must not forget the numerous security issues and personal risks that are associated with the application of online banking. Most of the advertisements on online banking brag about its benefits and advantages to a customer but do not show the other side of the picture (Classens, 2002).

Some of the risks and security issues associated with online banking are as follows:

1. Online Theft or Cyber Crime:

The username, passwords, pins, access codes and user IDs of a customer may be stolen while online banking via hacking which has become very common in today's world of advanced internet technology. In such cases a customer may lose his

identity and login details which may then be used fraudulently resulting in not only loss of personal information but bank account details as well as assets (Lampson, 2004). Hacking of online banking systems can be done today by numerous ways and sources, such as social phishing, trojan horse and botnet coordination (Classens, 2002). These cyber crimes are mainly done by the software development employees which are involved in these activities. Putting fake note in ATM is one of the cyber crimes which cannot be justified by customer as ATM cannot recognize the fake note. Or we can say the ATM installed in Asian countries does not have this facility and only Banks employees have access to refill ATM by cash. Secondly, the companies which are involved providing hardware and software solutions to banks are more often outsourced to third party. These third party companies employees often steal customer information and use it against account to steal information and assets inside accounts. Some time bank cashier are used by friends and other customer to keep on tracking the particular account holder. And then it will lead to theft and stealing of money from customer accounts.

2. User negligence:

Sometimes problems may arise in online banking as a result of negligence of the user or banking customer. This may occur if a customer leaves his bank account open in his device without logging out, leaves a logged in device unattended, shares his password and login details with other people, and makes other such blunders, eventually resulting in a loss of information and assets (Central State Bank, 2019). In other words when you have all access of your banking details then due to inattentiveness. Friends and other people can access our devices to make some transactions. Unlocked cell phone and over trusting on colleagues are the main causes of user negligence. In this case transactions are legally considered and customer cannot claim theft as it happens due to its own negligence.

3. Cross-border risks:

As online banking aims at reducing geographical limitations while making banking transactions, it may also result in certain risks. Majorly, it results in legal and regulatory risk because certain transactions may not comply with the legal

requirements and jurisdictional limits of other countries. Moreover, cross-border transactions are sometimes also associated with credit risks because loan applications made by customers in a different country may be difficult to appraise and may even result in loss of money to wrong people (Sathyanarayana, 2014). Cross border transaction like purchasing done online are very common in cyber crime. In this case it becomes very difficult to after the criminal and refund our money from him as it is very virtual and banks are limited with their jurisdiction and country to country one cannot have good access to other country jurisdiction.

4. Risk of criminal activity:

As online banking is a service utilized privately by banking customers at their homes or any other place from their personal electronic devices, it becomes difficult for a bank to instantly monitor what kind of transaction is being taking place. As money is almost instantly transferred from one bank account to another, a bank is unable to stop any kind of money-laundering activities. Although electronic payments do come with the rules of the bank, but still criminals can easily deceive the bank and its rules (Ingo, 2009). As there are some software which can allow a user to se device remotely after installed. Then this software steals all the typed words in the devices and criminal can guess the code for bank accounts and other digital wallets kept in cell phone. In this case the transaction is done instantly. The banks cannot stop these transactions as the client location has not been monitored by banks. It is barely possible to track these kinds of crimes as there are hundreds of unauthentic software's in play store and even a small torch light application in play store requires access to our phone memory and send customer personal info to vendor. Of course, in the name of improving application but the information is sold to other application maker for marketing and criminal purposes

5. Operational risk:

This is the most common type of risk associated with online banking. It may also be called transactional risk. This kind of risk arises when there is some faulty transaction process which may compromise the integrity and privacy of the customer's and bank's data. Sometimes such type of risks results

when an unauthorized access is made into the banking system (Sarma og Singh, 2010).

6. Wrong transaction:

Some time customer enters wrong account number of beneficiary account holder. Some time wrong amount has been punched. Like 9000 instead of 6000 and wrongfully entered amount. It takes some days to make these type of transaction reversed. It can also happen inside the bank by the cashier as well. My personal experience was of 400,000 Pak rupees was sent to my personal account from my customer but after 2 days I was aware of the situation that money was wrongly Credited to another person's account and luckily the amount was recovered from the account holder as it was wrongly debited by the cashier. At that time online transaction was only happening inside the banks in (Pakistan 2010-2011).

1.2 Problem Discussion

Online banking in Nepal is still in a phase of infancy. People are not much aware of the significance of online banking. The application of online banking in Nepal faces numerous hurdles in its way as a result of which e-banking is not very popular in Nepal.

During the implementation of online banking in Nepal, the following problems have been found:

- 1. Computer and banking illiteracy:** In context of Nepal, overall literacy rate is 63% but the knowledge of computer and banking is very less, some of the new generation have idea about computer and some of them have knowledge of online banking. Young people are using Internet just for social sites not for online banking. People are very reluctant when it comes to online banking in Nepal. The literacy rate says 63-66% but as far as computer is concern. People are more familiar with cell phone as compare to personal computers and laptops. It is common perception that most of the banks does not have mobile

app for their bank accounts and even those are having mobile app limit the task and does not allow all feature of their online banking.

- 2. Communication Gap:** In present scenario, there is a big communication gap between banks and customers because some banks are not able to appropriately communicate with their customers. As a result, the customer moves towards another bank to get proper idea and knowledge of banking. Employees sitting in banks does not guide the customer about online banking. its easiness and effectiveness at all. They want their customer to come physically to the bank in order to keep their jobs justified. Secondly. As we have discussed earlier. People does not have idea about online banking and how to use computer. They hesitate to ask banker regarding online banking. More over the banker are also reluctant to teach them as they think its a wastage of time and our mind. There is no computer inside the banks where they can show how customer can perform their online transactions without coming to bank.
- 3. Lengthy process:** If one checks in Europe or in developed countries, a bank doesn't need a lot of signatures, date of birth of grandparents and even does not need a guarantor to open an account and but in Nepal all these things are required which makes banking in Nepal an extremely lengthy and tedious process. Opening bank account is a hectic process in Nepal. The banks required all the necessary and unnecessary information just to verify that this person needs to open bank account. Why the customer has to show the source of funds to open bank account if he wants to keep his money into bank. Like if I save 15000 from my pocket money, I cannot provide documented proof of pocket money i have in cash. In this case the banks will not open my bank account. On the other hand, I deposited 40000 NOK in Spare bank 1 Nord Norge. They do not ask me where this money is coming from. This is not banking concern where I am bringing my money. The duty of the bank is to keep our things as and when we have given to their custody. Secondly Date of birth of grandparents is also required which is very difficult to know as most of our grandparent even don't know their date of birth. These type of strict policies for

account opening should be removed and young generation should be motivated to open bank accounts in bank and use online services for free.

- 4. Language barrier:** In Norway, there is an option of two languages, i.e. Norwegian and English, while banking, but in Nepal, banks use only one language i.e. English. So, people who can not understand or speak English language face difficulties in banking. The same case is Pakistan. Even though this is very common issue but no bank is thinking about this issue seriously. India Pakistan Bangladesh and Nepal all are standing in the same category. Not providing their website into Hindi, Urdu, Bengali and Nepali language. Those customers who cannot read English are huge in numbers but considerably ignored due to language barrier.
- 5. Infrastructure development:** Banks are trying their best to maximize the service to the rural area, but the government is not offering internet facilities because of which people are only limited to traditional banking. Secondly Government should switch to optic fiber lane for internet services in urban and provide good alternative to rural areas as well. Like providing internet facility with the collaboration of telephone line. It is very successful in Pakistan as Pakistan Tele Communication landline had introduced its internet facility. It is now available all over the Pakistan either urban or rural areas. The areas where PTCL land line is not available the Mobile companies are also providing fast and easy internet devices which have their own power backup and provides less expensive but fast internet through the country areas mostly. In this category Pakistan is far forward among other Asian countries.
- 6. Reliability:** Banks with low budget have done fraud with people which affect the high class, big budget banks. People don't want to risk their money or assets by saving them in banks rather they invest in lands or in buying buildings and adding assets. Some banks are involve in wrong doings with their customer data base they often charge their customer in small amounts without any reason. Like charging against message alert service every month. Charging for Zakat without the permission of customer. Wrongly debiting customer

account and then try to pass through and ignore the issue as much as they can. ATM frauds are at the main stream from banks. Most of the frauds are committed while activating ATM. Issuing an ATM without customer request upon fake sign and then using it against customer accounts

- 7. Trust worthy:** Everyone wants a trust worthy bank, based on which they can do their saving or deposits but in case of Nepalese banks, it is just opposite. Banks have many hidden charges which customers come to know of when they are applying for loans or deposit their funds. This damages the customer's trust on the bank to a great deal. Hidden charges are the main reason why people don't want to use banks for their daily transactional solution. They hide charges and when customer open his account then they start shown and deducting money from the account.
- 8. Risk management:** Though the banks invest much more money on technology but still they have lack of skilled IT persons who can handle the grim situations. Banks should be ready for any kind of emergency situations and must take precautionary measures in this regard. Lacking in IT is the main reason for failure in e-banking as e banking requires some time emergency situation. Many banks does want to have any critical situation where the trust of the customer and the money taken out on bank's expense. that is why they does not motivate customers to go for online banking.
- 9. Professional staff:** When a customer has a doubt or confusion regarding any banking transaction, they call the bank's helpline for a solution and find that the banking personnel are itself unaware of the solution and are also confused and forward the problem to other departments in an attempt to avoid the situation. This is the same in Norway but here the banking software are so improved and researched based that they automatically rectify the error comes in transactions' any case the transaction is reversed and the payment is reimbursed in 3 to 4 days. As we talk about Nepal. They are already lacking in IT and the same issue with their help line team. They don't know the issue and

they cannot address the issue properly. Causing the customer great difficulty and customer trust i vanished from the online banking.

10. Security: In Norway, a 2D security factor of online banking is used because of which people feel secure about their transactions. But banks in Nepal are using only 1D security, which makes people insecure about their security numbers, transactions and identification information, fearing that it may be stolen.

All these issues have proved to be a major hurdle in the way of online banking in Nepal. As a result of these problems, even educated people have to resort to traditional banking methods as they feel insecure about their personal belongings and information. One-time code generated by the user registered cell phone and its sim along with his ID number should be used in login inn to online banking account, but unfortunately single login password has been used in Pakistan as well. This single password is easy to crack and if someone steal it then he can transfer the money from any place. The security system to log inn in the user account is poor and out of date now. This is why more educated people are avoiding online transaction and remain with the traditional banking system.

1.3 Research Purpose and Research Question

Bearing in mind the importance of online banking, the purpose of conducting this research is to see what the current status of online banking is worldwide, what are the challenges to online banking and how can online banking be made more popular and more often used by banking customers in Nepal.

In order to fulfill the research purpose, the study will focus on answering the following research questions:

1. What is the prevalence of online banking in different regions of the world?
2. What are the challenges to online banking in developing nations like Nepal?
3. How can user acceptance towards online banking be improved?

The study aims to assess the proposed research questions, investigate them and answer them in the context of the banking system of Nepal.

1.4 Significance of the study

The significance of this study rests at both theoretical and practical levels. As far as the theoretical importance of this study is concerned, the study will provide suitable literature on the topic of online banking in Nepal and will allow future researchers to do the researches on a deeper level of analysis. The study will provide knowledge resources on various levels, that is: the bank manager-level, the banking customer-level, and the researcher-level. This research thesis will also help to fill the literature gap that lies in this area of research, which is a major reason of the lack of awareness among the public about the process of online banking. Currently literature does not specify challenges to online banking in developing nations like Nepal. It only focuses on the adoption of online banking in developed nations and high-income countries where the use of internet is more common and people are more aware of its benefits. This study tends to fill the literature gap by focusing more on developing nations or low-income countries where people still need to be made aware of the internet and its potential benefits.

Not only at the theoretical level, but the study is also significant and vital on a practical level as well. The study will allow the manager of the bank and the customer to further understand the challenges of online banking in Nepal. Moreover, the findings of the study will help to improve the popularity of online banking in Nepal and will allow the Nepalese people to further understand the process of online banking and benefit from it.

The theoretical and practical scope of the study, together combined with its geographical scope, will help to eliminate the hurdles in the way of online banking, and increase its popularity as one of the best banking methods in Nepal.

CHAPTER 2: LITERATURE REVIEW

Chapter summary

This chapter includes a review of the currently available literature on the topic of online banking. It provides information about the concept of online banking and its current trends as explained by previously conducted research studies on this topic. The chapter further focuses on the factors which affect the adoption of online banking in developing countries like Nepal which have been compiled by reviewing the available literature. Further, this chapter includes the adoption of online banking in various countries. This section of the chapter has been divided into two parts, that is adoption of online banking in developed and developing countries with an aim to see the difference and similarities in the adoption of online banking in these two types of countries and to compare them.

2.1 Online banking

In order to maintain a significant market share, many businesses are offering better facilities to their customers as compared to their competitors in order to surpass them. The banking industry has also adopted this concept as technology is improving with time and more and more convenience is being offered to people by scientific innovations. As the internet is proliferating and growing rapidly, banks have also started to utilize the internet as a means of providing easily accessible banking services to their customers and bank account holders. Although traditional and retail banking still remains one of the major ways of banking but internet banking is also becoming more popular with time (Wang et al., 2003).

Online banking may be defined as the use of internet for the purpose of operating bank accounts and other banking services such as transactions, funds transfers and bill payments through a bank's website via electronic devices such as mobile phones, tablets or personal computers. Internet banking is majorly aimed at offering banking services to customers at all times, 24 hours of a day, 7 days a week and 365 days a year, irrespective of timings, holidays or any other factors (Shao, 2007).

Traditionally, banks used to operate through retail branches. Any banking customer or bank account holder had to go to the bank branch for utilizing any kind of banking services whether it be transactions, funds transfers, bill payments, viewing bank statements or any other operation. All these factors required the banking customer to personally go to the bank branch within the bank timings. However, with the development of online banking, all these problems have been resolved as every banking service is now available for the banking customer by accessing the bank's website on his electronic device just at the touch of a finger. Now the bank account holder is not required to personally go to a bank branch during the working hours and can operate his bank account easily at home (Tan og Teo, 2000).

As mentioned in the previous chapter, every business and organization aim to achieve more profit than its competitors by providing better customer services to obtain a significant share in the market. Banks are no exception in this regard. Banks also are inclined towards improving their market value by the betterment of services being provided to their customers. As every field of business and science is being computerized and incorporated with internet, banks are also increasing the use of internet facilities in their services. This is where 'online banking' has developed. As the world is becoming more and more aware of the internet and its limitless advantages, banks have also incorporated internet in their business in order to gain more profits. Thus, online banking is now becoming one of the most popular banking methods all across the world, both in developing and developed nations (Brogdon, 1999).

2.2 Theoretical Framework

Many theories are developed in order to explain the consumer intention towards new techniques and technologies coming from every aspects of life.

getting adopted with the new technologies is not easy for customer as they passes through many phases of understanding particular technology and service according to culture, habits and geography.

There are several theories available for the adoption of technology. Among all the basic and most appropriate theory for our thesis is Reasoned action theory (Fishbein & Ajzen, 1975). The next theory which we will talk about after reasoned theory will be theory of Planned behavior (Ajzen, 1985, 1991), Later we will be considering technology acceptance model by model (Davis, Bagozzi, & Warshaw, 1989). Technology acceptance model 2 by (Venkatesh & Davis, 2000), and Technology acceptance model 3 by (Venkatesh & Bala, 2008). These theories are of vital importance when we are talking about adoption of technological product and services. How consumer passes through this stage and what will be the level of adoption by the people when certain technology is available to experience.

2.2.1 Theory of Reasoned Action

The reasoned action theory is the widely accepted and used over the past many decade's year. It will not be wrong if one can say that this theory is in used from the early 1980's (Fishbein & Ajzen, 1975). Still have the same importance and characteristics which hold many other theories to follow behind this it. It is the one of the top leading theory in the field of social psychology (Trafimow, 2009).

The reasoned theory was originally generated to analyze and understand particular individual behavior and the intention followed by it action. (Ajzen and Fishbein 1980) This theory explains the relationship between behavior intention which causes behavior action. This theory is simple and very practical. It explains the fundamental of intention and attitude related to behavior of a particular person. Behavior actions are the truly function of behavior intention. Whatever the person intention is. Their behavior will predict the certain action in the same direction. Reasoned theory claims that whatever the person action is. Their behavior intends to do the certain action. In other words, every action has some intentions behind it.

Reasoned theory components:

Following are the main components of Reasoned Theory

Attitude: In context to the attitude, It is defined as a person positive or negative feeling about performing specific behavior.

Subjective norm: Subjective norm is related to the people surrounding the particular decision maker. They realized, understand and perceive the believe about what other will think about their particular behavior.

Behavior Intention: After going through attitude and subjective norm, a person perceived likely hood of performing or not performing the particular behavior.

Behavior: Any specific particular behavior can be defined according to four main components. These are action, the target context and a time.

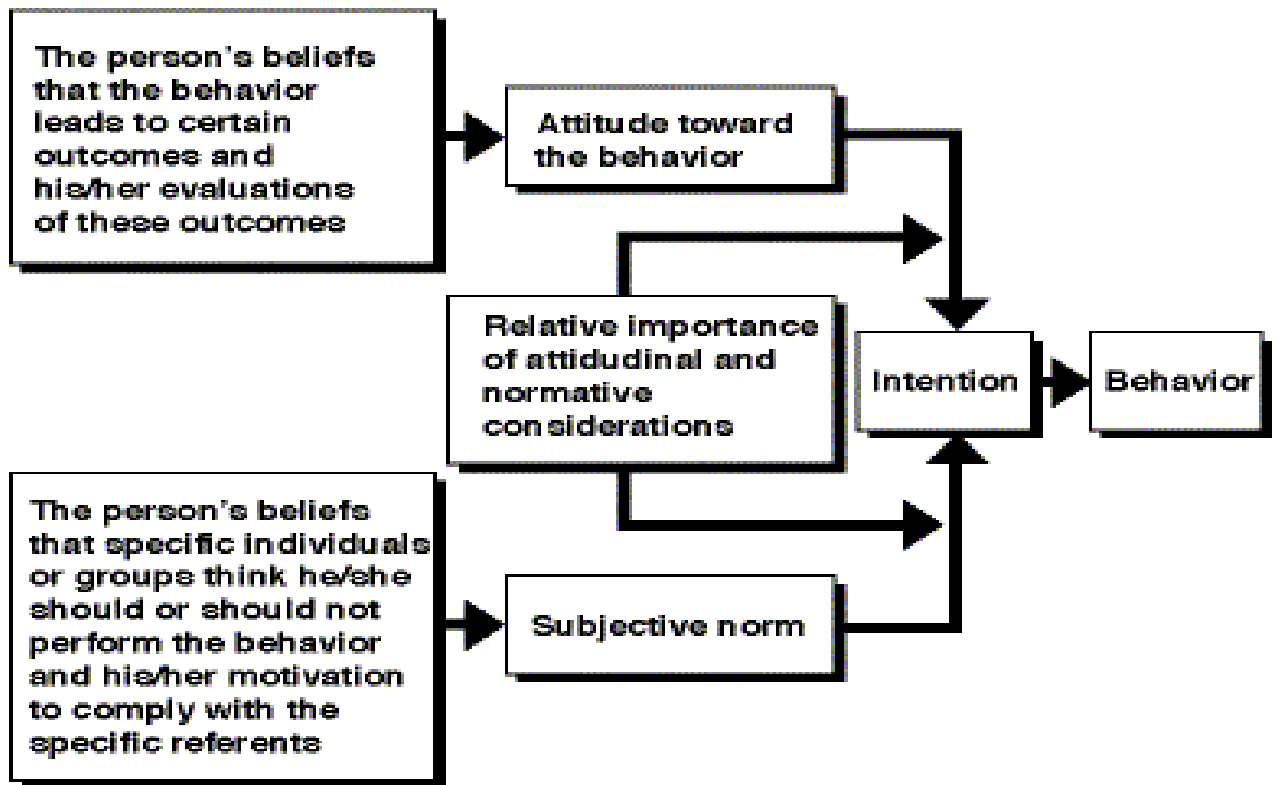


Fig1: Theory of reasoned action

The important assumption of reasoned theory is explained as humans understand information rationally which give further studies into the relevant source of particular information, its outcome, influences on the intention of particular person or individual (Ajzen & Fishbein, 1980).

On the other hand, Reasoned theory states that intention can be changes due to laps of time and under different scenario and circumstances. In short intentions are not the strong factor for behavior as it can change form under different environmental and social pressure (Ajzen & Fishbein, 1980).

2.2.2 Theory of Planned Behavior

Planned behavior theory or normally called theory of planned behavior is the detailed analyses and dissection of reasoned theory. It can be called extended version of the reasoned theory (Ajzen, 1991) In the reasoned theory behavioral intention is enough to predict behavior. The constrain for the statement is that the complete control of behavior is in the person hands. On the other hand, the statement fails to predict individual behavior in the condition where incomplete volition control (Ajzen, 1991).

To full this limitation under the condition of reasoned action. Planned theory of behavior is derived to improve the prediction power of individuals. It is done with the help of adding into consideration of perceived behavioral control.

Perceived behavioral control refers to the persons perception of ease or difficulties of performing the behavior of his/her interest and it is decided by perceived control.

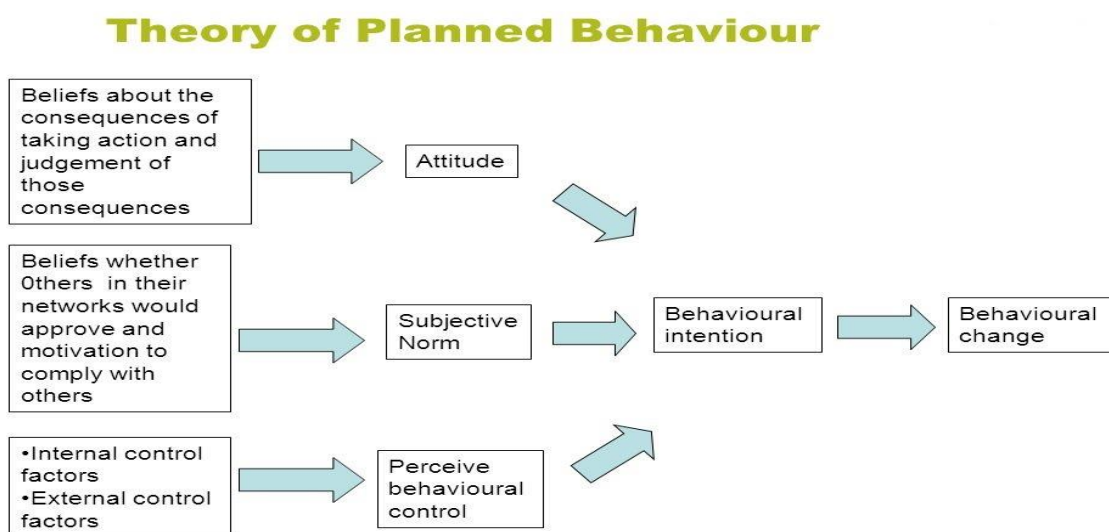


Fig2: Theory of Planned Behavior (Ajzen, 1991)

The model stated above is known as planned behavior theory model. The theory model is very effective in order to find out how likely someone engage in certain behavior. This theory is very useful in finding out the behavior issues regarding to health as well. It is mainly divided into three parts. Attitude, Subjective Norm and personal control belief.

The attitude part is to find out personal attitude towards the behavior. it can be done by Identifying outcome beliefs and outcome evaluation. Outcome beliefs is related to the outcome of the particular behavior taken. outcome evaluation is the testing of worthiness of outcome behavior. These two outcomes (outcome belief and outcome evaluation) combine together some time or you can say mix together to create personal attitude

Now we talk about subjective norm. It is made up of two parts namely normative beliefs and motivation to comply. The first one normative belief is about what we think about what other people will think regarding our behavior . example are our friends and other people in our surroundings. The second part is Motivation to comply. In this part we discuss and analyze how much motivated we are to follow according to the in line with another person view. In other words, we talk about how much value we are giving to other people opinion.in short the information given to us by different people is called Normative belief. Either we act upon it or not, it depends upon on our motivation to comply.

in this part of the theory looks personal control belief, in which there are two part which is very important. Self efficacy belief and personal external barrier. Self-efficiency belief determines how much confident we are to overcome the barrier of fear in front of us. In the opposite to it the personal external barrier says external factors which prevent us to achieve Ning our target objective. In other words personal control belief come from self efficacy and personal external barrier. in last we can say that intention is made up of personal attitude, Subjective Norm and personal control belief. Only then we can decide the likelihood of behavior.

2.2.3 Innovation diffusion theory

Understanding the innovation in our current social system Rogers (1995)

made a model which is known as diffusion theory. the basic fundamentals of this theory was to analyze to what extent the rate of diffusion of innovation in social system depends upon the properties of an innovation

Innovation is “an idea, practice, or object that is perceived as new by an individual or another unit of innovation”. Rogers (1995)

The rate of diffusion will be smaller or greater depending upon the properties or qualities of that particular innovation. Like in our thesis online banking is a

revolutionary product. that is the reason its rate of diffusion is the fastest rate of diffusion as compare to any other innovation.

Roger (1995) gave some feature to innovation. upon which one can analyze rate of diffusion accordingly.

relative advantage, compatibility, complexity, trialability, and observability,

When we talk about relative advantage, we are talking about how much the new innovation has relative advantage upon already available product. For example, Lan Internet vs WIFI Internet. Infrared vs Bluetooth connectivity. Gasoline vs electric cars. cathode bulb vs LED light. Relative advantage is the major feature which mainly decides either the product is has positive or negative remarks or results. In other words, rate of adoption of innovation is directly proportional to the product of service relative advantage.

Similarly, compatibility refers to the consistency of potential adopter's needs, past experiences, existing values in relation to the new innovative product. It is believed that, higher degree of compatibility provides lower uncertainty to the potential adaptors and resulted higher adoption rate.

The complexity means how much easy or difficult the product usage is.

The difficult the use of the innovation the adoption rate of the innovation will be slower. Rate of adoption is inversely proportional to the complexity of the product.

When we talk about trialability means how easily or difficult can explore innovation. In other words, we are talking about the innovation testing. The easier the testing availability the rate of adoption will be higher as we are creating experiential knowledge of the customer with the help of trialability of the innovation.

Observability means how much a customer can observe the innovation and how much it is visible to the potential customer. The more customer can observe. the more he will be influenced with the product observability.

Among all the five factors three of them are very important namely relative advantage, complexity and compatibility in the first of innovation (Zhang et al., 2012).

To clearly understand the adoption of the innovation Rogers (1983) explain following five stages of innovation decision process.

Knowledge of the innovation\persuasion of the innovation, decision, implementation and confirmation. Above five stages are the important factors for the evaluation of the innovation decision process.

Innovation adoption start with the period socio economic factors personality and his decision-making characteristics (Rogers, 1983). Persuasion start when an individual want to verify the source of information by analyzing source credibility. During which he understands the following feature.

Relative advantage, complexity compatibility trial and observance (Rogers, 1983).

At the last stage the person makes a decision according to available choices. The person accepts or reject the innovation at this stage.

2.2.4 Technology acceptance model:

The technology acceptance model, Technology acceptance mode 2 and model 3 are the extension of basic technology acceptance model. It is therefore we will be describing it combinedly. As the third technology acceptance model is the final model, besides that many upgradations have been done in the final version of technology acceptance model. what is technology acceptance model? Davis (1985) technology acceptance model (TAM), This theory is based on reasoned action developed by Fishbein and Ajzen (1975).

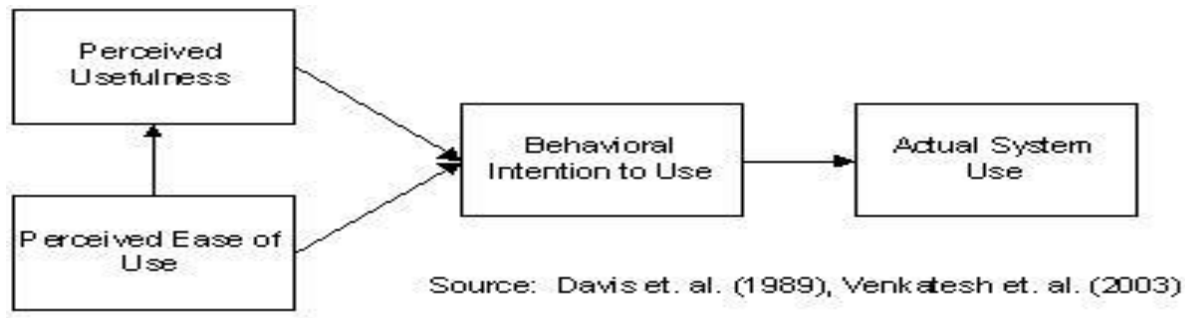


Fig3: Technology acceptance model

This model study how consumer cognitive response (perceived usefulness and perceived ease of use) are influenced by design feature and the effect upon user effectiveness response (attitude towards behavior). Technology acceptance model 1,2,3 have different variable to study upon technology acceptance .IT is a vital fact that Human social system is influenced by culture, Modernization. Technology acceptance and above relative advantage of the innovation. There is always one innovator who passes all this test to become success innovation. Behind particular innovation many copy cats travel in a straight line to follow the same path.

2.2.5 Theories used in our thesis:

Above all the theories we have discussed are relevant with our thesis. We have observed that complexity and ease of use is the main cause of a smaller number of online banking customer in Nepal. Above all Innovation diffusion theory describe our issue on online banking more precisely. We have a complexity of banks website only in english. We have language barrier which is the main cause of a smaller number of online customers. The reliability is the second main issue we are facing in Nepal. In fact, throughout the Asian region including Nepal, India and Bangladesh as well, the security concern is not so strong. About 80% of the developing countries are facing securities issues in Online banking. It is due to the single layered password system in online banking. The relative advantage is saving of time and 24/7 transaction availability which is again a big plus for online banking, but the slow internet causes the trail ability factor out of option many times. The observe ability of the online banking is also 3% in

Kathmandu which is the capital of Nepal. We think the Online banking needs more time and efforts in Nepal to Flourish. The Government and the Banks come together to create relative advantage of the Online banking which is currently outlooked by the people of Nepal. In order to improve the online Banking system In Nepal. Educational, Trial and reliability of the system is required. The more technology is publicized. The more will be the observability factors change the perception of traditional banking culture in Nepal.

2.3 Trends in online banking

Since the last two decades, electronic banking is continuously being adopted as a means of operating banking services. Electronic banking, also called online banking or internet banking, has been growing as a major financial industry. People all over the world are becoming more and more aware of the significance of online banking as a means of operating their bank accounts and utilizing banking services such as funds transfers, bill payments, viewing checks, transactions and many more services. The use of internet or electronic applications for the purpose of operating banking services is termed as ‘online banking’ (Van Hoek, 2001).

With advancements in technology, e-banking has also significantly improved over time as more and more services are being offered by banks to their customers through online websites and bank applications. This factor has increased the adoption of online banking by consumers in various countries, both developed nations and developing countries. This proliferation of internet banking over time adds more to the adoption and acceptance of consumer towards the service (Smith, 2006).

As the world has advanced more in the banking sector, the trends of online banking are also increasing in first world countries or high-income countries, as well as in developing states or third world countries which have comparatively low income than developed nations.

2.4 Adoption of online banking by customers

The acceptance of a product, an idea or a service and its continued use by a person or group of people is termed as 'adoption'. According to a research conducted by Rogers and Shoemaker (1971), while initiating the process of adopting any product, idea or service, consumers carry out a long analysis of the particular product, comprising its knowledge and information, attractiveness, feasibility, and other benefits before making any final decision or confirmation of adopting it (Rogers og Shoemaker, 1971).

2.4.1 Factors affecting adoption of online banking by customers

The review of the available literature on the topic of online banking adoption by consumers has enabled us to compile certain factors which are most likely to affect the adoption of online banking by consumers. These factors have been compiled by reviewing the already available literature in this context. The reference for each factor has been given in the end.

- **Product information**

Gultinand and Donnelly (1983) believe that during the planning of bank marketing, the knowledge, information and description of a product is considered to be very important and one of the major promotion strategies of the product (Gultinand og Donnelly, 1983). According to the Wallis Report (1999), the adoption of a product or service or user acceptance towards it depends upon how valuable it is towards the consumer's money and how well they are educated about the product, especially in case of a financial product or supplier of the product. This means that during the adoption of internet banking, it becomes very important that the product supplier, which in case will be the bank, provides reasonable information about internet banking, its benefits, feasibility and value, as well how it is better than any other similar product of the

competitor. A good delivery of such information increases the chances of a product or service being adopted by consumers (Wallis Report, 1997).

The convenience of usage, sales orientation and cost-benefit analysis are one of the major factors which affect the adoption of electronic services like internet banking (Daniel,1999). Similarly, awareness of a product or service is one of the most significant factors in this regard. Higher the public awareness of a product or service, greater is the chance of it being adopted by consumers. A product can not sell itself unless the supplier of the product or service provides reasonable information and knowledge about it. In this way it becomes more acceptable for consumers (Howard and Moore, 1982).

- **Ease of use**

As described by Cooper (1997), in his study, another major reason for user acceptance and consumer adoption of a product or service is its ease of use. A product or service is more likely to be adopted by consumers if they find it easy to use and feasible. This enables them to be more aware of how the service is utilized and how useful it is for them (Cooper, 1997). In order to ensure consumer acceptance towards it, a product or service must be easy to use so that the consumers find it feasible for their work. This also applies to internet banking. As long as internet banking is easy to use and feasible, more and more consumers are more likely to adopt it and hence user acceptance towards it increases. If a product is difficult to use and complex then it is less likely that a user will accept it. Researchers describe this as one of the reasons of the failure of home banking in Unites States of America (Dover, 1988).

According to a diffusion analysis conducted by Rogers (2010), the degree to which a product or service is accepted by consumers depends upon how easy it is to use and how convenient customers find it in fulfilling their needs without wanting them to go out of the way and disturb their everyday schedules (Rogers, 2010). In order for a product to proliferate in the consumer market, its feasibility, ease of use and convenience for the customer plays a very significant role. Thus, consumers are more likely to adopt online

banking service if they find it easy to use and convenient for operating their banking activities (Scarborough og Corbett, 1992).

- **Risk-analysis**

As indicated by a study conducted by Cooper (1997), the level of risk involved in using a product or service greatly influences user acceptance towards it. Less are the risks associated with a product or service, higher is the chance of it being adopted by consumers (Cooper, 1997). This has been verified by a study conducted in Australia during which it was found that security concerns of both the banks and banking customers towards online banking play a major role in influencing the decision of adoption of online banking. The study found that these security concerns are one of the major reasons of less adoption of online banking by bank account holders in Australia (O'Connell, 1996).

According to the Wallis Report (1997), the chances of user acceptance towards online banking can be improved if their security concerns are removed, security of the service is improved and the risks associated with it are minimized (Wallis Report, 1997). The safety in use of a service is one of the most significant factors that are considered while making a service to be applicable in financial institutions (Rothwell og Gardiner, 1984). Obviously, consumers and banking customers will not adopt internet banking unless they find it safe and secure for their assets and information (Daniel, 1999).

- **Cost factor**

During adoption of a product or service, one of the major factors that a consumer keeps in mind is the cost or price factor. Before adopting a service, a consumer will always analyze the product on a cost-benefit scale. If a product or service is of high cost but the benefits outweigh its costs then a consumer is likely to adopt it. However, if a product or service is of very low quality and its benefits are also not worth its high cost, then such a product will not attract the consumer and its possibility of adoption will be less (O'Connell, 1996).

This also applies to online banking services. While considering internet banking or online banking, two types of costs can be evaluated. One is the cost of using the internet and the electronic device and second includes bank charges and other bank-related costs. These cost-related factors play a vital role in determining whether a product is likely to be adopted by consumers or not (Rothwell og Gardiner, 1984). Price is a key factor that is considered during the process of brand switching. A consumer always gravitates towards a brand which offers better services at lower cost (Mazursky et al., 1987). Technological innovations focus on improve the price and performance characteristics of a product. Online banking services are more likely to be adopted by consumers if they are available at low costs (Rayport, 1995).

- **Feasibility of the existing service**

The adoption of a new product or service also depends upon whether the existing service in that context is fulfilling the consumers' needs or not. In the context of banking, the existing service would be physical bank branches, more commonly called bricks and mortar, while the new service is online banking or internet banking. Although the community these days is resistant to change but the resistance may be overcome if the change is more feasible than the existing scenario. Users are most likely to adopt a new service if they find it better than an existing service in all aspects. Online banking can be better adopted by those customers who find it more useful and feasible than traditional banking methods (Quinn og Mueller, 1982).

- **Access to internet and electronic devices**

Another major factor that plays a significant role in determining whether online banking will be adopted by consumers or not is the availability and access to internet services and electronic devices. Only those consumers are more likely to accept online banking, as a mode of operating their bank accounts, who have easy access to internet and electronic devices such as mobile phones, tablets or Personal Computers (PCs). This is important because online banking is not possible without the availability of these

things. Thus, availability of internet and electronic devices greatly influences user acceptance towards online banking (Wallis report, 1997).

2.5 Adoption of online banking by consumers in various countries

2.5.1 Adoption of online banking by consumers in developed countries

2.5.1.1 Adoption of internet banking by consumers in USA

According to a study conducted by Kolodinsky et al., (2004), about 91% of US households have bank account holders. Most of these bank account holders are provided with online banking services by their banks (Kolodinsky et al., 2004). However, a report showed that only 18% of the bank account holders used internet banking in America (Electronic Payments International, 2001). Since technology had advanced rapidly in the last decade, people are becoming more and more aware of the use of electronic devices. This factor has led to great increase in the number of online banking users in America. According to a recent report, the number of online banking service users in 2014 in USA was 133.5 million. This number has increased gradually every year and now in 2019 has reached 161.6 million e-banking users in America (Statista, 2019).

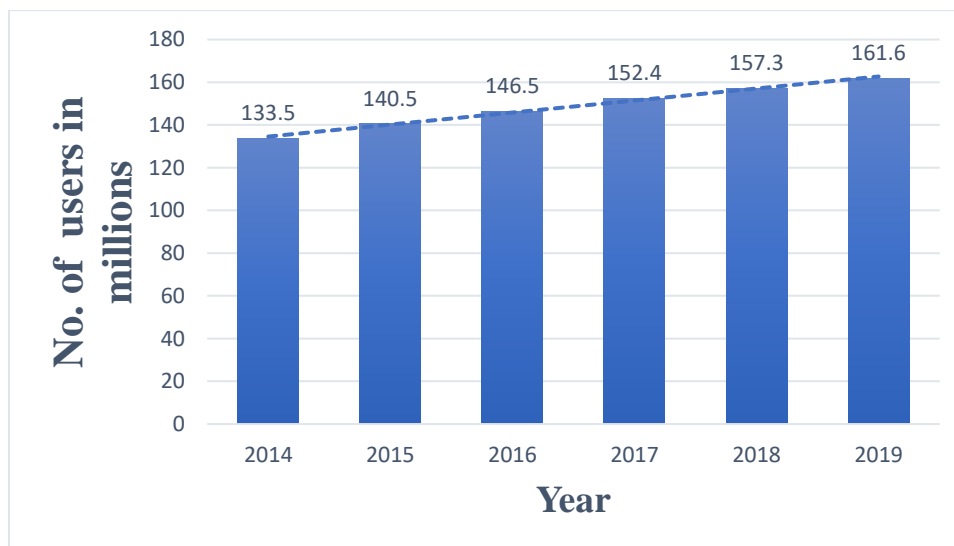


Fig. 2.1 Number of online banking users in the United States from 2014 to 2019. (Statista, 2019).

User acceptance towards internet banking in USA depends on various factors as depicted by the study conducted by Kolodinsky et al., (2004). The study showed that adoption of internet banking by consumers in USA depends on various factors which include personal characteristics of an individual or group of people, and the characteristics of the e-banking service such as feasibility, compatibility, relative advantages, safety and risks associated (Kolodinsky et al., 2004).

2.5.1.2 Adoption of internet banking by consumers in Australia

According to a research conducted by Sathye (1999), adoption of online banking by consumers in Australia was also found to be dependent on various factors. Which accepting online banking as a new mode of operating banking activities, Australian consumers consider factors such as risk associated with the service, its convenience and ease of use, security concerns, availability of internet and electronic devices, etc. all these factors influence their decision of adopting online banking as their primary methods of banking. With a population sample of 500 individuals, the study asked the population whether or not they considered various factors while adopting internet banking (Sathye, 1999).

Factors affecting adoption of online banking	No. of respondents	Percentage of respondents
Difficulty in use	233	40
Security concerns	443	75
Cost of usage	325	55
Resistance to change	190	32
Access to internet	115	19
Knowledge on benefits	402	68

Table 2.1 Responses of Australian Consumers about factors affecting adoption of internet banking (Sathye, 1999).

2.5.1.3 Adoption of internet banking by consumers in UK

In a study aimed at analyzing consumer attitudes towards the usage and adoption of online banking service in the United Kingdom (UK), Howcroft et al., (2002) took a population sample of 4000 consumers of UK and asked them about their actual and preferred banking channel for acquiring four different kinds of financial services, that is insurance-based services, investment-based services, current account services and credit-based services. The study compared the responses about different banking channels actually used by the consumers with those preferred by consumers. The study also assessed what factors were likely to encourage or discourage adoption of online banking by consumers in UK. The study showed that out of the 39.5% of the population sample that had access to internet, only 6.2% preferred to use the internet as a means of operating their bank accounts and using the four above mentioned financial services (Howcroft et al., 2002).

Type of delivery channel	Current Account		Insurance based		Credit based		Investment based	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Bank branch	202	85.6	53	21.7	124	70.0	83	43.9
Home visit	5	2.1	28	11.5	13	7.3	44	23.3
Telephone	17	7.2	134	54.9	23	13.0	13	6.9
Internet	0	0	0	0	0	0	1	0.5

Table 2.2 Consumer responses to actually acquired banking deliver channels for financial services (Howcroft et al., 2002).

Type of delivery channel	Current Account		Insurance based		Credit based		Investment based	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Bank branch	204	68.2	107	38.6	164	63.8	171	65.2

Home visit	16	5.3	0	0	3	1.1	0	0
Telephone	64	21.4	150	54.2	79	30.3	73	27.9
Internet	6	5.1	20	7.2	15	5.8	18	6.9

Table 2.3 Consumer responses to preferred banking delivery channels for financial services (Howcroft et al., 2002).

Thus, table 2.2 and 2.3 show that a total of 0.1% of consumers used internet as a delivery channel for financial services while a total 6.2% of consumers preferred to use internet as a delivery channel for financial services. The major difference in these responses may be due to several reasons such as consumers wanted to use internet but they could not because they might not have access to internet or electronic devices or they may find it difficult to use (Howcroft et al., 2002).

2.5.2 Adoption of online banking by consumers in developing countries

2.5.2.1 Adoption of online banking by consumers in Malaysia

In a study aimed at analyzing the factors which affect the adoption of online banking in Malaysia, Poon (2007) listed out ten factors which were affecting the adoption of online banking in Malaysia. The convenience of usage is the most important factor considered by the respondents of study. About 85% of the respondents believed that convenience of usage affects the adoption of online banking by consumers in Malaysia. The least important factor which affected the adoption of online banking in Malaysia was Bank management and image (Poon, 2007).

Factors affecting the adoption of online banking	Percentage of positive respondents
Convenience	85%
Accessibility	81%
Feature availability	83%
Bank management and image	55%
Fees and charges	84%

Privacy	56%
Security	80%
Design	80%
Content	70%
Speed	63%

Table 2.4 Factors affecting the adoption of online banking in Malaysia (Poon, 2007).

2.4.2.2 Adoption of online banking in Bangladesh, Pakistan, Nepal And India

In a study conducted by Jaruwachirathanakul (2003), the researchers aimed at identifying the factors which encouraged or impeded the adoption of online banking in Bangladesh. The findings of the study concluded that the encouragement factors were perceived usefulness, adoption, features of the website, risk and privacy. On the other hand, the impeding factors, as concluded by the study were external environment, personal preference and culture (Jaruwachirathanakul, 2003)

There are two major services that every bank must have according to modern banking system.

1) Online Intra banking transactions.

Intra bank transactions are those which are performed by the different branch of the same bank. Most of the banks in Pakistan, Nepal, Bangladesh and India are good at this level. Because they want to retain their customer and they want to give them facility to remain their account in the same bank. The more branches the bank have, the more customer will attract towards the same bank. In Pakistan Meezan bank is an example of this strategy. They marketed free online payment within the country when other banks was fool enough to charge some amount to their customer for online transaction. No banks in Pakistan have seen such a huge growth like Meezan bank attained. The basic problem of this online banking facility was customer has to go to the bank for online transaction. Even though still people of Pakistan were crazy enough to catch this hipe and from 2010 to 2017 almost 250 new branches were opened and successfully operating in All the major cities of Pakistan. Business men more often open several different accounts in different banks because most of the banks charge some transactional cost for online banking. The reason of opening many bank accounts is lacking connection among interbank and that is why

they want to keep as many different bank accounts as they can. In order to keep the flow of payments and balances normally businessmen are comfortable with this strategy. However, it creates difficulty as most of the time their accounts are empty and banks are charging them small amounts due to ATM, cheque books and other extra things. The second big problem due to lacking online banking is single customer is keeping 5 accounts in 5 different banks. Some business men keeps a many as 10 bank accounts. some of the accounts are unnecessary opened. It means one customer is a customer of dozen banks and every bank is performing under due to lack of quality services which is the basic ingredient of online banking.

on the other hands intra banks allow their customer to transfer their funds to another banks from ATM. But this service is almost unknown to the people of Pakistan. Less than 1% of the urban customer knows this service and they are using it. The rest of the customer as happy enough to stand in a que to do online transaction inside banks.

- The reason of not using this service is mainly:
- Lack of trust in ATM machine.
- Lack of knowledge and awareness of this services.
- Fear of theft and looted while making transaction online.
- This service is only valid at ATM.

So, people feel safe to go inside bank and make online transaction from the cashier account. Secondly if someone is brave enough to do online transaction from ATM even then he cannot occupy the ATM both for the particular time because there may be 2 more customer waiting outside the ATM to take out cash from ATM. It is because the ATM is slow enough to demotivate the customer to do online transaction. Mostly on weekends ATM links and server become down or intentionally kept down in order to reduce the withdrawal of money from ATM. On bank holidays, special events like public holidays this is normal practice by almost all the banks in Pakistan, Nepal, Bangladesh and India. They have easy argument regarding this (ATM is out of money/ATM is out of order)

2) Online Inter banking transaction.

Inter banks means transaction among different banks. This is the area where all the Asian banks among Pakistan, Nepal, India and Bangladesh are lacking. You cannot transfer money online

from your bank account held in Pakistan to India. India to Pakistan. Pakistan to Nepal. Nepal to Bangladesh. Nepal to Pakistan. None of the bank is capable enough to allow such services for their customers. There is a big trade volume among Pakistan and Bangladesh even though money is transferred through third party service provider like Western Union and other third parties.

Literacy rate is 66% in Nepal:

As we know that literacy rate in Nepal is 66% but it is totally disagreed in our research as most of the people does not have internet access. They don't know how to operate android or IOS operating system. Online transaction is far away from their knowledge and access. This is only bookish percentage that 66% of the Nepal people can read and write. Yes the online transactions are only in use by urban Nepal areas like Katmandu and other big cities where people are towards technology oriented. The online banking system is still unknown service for the rural areas in Nepal.

Secondly the internet connection is only available in urban areas and not in rural areas in Nepal. ATM are only available in urban area in Nepal. Moreover people are also not making online transactions in Urban as well due to the slow internet connections. They are afraid of being transaction can be stopped in between when the internet is not fast. So, the slow internet also a big issue in using online banking system. The banks in Nepal are also reluctant to educate urban people in Nepal. It is mainly due to the complexity and slow internet facility and uneducated people. Those cannot read proper English in ATM.

CHAPTER 3: METHODOLOGY

Chapter summary

This chapter of the study gives an outline of how the thesis was conducted from start to the end. Further, it provides an insight to the researcher's chosen research method and data collection process. It further underlines ways in which the collected data was analyzed, compared, evaluated, filtered and finally presented in the form of tables, graphs and descriptive writing in the findings and analysis section of the study.

3.1 Thesis Planning

The thesis under discussion was undertaken in a sequence of steps. The following steps were taken to write the thesis:

- 1. Formulation of research question:** The first step in the conduction of this study was the formulation of the research question. After thorough review of the situation of online banking in Nepal, the researchers came up with this research question, that is, what are the challenges to the adoption of online banking in developing countries like Nepal.
- 2. Research gap identification:** After the formulation of the research question, the next step that the researchers took was a review of the available literature on the topic. During this process that researchers found the literature gap present in the field of the study. It was then made an aim of the study to try to fill that literature gap by incorporating questions in this research which have not already been answered by research already conducted in this context.
- 3. Research collection from secondary sources:** In the third step of the thesis compilation, data was collected from secondary sources such as, research articles, official websites, journals, reports books and other published theses. The aim of using the above sources for data was collection was to obtain relevant, vast and authentic data on the subject matter. The above sources provided data on online

banking from various countries. The data obtained from these sources was then generally organized and tabulated.

- 4. Analysis of data obtained from secondary sources:** The fourth step of the study included analysis of the data gathered from secondary sources. The data was analyzed, reviewed, organized in categories and filtered to remove any additional and unnecessary data. The aim of this step was to make the thesis concise, compact, comprehensive and easily understandable.
- 5. Research collection from primary sources:** After the collection of data from secondary sources and its analysis, data was then collected from primary sources which included official websites of banks and financial organizations and interviews. The data obtained from these sources was authentic and relevant to the subject matter of the research.
- 6. Analysis of data obtained from primary sources:** The sixth step in the compilation of the thesis was the analysis of data obtained from primary sources. The data was analyzed, categorized and filtered to keep necessary and relevant information, discarding the unnecessary data.
- 7. Comparison of data obtained from primary and secondary sources:** The data obtained from primary and secondary sources, after analysis, was compared to see what are the similarities and differences among the data on the same subject.
- 8. Organizing the findings and results:** The results of the study obtained from analysis and comparison of the data obtained from primary and secondary sources were then organized and tabulated into various categories. The findings and results of the study were then explained in the thesis to draw out a conclusion.
- 9. Concluding the research:** After explanation of the results, the thesis was concluded by ending statements and recommendation were provided for future researchers on the subject under discussion in this thesis, that is online banking. The results of the study showed the challenges faced by online banking in Nepal and also recommended ways by which user acceptance towards online banking could be improved.

3.2 Research Method

The research method adopted in this study is qualitative research. As the adoption of internet banking and the challenges faced by it is a complex subject as it involves analysis of people's perceptions and attitudes towards accepting internet banking as a new mode of operating bank accounts, qualitative research method was adopted in this study. Qualitative study is better able to address such complexities in a subject as an individual is better able explain people's behavior and attitudes in this research method (Clifton og Handy, 2003).

The major difference between qualitative and quantitative methods is that of depth and superficiality. Usually, quantitative methods only provide superficial and numerical data on a research subject based on statistical analysis. On the other hand, a qualitative research provides in-depth analysis of a research subject as it analysis individual behaviors and attitudes towards a subject matter providing elaborate details to the researcher (Patton, 1990).

Usually, quantitative research method allows respondents of the study to remain limited to the researcher-selected variables thus shortening the scope of their response. On the contrary, a qualitative approach to research allows respondents to answer the research questions broadly and describe their attitudes and behaviors on the subject matter in a detailed way (Kvale, 1994).

Therefore, a qualitative research method has been used in this thesis research in order to obtain detailed information on the topic of online banking in Nepal, the challenges to it, user acceptance towards it and ways to increase its adoption by consumers.

3.3 Data Collection

The data for the thesis was collected from primary and secondary sources of data collection.

3.3.1 Primary data sources

The primary data sources, that is official websites of banks and financial organizations were used to gather authentic and relevant data on the subject matter. The data gathered from these sources contained history of online banking, when banks in Nepal started internet banking, what were the problems faced by these banks in initiated and marketing online banking service, risks associated with online banking and the response of their customers to online banking service.

Another primary source of data collection were interviews. Interviews were conducted in order to gain consumer perspectives towards online banking. Overall, 10 interviews were conducted. The interviewees did not belong to the same profession. Rather, their professions varied from being students, IT assistants, accountants and principals. The interviewees were asked the following questions during the interviews.

1. In 21st century, what do you think about online banking? (future of OB)
2. How often you use online banking? (Benefits or Risk)
3. What is the current status of online banking in your country? (status of OB)
4. Reason of using or not using online banking? Explain (Pros and cons of OB)
5. As per your experience, what would be the future prospects of online banking?

Or how online banking should be developed or managed in coming future?
(services they expect from OB)

6. What do you recommend to your govt., bank or financial institution for the future development of online banking so, that more people can be a part of it.?(problems and requirement of OB)

The interviews were structured as such to gain maximum information about online banking from the consumers and to get better understanding of the consumer's perspective towards online banking. The table 3.1 shows the information regarding the interviews and the interviewees, their profession and responsibilities at the job.

3.3.2 Secondary data sources

The secondary data sources included journals, magazines, research articles, books, and published thesis. These sources were used to collect detailed information on the subject under discussion. The data obtained from these sources included history of online banking, status of online banking in Nepal, its prevalence, benefits of online banking, risks associated with online banking, various factors that affect the adoption of online banking by consumer, challenges to the adoption of online banking in Nepal and ways to improve consumer acceptance towards online banking. Information was collected from these sources in raw form first which was later analyzed in the data analysis step of the study as discussed below.

For better understanding of the primary and secondary sources of data collection, a comparison between the two is necessary. The major difference between these two forms of data is that data collected from primary sources is the data that the researcher collects himself for the intended purpose, on the other hand, secondary data is the data that has been collected by someone else but the researchers finds it useful and relevant to his study so he uses it. This means that primary data is actually real-time or present data whereas secondary data is data that was collected in the past on the same topic.

3.4 Data Analysis

In this step of the study, the data collected from the primary and secondary sources was analyzed to finalize the results and draw a conclusion. The collected data was first reviewed and filtered to remove any unnecessary and irrelevant information. The selected information and data were then categorized and converted into various tables and graphs to make it concise and comprehensive.

Information obtained on the general topic of online banking was categorized into the concept of online banking, its origin and history and trends in online banking. Then data was categorized into the origin and prevalence of online banking with reference to

the banking sector of Nepal. In the introduction portion of the study, the data was further categorized into features of online banking, benefits of online banking and risks associated with online banking.

The literature review of the study included data analyzed and categorized into the concept of online banking, trends in online banking, factors affecting the adoption of online banking and adoption of online banking by consumers in various countries. Finally, in the results, the data was categorized in a way to answer the two research questions under discussion, that is, what are the challenges to online banking in Nepal and how can user acceptance towards online banking be improved.

During the entire process of categorization, the data was also analyzed and cross-checked with the respective sources. The data with nonauthentic sources was refined and replaced with data with officially recognized and authentic sources.

CHAPTER 4: RESULTS AND DISCUSSION

Chapter summary

This chapter of the study presents all the empirical findings of the study and data that has been collected from primary and secondary sources. All the data has been presented in the form of tables and graphs for good understanding. Further the results of the study have also been presented in descriptive form with detailed explanation and discussion on the findings of the study and answers to the research question.

4.1 Online banking on a global level

With the improvement and research in technology on a global scale, every market field has been subjected to technological changes. The most rapidly proliferating technological change that the world has witnessed is the use of internet. Every sector of the market has faced changes in its operation as a result of adoption and integration of internet. The same has happened with the finance and banking sector. With the incorporation of internet in the banking sector, the world has seen a new mode of operating banking activities in the shape of online banking.

Online banking has become a phenomenon of global scale. Initiating in 1980s from Europe, online banking has now penetrated every country of the world whether it be a developing state or a developed one. The trends in the usage of online banking are rising day by day as people are becoming more and more aware of its benefits. The major reason of adoption of online banking by banks is the increase in market competitiveness, technological development and the rising consumer demand. Higher the number of banks that offer online banking service, higher is the number of consumers who are likely to adopt and accept it. Throughout the world, with the exception of a few low-scale banks, almost every commercial bank in every country is now offering online banking services to its customers.

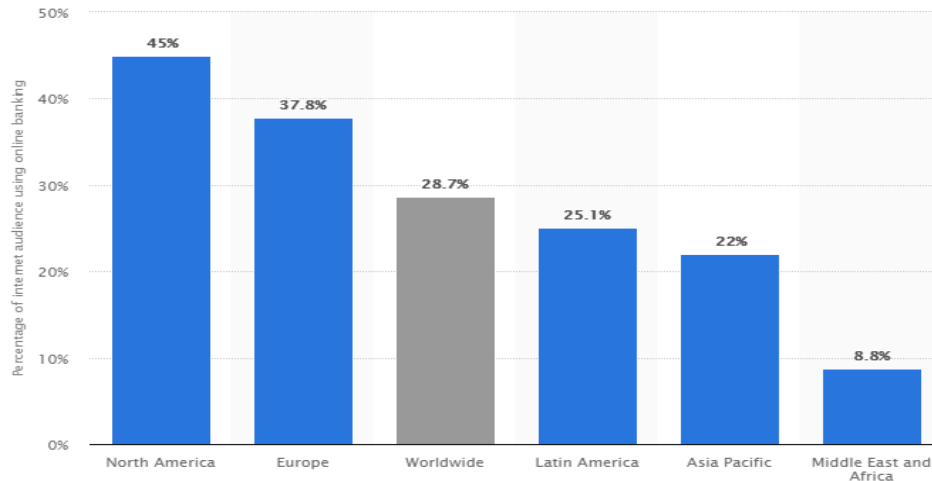


Figure 4.1 Global online banking penetration in April 2012, by region (Statista, 2019).

Globally, the prevalence of online banking usage has increased many folds since its advent. The figure 4.1 shows the prevalence of online banking usage categorized by region as exhibited by the report of Statista (2019). The figure shows that in April, 2012 about 28.7% of the entire internet audience of the world accessed online banking sites, the number being as high as 423.5 million people of the world. The statistics of the report indicate that the highest number of online banking users in April, 2012 was in North America, that is 45%, followed by Europe with 37.8% of users and the least number of online banking users was in Middle East and Africa, that is 8.8% of the population (Statista, 2019).

4.1.1 Prevalence of online banking in high-income countries

Recent advancements in technology in the last two decades have transformed the world in numerous ways. Science and technology have overcome every aspect of business. One of the most prevalent inventions of science is the internet. Internet has brought about a global change so profound that it has made everything in the world accessible just at the touch of a finger. A person who is able to use the internet can access anything or any information on his electronic device (mobile, laptop, personal computer, etc) easily. The internet has also made marketing and business easier. With the

incorporation of internet in the business sector, the competitiveness of business has significantly increased. One of the most important change brought about by internet in the financial business sector is online banking. As the use of internet has increased globally, awareness among people regarding internet banking has also significantly increased. This is more common in high-income or developed countries where literacy rate is high, and a greater number of people are aware of the benefits of online banking. In this study, we have tried to see what the prevalence and extent of usage of online banking by consumers in developed or high-income countries is.

4.1.1.1 Prevalence of Online banking in Great Britain

According to the report of Statista (2019), the prevalence of online banking usage in Great Britain has increased many folds since 2007. Banking industries are considered to be one of the most prominent industries who have adopted the technological advances most rapidly. The adoption of internet in the finance sector and its unstoppable proliferation is an evidence of this. In Great Britain, about 30% of the population responded to have used internet banking to operate their bank accounts in 2007. Since then the rate of online banking consumers has increased rapidly and in 2018 about 69% of people reported to be using internet banking services, as shown in figure 4.2.

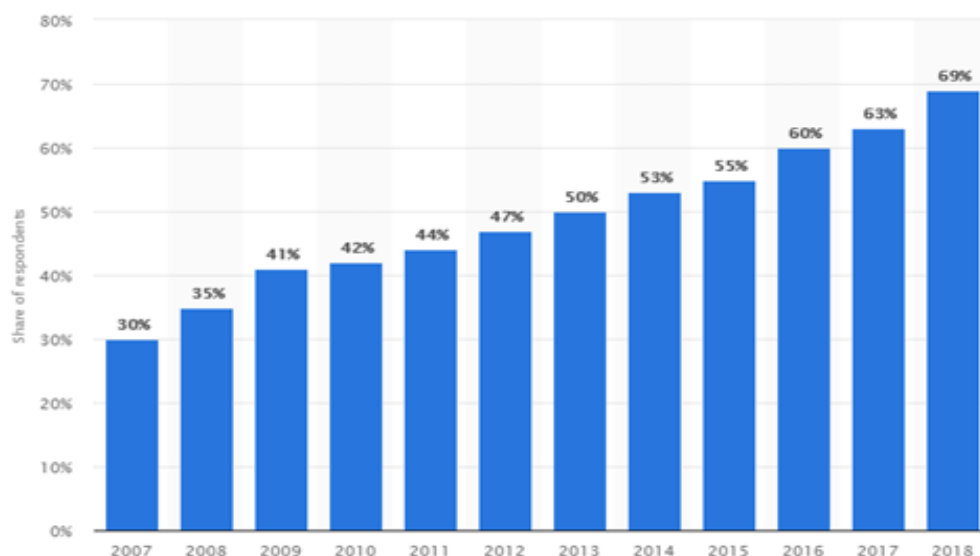


Figure 4.2 Online banking penetration in Great Britain from 2007 to 2018 (Statista, 2019).

4.1.1.2 Prevalence of online banking in United Kingdom

Recent statistics on online banking show that most of the current account holders in the UK prefer to use the internet for the purpose of operating their bank account and receiving financial services such as transactions, funds transfers, bill payments and viewing statements, etc. According to the report of Statista (2019), about 79% of current account holders in the UK used the internet to interact with their banks during 2010, as shown in figure 4.3. However, the report also shows that in 2015, this percentage came out to be 74% (Statista, 2019).

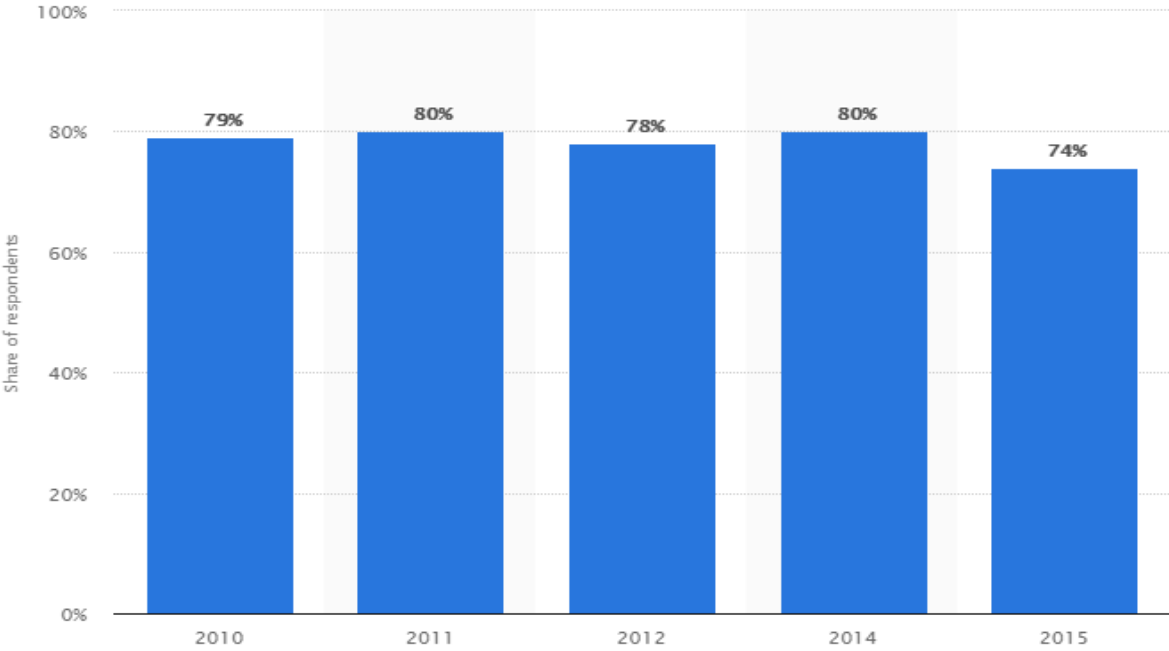


Figure 4.3 Percentage of current account holders using internet banking in the United Kingdom, from 2010 to 2015 (Statista, 2019).

4.1.1.3 Prevalence of online banking in leading markets of the world

As of 2011, the use of online banking by banking customers was quite high in most of the leading markets of the world. The report issued by Statista (2019) shows the prevalence of online banking in leading markets of the world in June, 2011. According to the report the penetration of online banking was highest in the Netherlands, that is 64% among the leading markets. Canada stood at number second with 61% of population accessing online banking sites. The United Kingdom showed statistics of 52%. While, in the United States of America, the largest economy of the world, only 46% of the population used the online banking services. The statistics are given in figure 4.4 (Statista, 2019).

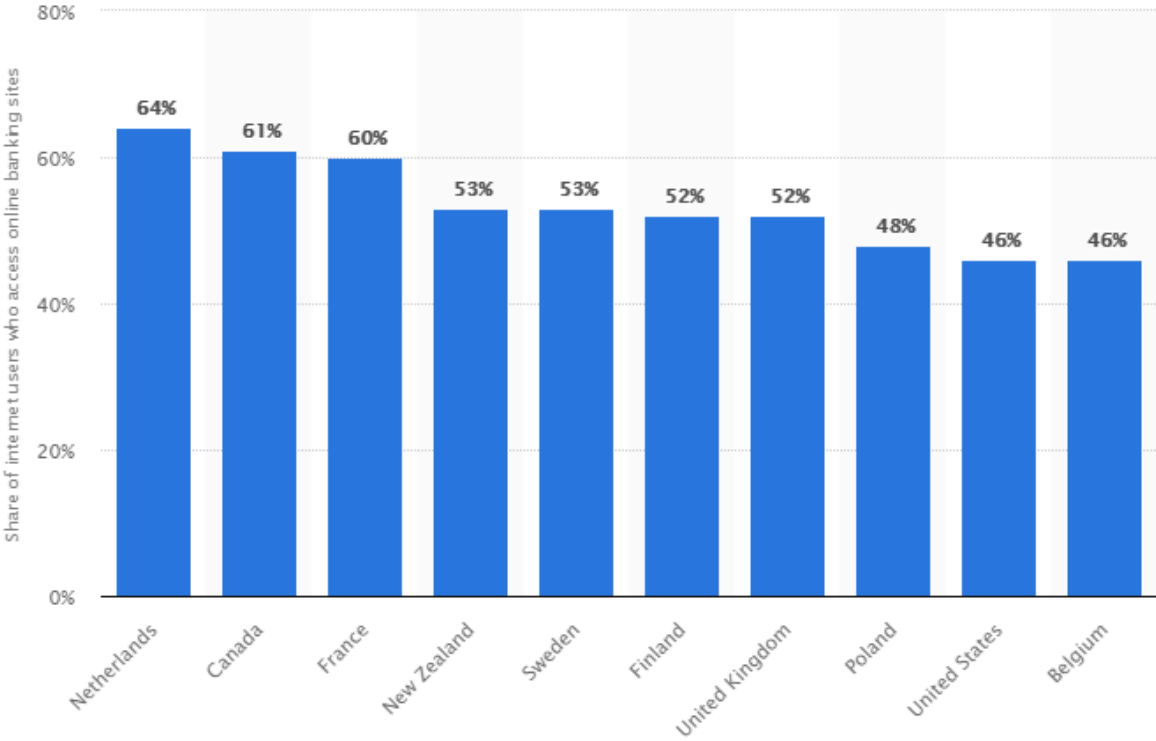


Figure 4.4 Online banking penetration in leading markets in June 2011 (Statista, 2019).

4.1.1.4 Prevalence of online banking in the European Union

One of the most globalized regions of the world is the European Union. It is that region where the borders of the states are meaningless and people, products, ideas and technology move freely across the borders. Internet advancement in the European Union has been rapid as the literacy rate is quite high. Incorporation of internet in the banking sector was actually initiated in Europe. Since then more and more commercial banks in the region have been offering online banking service to their customers. Therefore, the prevalence of online banking usage in the European Union is quite high.

According to the report of the European Commission, in 2017, the percentage of European public, between the age of 16 and 74) using internet banking was quite high, especially in Scandinavian countries, that is, 90% in Denmark and about 87.5 in Sweden. Romania and Bulgaria rank lowest in the percentage of internet banking users, that is 8% and 5% respectively (European Commission, 2017).

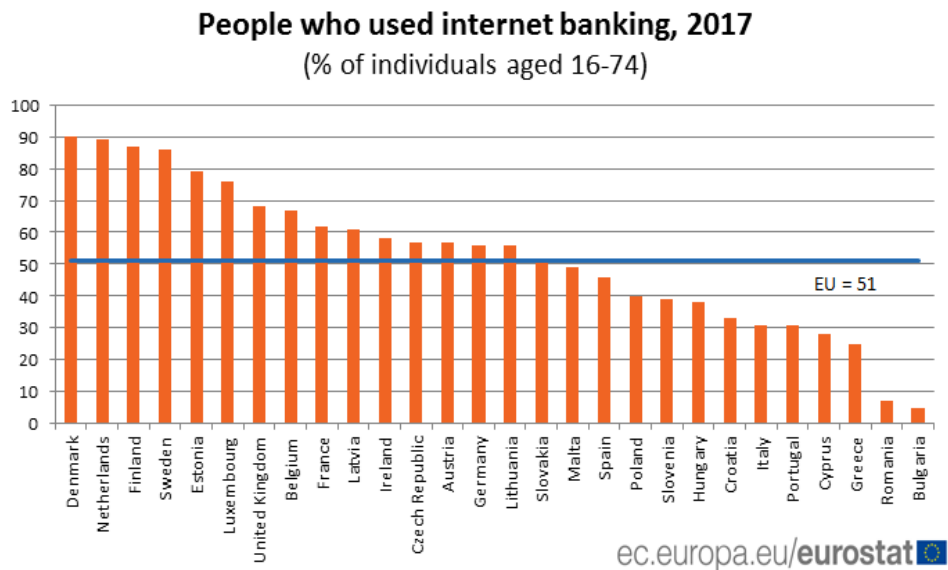


Figure 4.5 Prevalence of internet banking in the European Union (EU) in 2017 (European Commission, 2017).

4.1.2 Prevalence of online banking in low-income countries

The technological development that the world has seen was more rapid in developed nations and high-income countries. However, developing nations also did not lag behind. The advancements in technology and science can also be seen in the third world countries now. One of the major reasons of this is the rise in globalization. Globalization has transformed the world into a global village. There is a free flow of people, products, technology and ideas across international borders. The borders of states are becoming meaningless as a result of the process of globalization.

This globalization has spread technology to developing nations and these nations are also now enjoying the fruits of science, one of which is the internet, which has transformed the world to a great extent. Every business sector and every field of life has incorporated internet in order to compete with the growing trends of the market. An example of this is online banking. The banking sector and financial institutions have incorporated internet into their business which has brought great changes in the operation of their banking services. Although online banking was started initially in high-income countries but now it has also become popular in low-income countries such as Malaysia, Bangladesh, Poland, Benelux region and Nepal. According to a report by Statista (2019), about 41.7% of the population of Malaysia used internet for the purpose of operating their bank account in 2017. (Statista, 2019).

4.1.2.1 Prevalence of online banking in Bangladesh

Similarly, according to the Financial Stability Report of the Bangladeshi Bank, about 253.9 Billion Bangladeshi Taka was transacted through internet banking in 2015 as compared to the lower amount of 41.6 billion transacted in 2011 (Financial, Stability Report, 2011-2015).

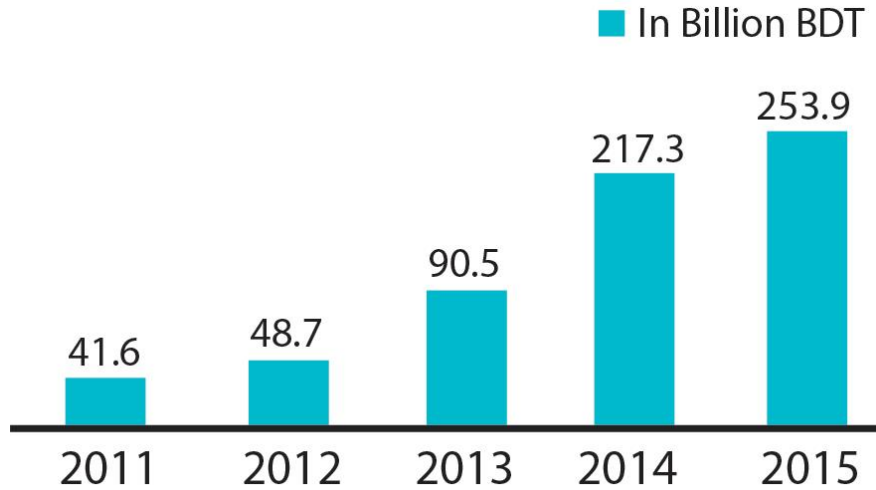


Figure 4.6 Internet banking in Bangladesh from 2011-2015 (in BDT) (Financial Stability Report, 2011-2015).

4.1.2.2 Prevalence of online banking in Poland

Poland is one of the developing nations of the world and internet banking has also become popular in Poland since the last decade. The report of Statista shows how the use of internet banking has increased in Poland since 2005. Figure 4.7 shows the trend of internet banking rise in Poland from 2005 to 2017.

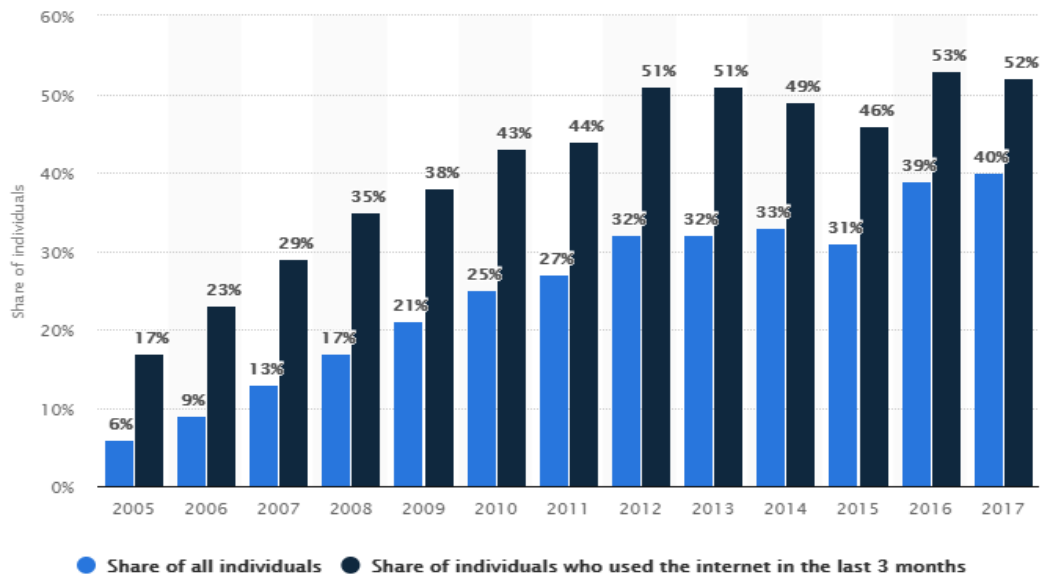


Figure 4.7 Online banking penetration in Poland from 2005 to 2017 (Statista, 2019).

The figure shows how internet banking usage has increased in the Polish people by dividing them into two categories, one is all individuals and the other is those who used internet in the last 3 months. The statistics show that those who used internet in the last three months show a higher rate of internet banking usage, as compared to all individuals. However, on the whole, internet banking usage was higher in 2017 among all individuals that is 40% as compared to the low rate of 6% in 2005 (Statista, 2019).

4.1.2.3 Prevalence of online banking in Pakistan

According to the reports of the State Bank of Pakistan, electronic banking worth of Rs. 10.4 Trillion was carried out in the 4th quarter of the Financial Year 2017 (FY17). In the FY17, there were about 24 banks in the country which provided internet-banking services with 14,285 Real Time Online Branches (RTOBs) nation-wide. The Table 4.1 presents the volume and value of transactions carried out through different online banking methods in Pakistan in the FY17 (State Bank of Pakistan, 2017).

(Volume in Million & value in Billion-PKR)

Transaction Type	Quarter-1 FY17		Quarter-2 FY17		Quarter-3 FY17		Quarter-4 FY17		Quarter-1 FY18 ^{5p}	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
	PRISM System	0.2	66,207.4	0.3	58,097.8	0.3	69,780.4	0.4	85,378.8	0.4
E-Banking	135.5	8,055.3	151.0	9,244.3	162.0	9,343.5	177.4	10,418.8	171.8	9,107.0
RTOB	31.0	6,760.0	35.5	7,863.2	37.5	7,814.9	39.4	8,688.4	37.2	7,469.5
ATM	89.1	1,015.3	94.3	1,064.7	102.0	1,178.7	112.3	1,303.6	107.8	1,230.0
POS	8.3	51.9	13.4	62.2	13.9	64.1	14.9	67.9	15.2	66.0
Internet Banking	5.6	203.9	6.1	224.5	6.8	255.9	6.7	284.4	6.5	260.5
Mobile Phone Banking	1.2	21.0	1.3	26.0	1.4	25.4	3.5	69.0	4.1	73.9
Call Centers/IVR Banking	0.1	1.6	0.1	1.7	0.1	2.1	0.1	2.3	0.1	2.3

Table 4.1 Volume and value of online banking transactions made in Pakistan in FY17 (State Bank of Pakistan, 2017).

4.1.2.4 Prevalence of online banking in Nepal

Nepal is one of those developing countries where internet banking was introduced quite late, in fact, internet was introduced quite late. People over there still are unaware about the use of internet itself let alone the use of internet for banking services. However, since the last decade, awareness regarding the use of internet banking in the country has increased. Reports of the Nepal Rastra Bank on internet banking in the country show that there were about 0.78 million internet banking users and 4 million mobile banking users in the country as of 2018. The Figure 4.8 taken from the Khalti Digital Wallet shows the statistics of online banking in Nepal as per the reports of Nepal Rastra Bank (Nepal Rastra Bank, 2018).



E-Sewa, Khalti , IMEpay are digital wallet companies which allows Nepal People to pay their daily expenses like mobile recharge, electricity and gas bills and transferring money to friends and family members across country. The same work can be done by banks account but theses type of companies are earning so much money out of illetrate people. Government has also getting money due to these companies. In the form of taxes and other charges but ultimately money is taken out from the poor illiterate consumer and customer. Same is the case in India and Pakistan. If we talk about

Pakistan. Mobicash by Mobilink, Easy Pesa by Telenor, Omni Pesa by UBL bank and other telecommunication companies are using their network to transfer money from one place to another place. They charge almost 1% of the transaction value is for shop keeper who hold the system and transfer money from their cell phone account and the much more is taken by the companies which are providing their network for the transactions.

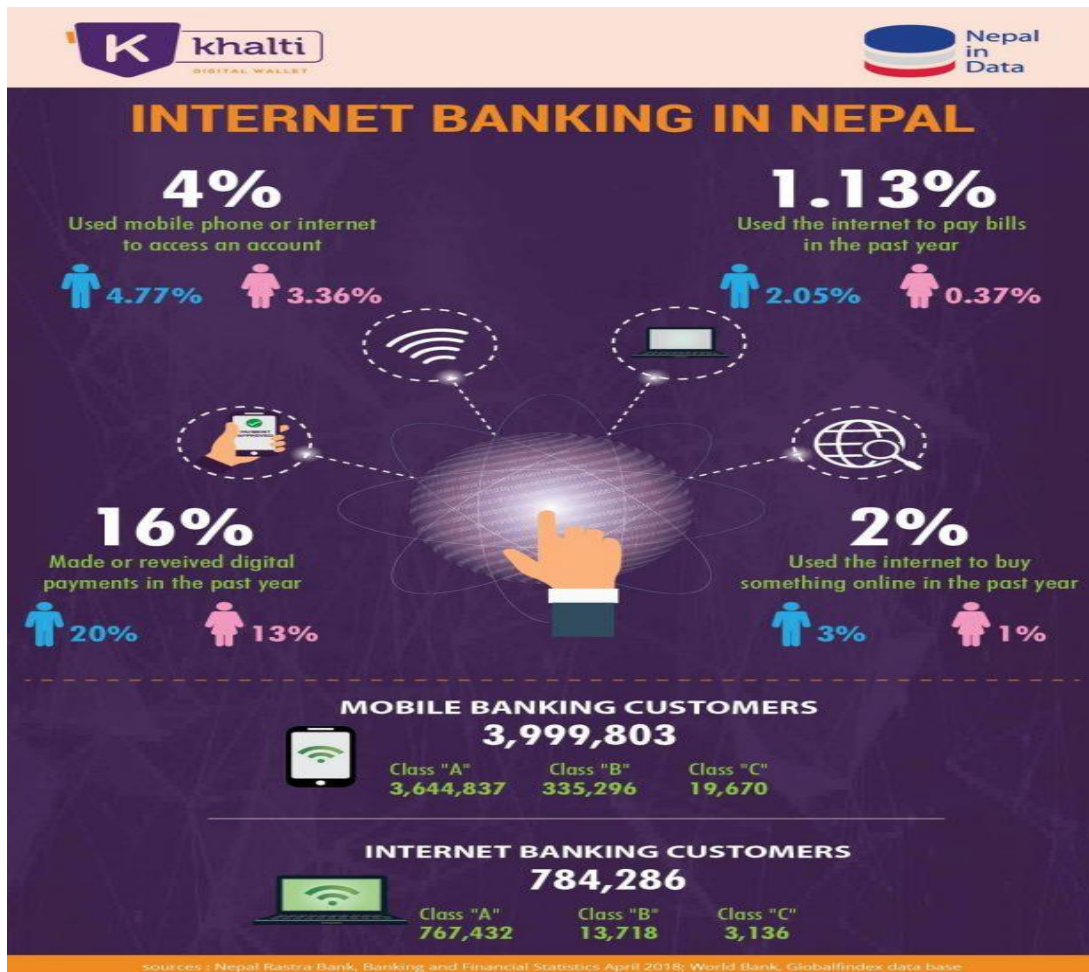


Figure 4.8 Online banking statistics in Nepal in 2018 (Khalti Digital Wallet).

4.1.2.5 Prevalence of online banking in the Benelux Region

The report issued by Statista (2019) shows the prevalence of online banking in the Benelux region, that is in Belgium, Luxembourg and Netherlands. The report actually shows the trend of online banking penetration in the three countries from 2005 to 2017. According to the report, internet banking has always been highest in Netherlands followed by Luxembourg and lowest in Belgium. In 2005 the prevalence of internet banking in the three countries ranged from 22% to 45%, while in 2017 the prevalence of internet banking in the three countries ranged from 65% to 85% (Statista, 2019). The figure 4.8 shows the online banking penetration trend in the Benelux region from 2005 to 2017.

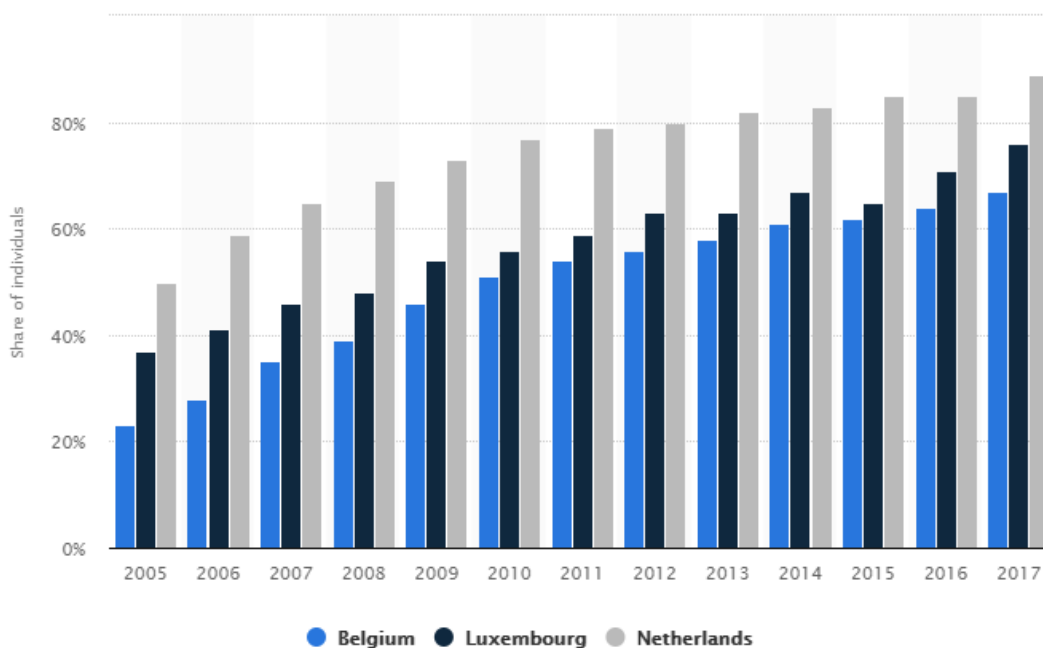


Figure 4.9 Online banking penetration in the Belgium, Luxembourg and Netherlands (Benelux) from 2005 to 2017 (Statista, 2019).

4.2 Challenges to online banking in Nepal

Although globalization has transformed the world into a global village as everything is easily accessible from anywhere in the world but still some of the

developing states face resistance to change and globalization. In spite of the benefits brought by internet, the brainchild of globalization, some of the regions of the world still face low acceptance to internet usage. This affects the various marketing sectors that have incorporated internet into their businesses. One of these sectors that has integrated internet in it is that of banking and finance. Internet banking is the new face of the banking and finance sector in the modern era. Although most of the public in developing nations has adopted internet banking, but still a large number of people are showing resistance to the use of online banking. This means that internet banking still faces numerous challenges in developing nations like Nepal. Nepal is one of those nations where online banking still needs to grow more and there are numerous hurdles in the way of its growth. The challenges to online banking in Nepal, as found out by this study, are as follows:

1. Security concerns

This is one of the most significant challenges faced by online banking in Nepal. Although online banking provides numerous benefits to banking customers, but it also comes with its security risks. In comparison to traditional banking methods, online banking has various security risks. For example, in traditional banking there is a low risk of personal information of customers being leaked as the information remains in hard copies in the bank's registers. However, in online banking all the personal information of banking customers remains on online platforms where it is exposed to the risk of hacking and being leaked easily. This is one of the major challenges to online banking and reason of people's resistance to adoption of online banking.

2. Illiteracy

In developing countries like Nepal, the literacy rate is low. According to the latest national census of Nepal, about 65.9% of the population of Nepal is literate. This means that the remaining 34.1% of the population is illiterate and unaware of the usage of internet. Lack of internet literacy is a serious challenge to internet banking in Nepal.

People do not know how to use the internet and electronic devices and therefore refrain from using online banking and rather stick to traditional banking methods. Those who are literate are reluctant to use online banking due to all the information is given in thick English which they cannot understand easily. In other words, they are also afraid of misuse of online banking and securities.

3. Language barrier

In Nepal, the most commonly spoken language is Nepali. While on the internet, English language is most common and dominant. This language barrier creates a problem for Nepali people and is a hindrance towards adoption of internet banking. People find it difficult to communicate and operate in English language and therefore resort to using traditional banking methods such as going to physical bank branches where they can easily communicate with their fellow Nepali people and operate their bank accounts. All the banks have only English as a website language and most of Nepalese people cannot read and write English easily.

4. Resistance to change

In countries where people have been following traditions and old values, they become resistant to change. Nepal is a country full of cultures and traditions. Nepalese people follow their ancient values with zeal and are resistant towards adoption of changes. In Nepal, people have been following traditional banking methods for quite a long time and now with the increased influence of internet in every business sector, they are feeling it difficult to adopt it. Internet banking is a new technology which Nepalese people find difficult to accept immediately as they find the traditional banking methods more feasible. Therefore, this resistance to change by Nepalese people is a challenge to the growth of online banking in Nepal. Every society has a resistance for change and some time changes are so drastic that it cannot be stopped. But Nepalese people are more reluctant towards this positive change and they are lacking to understand the value of online banking.

5. Cross-border transactions

Cross-border transactions play a significant role in international trade. Online banking is one of the major sources of cross-border transactions. However, with the risks associated with online banking, people feel insecure in making cross-border transactions as their information and assets can be hacked easily. Thus, they resort to using traditional banking methods for cross-border transactions. This poses a challenge to online banking in Nepal where people feel insecure about their assets being exposed on such an open platform.

6. Technical issues

With the increase in the popularity of online banking, banks have become highly reliant on online platforms for banking services such as transactions, funds transfers and loan payments. However, a single bug or virus in the technical system may cause the loss of huge amounts of money which may result in huge losses for the bank. As a result of this customers may lose trust in the bank and refrain from using an online platform to operate their bank accounts. Thus, online banking faces a challenge in the way of its growth in this manner. Every day dozens of hackers are trying to make and test their hacking software to get money out of people online bank accounts. These hackers create technical issues on regular basis. These technical issues need updates to counteract with their effect which causes technical issues and delays in online Banking.

7. Lack of financial literacy

In Nepal, people are unaware of the financial policies and procedures. A huge percentage of the population is financially illiterate. This means they do not know how to carry our financial transactions, how banking procedures work and how they can use the internet to obtain financial services. This lack of financial literacy is one of the major reasons why people are unable to adopt online banking as a new method of obtaining financial services in a proper way. Moreover, there are also not enough government organizations or programs to educate people on the financial policies and procedures.

This further adds up to the financial illiteracy. People are unaware of the fact that how they can use banks for their regular transactions. These are the people who have money but they don't know how to transport it in a risk-free way. They are illiterate. Unaware and very resistant to change.

8. Lack of internet access

People in developing states like Nepal have less access to internet facilities as compared to those living in developed states like America or Canada. The lack of internet access is one of the major challenges to the adoption of internet banking. The whole concept of online banking is useless when there is no access to internet. Consumers can not use online websites or banking apps to carry out financial activities or obtain financial services if they don't have access to internet. Internet facility has become the basic facility now a days. Where ever you go in the world there are free internet at airport and free internet at public places in many developing countries as well. But Nepal is lacking in good internet services as they have very slow internet even in urban areas which makes online banking more pathetic experience for the first-time user.

9. Lack of technology

Although technology is advancing day-by-day and technological advancements are bringing about new inventions. From mobiles to smart phones, desktop computers to laptops and tablets, the human mind has brought about significant technological inventions. But it surely will be fair to say that these advancements are more accessible in developed states and high-income countries where literacy rate is higher, economies are progressing, and public is more well-off. On the other hand, developing states still need much more progress and advancement in this regard. This lack of technology in developing states is another major cause of less adoption of online banking in developing states like Nepal. When people will not have better technology and device they will not be able to adopt online banking as it is solely based on the use of internet and electronic devices. Secondly Online banking can be done with 10 years old computers perfectly but

the issue is there are certain app which does not run on old machines due to older version of computer and mobile phones. In order to keep up with the latest technology Nepal is far behind as it is very poor country and people cannot buy new technology which such a low budget pocket.

10. Multi-currency and payment methods

With improvements in the global trading system, the concept of multiple currencies and payments methods has come forward which has caused serious problems in the online banking sector. Various payment methods are being used by consumers all around the world such as Automated Teller Machines, credit/debit card, Paypal, mobile payments, e-wallets, bank transfers and Sofort banking. Similarly, the concept of payment in multiple currencies has also surfaced. It becomes difficult for consumers in developing nations like Nepal to pay in multiple currencies and via multiple payment methods. Therefore, this advancement in the online banking sector has become more of a challenge in its way.

11. Reliability

Although most of the banks provide assurance of total security of information and assets of customers, still some low budget banks do fraud with customers and loot their money and assets. As online banking has further made customer information and assets exposed to fraud, people lose their trust in banks and refrain from using online banking to keep their money, assets and information secure and protected from any kind of fraud.

All the above-mentioned issues are a serious challenge to the growth of online banking in Nepal. Although many people have adopted online banking as a new mode of operating their bank accounts, yet many people have resorted to the use of traditional banking methods and the growth of online banking in Nepal still faces numerous challenges as mentioned above.

4.3 How to improve user acceptance towards online banking?

In spite of the risks associated with online banking, it has proven to be highly beneficial to the banking sector on a large scale. Higher the number of banking customers adopting online banking, higher is the profit for a bank. Although the challenges to its adoption, pose a threat to the growth of online banking yet the benefits outweigh the risks. Increased online banking has promoted globalization to a great extent and has brought the world closer. The benefits of online banking can prove to be further advantageous if more and more people adopt it as a mode of operating their bank accounts. For this purpose, banks need to focus on ways to improve user acceptance towards online banking to increase the adoption rate of online banking both in developing and developed nations.

Listed below are the ways by which user acceptance towards online banking can be improved:

1. Online banking awareness

In developing states, where online banking is still in a phase of infancy, awareness regarding online banking must be provided to the consumers. Banks should adopt various ways of presenting information that is advertisements, leaflets, brochures and web pages to spread information about online banking and to introduce online banking to new customers. Moreover, a bank can use another strategy of educating customers who come to physical bank branches about the benefits of online banking. This will greatly increase user acceptance towards online banking as they will be more aware of the potential benefits associated with it. There should be demo video on the LCD placed on the website as well as inside the bank waiting area. The customer coming for transaction are given a computer to perform their transaction by them self. The banker floor in charge or the leader can explain them and help them doing their transaction by them self.

2. User-friendly applications and websites

Banks should focus on designing user-friendly applications and websites so that people find the application of online banking easy to use and accessible. For this purpose, banks should survey the present online banking users and ask them about the changes and improvements they want in the bank's website and applications so that the bank can improve them according to consumer demand and make online banking more appealing to the customer. What we have observed that website is mainly for publicity. They cannot perform any task other than advertisement and show off. The website of the banks should be more practical. There should be chat area where can gear real time help from the customer care .This can improve the positive feedback from the customer and it also motivate the customer to try online services because he knows that someone will be there to help if i need any assistance during my online transaction. Secondly, website should have native language option as well. Those who cannot understand English and they want to try online transaction. they can use their native language and try online facility.

3. Improvement of trust and reliability

One of the key encouragement factors of user acceptance towards online banking is trust and reliability. Users are more likely to adopt the online banking service of a bank if they find the bank reliable and trust worthy. Therefore, banks should work to improve the trust of their users and prove to be reliable and trust worthy. For this purpose, they should talk to the customers regarding their concerns and try to remove any ambiguities or distrusting factors in order to portray online banking as a reliable method of operating bank accounts. Secondly, we know that in developed countries like Norway we have 2D security for log in our account. The customer is highly concern regarding its money. They want that their money should be safe, and no one can withdraw money without concern. Ask the customer how they feel comfortable and create trust and reliability in relation with them.

4. Coping with the security problems

The security concerns of customers is one of the major reasons why they refrain from adopting online banking. Banks should ensure their customers of total security of their assets and information by providing security information to their customers in non-technical terms, both verbally and on their websites. Moreover, they should install strong security systems in their systems in order to protect consumer information and assets from being leaked or exposed to hacking or fraud. In this way, consumers will feel more secure about their information and assets and are more likely to adopt online banking. Like in Norway DNB bank has an agreement with McAfee antivirus. They provide free antivirus for home computer, laptop, mobile phone and tablets for their customer for the whole year. This the customer trust and protection which is required in Nepal as well. Online customer should be taken care off and provide this information on the banks website so every customer will be aware of this facility.

5. Improvement in quality

One of the key factors, for increasing the adoption of online banking is the improvement in the quality of online banking service. It is a universal fact that people are most likely to adopt a thing which they find to be of better quality. Therefore, banks should work to improve the quality of their service if they want more customers to adopt it. This can be done by improving the efficacy, accuracy and effectiveness of service and therefore, increasing the attractiveness of the service. The website layout should be capable of helping customer. They should be easy to use light weighted to run smoothly on the internet. The reliability should be accurate, and the transactional method should be 2Datleast.

6. Increasing access to internet banking

The adoption of internet banking by consumers can be greatly improved if banks make internet easily accessible and also make internet banking accessible. This can be done by offering internet banking facilities at public places and workplaces. This will

greatly improve user acceptance towards internet banking as users tend to adopt a service which is easily available to them at all times irrespective of time and place.

7. Emphasizing on benefits of internet banking

In order to improve user acceptance towards online banking, banks should focus on emphasizing the benefits of internet banking that is, convenience, cost-effectiveness, ease of access, time-saving and 24/7 availability. Educating the public about the benefits of internet banking will greatly improve consumer acceptance towards it.

8. Incorporation of native language

One of the major barriers to the adoption of online banking in developing nations like Nepal is the language barrier. People are less likely to adopt a service based on English language when (they are the speak, read and write their native language. This is one of the major reasons of less adoption of online banking. If banks incorporate the use of native language in their service, customers will feel comfortable in using their online banking service and hence are more likely to adopt it as a new mode of operating their bank accounts.

9. Offering incentives

Another very useful way of improving user acceptance to online banking is by offering incentives to the users of online banking service. Banks can offer incentives such as membership rewards, bonuses and benefits for online banking users. This strategy will encourage more people towards adoption of online banking as these incentives are usually not available with traditional banking methods.

10. Employment of collaboration strategies

As internet banking service is provided by most of the commercial banks in a country, collaboration strategies can be employed to improve consumer acceptance towards online banking. Banks should collaborate with each other to provide benefits to consumers in transactions and funds transfers between different bank accounts.

Moreover, banks should collaborate with internet service providers to see what kind of internet service is being provided to their customers and how can it be improved to make online banking more user-friendly.

All the above-mentioned strategies, if adopted by banks, can greatly help to improve user acceptance towards online banking both in developing states as well and developed states.

CHAPTER 5: CONCLUSION

Chapter summary

This chapter of the study provides an overview of the findings of the study followed by the conclusions drawn from these findings. Further it explains what the limitations of this research project were and provides future recommendations for further research in this field in order to overcome the limitations and to further achieve better understanding and knowledge on the topic of online banking.

The aim of this study was to view the status of online banking worldwide, to see what the challenges to the growth of online banking in developing countries like Nepal are and to determine ways to improve user acceptance towards online banking. The findings of the study have greatly enabled us to view the status and prevalence of online banking in various regions of the world, categorized as high-income and low-income countries.

Advances in the business and finance sector have certainly brought about new changes in the banking delivery channels, the most important of which is online banking. This study shows how online banking has proliferated worldwide since the last two decades. The user acceptance towards online banking has been increasing more and more with time and people are continuously adopting it as new banking delivery channels as they are becoming aware of its benefits which outweigh the risks associated to it.

However, more progress in the adoption of online banking has been seen in developed countries as compared to developing countries. This is because in developed and high-income countries, technology is more advanced and people are more educated and aware of the use of internet and electronic devices. On the contrary in developing countries, the literacy rates are low and less people know how to speak English, let alone use the internet for banking services. This is one of the major reasons why adoption of online banking faces more challenges in developing countries as compared to developed countries.

Although the study aimed at addressing the topic of online banking in Nepal to full extent, yet it does have certain limitation with respect to data collection.

Firstly, not enough primary sources were available for data collection. Most of the banks did not have much information regarding the challenges to online banking or user acceptance towards online banking. Some of the banks did provide information on this topic but the information provided at official websites of banks on online banking was not sufficient to address the research questions adequately. Secondly the online banking is more successful if government motivate people by providing fast internet services throughout Ruler and Urban areas.

Secondly, although the thesis does add to research on this subject, yet the scope of the study is very limited and is unable to address the research questions on a broader basis.

Thirdly, the sample size of the study was very small, as the viewpoints of only 10 people were taken. A broader sample size would have enables us to better understand consumer perspective towards online banking.

Though this study is an effort to understand the process of online banking in Nepal, yet more research in this filed must be undertaken in order to further benefit from the usefulness of online banking. The study does show that the growth of online banking is facing numerous challenges in developing countries such as security concerns, technical issues, language barrier and other such problems.

However, still more research needs to be conducted in this field in order to better understand the prevalence and progress of online banking in developing countries like Nepal. future researchers should take into account the limitations of this research work and try to incorporate new and feasible techniques of acquiring information on online banking from customers. Moreover, they should use a broader sample size for the study so that more people can give their viewpoints and perspectives about online banking. this will not only increase the scope of online banking but also improve the percentage of people who are adopting online banking as a new method of operating their bank accounts.

But overall, by all counts and with proven results, it is of no wonder that online banking has greatly transformed the banking sector worldwide and has brought about a paradigm shift in banking delivery channels enabling the world to further benefit from the fruits of science and technology.

Asian countries are lacking in good government policies to monitor private banks policies towards online banking. We can say that the government of Asian countries specially Pakistan, India and Nepal are too reluctant in this matter. They should keep check and balance towards private banks to motivate their customer for online transactions. Rather than standing in a queue to get to the window for transaction approved by bank physically. Customer should do its transaction while sitting in their home, office or any other remote place. The interesting part of online banking is we can do transactions 24/7 besides any other public holiday or environmental circumstances occurring outside our premises.

On the other hand, Nepal, India, Pakistan, Bangladesh are having dozens of private banks inside countries. None of them are fully functional and operational as compare to European banking facilities. Asian countries are having 20-28 different private banks in a country and still lacking in solution online banking is very sad. In order to improve banking system. the number of banks should be reduced to few and they should be intra connected with each other to gain flow in banking transactions. of course, number of banks cannot be reduced easily. But it can be done by merging small banks having few branches with other small banks to make big resourceful bank. This is not a new strategy for us as we have seen before in Pakistan. In 2005 - 2007. Government of Pakistan reduced the number of banks in private sector by putting simple constrain of reserve and number of branches. Any bank having less than 300 branches cannot stand alone and proceed its working beyond the said deadline. Many of the small banks like PICIC bank. Atlas Honda bank. JS investment bank, Union bank and other banks has gone through merger and acquisition to get into its current structures. But still there is not much done in the area of online banking. A simple entrepreneur is still afraid of doing online transactions due to risk of wrong payments and loss of payments.

What we want to say is government policies should be restructured for private banks once again and this time government should understand what the benefits of online banking for the economy are and how it can be improvised to reduce the stress of theft, loot and crimes in country. Most of the crimes are done for the cash transportation in these countries. What if no one carries cash and no one can snatch money from civilians.

Reduced number of banks and increased inter banks transaction will smoothen the business and cash flow in the society. This will not only increase money circulation but also boost the business opportunities in Asian countries.

If we can inter relate the number of Banks in Nepal as compare to number of banks in Norway. when we see the transactional data we can clearly analyze that country having less number of banks are more in flow and providing good online services as compare to more number of banks in Asian countries providing bad or no services in the online services sector.

Most of the time the online server remains down or slow internet facilities. They often excuse for low or bad connection when asked for online issues. We can say that banks in Nepal , Pakistan and India always hunting for new customers to bring more money into banks to meet their job targets. where as we think that attracting money is not only the Job description of employees of the banks but most probably good quality services should be the number one objective for any bank.

We are living in a world where banknotes are going to be vanish very soon. A cashless economy is produced when we do the transaction only in number not by bank notes physically. In other words, cash less economy is an economical state where cash is no more important or needed to do financial transactions. The trust and flow built over many decades by the customers is the major reason for cashless economy. People are more reluctant to count bank notes while making purchases. They are now preferring to do financial transaction by online. number comes and go, and customers are more interested in online transactions rather than cash transaction. This is the story of developed countries. Under developed and developing countries like Pakistan, India Nepal, Bangladesh are still far way in this concept, or we can say this is only happening in urban areas and only very small scales.

Cash less economy is the highest stage of online banking. At this point we hardly see cash inside laymen's pocket. If we take an example of Norway. We hardly have some cash with us while purchasing grocery and other house hold. The employer doesn't give salary by cash but only numbers comes and goes in the accounts of employee and customer. Visiting departmental stores like Rema, coop Obs and other we can clearly see that they are not taking cash now. If one will do this then it will reduce its sales definitely, but all the store is doing this. Then there will

be no effect on sales for any departmental stores. Because customer will use its card to pay and it will create confident efficient and cashless economy in a country.

Beside all the benefits and fruits of Cashless economy we cannot nullify the factor of using bank notes because many people visit different countries and it is cheap to convert currencies and use it as hard cash. When we use ATM card in other countries, we are charged extra amount from our local banks where we get that ATM card. This is the main reason which motivates foreigner to use hard cash currencies rather than online or ATM card.

Cash less economy is most important feature in tracking of money. It helps to reduce corruption as well as most of the corruption money is in cash form. The corruption money cannot be tracked easily if transaction were made in cash. So, the cash less economy will cost the corrupt people use online transaction which can be later verified if inquiry has been opened. Cash less economy also help us to reduce sales under invoicing, Tax hiding and other thefts done by mot business men with the help of cash money. Tax collection and calculation can be done more accurately if government makes strong policies for banks and other business.

Still we have to have some cash transactions due to foreigner coming from abroad. But now a day's everyone has visa debit card and master card. So, these cards should be followed by all over the Asian countries to do online shopping as well. Like in Nepal we cannot pay our international purchases by our credit card. Neither we can do online transaction from our bank account to the other countries bank account.

So, to attract more online banking user in context of Nepal, Government should make a plan and policy regarding user and try to reduce cash form of money. And motivate them towards online banking by increasing the internet security.

REFERENCES

- Anesti, D., 2004. Internet banking history and strategies: a case study of US and Greek banks.
- Banstola, A., 2007. Prospects and Challenges of E-banking in Nepal. *Journal of Nepalese Business Studies*, 4(1), pp.96-104.
- Baten, M.A. and Kamil, A.A., 2010. E-banking of economical prospects in Bangladesh. *Journal of internet Banking and Commerce*, 15(2), pp.1-10.
- Brogdon, C., 1999. Banking and the Internet: Past, present and possibilities. *Internet WWW page, available at URL: <http://wwwdb.stanford.edu/pub/gio/CS99I/banking.html>. Version current as of July15.*
- Central State Bank, 2019. Retrieved from: <https://www.centralstatebankia.com/benefits-risks-online-banking.htm>
- Claessens, J., Dem, V., De Cock, D., Preneel, B. and Vandewalle, J., 2002. On the security of today's online electronic banking systems. *Computers & Security*, 21(3), pp.253-265.
- Clifton, K.J. and Handy, S.L., 2003. Qualitative methods in travel behaviour research. In *Transport survey quality and innovation* (pp. 283-302). Emerald Group Publishing Limited.
- Cooper, R.G., 1997. Examining some myths about new product winners. *The human side of managing technological innovation, Oxford*, pp.550-560.
- Cronin, M.J., 1998. *Banking and Finance on the Internet*. John Wiley & Sons.
- Daniel, E. (1999), Provision of electronic banking in the UK and the Republic of Ireland, *International Journal of bank marketing*, Vol. 17, No. 2.
- Daniel, E., 1999. Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of bank marketing*, 17(2), pp.72-83.

Deitel, H.M., Deitel, P.J. and Nieto, T.R. (2001) E-Business and E-Commerce: How to Program, *Prentice Hall*

Dover, P.A., 1988. The effect of technology selection on consumer adoption of in-home computerised banking. *International Journal of Bank Marketing*, 6(2), pp.31-37.

Echikson, W. (April, 2001). The Dynamo of E-Banking. BusinessWeek Online

Electronic Payments International (2001), "US customers prefer branches, research says" Vol. 2, 30 April.

European Commission, 2017. Internet banking on the rise. Retrieved from: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20180115-1>

Financial Stability Report, 2011-2015. Retrieved from: https://www.bb.org.bd/pub/annual/fsr/final_stability_report2015.pdf

Furst, K., Lang, W.W. and Nolle, D.E., 2001. Internet banking: developments and prospects.

Gultinand, J.P. and Donnelly, J.H., 1983. The use of product portfolio analysis in bank marketing planning. *Management issues for financial institutions*, p.50.

Gur_u, Catalin. "E-banking in Transition Economies: the Case of Romania," *Journal of Financial Services Marketing*, 6, 4, 2002, pp. 362 -379.

Howard, J. and Moore, W., 1982. Changes in consumer behavior over the product life cycle. *Readings in the management of innovation*, Pitman, 128.

Howcroft, B., Hamilton, R. and Hower, P., 2002. Consumer attitude and the usage and adoption of home-based banking in the United Kingdom. *International journal of bank marketing*, 20(3), pp.111-121.

Ingo, W., 2009. Reputational risk and conflicts of interest in banking and finance: the evidence so far. *Variations in Economic Analysis*, pp.75-97.

- Jaruwachirathanakul, B., 2003. Determinants of internet banking adoption in Thailand.
- Juergen, S. and Eberhard, S., 1998. Internet Banking-An Overview Volume 3 No. *Journal of Internet Banking and Commerce*.
- Khalti Digital Wallet, 2018. Internet Banking/eBanking in Nepal: Past, Present and Future Ahead. Retrieved from: <http://blog.khalti.com/fintech-trends/internet-banking-ebanking-in-nepal-past-present-and-future-ahead/>
- Khatri, J.R. and Upadhyaya-Dhungel, K., 2013. Internet banking in Nepal: Use and challenges. *Banking Journal*, 3(2), pp.57-77.
- King, D., Chung, H.M., Lee, J.K. and Turban, E., 1999. *Electronic commerce: A managerial perspective*. Prentice Hall PTR.
- Koirala, B., 2018. According to NTA, the internet penetration in Nepal has reached 63%. Retrieved from: <https://www.gadgetbytenepal.com/internet-penetration-nepal/>
- Kolodinsky, J.M., Hogarth, J.M. and Hilgert, M.A., 2004. The adoption of electronic banking technologies by US consumers. *International Journal of Bank Marketing*, 22(4), pp.238-259.
- Koskosas, I., 2011. The pros and cons of internet banking: a short review. *Business Excellence and Management*, 1(1), pp.49-58.
- Kvale, S., 1994. *Interviews: An introduction to qualitative research interviewing*. Sage Publications, Inc.
- Lampson, B.W., 2004. Computer security in the real world. *Computer*, 37(6), pp.37-46.
- Mazursky, D., LaBarbera, P. and Aiello, A., 1987. When consumers switch brands. *Psychology & Marketing*, 4(1), pp.17-30.

Mishra, B.B., 2008. The Development of E-payment and Challenges in Nepal. *An e-book*, pp.159-160.

Nathan, L. "Www.your-community-bank.com: community banks are going online. Community and Banking," Federal Reserve Bank of Boston, 1999.

Nepal Rastra Bank, 2018. Banking and Financial Statistics Report, 2018. Retrieved from: https://nrb.org.np/bfr/statistics/cms_pdf/Baishakh-2075.pdf

O'Connell, B. and Tremethick, P.M., 1996. Australian banking on the Internet: fact or fiction. *The Australian Banker: Journal of the Australian Institute of Bankers*, 110(6), p.212.

Patton, M.Q., 1990. *Qualitative evaluation and research methods*. SAGE Publications, inc.

Poon, W.C., 2007. Users' adoption of e-banking services: the Malaysian perspective. *Journal of Business & Industrial Marketing*, 23(1), pp.59-69.

Pyun, C.S., Scruggs, L. and Nam, K., 2002. Internet banking in the US, Japan and Europe. *Multinational Business Review*, 10(2), p.73.

Quinn, R.B. and Mueller, J.A., 1982. Transferring research results to operations", in Tushman and Moore (Eds), *Readings in the Management of Innovation*, Pitman, MA, p. 62.

Rayport, J.F., 1994. Managing in the Marketspace. *Harvard Business Review*, pp.141-150.

Rogers, E.M. and Shoemaker, F.F., 1971. *Communication of Innovations; A Cross-Cultural Approach*.

Rogers, E.M., 2010. *Diffusion of innovations*. Simon and Schuster.

Rothwell, R. and Gardiner, P., 1984. Design and competition in engineering. *Long Range Planning*, 17(3), pp.78-91.

Sarma, G. and Singh, P.K., 2010. Internet banking: Risk analysis and applicability of biometric technology for authentication. *International Journal of Pure and Applied Sciences and Technology*, 1(2), pp.67-78.

Sathyanarayana, S., 2014. RISK MANAGEMENT IN E-BANKING SECTOR–AN ANALYTICAL STUDY. *European Scientific Journal, ESJ*, 10(10).

Sathye, M., 1999. Adoption of Internet banking by Australian consumers: an empirical investigation. *International Journal of bank marketing*, 17(7), pp.324-334.

Scarbrough and Corbett, J.M., 1992. *Technology and Organization: Power, Meaning, and Design*. Routledge.

Shao, G., 2007. The Diffusion of Online Banking: Research Trends from 1998 to 2006. *Journal of Internet Banking & Commerce*, 12(2).

Smith, A.D., 2006. Exploring security and comfort issues associated with online banking. *International Journal of Electronic Finance*, 1(1), pp.18-48.

State Bank of Pakistan, 2017. Payment System Statistics Report FY17. Retrieved from: <http://www.sbp.org.pk/psd/pdf/2018/PS-Q1FY18.pdf>

Statista, 2019. Global online banking penetration in April 2012, by region. Retrieved from: <https://www.statista.com/statistics/233284/development-of-global-online-banking-penetration/>

Statista, 2019. Number of digital banking users in the United States from 2014 to 2019 (in millions). Retrieved from: <https://www.statista.com/statistics/455418/number-of-digital-banking-users-usa/>

Statista, 2019. Online banking penetration in Belgium, Luxembourg and Netherlands (Benelux) from 2005 to 2017. Retrieved from: <https://www.statista.com/statistics/585730/internet-banking-in-the-benelux/>

Statista, 2019. Online banking penetration in Great Britain, from 2007 to 2018. Retrieved from: <https://www.statista.com/statistics/286273/internet-banking-penetration-in-great-britain/>

Statista, 2019. Online banking penetration in leading markets in June 2011. Retrieved from: <https://www.statista.com/statistics/209036/most-popular-streaming-music-sites-in-europe/>

Statista, 2019. Online banking penetration in Poland from 2005 to 2017. Retrieved from: <https://www.statista.com/statistics/380868/online-banking-penetration-in-poland/>

Statista, 2019. Share of current account holders using online banking at least once a month in the United Kingdom (UK) from 2010 to 2015. Retrieved from: <https://www.statista.com/statistics/318551/uk-internet-banking-frequency-of-usage/>

Statista, 2017. Online banking penetration in selected European markets in 2017. Retrieved from: <https://www.statista.com/statistics/222286/online-banking-penetration-in-leading-european-countries/>

Tan, M. and Teo, T.S., 2000. Factors influencing the adoption of Internet banking. *Journal of the Association for information Systems*, 1(1), p.5.

United Nations Conference on Trade and Development (UNCTAD) (2002), E-Commerce and Development Report 2000 (New York & Geneva: United Nations)

Van Hoek, R., 2001. E-supply chains—virtually non-existing. *Supply Chain Management: An International Journal*, 6(1), pp.21-28.

Wallis Report (1997), The Financial System Inquiry Final Report (Chairman: Mr Stan Wallis), AGPS, Canberra.

Wang, Y.S., Wang, Y.M., Lin, H.H. and Tang, T.I., 2003. Determinants of user acceptance of Internet banking: an empirical study. *International journal of service industry management*, 14(5), pp.501-519.

Yadav, R., (2004, May). IT revolution in Nepal. *Business age*, p. 27.

Appendix 1: Information of the interviews and interviewees.

Interview	Main responsibilities (relevant for the aim of the paper)
Interviewee: Former Loan department head Date: 8 th November Duration: 11 mints Form: Messenger	Loan Sensation and Disbursement Loan recovery Policy Making Supervision and monitoring
Interviewee: Brand Manager Date: 8 th November Duration: 18 mints Form: Messenger	Brand Above the line and below the line Budget for whole year Planning
Interviewee: New business development Date: 8 th November Duration: 11 mints Form: Messenger	Client communication New business development Insurance consultant Marketing
Interviewee: Former Hr Assistant Date: 8 th November Duration: 11 mints Form: Messenger	Cluster and Payroll Shift management Documentation and handling C.v. sorting Interview handling
Interviewee: self employed Date: 8 th November	Day to day transaction Handling bills

Duration: 17 mints Form: Messenger	Issuing checks Making Plan
Interviewee: Former Principal Date: 9 th November Duration: Form: Messenger	Managing staff duties Checking progress of employees and student Making salary slip and payment Teacher and parents meeting
Interviewee: Accountant Date: 9 th November Duration: Form: Messenger	Prepare liability, assets and capital entries. Financial transaction by auditing documents Verifying document for payment and disbursement Maintain financial control
Interviewee: IT assistant Date: 9 th November Duration: 9 mint Form: Messenger	Help customers in handling their deposits and payment Assist and support bank admin. Verify and inspect loan document Assist bank personnel
Interviewee: Office Assistant Date: 9 th November Duration: 8 mint Form: Messenger	Handling documentation Arrange meeting Maintain confidential records Handle telephone, visitors and emails
Interviewee: Student Date: 9 th November Duration: 11 mint Form: Messenger	Taking class of last semester of master's degree

Interview guide

General background questions

- What is online banking?
- When it was started in Nepal?
- How many banks are providing online banking services?
- What is the percentage of literate people in Nepal and how many of them use online banking?
- Are you a online banking user?
- How often do you use online banking?
- What is the current status of online banking in your country?
- Reason of using or not using online banking?
- What would be the future prospects of online banking or how online banking should be developed or managed in coming future?
- What do you recommend to your government, bank and financial institution for the better future development of online banking so, that more people can be a part of it?