

**IMPACT OF ELECTRONIC BANKING SERVICE DELIVERY
ON CUSTOMER SATISFACTION IN NEPALESE PRIVATE
COMMERCIAL BANKS**

A Thesis

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CERTIFICATION OF AUTHORSHIP

I certify that the work in this thesis has not previously been submitted for a degree or has it been submitted as part of requirement for a degree except as fully acknowledge within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

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Sabin Parajuli

December, 2018

RECOMMENDATION LETTER

It is certified that thesis entitled **Impact of Electronic Banking Service Delivery on Customer Satisfaction in Nepalese Private Commercial Banks** submitted by **Sabin Parajuli** is an original piece of research work carried out by the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgment. Candidate has put in at least 60 days after registering the proposal. The thesis is forwarded for examination.

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APPROVAL SHEET

We, the undersigned, have examined the thesis entitled **Impact of Electronic Banking Service Delivery on Customer Satisfaction in Nepalese Private Commercial Banks** presented by **Sabin Parajuli**, a candidate for the degree of **Master of Business Studies (MBS)** and conducted the viva voce examination of the candidate. We here by certify that the thesis is worthy of acceptance.

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Sabin Parajuli
Researcher

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ABBREVIATIONS

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CCS	Credit Card Services
CS	Customer Satisfaction
DCS	Debit Card Services
E-banking	Electronic Banking
EBS	Electronic Banking Service
EFTPOS	Electronic Fund Transfer at Point of Sale (EFTPOS)
EFTS	Electronic Fund Transfer Services
Er	Error term
IBS	Internet Banking Services
ICT	Information and Communication Technology
IT	Information Technology
MBS	Mobile Banking Services
POS	Point Of Sale
SD	Standard Deviation
Sig	Significance
SPSS	Statistical Package for Social Science

ABSTRACT

Customer satisfaction is one of the most important factors in business. When it comes to banking industry, customer satisfaction level differentiate one bank from another, thus measuring customer satisfaction is exceedingly important. In this competitive arena, in order to sustain the growth and increase the market share, banks should aim at satisfying the customer. In today's e-commerce economy, where innovation likely to offer merely a fleeting advantage, satisfaction will be the sole way for a business to survive.

The main objective of the study is to examine the impact of e-banking service delivery on customer satisfaction in Nepalese private commercial bank. The study collected primary data by using structured questionnaire techniques from 70 respondents who are enjoying banking services. The study is based on descriptive, casual comparative research design. This study used quantitative method for data collection for the purpose of analysis. Mainly structured questionnaire survey was used to generate responses based on which statistical analysis is done to test hypothesis. The questionnaire was self-administered. The sampling technique for the study followed non probabilistic sampling technique, i.e. convenience sampling. Customer satisfaction is considered as dependent variables whereas ATM, Internet banking Mobile banking, Credit card, Debit card and Electronic Fund Transfer services are considered as independent variables and their correlation and regression was generated from SPSS and analyzed.

CHAPTER I

INTRODUCTION

1.1 Background of the Study

The contemporary world is faced by a rapid development in technology; such advancement has introduced a number of new systems in all the aspect of life and the economy in general. Science has lately joined the world through the use of internet systems which were in the early 20th century used for mail communication and advertisement plans by several companies in the world. The 21st Century, shaped by the Technological Revolution, is the age of globalization. The Internet massively impacts all aspects of business. In the 21st century, electronic business is no longer an option for businesses; it is a need (Wisdom, 2012).

Customers are the key contributors for the success and survival of any business and this is the same for banking sector also. So, need arises not only to satisfy the customers but also to retain them because it may lead to increased profitability and better performance of banks. Technology is affecting the life of every individual in the present age and internet banking is one of the technologies which is fastest growing in banking practice now days. Moreover, customers are shifting from traditional banking to online banking very rapidly because of various benefits such as cost and time effectiveness. Technology is affecting the life of every individual both qualitatively and quantitatively in the present age. The quick expansion of information technology has imbibed into the lives of millions of people and introduced major changes in the worldwide economic and business atmosphere. Technological developments in the banking sector have speeded up communication and transactions for clients. It is defined as the provision of information or service by a bank to its customers over the internet. It is viewed as a supplemental channel used in conjunction with other channels to provide the convenience of banking anytime from one's home or work, without having to incur some of the costs associated with a branch visit like going to the branch or waiting on lines. Online banking eliminates physical and geographic boundaries and time limitations of banking services.

E-banking services first emerged in the early 1990's, when credit card, ATM, and telephone banking services were three major applications. During the last decade, database, information system and other technologies were applied into banking services at different levels. After the availability of internet facility, e-banking services are now conducted through a secure website operated by local banks and includes online enquiry, e-payments, e-transfer etc. There are two general business models to provide online banking facilities to its customers- First one is, incumbent bank also known as "bricks and clicks" model, applying online banking as an enhancement to its traditional banking sector and integrating branches, ATM, call centers and online service into a whole system and using e-banking as a new channel of delivering services. Whereas the another one is known as direct bank or virtual bank or internet primary bank with no branch offices but using internet, telecommunication network and wireless networking to provide banking services.

Banks plays a vital and dynamic part in a country's financial and economic development. The development of a country is exceptionally affected by successful banking in the different areas of the economy. With the advancement in the technology one of the latest technology adopted by the bank is the e-banking (electronic banking) (Mukherjee, 2004). The presentation of electronic banking has revolutionized and redefined the way bank operate now. E- Banking is a quick spreading service that permits clients to utilize the computer to access account specific information and potentially direct exchanges from a remote area. E- Banking channels helps bank customers to perform their financial transactions electronically over the internet through their personal computer or laptop or mobile at the time convenient to them, without having to be restricted to regular bank operating hours. E- Banking is an innovative distribution channel that offers less waiting time and higher spatial convenience than traditional branch banking with significantly lower cost structure than traditional delivery channels. E- Banking reduces not only operational cost to the bank but also leads to higher level of customer satisfaction and retention. As a result, e-banking is very attractive to banks and customers who are adopting new technologies.

Electronic banking is the use of electronic means to transfer funds directly from one accounts to another, rather than by cheque or cash. Through reducing banks costs, electronic banking can increase bank incomes. E- banking generally means that a home user direct dials the bank via a modem or network card logging on to the internet via an internet service provider and then going to the bank's website before accessing the secure site via a password. At the Basel committee, E-banking is defined as the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit taking, lending, account management, the provision of financial advice, electric bill payment and the provision of other electronic payment. E-banking offers the convenience of conducting most of the banking transactions at a time that suits the customer. The customers can access funds and transfer funds between accounts, pay bills and make purchases 24 hours a day, 7 days a week.

Today's banks seem ready to provide any kind of financial services at anytime and anywhere in the world through internet technology. Now as one important step ahead towards the e-commerce, online banking or E- banking is becoming very popular in all the countries. Modern techno savvy banks are already using plastic money or e-money like credit, debit cards and ATM's since more than decade. Using computer networks and SWIFT transfer to exchange financial information across branches and banks for internet banking processing is not a new practice for most of the modern banks. Those banks are now gradually going to use this internet/ global networks as channel of providing g banking services. In addition, this new channel of electronic of online banking is known as e- banking.

Globalization of economies and financial liberalization within the economies has opened new opportunities of growth for technology-based institutions, while for the others these have resulted in shrinkage of revenues. The use of IT in the banking industry in our country has been somewhat limited and as a result has restricted our presence in international operations. The development of multiple channels representing electronic banking services such as SWIFT system, ATM, POS, PIN Pads, Internet banking, Mobile banking (SMS banking) and Telephone banking are

made for more facility in paying money, so today the development of this channels is one of the most competitive areas between banks for attracting resources.

With the establishment of Nepal Bank Limited in 1937, banking sector and its customers had to wait for 65 years to use the E-banking service in Nepal (around 2002 A.D.). Still e-banking is not yet popular among the customers who live in rural areas in Nepal. Hence, this research focuses on the Impact of Electronic Banking on Customer Satisfaction and Service Delivery of Nepalese Commercial Banks. In addition, it focuses future prospective of e-banking in the context of Nepalese Commercial Banks. But in the current scenario, almost every bank in Nepal has the electronic banking facility. Moreover, these banks are extending their presence in rural areas also to lure more customers by educating them with new advancement in information technology.

1.2 Problem Statement and Research Questions

The Nepalese banking industry has transformed tremendously over the last decade. Previously the banking industry was without simple electronics like ATM and SMS alert. This made all customers of banks to personally walk to the banking hall to be able to transact simple transactions like checking accounts balances, verifying deposits and making withdrawals. This led to long queues, energy exacting and time consuming and on the whole, it was costly. However, the situation has changed in recent times due to the introduction of electronic banking services into the Nepalese banking industry by various financial institutions. Technological follow ups like the ATMs, Electronic Funds Transfer at Point of Sale (EFTOPS), internet banking, SMS alert, credit and debit cards have graced the Nepalese banking environment. They further argue that these highly economic innovations go a long way to decrease drastically the pressure on manual services to bank's customers which enhance services delivery and also improve banks profitability.

Internet technology is rapidly changing the way personal financial services are being designed and delivered. Now, commercial banks in Nepal are trying to introduce internet-based e-banking systems to improve their operations and reduce costs.

Nepalese commercial banks are generally found to have been adopting the services of e-banking as competitive tools and as a step towards innovative services. However, Nepal is yet a developing country; there are many ambiguities about the applications of e-banking. Therefore, there is a need to understand how commercial banks are practicing e-banking and delivering the better service. The problem of the study therefore is to investigate the Electronic Banking products and services, and the extent to which they contribute to the bank's customer satisfaction and service delivery in the banking sector of Nepal. Thus, providing online facility by banks is increasingly becoming a "need to have" than a "nice to have" service.

The study aims at answering the following research questions

1. What are the facilities provided by the Nepalese Private Commercial Bank under E-Banking Services?
2. What is the impact of e-banking service delivery on customer satisfaction in Nepalese Private Commercial Banks?

1.3 Objective of the Study

Understanding the link between internet banking and performance is an empirical issue. Thus, the main objectives of the study rests upon the examination and analysis of e-banking services provided by commercial banks and its impact on customer satisfaction and service delivery. More over the study has specified the following objectives:

1. To analyze the facilities provided by Nepalese Private Commercial Bank under E-Banking services.
2. To examine the impact of e-banking service delivery on customer satisfaction in Nepalese Private Commercial Bank.

1.4 Hypothesis

Based on the objectives of the study, theoretical and empirical literature review of the impact of e-banking service delivery on customer satisfaction following hypothesis are developed.

Hypothesis 1: There is significant impact of ATM services on customer satisfaction in Nepalese private commercial bank.

Hypothesis 2: There is significant impact of Internet Banking services on customer satisfaction in Nepalese private commercial bank.

Hypothesis 3: There is significant impact of Mobile Banking services on customer satisfaction in Nepalese private commercial bank.

Hypothesis 4: There is significant impact of Credit Card services on customer satisfaction in Nepalese private commercial bank.

Hypothesis 5: There is significant impact of Debit Card services on customer satisfaction in Nepalese private commercial bank.

Hypothesis 6: There is significant impact of Electronic Fund Transfer services on customer satisfaction in Nepalese private commercial bank.

1.5 Significance of the Study

This study, contributes to knowledge and serve as source of reference in the academia. For this future researcher can read the methodology as well as the findings of this study. The utilization of Information and Communication Technology (ICT) in the banking industry has affected service delivery as well as the bank's profits. Many banks are moving gradually from the traditional way of banking and are gradually introducing ICT into their service delivery. At present, the commercial banks are gaining a wide popularity within and outside the country through their efficient management and professional services and playing an eminent role in the economy. E-banking is one of the main services provided by the commercial banks where the whole bank is rested upon. Study on E-banking of commercial bank carries a great significance and importance to various groups.

Most of the Nepalese people are still not aware about the E-banking or online banking transactions; this study will help them to get the concept of internet services available to them. Today most of the parts of the world's economy depends upon financial institutions, which cannot survive without the support of IT. Therefore, this study will provide a useful feedback to the IT policy maker for the bank and becomes a useful reference for other commercial banks for the formulation of appropriate strategies.

The study will be very significant to those students and scholars who wish to make further research on the subject. The outcome of this study will provide evidence for other banks to improve upon their electronic banking services so that prospective customers will have better experiences with the service and hence the bank's profit will be affected through the revenue generated.

1.6 Limitations of the Study

Because of the infrastructure and level of computerization in the industry, it is clear that banks in future are going to be modern with inter connectivity facilitated by emerging technologies. Banks in future cannot survive without the support of Information Technology. Therefore, banks are to be prepared to exploit the opportunities that globalization and financial liberalization provides. The scope of the study will be limited to the electronic banking services provided by the commercial banks in Nepal. Investigation will focus on some of the selected commercial banks of Nepal.

The study is highly constrained to the researcher due to the fact that there is not a ready data available to the subject matter. Another case in point is the fact that the busy schedules of commercial bank will make the study very cumbersome in that going for relevant information or data to aid the study would be stressful, and also due to the confidentiality clauses of the commercial bank, data needed is not readily available. The administering of questionnaires to busy respondents will pose a limitation to the study.

1.7 Organization of the Study

The study comprises of three main sections: preliminary section, body of the report and supplementary section. The preliminary section consists of title page, certification, declaration of authenticity, acknowledgements, table of contents, list of tables, list of figures, abbreviations used and abstract. The body of the report is further divided into five sections: introduction, related literature and theoretical framework, research methodology, analysis and results and summary, conclusion and

implications. The final section of the report comprises of references, appendix as questionnaire and summary of responses.

The introduction section under body of study consists of background of the study, problem statement and research questions, objective of the study, hypothesis and significance of the study, limitations and organization of the study.

The literature review section deals with the findings of previous researches related for the current study. Different research work related to e-banking service delivery, customer satisfaction and their impact are discussed in order to prepare a base for the study. Further, the chapter consists of theoretical framework defining each dependent and independent variables based on previous literature.

The third chapter discusses research methodology used for the study. It comprises of research design, population and sample, sources of data, instrumentation, validity test, reliability test, data analysis and software used.

The fourth chapter is analysis and result of the study. It comprises of various tables, figures intended to answer the purpose and research questions of the research. Finally, the last chapter deals with summary part, conclusions and implications of the study. Under, the summary part, the overall findings of the research is discussed in brief. At last, conclusions and implication were drawn out.

The References and Appendices have been given at the end of the study.

CHAPTER II

REVIEW OF LITERATURE

In this chapter, the related article, books, research paper and previous researches similar to the research topic of this study have been reviewed and presented. The related e-banking service delivery and its impact on customer satisfaction are reviewed and presented.

2.1 Theoretical Review

2.1.1 Theory of Reasoned Action

Theory of Reasoned Action, (TRA) was developed to better understand relationships between attitudes, intentions and behaviors. This is one of the most important theories that are used to explain human behaviors. Behavioral intention to use technology is explained by people's attitudes toward that behavior and subjective norms. Intensified competition and deregulation has led many services and retail businesses to seek profitable ways to differentiate them; one strategy that has been related to success in these businesses is the delivery of high service quality (Caruana, 2011). So service quality has become a significant research topic in past decade due to high revenues, increased cross sell ratios, higher customer retention, purchasing behaviors (Kaynak, 2015) and expanded market share. The significance of customer service in the banking sector came to force to compete in a market driven environment. The service sector as a whole is very heterogeneous and what is heterogeneous may hold true for one service and may not hold for another service sector. Due to this differentiation, services in this industry could not be standardized, moreover these services are intangible in nature which could not be compared or seen. The concept of customer satisfaction and service quality is interrelated with each other

As electronic banking is becoming more prevalent, so is the level of customer service delivery thus the level of customer satisfaction is also changing the scenario of technological environment (Hamisah, 2013). Informational technology in form of e-banking plays a significant role in providing better services at lower cost. Increase satisfaction in turn increases the mutual understanding, customer retention and a bond

of trust between customer and bank. The banks which are providing these services at large extent to customers are more reputed in the eyes of customers. As the customer satisfaction is the function of customer expectation level and service quality level provided by the organization, e-banking plays a pivotal role in giving satisfaction to the customers because e-banking fills the gap between the expected and perceived service quality.

2.1.2 Contrast Theory

Contrast theory was first introduced by Hovland, Harvey and Sherif (1987). Dawes (1972) define contrast theory as the tendency to magnify the discrepancy between one's own attitudes and the attitudes represented by opinion statements. Contrast theory presents an alternative view of the consumer post-usage evaluation process than was presented in assimilation theory in that post-usage evaluations lead to results in opposite predictions for the effects of expectations on satisfaction. Through the introduction of automated teller machines, customers are able to access funds in their accounts ore conveniently and at any one time as compared to the old system where money could only be withdrawn on the counter. A bank seeking to increase customer satisfaction must invest heavily in the ATM networks or join the existing local or international networks such as visa card or master card.

While assimilation theory posits that consumers will seek to minimize the discrepancy between expectation and performance, contrast theory holds that a surprise effect occurs leading to the discrepancy being magnified or exaggerated. According to the contrast theory, any discrepancy of experience from expectations was exaggerated in the direction of discrepancy. If the firm raises expectations in his advertising, and then a customer's experience is only slightly less than that promised, the product/service would be rejected as totally un-satisfactory. Conversely, under-promising in advertising and over-delivering will cause positive disconfirmation also to be exaggerated. In line with this theory, commercial banks must continue to bring in new products that increase customer satisfaction and at the same time keep up with market standards.

2.1.3 Innovation Diffusion Theory

Diffusion of innovations is a theory that seeks to explain how, why, and at what rate new ideas and technology spread. Everett Rogers, a professor of communication studies, popularized the theory in his book *Diffusion of Innovations*; the book was first published in 1962, and is now in its fifth edition (2003). Rogers argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system. The origins of the diffusion of innovations theory are varied and span multiple disciplines.

Rogers proposes that four main elements influence the spread of a new idea: the innovation itself, communication channels, time, and a social system. This process relies heavily on human capital. The innovation must be widely adopted in order to self-sustain. Within the rate of adoption, there is a point at which an innovation reaches critical mass.

The categories of adopters are innovators, early adopters, early majority, late majority, and laggards. Diffusion manifests itself in different ways and is highly subject to the type of adopters and innovation-decision process. The criterion for the adopter categorization is innovativeness, defined as the degree to which an individual adopts a new idea.

This hypothesis created by Roger in 1983 discloses people's aim to embrace a technology as a methodology to perform a customary action. The basic elements that focus the appropriation of advancement at the general level are the accompanying: relative favorable position, similarity, complexity, trial ability and perceptibility. It is concerned with the way in which another innovative thought, antique or procedure, or another utilization of an old one, relocates from creation to utilize. As per (IDT) hypothesis, mechanical development is imparted through specific channels, after some time, among the individuals from a social framework. The stages through which a mechanical advancement passes are: information (presentation to its presence, and comprehension of its capacities); influence (the shaping of a good state of mind to it);

choice (duty to its selection); execution (putting it to utilize); and affirmation (support taking into account positive results from it).

Early users for the most part are all the more very educated, have higher economic wellbeing, are more open to both broad communications and interpersonal channels of correspondence, and have more contact with change specialists. Broad communications channels are relatively more imperative at the information stage, while interpersonal channels are relatively more essential at the influence stage. Development choices may be discretionary (where the individual or organization has a genuine chance to receive or reject the thought), aggregate (where a choice is come to by accord among the individuals from a framework), or power based (where a choice is forced by someone else or organization which has essential force, status or specialized ability).

Vital qualities of a development include: relative advantage (the extent to which it is seen to be superior to anything what it supersedes); similarity (consistency with existing qualities, past encounters and needs); multifaceted nature (trouble of comprehension and utilization); trial ability (the extent to which it can be tried different things with on a constrained premise); observe ability (the perceive ability of its outcomes). Diverse adopter classifications are distinguished as: pioneers (venturesome); early adopters (respectable); early dominant part (think); late lion's share (incredulous); slow pokes (customary).

Prior adopting individuals tend not to appear as something else in age, but rather to have years of education, economic wellbeing and social versatility, be in larger organizations, have prominent empathy, low dogmatism, a more noteworthy capacity to manage abstractions, more noticeable rationality, prominent intelligence, a prominent capacity to adapt to uncertainty and risk, higher goals, more contact with other individuals, more noteworthy presentation to both broad communications and interpersonal correspondences diverts and participate in more dynamic data looking for.

Imperative parts in the development procedure include: opinion leaders (who have generally visit casual impact over the conduct of others); change operators (who

emphatically impact advancement choices, by intervening between the change organization and the applicable social framework); change associates (who supplement the change specialists, by having more concentrated contact with customers, and who have less skill believability yet all the more accurately or reliability validity).

The change operators capacities are: to build up a requirement for change with respect to the customer; to set up a data trade relationship; to analyze the customer issues; to make purpose to change in the customer; to make an interpretation of this expectation enthusiastically; to balance out reception and avoid discontinuance; and to move the customer from dependence on the change specialists to confidence.

2.2 Definition of Electronic banking

Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers through different delivery channels that can be used with different electronic devices such as computer and a mobile phone with browser software, telephone or digital television.

Pikkarainen (2004) defines electronic banking as an "internet portal, by which customers can use different kinds of banking services ranging from bill payment to making investments". Apart from withdrawals of cash, electronic banking gives customers access to distinctive sorts of banking transaction just by the snap of a mouse (De.Yong, 2001). In fact the use of electronic banking as an option for the dissemination of financial institutions has turned into a competitive tool rather than only an approach to accomplish competitive advantage of preference with the appearance of globalization and fiercer rivalry. In simple words, e-banking implies provision of banking products and services through electronic delivery channels. Electronic banking has been around for quite some time in the form of automatic teller machines (ATMs) and telephone transactions. In more recent times, it has been transformed by the internet –a new delivery channel that has facilitated banking transactions for both customers and banks.

Robinson (2000) believes that the supply of Electronic banking services enables banks to establish and extend their relationship with the customers. There are other numerous advantages to banks offered by electronic banking services such as customer's loyalty, market segmentations, innovation of new products and services, more effective marketing and communication at lower costs/fees.

Wise and Ali (2009) many banks want to invest in EBS to reduce branch cost and fees since customers prefer to use EBS instead of a branch to transact business. The financial impact of EBS is a marginal increase in cost and fee income substantially offset by the cost of significant increases in the number of customer transactions. Thus, EBS has a significant increase in the intangible item of "Customer Service Delivery". Hence, this translates into improved customer service delivery that in result in higher customer loyalty, customer retention and growing organization value. EBS has become one of the most important factors in the business economy today, where it's lower cost/fees delivery channel and a way to increase sales in the future.

Electronic banking is a driving force that is changing the landscape of the banking industry fundamentally, in particular, towards a more competitive industry. Electronic banking has blurred the boundaries between different financial institutions, enabled new financial products and services, and made existing financial services available in different packages (Agbada, 2008).

E-banking is an umbrella term for the process by which customer may perform banking transactions electronically without visiting financial institution. Compared with traditional channels of offering banking services through physical branches, e-banking uses the Internet to deliver traditional banking services to their customers, such as of opening accounts, transferring funds, and electronic bill payment. E-banking is defined as using electronic devices like internet, wireless connection networks, ATM, phone and cell phone in banking services. E-banking is one of manifestation of information and communication revolution which makes changes in paradigm and pattern of banking and makes banking services faster, and also decreases wasting issues in the best way. E-banking is having 24-hour access to banking operations such as through an Automated Teller Machine (ATM) with

Personal Identification Number (PIN) or making a direct deposit into checking or saving accounts. Technologies has transformed the world of banking from traditional branch banking to a modern way of banking through the use of e-banking tools such as ATMs, e-utilities payments, e-loan applications among others.

“Electronic banking is the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash through reducing bank costs, electronic banking can increase bank incomes.” (Bahram Meihami, 2013) Additionally, E-banking is a general term for a process by which a customer may conveniently perform banking transactions electronically without visiting a brick and mortar institution. (Bhattacharjee, 2001) expands this definition by stating that “e-banking is as an integrated system that can provide customers flexible, convenient and inexpensive platform with integrated services of online personal banking products including online checking and saving accounts, money market accounts, certificate of deposit, credit cards, home equity loan, home mortgage, insurance, investment services, portfolio management and other related financial services”.

Nepalese banking industry has suddenly witnessed a major boom. Being a globalized market, the customers seek and demand world class products. In today’s global market, the competitive market, the competitive advantage lies in delivering high quality service to the customers. The need to achieve customer satisfaction lies in its ability to deliver better quality product to the customers, therefore customer’s satisfaction is considered as a pre-requisites for customer retention, loyalty and convenience which ultimately helps in realizing the goals of profitability, market share, growth, return on investment productivity etc. (Business times, September 2013).

Customers in developing countries seems to keep the “technological factors” of services as the yardstick in differentiating good and bad service and the human factor- the employee seems to play a lesser role in discriminating the quality of service in banks. Banking is no longer regarded as a business dealing with money transaction alone, but it also seems as a business related to information on financial transaction (Powell, 1995).

In Nepal the use of modern technology in banking system is no so old just like that in developed countries though it's becoming mushrooming so faster and emerging successful. Several innovative IT based service such as Automated Teller Machine (ATM), Internet banking, Mobile banking, Credit cards, Debit cards anywhere anytime banking have provided number of convenient services to customers so as the service quality improves.

Singhal (2008) defined electronic banking as the use of the internet deliver banking activities such as fund transfer, paying bills, viewing current and saving account balance, paying mortgages and purchasing financial instruments and certificate of deposits. Internet banking started with simple functions such as real time access to information about interest rate, checking account balances and computing loan eligibility.

However, these services have graduated to online bill payment, transfer of funds between accounts and cash management services for corporate organizations and individuals (Khan M.S. & Mahapatra, 2009).

The only way to stay connected to customers at any place and any time is through internet applications, it results in high performance in the banking industry through faster delivery of information from the customer and service provider (Williamson, 2006). In addition, e-banking is largely driven by the factors of minimizing the operating costs and maximizing operating profit, suggests (Simpson, 2002). According to (Centeno, 2004) the e-banking adoption factors are divided into two categories. 1) Factors relating to accessing technology. 2) Factors that are related to retail banking factors. The prior factors include skills on the part of consumers in using internet and other related technologies, attitudes towards technologies, internet penetration rate, Privacy and security concerns.

2.3 Forms of Electronic Banking

Information Technologies (ITs) have changed the approaches to directing business exchanges and meeting the developing demands of customer for most associations. The presentation of ICT into the banking business has led to a potential increase in

the customer base, reduction in exchange costs, improvement in the quality and timeliness of response, enhanced opportunities for developing and branding, facilitate self-service and service customization and improvement in customer correspondence and relationship (Garau, 2002). The normal types of electronic banking services basically include Automated Teller Machine (ATM), Electronic Fund Transfer at Point of sale (EFTPOS), Internet banking, Mobile Banking, Debit Card Service and Credit Card Services.

2.3.1 Automated Teller Machine (ATM)

Automated tellers imply more productivity for the bank during banking hours. ATM is a terminal conveyed by a bank or any money related establishment which empowers the clients to withdraw money, make enquiries, request bank statements etc. It saves customers time in service delivery as alternative to queuing in the bank halls, customers can invest such time saved in other productive alternatives. ATMs are cost effective way of yielding higher productivity as they achieve higher productivity per period than human tellers do. According to statistic by installing ATM devices since 1998-2004 all around the world they have an improvement rate of 45%, so it can be said that the big achievement was in ATM installing for currency distribution around the globe. (Rose, 1999) describes ATMs as follows: “an ATM combines a computer terminal, record keeping system and cash vault in one unit, permitting customers to enter the bank’s book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank’s computerized records 24 hours a day”.

2.3.2 Electronic Fund Transfer at Point of Sale (EFTPOS)

The POS system allows customers to make retail purchases with a check card. The card looks like a credit card but does not function like it. The amount purchased is transferred immediately from the account of the debit card holder to that of the store. A POS uses a debit card to activate an Electronic Fund Transfer Process. Increased banking productivity results from the uses of EFTPOS to service customers shopping

payment requirements instead of clerical duties in handling cheques and cash withdrawals for shopping. Furthermore, the system continues after banking hours and hence continual productivity for the bank even after banking hours. A POS is a device that installed in sale centers to remove the need to transfer the physical money and to deduct money from the buyer account and to add it to seller account. Sale center and department stores are where POS is used

2.3.3 Internet Banking

“Internet banking refers to the use of the internet as a delivery channel for banking services, which includes every single customary service for example, balance enquiry, statement of records, trust transfer to other records, charges payments, electronic bill presentment and payment” without going to bank (Nath, 2003). It eliminates the barriers of distance / time and provides continual productivity for the bank to unimaginable distant customers. The bank may have website to let their clients check their account remaining, accounts flow, loan applying and ordering their exchanging through internet. It helps in transferring currency to private account or other accounts, helps to see bills in according with account, helps in ordering the bill in chronological order, it also has got bill payment availability, and also has got the availability of seeing last 30 transactions.

2.3.4 Mobile Banking

Mobile banking refers to provision and accessibility of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities of performing balance checks, account transactions, payments etc. via mobile device such as a mobile phone. Mobile banking today is most often performed via, SMS or the Mobile Internet but can also use special program downloaded to mobile device. Therefore, it plays a vital role to improve the productivity of bank.

2.3.5 Debit Card

A Debit Card (also known as a bank card, plastic card or check card) is a plastic payment card that can be used instead of cash when making purchases. It is similar to credit card, but unlike a credit card, the money comes directly from the user's bank account when performing a transaction. Debit Card usually also allows for instant withdrawal of cash, acting as an ATM card for withdrawing cash. Merchants may also offer cashbacks facilities to customers, where a customer can withdraw cash along with their purchase. In many countries the use of debit card has become so widespread that their volumes have overtaken or entirely replaced cheques and, in some instances, cash transactions. A debit card is a more convenient way to spend money than by using cash.

2.3.6 Credit Card

A Credit Card is a payment card issued to users (cardholders) to enable the cardholder to pay a merchant for goods and services based on the cardholder's promise to the card issuer to pay them for the amounts so paid plus the other agreed charges. The credit company provider may also grant a line of credit (LOC) to the cardholder which allows the holder to borrow the money in the form of cash advance. A credit card allows you to borrow money from a bank to make purchases, whether you're buying a burger or a round-trip ticket. As long as you pay back the money you borrow within the "grace period" of 25-30 days, you don't have to pay extra. If you don't pay it back in that time period, you'll have to pay interest, a percentage of the money you owe the bank on top of what you borrowed.

2.4 E-banking Service Delivery and Customer Satisfaction

Customer satisfaction is one of the most important factors in business. When it comes to commercial banks, customer satisfaction level differentiates one bank from another, thus measuring customer satisfaction is exceedingly important (Zopounidis, 2012).

This is the reason why banks listen to customer requirements and complains. Profitable business cannot exist without satisfied customers, especially in service oriented industries.

In this competitive arena, in order to sustain the growth and increase the market share, an organization should aim at satisfying the customer. In today's e-commerce economy, where innovation likely to offer merely a fleeting advantage, satisfaction will be the sole way for a business to survive (Duane, 2003).

Avashthi (2001-01) have analyzed in their study that advancement in technology are set to change the face of the banking business. Technology has transformed the delivery channels by banks in retail banking. It has additionally impacted the markets of banks. The study additionally explored the challenges that the banking business and its regulator face. The revolution of information technology has brought about fundamental transformation in the banking industry. Perhaps no other sector has been affected by advances in technology as much as the banking sector. It has the most important factor for dealing with the intensifying competition and the rapid proliferation of financial innovations. Thus the service delivery of banking industry has changed from traditional branch banking to electronic banking services.

Parasuraman A.Z. (1985) highlights the main requirements for delivering high services in order of their importance as follows: According to them, the service delivery must be reliable to the customer. They defined reliability as the ability to perform the promised service dependably and accurately. The second key requirement for service delivery is the concept of responsiveness which is the willingness to help customers and to provide prompt services. The third variable according to them is assurance. The authors defined assurance as the knowledge and courtesy of employees and their ability to convey trust and confidence. The fourth attribute of a quality service delivery is the element of empathy which is the provision of caring, individualized attention to customers. His last variable of good service delivery is the concept of tangibility. The authors define tangibility as the appearance of physical facilities, equipment, personnel and communication materials.

In any “business to customer” (B2C) type of environment, satisfying a customer is the ultimate goal of business. It is an important theoretical as well as practical issue for most marketers and consumer researchers because organizations sometimes do not really understand what actually goes on in customer’s mind (Fournier, 1999). The concept of customer satisfaction is equally important for service organizations, such as banks, as many of them subscribe to the fact that higher customer satisfaction will lead to greater customer loyalty (Boulding, 1993) which in turn leads to future revenue. “Customer satisfaction” not only means a happy customer but rather more than that. The concept of customer satisfaction is a synthesis of two distinct words i.e. customer and his/her satisfaction. In common language, the word “customer” means a buyer who purchases a product or avails a service from another. “Satisfaction” occurs when one gets what one needs, desires, expects, deserves or deems to be one’s entitlement.

Oliver (1980) defines customer satisfaction as product performance equivalent to customer expectation. (Oliver R. 1981) expressed satisfaction as a psychological state resulting from a process of emotional and cognitive evaluation. Satisfying a customer in any banking business is the ultimate goal and objective. Satisfaction of customers is being generated through quick services, affordable service charge, easiness of depositing and withdrawing money, ATM booths, and account statement over SMS/e-mail services and error free records.

Hansemark (2004) satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfilment of some need, goal or desire.

Kotler (1997) defined satisfaction as a person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectations. Further customer satisfaction is a collective outcome of perception, evaluation and psychological reaction to the consumption experience with a product or service.

Hoyer (2001) expressed that satisfaction can be associated with the feelings of acceptance, happiness, relief, excitement and delight. In a competitive marketplace, where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. It can also be defined as a global issue that effects all organizations irrespective of their size, whether profit or non-profit, local or multinational companies that have a more satisfied customer base along with higher economic returns. If customers are satisfied with a particular service offering after its use, they are likely to engage in repeat purchase and try in building line extensions (East, 1997).

Satisfaction is not simply an overall evaluation of a service experience, but an influence of different components of the service (Datta, 2010). The boom of internet and electronic banking has evoked several research efforts aimed at understanding service satisfaction in relation to virtual business environment (Peterson, 2004). Thus, the unique characteristics of internet based services are extensive human- computer interactions and high level self-service may imply that customers perceive satisfaction from online services differently when contrasted with their offline counterparts (Ribbink, 2004). With the growing trend of information technology in banking sector, customers prefer to deal online with their bank because of the rising trend of technology effecting quality and customer satisfaction. Moreover, online banking facilitates cost-effective decision thinking and applications on the part of the e-bank's operations and IT managers to enhance customer service quality, develops trust in customers and boosts market share in this expanding but increasingly competitive business area. It thus, generates customer satisfaction and also customer commitment (Cheung, 2008).

2.5 Benefits of E-Banking

The benefits of electronic banking cannot be over emphasized. This is to say that it provides a lot of benefits both to the customer and the bank itself. To begin with a foremost benefit e-banking service is competitive branding and as well as better appreciation to the market demands. As such banks that provide services are known to

be leaders in technology implementation and advancement. Thus, the better image brand they enjoy.

The other advantages may be measured in terms of money. The primary objective of every institution is to increase profits with which banks cannot be excluded. Many contend that E-banking can do away the hitherto laborious and less viable methods for banking. As indicated by perspectives communicated by (Mols, 1999) it was opined that the Internet is a revolution that will do away the old request holds much influence. The internet revolution in electronic-banking transaction is much less expensive than branch or even telephone transactions. According to Jen and (Michael, 2006) electronic-banking has made common open doors for banks and businesses around the world, and that is clear in the way they sort out financial transaction. Although opportunities to banks, there are various difficulties such as the innovation of IT applications, the obscuring business sector limits, rupturing modern boundaries, the passage of emerging competitors, and the development of new plans of action.

Rotchanakitumnuai (2003) E- banking provides various benefits to both banks and customers. With electronic banking customers can check accounts, transfer money and can have access to numerous banking products and services. Electronic banking assumes a vital part in the economy helping buyers and sellers to make financial worth via the exchange of goods and services by avoiding physical contacts. Through electronic banking, banks have the capacity to draw in versatile clients which give to a great degree huge profit by giving portable money related services. (Wind, 2001), demonstrated that numerous banks are roused to actualize E-banking by components identifying with augmenting their profit through expansion market scope. The increase use in credit card is attributable to electronic banking. Customers are able to shop worldwide without the need of carrying paper money.

2.6 Challenges of E- Banking

Daft L, (1982) demonstrated that the rise of E-banking may be a smart thought however with respect to customers they may confront some risk connected with the specific type of innovation. Daft identified what he described Strategic Risk.

Management of financial institutions should know and understand risks associated with e-banking and provide remedies for it. Poor E-banking planning and investment decisions can increase a financial institution's strategic risk. The costs of establishing e-banking services are high. Establishing a trusted brand is very costly as it requires the purchase of expensive technology. Some of the problems that customers face in using electronic banking services include risk arising from fraud, network and system errors and other unanticipated events resulting in the organization's inability to convey banking products and services. This risk could be inherent in different products and services (Earl, 2000).

Earl further commented that banking activities can expand their activities of establishment's and the amount of its transaction or operational risk, particularly if the organization is putting forth imaginative administrations that have not been institutionalized. Financial institutions should therefore provide reliable services to help customers gain easy access at all times.

Another security issue associated with E-banking as introduced by the Economist journal (1999) recounts that E-banking insecurities is classified into three categories, firstly those associated with fraud and theft secondly those by hackers" and lastly flaws in systems design or set up leading to security breaches (genuine users seeing / being able to transact on other users" accounts). All of these insecurities have financial and legal reputations.

Other challenges associated with electronic banking spans from the type of technology selected, lack of knowledge and lastly implementation. (Earl, 2000) furthermore identified that while managers understand their business and operational process, their employees mostly lack the skills and experience to adapt to software technologies and educate their customers.

Many corporate and consumers in some developing countries do not have access to the necessary infrastructure to enable them process electronic payments. There are a few ramifications of international electronic banking. It is for all intents and purposes

realized that low transactional cost possibly make it much less demanding to conduct international banking electronically. For some banks, cross-border operations offer a chance to harvest economies of scale. But it requires a higher level of supervision. In response, many financial institutions have already modified their regulations to achieve their main objectives, ensuring the safety and soundness of the domestic banking system, promoting market discipline, and protecting customer rights and the public trust in the banking system.

2.7 Empirical Review

The review of empirical literature gives an evidence-based and factual analysis of related works done in the country or outside and in the same area of study or related. Using the technology acceptance model (TAM) model put forward by (Davis, 1989) and the use of questionnaires, (Abor, 2004) conducted a survey in the Greater Accra region with a sample size of 6 banks and 360 customers. He finds that all the banks are engaged in internet banking and had business websites. Customers of the banks are also found to be generally enthused and satisfied with the banks. However the study finds out that most the customers do not visit the websites of the banks and do not patronize the SMS banking though all the banks had this product. Customers are also found not to be patronizing the internet banking platform of the banks. Though most of the customers do not use the internet products and services, they are satisfied with banks with state of the art technology.

Woldie (2008) conducts a study to examine how internet banking can improve the relationship between clients (firms) and banks in Ghana. A sample of 180 firms is used. The results indicates that, as at then only 68% of the respondent firms have heard of internet banking while about 33% have never heard of it. 55% of the firms indicate they do not patronize internet banking because of the fear of security. Majority of them indicates that even with the adoption of electronic/internet banking; they would still love to bank manually.

Khatri (2013) uses data from five banks and 60 of their customers to analyze internet banking. They find out that though majority of the sampled customers of the banks

use the internet generally and have some knowledge about internet banking, they had not developed completely the attitude to make use of the internet banking facility. Points out that the underutilization of the internet banking in the country is as a result of inadequate awareness and the fear of security. Bad internet infrastructural development in the country was also cited as the major challenge of internet banking in the country. It also finds out that users of electronic banking of the banks are not satisfied with the quality and efficiency of services.

Ahmad (2011) study the adoption of electronic banking in Jordan and the impact it has customer satisfaction, loyalty and positive word of mouth. In using purposive sampling, they selected 179 customers from 24 commercial banks. The study finds a positive effect of internet banking on customer satisfaction, loyalty.

2.8 Research Gap

The present study attempts to examine the impact of electronic banking service delivery on customer satisfaction in Nepalese private commercial bank. The literature discussed above had concluded that e-banking play an important role in customer satisfaction. Similarly, numerous researches have been conducted in the context of customer satisfaction to examine the impact and practices of e-banking services. E-banking services like automated teller machine, internet banking services, mobile banking services, credit card services, debit card services and electronic fund transfer services were treated as independent variables and were considered as important factors determining customer satisfaction. But all the previous researches in Nepal had not incorporated all these variables to examine the impact of e-banking service delivery and customer satisfaction in banking industry which can be seen as a research gap.

2.9 Theoretical Framework

The research is based upon the analysis and interpretation of dependent (customer satisfaction) and independent variables (Automated Teller Machine (ATM), Internet and Mobile banking, Credit cards, Debit cards and Electronic Fund Transfer).

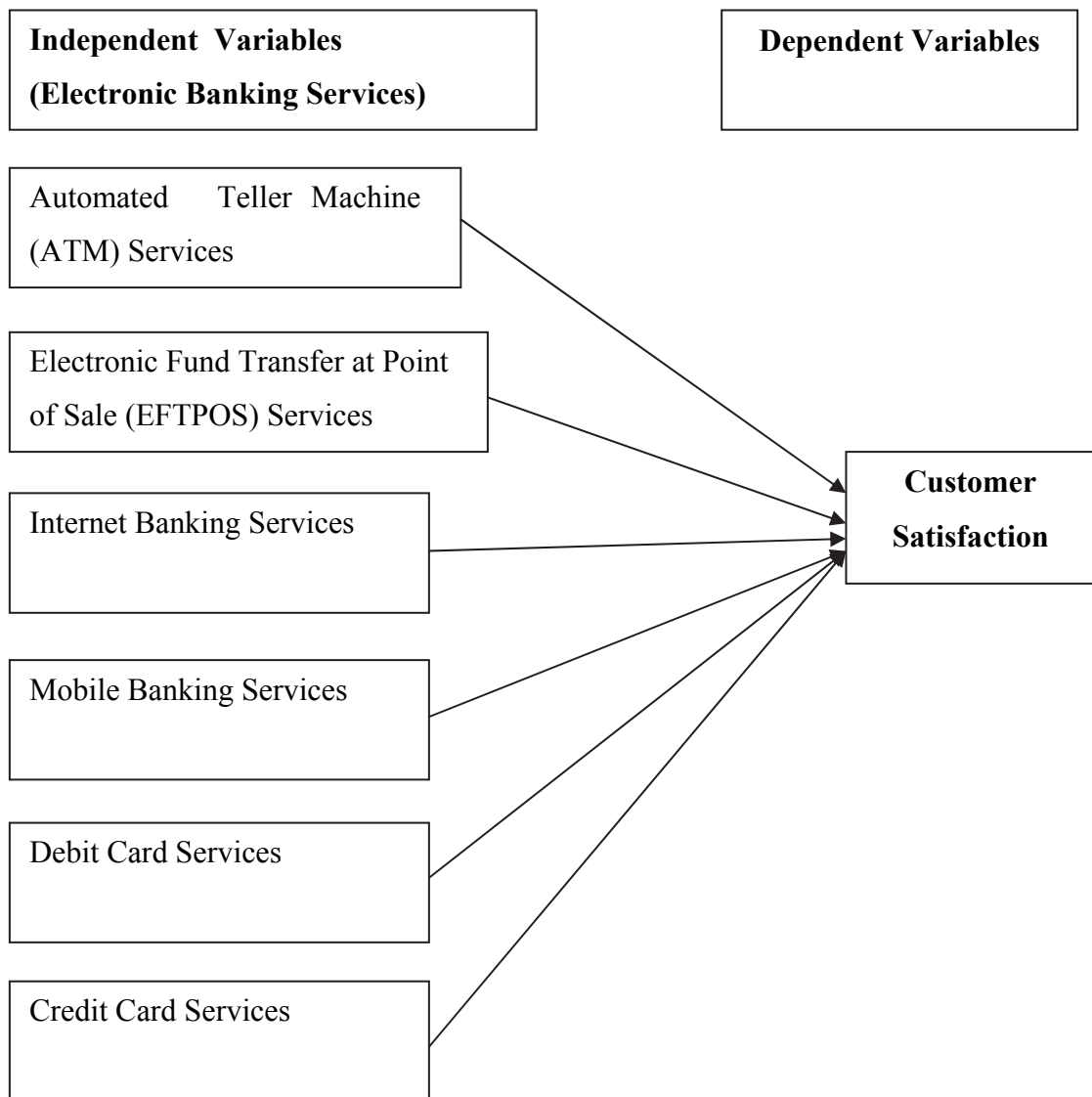


Figure 2.1 Theoretical framework of determinants of customer satisfaction

Dependent Variables

The value of dependent variable is derived from the value of other variables. Sekraran (2012) dependent variable is the one on which the researcher have primary interest. The researcher tries to predict, describe or explain its variability. Customer Satisfaction is dependent variable for the current study.

Customer Satisfaction

In this study, customer satisfaction is an emotional response to experience associated with the services of banking in comparison to customer's expectation (Zopounidis, New trends in banking management, 2012). The customer's satisfaction can be observed in terms of satisfaction with services offered by the bank, positive impression, continuous transactions and recommendation.

Independent Variables

Sekraran (2012) independent variable is the one which influences the dependent variables in either positive or negative way. In this study, Automated Teller Machine (ATM), Internet and Mobile banking, Credit cards, Debit cards and Electronic Fund Transfer are independent variables.

Automated Teller Machine (ATM) Services

Automated tellers imply more productivity for the bank during banking hours. ATM is a terminal conveyed by a bank or any money related establishment which empowers the clients to withdraw money, make enquiries, request bank statements etc. It saves customers time in service delivery as alternative to queuing in the bank halls, customers can invest such time saved in other productive alternatives. (Rose, 1999) describes ATMs as follows: "an ATM combines a computer terminal, record keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24 hours a day".

Electronic Fund Transfer at Point of Sale (EFTPOS) Services

The POS system allows customers to make retail purchases with a check card. The card looks like a credit card but does not function like it. The amount purchased is transferred immediately from the account of the debit card holder to that of the store. A POS uses a debit card to activate an Electronic Fund Transfer Process. Increased banking productivity results from the uses of EFTPOS to service customers shopping

payment requirements instead of clerical duties in handling cheques and cash withdrawals for shopping. Furthermore, the system continues after banking hours and hence continual productivity for the bank even after banking hours. A POS is a device that installed in sale centers to remove the need to transfer the physical money and to deduct money from the buyer account and to add it to seller account. Sale center and department stores are where POS is used.

Internet Banking Services

“Internet banking refers to the use of the internet as a delivery channel for banking services, which includes every single customary service for example, balance enquiry, statement of records, trust transfer to other records, charges payments, electronic bill presentment and payment” without going to bank (Nath, 2003). It eliminates the barriers of distance / time and provides continual productivity for the bank to unimaginable distant customers. The bank may have website to let their clients check their account remaining, accounts flow, loan applying and ordering their exchanging through internet. It helps in transferring currency to private account or other accounts, helps to see bills in according with account, helps in ordering the bill in chronological order, it also has got bill payment availability, and also has got the availability of seeing last 30 transactions.

Mobile Banking Services

Mobile banking refers to provision and accessibility of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities of performing balance checks, account transactions, payments etc. via mobile device such as a mobile phone. Mobile banking today is most often performed via, SMS or the Mobile Internet but can also use special program downloaded to mobile device. Therefore, it plays a vital role to improve the productivity of bank.

Debit Card Services

A Debit Card (also known as a bank card, plastic card or check card) is a plastic payment card that can be used instead of cash when making purchases. It is similar to credit card, but unlike a credit card, the money comes directly from the user's bank account when performing a transaction. Debit Card usually also allows for instant withdrawal of cash, acting as an ATM card for withdrawing cash. Merchants may also offer cashbacks facilities to customers, where a customer can withdraw cash along with their purchase. In many countries the use of debit card has become so widespread that their volumes have overtaken or entirely replaced cheques and, in some instances, cash transactions. A debit card is a more convenient way to spend money than by using cash.

Credit Card Services

A Credit Card is a payment card issued to users (cardholders) to enable the cardholder to pay a merchant for goods and services based on the cardholder's promise to the card issuer to pay them for the amounts so paid plus the other agreed charges. The credit company provider may also grant a line of credit (LOC) to the cardholder which allows the holder to borrow the money in the form of cash advance. A credit card allows you to borrow money from a bank to make purchases, whether you're buying a burger or a round-trip ticket. As long as you pay back the money you borrow within the "grace period" of 25-30 days, you don't have to pay extra. If you don't pay it back in that time period, you'll have to pay interest, a percentage of the money you owe the bank on top of what you borrowed.

CHAPTER III

RESEARCH METHODOLOGY

Research methodology refers to the adopted method that is followed by a set of procedures applicable for a particular study. In this chapter, research methods of the study are presented. This chapter begins with the research design of the study followed by the population and sample, data collection, data collection techniques, validity test, reliability test, data analysis and software used.

3.1 Research Design

Research design is an overall plan for connecting the conceptual research problems to the empirical research. Research design involves and highlights the methodological rigor and appropriateness of intellectual design for conducting research (Malhotra & Birks, 2007). A research design is a framework that guides how research should be conducted based on certain philosophies, principles and assumption. Further, it articulate what data is required, what method is going to be used to collect and analyze the data, and how all of this is going to answer the research question.

The study is based on descriptive and casual research design. To describe the components of e-banking services descriptive research design is used. Similarly, casual design helps to determine the relationship between dependent (customer satisfaction) and independent variable (e-banking services). Further casual research design is used to examine the impact of e-banking service delivery on customer satisfaction of banking industry in Nepal. As per Sekaran and Bougie (2012) a descriptive study is undertaken in order to ascertain and be able to describe the characteristics of value of interest.

The study used quantitative method for data collection for the purpose of analysis. Mainly structured questionnaire survey was used to generate response based on which statistical analysis is done to test hypothesis.

3.2 Population and Sample

Population is the complete set of cases or group from which a sample is taken. The sample is a subset of a larger population, selected by the researcher to participate in a research project. For this study all 28 commercial banks (Until November 2017) operating in Nepal are the total population.

Sample is a sub set or some part of the larger population. The purpose of sampling is to reduce expenses in term of money, effort and time. A total of 120 respondents were taken in this study and all of them were banking customer, among them only 70 i.e.58.33% were valid and that was taken for the study. These customers were selected using simple sampling technique. The sampling technique for the study followed non-probabilistic sampling technique i.e. convenience sampling.

Survey questions were manually distributed at different places in Kathmandu Valley to generate responses from varied response group. In this study, the participants were approached as they enter the banking hall for business and they agreed to participate in answering the questions on the questionnaire.

3.3 Sources of Data

Primary sources of data were used to collect and analyze the impact of e-banking services and customer satisfaction.

3.3.1 Primary Sources of data Collection

The study research is based on the primary source of data for research questions. Primary data are the first hand data collected by the researcher to test the working of hypothesis and then used as evidence to support a researcher's claim. For the purpose of primary data the researcher used questionnaire method to collect the data. The respondents were requested to fill the questionnaire and were made fully aware about for what purpose the research was being carried out and the main objective of the study. This method of collecting data made a better understanding of customer regarding e-banking services and customer satisfaction of banking industry in Nepal.

The questionnaire were distributed and collected during any flexible time of respondent and researcher.

3.4 Data Collection Techniques

Data collection is a process of gathering information from identified respondents to answer the research questions. This study was mainly based on the primary data. Primary data sources includes observations, experiments, social surveys like questionnaires and interviews. Questionnaire methods is used in this research to get information from the respondents.

3.4.1 Questionnaires

In order to conduct the study, structured questionnaire were used. A research questionnaire containing carefully framed questions was used to collect data for the study. The questionnaire was in two parts. The first part aimed at the collection of demographic information on the participants. This included age, sex, educational and income level and number of years transacting business with the Bank.

The second section include 26 likert scale statement of Automated teller machine, internet banking services, mobile banking services, credit card services, debit card services, electronic fund transfer services and customer satisfaction. A 6 point likert scale (strongly disagree, disagree, slightly disagree, slightly agree, agree and strongly agree). The individual score were summed and averaged for analysis.

3.5 Validity Test

Prior to study, a pilot test was conducted to validate the reliability of questionnaire developed to carry out this study. As a pilot sample, 20 respondents were asked to fill the questionnaire. Then the response were mainly analyzed using SPSS software to test whether the study tools were valid or not. The questionnaire used were distributed randomly to the banking customers. Feedback and reviews received from them as well as expert's opinion were incorporated and questionnaire were adjusted accordingly.

3.6 Reliability Test

Reliability tests is one of the important elements to make sure that instrument developed to measure a particular concept is indeed accurately measuring the variable and that, in fact, actually measures the concept set out by the study to measure. Reliability ensures consistent measurement across various items in the instrument. In this study, Cronbach's Alpha is used to measure the reliability of the various items.

Table 3.1 Reliability Analysis

Components	No. of items	Cronbach's Alpha
Automated Teller Machine	5	0.657
Internet Banking Services	4	0.725
Mobile Banking Services	5	0.826
Credit Card Services	3	0.660
Debit Card Services	3	0.718
Electronic Fund Transfer Services	3	0.716
Customer Satisfaction	3	0.756
Total	26	0.895

The calculation of Cronbach's Alpha is presented in the table 3.1. It depicts the Cronbach's Alpha for the components of e-banking service delivery on customer satisfaction. It is observed that Automated teller machine has Cronbach's Alpha of 0.657, Internet banking services has Cronbach's Alpha of 0.725, Mobile banking services has Cronbach's alpha of 0.826, Credit card services has Cronbach's Alpha of 0.660, Debit card services has Cronbach's Alpha of 0.718, Electronic fund transfer services has Cronbach's Alpha of 0.716 and customer satisfaction has the Cronbach's Alpha of 0.756. The table 3.1 revealed that Cronbach's Alpha for all the statement are above 0.6 which is acceptable. Therefore, the statement regarding automated teller machine, internet banking services, mobile banking services, credit card services, debit card services, electronic fund transfer services and customer satisfaction have a good internal consistency and hence, the statement are acceptable.

3.7 Data Analysis

The frequency tables that reports the percentage of each of the categories and frequency that are easy to understand and interpret were used. Other than the descriptive analysis, correlation and regression analysis were conducted to validate the hypothesis.

3.7.1 Descriptive Analysis

Descriptive statistics were used to explain the demographic characteristics of the respondents along with e-banking services and customer satisfaction. Frequencies, percentages, mean and standard deviation was calculated to describe the variables.

3.7.2 Correlation Analysis

The correlation coefficient was used to depict the association of e-banking services and customer satisfaction.

3.7.3 Regression Analysis

To examine the impact of e-banking services and customer satisfaction, regression model was used. The model is specified as:

$$Y = \beta_0 + \beta_1 (\text{ATM}) + \beta_2 (\text{Internet Banking Services}) + \beta_3 (\text{Mobile Banking Services}) + \beta_4 (\text{Credit Card Services}) + \beta_5 (\text{Debit Card Services}) + \beta_6 (\text{Electronic Fund Transfer Services}) + e_i$$

Where,

Y= Customer Satisfaction

Regression Coefficients= $\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5 + \beta_6$

Error term= e_i

3.8 Software Used

The responses collected from the distribution of questionnaire were entered in Microsoft Office Excel 2013 and IBM SPSS V 23. After that data were analyzed, interpreted and was presented in the written format using Microsoft Office Word 2013.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

The chapter deals with the analysis of the data collected from surveys. The data are analyzed statistically and result are presented and interpreted. With an aim to fulfill the objective of the study, the collected data through questionnaire had been analyzed using statistical tool. This chapter also cover the test of hypothesis which were formulated in the previous chapter.

4.1. Respondents demographic profile

This section deals with the demographic analysis and interpretation of primary data collected through questionnaires. In this section, the respondents profile was analyzed in terms of gender, age, education, income and frequency of years of using e-banking services. Out of 150 questionnaire sent to potential respondents, only 77 responses were collected. There were seven response errors and hence the valid response rate was 46.67 percent. All the respondents were from the Kathmandu Valley.

The table 4.1 illustrate that the percent distribution of the respondents on the basis of gender. In this study, data from 70 respondents were collected and analyzed. Out of the total respondent's male respondents accounted for 61.4 percent (43) of the sample and female respondents accounted for 38.6 percent (27) of the total sample. This shows that there is slightly higher number of male respondents in comparison to female respondents taken for this study.

The table depicts the percentage distribution of the respondents on the basis of their age group. The column shows that most of the respondents belong to age group 18-30 years, which accounts for 67.1 percent of the respondents. It is followed by age group by 31 – 40 years group representing 24.3% of the respondents and 8.6% were between the ages of 41 to 50 years. This could be as a result of the banks being on a tertiary institution campus where majority of the customers are students. This finding suggest that most of the customers were found in the working age bracket as they might be much involve in transaction daily banking business.

The table presents the profile of respondents based on their education. Analysis showed that, the majority of the respondents were on Master's Degree and above programs. There were 42 Master's and above programmers representing 60.0% while 26 representing 37.1% were Graduate holders and 2 representing 2.9% were Under Graduate. This finding is attributed to the fact that banking processes requires some basic literacy and as such it was no surprise that all the respondents had some level of formal education.

The table also presents the profile of respondents based on their income level. The majority of the respondents were on above 501,000 level of income representing 32.9% followed by the 101,000- 300,000 representing 25.7%, 301,000-500,000 representing 24.3% and 17.1% of respondents are of 100,000 income level yearly.

The table also stated information regarding respondent's years of using e-banking services of the bank. Out of 70 respondents, 25 respondents representing 35.7% have been using the services for about 2-3 years while a total of 16 representing 22.9% have been using the services for about 1-2 years. It was also found that, 12 respondents representing 17.1% have been using the services for less than one year, 9 respondents representing 12.9% have been using the services for about 3-5 years and 8 respondents representing 11.4% have been using the services for more than 5 years.

Table 4.1 Demographic Profile of the respondents

Demography	Characteristics	Frequency	Percent
Gender	Male	43	61.4
	Female	27	38.6
Age Group	18-30	47	67.1
	31-40	17	24.3
	41-50	6	8.6
Education	Under Graduate	2	2.9
	Graduate	26	37.1
	Master's degree and above	42	60.0
Income	Up to Rs. 100,000	12	17.1
	Rs. 101,000 – Rs. 300,000	18	25.7
	Rs. 301,000 – Rs. 500,000	17	24.3
	Rs. 501,000 and above	23	32.9
Years of using e-banking services	Less than 1 year	12	17.1
	1-2 years	16	22.9
	2-3 years	25	35.7
	3-5 years	9	12.9
	More than 5 years	8	11.4

4.2 Descriptive analysis

Descriptive analysis is a summary statistics that quantitatively describes or summarizes features of a collection of information. In this study, mean is used as a central tendency and standard deviation as measures of variability of different variables like Automated Teller Machine, Internet Banking, Mobile Banking, Credit Card, Debit Card, Electronic Fund transfer and Customer Satisfaction. The higher mean value means more respondent agrees to those variables which could have greater impact. When analyzing the mean and standard deviation of variables, it is important to take note that a significantly large value of standard deviation means that the data being tested is far away from the mean whereas a smaller value means that the tested variables are closer to the mean. In this study, six scale of measurement is

taken for each statement (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree and 6 = strongly agree).

4.2.1 Automated Teller Machine

As presented in table 4.2, the highest score of mean is for “The ATM makes cash withdrawal very convenient” with mean score value of 5.07. It means that the particular factor is most agreed among the component of Automated Teller Machine services. Similarly, the lowest mean score is 4.61 for the statement “There is less queuing using the ATM” which shows that the most of the respondents agrees less compared to other statements.

Likewise, the highest standard deviation is 1.054 for the factor “There is less queuing using the ATM” which shows that high risk is associated with this particular factor among the factors of Automated teller machine. Similarly, the lowest standard deviation is 0.937 for the factor “The ATM makes cash withdrawal very convenient” which represents it has low risk associated among the factors of Automated teller machine.

Table 4.2 Descriptive Statistics of Automated Teller Machine Services

Statements	Minimum	Maximum	Mean	Std. deviation
The ATM makes cash withdrawal very convenient	1	6	5.07	.937
There is less queuing using the ATM	2	6	4.61	1.054
Transaction on the ATM is secured	1	6	4.63	.951
Transaction on the ATM is reliable	2	6	4.73	.867
ATM does not share my personal information with others	1	6	4.97	.963

4.2.2 Internet Banking Services

As presented in table 4.3, the highest score of mean is for “Internet banking does not share my personal information with others” with the mean value of 4.66. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.53 for the statement “Transaction via internet banking is reliable” which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 1.163 for the factor “Statement can be requested through internet banking” which shows that high risk is associated with the particular factor among the factors of internet banking services. Similarly, the lowest standard deviation is 0.899 for the factor “Internet banking does not share my personal information with others” which represents it has low risk associated among the factors of internet banking services.

Table 4.3 Descriptive Statistics of Internet Banking services

Statements	Minimum	Maximum	Mean	Std. deviation
Transaction via internet banking is secured	1	6	4.55	.973
Transaction via internet banking is reliable	1	6	4.53	.944
Internet banking does not share my personal information with others	1	6	4.66	.899
Statement can be requested through internet banking	1	6	4.56	1.163
Transaction via internet banking is secured	1	6	4.55	.973

4.2.3 Mobile Banking Services

As presented in table 4.4, the highest score of mean is for “Mobile banking is easy to use” with the mean value of 5.13. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.70 for the statement “Transaction on mobile banking is secured” which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 1.035 for the factor “Mobile banking makes banking very convenient” which shows that high risk is associated with the particular factor among the factors of mobile banking services. Similarly, the lowest standard deviation is 0.867 for the factor “Mobile banking is easy to use” which represents it has low risk associated among the factors of mobile banking services.

Table 4.4 Descriptive Statistics of Mobile Banking services

Statements	Minimum	Maximum	Mean	Std. deviation
Mobile banking makes banking very convenient	1	6	5.03	1.035
Transaction on mobile banking is secured	1	6	4.70	.968
Mobile banking is easy to use	2	6	5.13	.867
Transaction on mobile banking is reliable	2	6	4.71	.890
Mobile banking does not share my personal information	3	6	4.87	.883

4.2.4 Credit Card Services

As presented in table 4.5, the highest score of mean is for “Credit card helps to buy in advance and pay later” with the mean value of 4.89. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.61 for the statement “Online/living expenses

payment is easier” which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 1.097 for the factor “Credit card helps to buy in advance and pay later” which shows that high risk is associated with the particular factor among the factors of credit card services. Similarly, the lowest standard deviation is 0.967 for the factor “Online/living expenses payment is easier” which represents it has low risk associated among the factors of credit card services.

Table 4.5 Descriptive Statistics of Credit Card Services

Statements	Minimum	Maximum	Mean	Std. deviation
Credit card helps to buy in advance and pay later	2	6	4.89	1.097
Online/living expenses payment is easier	2	6	4.61	.967
Credit card is very convenient when travelling	2	6	4.71	.995

4.2.5 Debit Card Services

As presented in table 4.6, the highest score of mean is for “Debit card is easy to carry” with the mean value of 4.90. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.53 for the statement “Transaction via debit card is secured” which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 1.066 for the factor “Transaction via debit card is reliable” which shows that high risk is associated with the particular factor among the factors of debit card services. Similarly, the lowest standard deviation is 1.018 for the factor “Transaction via debit card is secured” which represents it has low risk associated among the factors of debit card services.

Table 4.6 Descriptive Statistics for Debit Card Services

Statements	Minimum	Maximum	Mean	Std. deviation
Transaction via debit card is secured	2	6	4.53	1.018
Transaction via debit card is reliable	2	6	4.63	1.066
Debit card is easy to carry	2	6	4.90	1.065

4.2.6 Electronic Fund Transfer Services

As presented in table 4.7, the highest score of mean is for “Transaction is very secured and reliable” with the mean value of 4.59. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.39 for the statement “Fast processing at reasonable cost” which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 1.133 for the factor “Fast processing at reasonable cost” which shows that high risk is associated with the particular factor among the factors of electronic fund transfer services. Similarly, the lowest standard deviation is 0.985 for the factor “Transaction is very secured and reliable” which represents it has low risk associated among the factors of electronic fund transfer services.

Table 4.7 Descriptive Statistics of Electronic Fund Transfer

Statements	Minimum	Maximum	Mean	Std. deviation
Transaction is very secured and reliable	2	6	4.59	.985
Fast processing at reasonable cost	1	6	4.39	1.133
Most efficient digital payment method	2	6	4.46	1.112

4.2.7 Customer Satisfaction

As presented in table 4.8, the highest score of mean is for “Continuity of using e-banking services” with mean score of 5.13. It means that the particular factor is the most agreed factor among the component of customer’s satisfaction. Similarly, the lowest mean score is 4.66 for the statement “I will recommend e-banking services to my friends and family members” which shows that most of the respondents agree less compared to other statements and it is the least preferable factor for being the influential factor in that particular customer satisfaction.

Likewise, the highest standard deviation is 1.020 for the factor “I will recommend e-banking services to my friends and family members” which shows that high risk is associated with this particular factor among the factors of customer satisfaction. Similarly, the lowest standard deviation is 0.662 for the factor “Satisfaction level with using e-banking services” which represents it has low risk associated among the factors of customer satisfaction.

Table 4.8 Descriptive Statistics of Customer Satisfaction

Statements	Minimum	Maximum	Mean	Std. deviation
Satisfaction level with using e-banking services	2	6	4.89	.662
Continuity of using e-banking services	1	6	5.13	.900
I will recommend e-banking services to my friends and family members	2	6	4.66	1.020

4.3 Summary of descriptive analysis

The table 4.9 depicts that Mobile Banking Services (MBS) ranks first i.e. the highest mean value of 4.88. Similarly, Electronic Fund Transfer services (EFTS) ranks last i.e. sixth with mean value of 4.47. Likewise Automated Teller Machine (ATM), Credit Card Services (CCS), Debit Card Services (DCS), Internet Banking Services (IBS) ranks second, third, fourth and fifth with mean value of 4.80, 4.73, 4.68 and

4.57 respectively. From the validity perspective, ATM ranks first with the lowest standard deviation of 0.620. Similarly, Electronic Fund Transfer Services (EFTS) ranks sixth and has the highest standard deviation of 0.861. Likewise, Mobile Banking Services (MBS), Internet Banking Services (IBS), Credit Card Services (CCS) and Debit Card Services (DCS) ranks second, third, fourth and fifth with the standard deviation of 0.714, 0.740, 0.788 and 0.839 respectively.

Table 4.9 Descriptive Statistics Summary

Components of e-banking services	Mean	Std. Deviation
Automated Teller Machine (ATM)	4.80	.620
Internet Banking Service (IBS)	4.57	.740
Mobile Banking Service (MBS)	4.88	.714
Credit Card Service (CCS)	4.73	.788
Debit Card Service (DCS)	4.68	.839
Electronic Fund Transfer services (EFTS)	4.47	.861
Customer Satisfaction (CS)	4.89	.715

4.4 Relationship between Dependent and Independent Variables

In order to assess the direction and strength of relationship of independent (Automated Teller Machine, Internet Banking Services, Mobile Banking Services, Credit Card Services, Debit Card Services and Electronic Fund Transfer) on dependent variables (customer satisfaction) Pearson's correlation was used. The sample correlation coefficient, denoted r , ranges between -1 and +1. The correlation between two variables can be positive (i.e. higher level of one variables are associated with higher levels of the other) or negative (i.e. higher level of one variables are associated with lower levels of the other). The sign of the correlation coefficient indicates the direction of the association. The magnitude of the correlation coefficient indicates the strength of the association.

According to the results reflected in Table, the analysis depicts that the r value is 0.084 which indicates there is very weak uphill positive linear relationship between Automated Teller Machine (ATM) and customer satisfaction. Moreover, the p value

is 0.489 which is more than 0.05. It indicates that Automated Teller Machine (ATM) and customer satisfaction has statically insignificant association.

The analysis depicts that the r value is 0.014 which indicates there is very weak uphill positive linear relationship between Internet Banking Services (IBS) and customer satisfaction. Moreover, the p value is 0.905 which is more than 0.05. It indicates that Internet Banking Services (IBS) and customer satisfaction has statically insignificant association.

The analysis depicts that the r value is 0.018 which indicates there is very weak uphill positive linear relationship between Mobile Banking Services (MBS) and customer satisfaction. Moreover, the p value is 0.884 which is more than 0.05. It indicates that Mobile Banking Services (MBS) and customer satisfaction has statically insignificant association.

The analysis depicts that the r value is 0.147 which indicates there is weak uphill positive linear relationship between Credit Card Services (CCS) and customer satisfaction. Moreover, the p value is 0.226 which is more than 0.05. It indicates that Credit Card Services (CCS) and customer satisfaction has statically insignificant association.

The analysis depicts that the r value is 0.141 which indicates there is weak uphill positive linear relationship between Debit Card Services (DCS) and customer satisfaction. Moreover, the p value is 0.243 which is more than 0.05. It indicates that Debit Card Services (DCS) and customer satisfaction has statically insignificant association.

The analysis depicts that the r value is 0.077 which indicates there is very weak uphill positive linear relationship between Electronic Fund Transfer Services (EFTS) and customer satisfaction. Moreover, the p value is 0.528 which is more than 0.05. It indicates that Electronic Fund Transfer Services (EFTS) and customer satisfaction has statically insignificant association.

Table 4.10 Correlations of E-banking services and Customer Satisfaction

	ATM	IBS	MBS	CCS	DCS	EFTS	CS
ATM Pearson Correlation	1	.564**	.628**	.302*	.358**	.406**	.084
Sig. (2-tailed)		.000	.000	.011	.002	.000	.489
N	70	70	70	70	70	70	70
IBS Pearson Correlation	.564**	1	.748**	.477**	.581**	.428**	.014
Sig. (2-tailed)	.000		.000	.000	.000	.000	.905
N	70	70	70	70	70	70	70
MBS Pearson Correlation	.628**	.748**	1	.426**	.355**	.352**	.018
Sig. (2-tailed)	.000	.000		.000	.003	.003	.884
N	70	70	70	70	70	70	70
CCS Pearson Correlation	.302*	.477**	.426**	1	.594**	.540**	.147
Sig. (2-tailed)	.011	.000	.000		.000	.000	.226
N	70	70	70	70	70	70	70
DCS Pearson Correlation	.358**	.581**	.355**	.594**	1	.590**	.141
Sig. (2-tailed)	.002	.000	.003	.000		.000	.243
N	70	70	70	70	70	70	70
EFTS Pearson Correlation	.406**	.428**	.352**	.540**	.590**	1	.077
Sig. (2-tailed)	.000	.000	.003	.000	.000		.528
N	70	70	70	70	70	70	70
CS Pearson Correlation	.084	.014	.018	.147	.141	.077	1
Sig. (2-tailed)	.489	.905	.884	.226	.243	.528	
N	70	70	70	70	70	70	70

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.5 Impact of Electronic Banking Services and Customer Satisfaction

Linear regression analysis was done to find out the impact of E-banking services and customer satisfaction of private commercial bank of Nepal. The independent variable are Automated Teller Machine, Internet Banking Services, Mobile Banking Services, Credit Card Services, Debit Card Services and Electronic Fund Transfer Services and the dependent variable is customer satisfaction.

The model fit summary of regression analysis has been reported in table 4.11 and 4.12. The findings revealed that the predictors of the customer satisfaction explained 0.45 percent of its variance.

Table 4.11 Model summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.213 ^a	.045	-.046	.73211

a. Predictors : (Constant), EFTS, MBS, CCS, ATM, DCS, IBS

Table 4.12 ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.601	6	.267	.498	.808 ^b
Residual	33.767	63	.536		
Total	35.368	69			

a. Dependent Variable: CS

b. Predictors : (Constant), EFTS, MBS, CCS, ATM, DCS, IBS

Further, statistical estimates of the predictors of regression model have been reported in table 4.13. The results of the findings showed that the effect of ATM whose ($b = 0.140$, $p > 0.05$) on customer satisfaction was found to be statistically insignificant because p-value is greater than 0.05.

The effect of Internet banking services (IBS) whose ($b = -0.157$, $p > 0.05$) on customer satisfaction was found to be statistically insignificant because p-value is greater than 0.05.

The effect of Mobile banking services (MBS) whose ($b = -0.031$, $p > 0.05$) on customer satisfaction was found to be statistically insignificant because p-value is greater than 0.05.

The effect of Credit card services (CCS) whose ($b = 0.128$, $p > 0.05$) on customer satisfaction was found to be statistically insignificant because p-value is greater than 0.05.

The effect of Debit Card services (DCS) whose ($b = 0.132$, $p > 0.05$) on customer satisfaction was found to be statistically insignificant because p-value is greater than 0.05.

The effect of electronic fund transfer services (EFTS) whose ($b = -0.049$, $p > 0.05$) on customer satisfaction was found to be statistically insignificant because p-value is greater than 0.05.

Table 4.13 Coefficients

Model		Unstandardized		Standardized		
		Coefficients		Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	4.087	.784		5.215	.000
	ATM	.140	.191	.121	.733	.466
	IBS	-.157	.210	-.162	-.749	.457
	MBS	-.031	.209	-.031	-.150	.881
	CCS	.128	.151	.141	.850	.398
	DCS	.132	.158	.154		
	EFTS	-.049	.136	-.059	.834	.407

a. Dependent Variable: CS

4.6 Summary of result of hypothesis

Table 4.14 Summary of Result of Hypothesis

Variables	Hypothesis	P- value	Results
Automated	H1 : There is insignificant impact of Automated	0.466	Rejected
Teller Machine services	teller machine on customer satisfaction in private commercial bank in Nepal		
Internet Banking Services	H2 : There is insignificant impact of internet banking services on customer satisfaction in private commercial bank in Nepal	0.457	Rejected
Mobile Banking Services	H3 : There is insignificant impact of mobile banking on customer satisfaction in private commercial bank in Nepal	0.881	Rejected
Credit Card Services	H4 : There is insignificant impact of credit card services on customer satisfaction in private commercial bank in Nepal	0.398	Rejected
Debit Card Services	H5 : There is insignificant impact of debit card on customer satisfaction in private commercial bank in Nepal	0.407	Rejected
Electronic Fund Transfer Services	H6 : There is insignificant impact of electronic fund transfer services on customer satisfaction in private commercial bank in Nepal	0.718	Rejected

4.7 Major Findings

The key findings of the study are summarized as follows.

- Out of the 70 respondents, 61.4 percent were male and remaining 38.6 percent were female.
- The majority of the respondents (67.1 percent) were of age group 18-30 followed by age group of 21-40 with 24.3 percent and 41-50 with 8.6 percent.
- The majority of the respondents (60.0 percent) have completed master's degree and above followed by Graduates with 37.1 percent and under graduates with 2.9 percent.
- In terms of years of using e-banking services, most of the respondents (35.7 percent) have been using the e-banking services for 2-3 years.

Similarly, only 11.4 percent of the respondents have been using e-banking services for more than 5 years.

- Mobile Banking Services (MBS) has the highest mean value of 4.88 and Electronic Fund Transfer Services (EFTS) has the lowest mean value of 4.47. Hence, it can be implied that banking customers were more satisfied with Mobile Banking Services (MBS) as bank gives more preference to mobile banking services and less priority to electronic fund transfer services in terms of customer satisfaction.
- ATM has the lowest variation of 0.620 and electronic fund transfer services has highest variation of 0.861. This shows that banking institutions in Nepal have been providing ATM services more than other services.
- The r value of ATM and customer satisfaction is 0.084 which indicates that there is very weak uphill positive relationship. P value generated is 0.489 which indicates that ATM and customer satisfaction has statically insignificant association.
- The r value of Internet Banking Services (IBS) and customer satisfaction is 0.014 which indicates there is very weak uphill positive relationship. Moreover, the p value is 0.905 which is more than 0.05. It indicates that Internet Banking Services (IBS) and customer satisfaction has statically insignificant association.
- The r value of Mobile Banking Services (MBS) and customer satisfaction is 0.018 which indicates there is very weak uphill positive relationship. Moreover, the p value is 0.884 which is more than 0.05. It indicates that Mobile Banking Services (MBS) and customer satisfaction has statically insignificant association.
- The r value of Credit Card Services (CCS) and customer satisfaction is 0.147 which indicates there is weak uphill positive relationship. Moreover, the p value is 0.226 which is more than 0.05. It indicates that Credit Card Services (CCS) and customer satisfaction has statically insignificant association.

- The r value of Debit Card Services (DCS) and customer satisfaction is 0.141 which indicates there is weak uphill positive relationship. Moreover, the p value is 0.243 which is more than 0.05. It indicates that Debit Card Services (DCS) and customer satisfaction has statically insignificant association.
- The r value of Electronic Fund Transfer Services (EFTS) and customer satisfaction is 0.077 which indicates there is very weak uphill positive relationship. Moreover, the p value is 0.528 which is more than 0.05. It indicates that Electronic Fund Transfer Services (EFTS) and customer satisfaction has statically insignificant association.
- Hypothesis 1 was rejected. The result showed that the impact of ATM on customer satisfaction was found to be statistically insignificant.
- Hypothesis 2 was rejected. The result showed that the impact of Internet banking services on customer satisfaction was found to be statistically insignificant.
- Hypothesis 3 was rejected. The result showed that the impact of Mobile banking services on customer satisfaction was found to be statistically insignificant.
- Hypothesis 4 was rejected. The result showed that the impact of Credit Card services on customer satisfaction was found to be statistically insignificant.
- Hypothesis 5 was rejected. The result showed that the impact of Debit Card services on customer satisfaction was found to be statistically insignificant.
- Hypothesis 6 was rejected. The result showed that the impact of Electronic fund transfer services on customer satisfaction was found to be statistically insignificant.

CHAPTER V

CONCLUSION

This chapter presents discussion, conclusion and implications that could be drawn from the study. It is divided into three sections. In first section, the results will be discussed, the second section draws the conclusion of the study and finally, in the last section, the implications are drawn.

5.1 Discussion

The main purpose of this study was to examine the impact of electronic banking service delivery on customer satisfaction in Nepalese private commercial bank. The finding of this study shows that there was a weaker relationship between all the variables of e-banking services and overall customer satisfaction. The finding for the sampled banks in Nepal confirms the empirical work of (Parasuraman A. B., 1985). The reason for such findings was because customers of the various banks viewed internet banking as a mean of avoiding long queues at the banking hall and a solution to driving through the numerous traffic of the city just to move to a commercial bank for a banking transaction. Additionally, the finding of this study goes in line with that of by (Parasuraman A. B., 1988) in their empirical work they argue that “if the expected quality of service and actual perceived performance is equal or near equal the customers can be satisfied, while a negative discrepancy between perceptions and expectations or ‘performance-gap’ lead to customer dissatisfaction, and positive discrepancy leads to consumer delight”. This study found that customer of the various bank sampled viewed service quality to be equal to performance hence they were very satisfied with the services offered. This led to the results recorded in the study.

Furthering the discussion, the regression result of this study showed there is no predictive relationship between all the e-banking variable and customer satisfaction. This confirms the model used for the study. The degree of significance varied from variable to variable. The results show that all the variables were not significant at 5% significance level. The reason for this result was because customers of electronic banking indicated that they did not have control over internet banking activities.

5.2 Conclusions

The study investigated the practices of e-banking service delivery in banking industry. Along with that, the study had also analyzed the impact of electronic banking service delivery on customer satisfaction in Nepalese private commercial bank.

Based on the result of the descriptive analysis study it can be concluded that the majority of current e-banking users are youth between the age of 18 up to 30, gender wise the males are the dominant users, occupationally salaried and students are the majority users and educational level diploma and above diploma holders are the majority users and the banks do not keep full record of their customer profile in standardized way for easy reference. There is a relationship between demographic characteristics and customer satisfaction in e-banking than ordinary banking.

Specifically, the study inferred that ATM, internet banking services, mobile banking services, credit card services, debit card services and electronic fund transfer services were insignificant with customer satisfaction. Further, the findings deduced that ATM has the lowest variation of 0.620 and electronic fund transfer services has highest variation of 0.861. This shows that banking institutions in Nepal have been providing ATM services more than other services.

In a nutshell, e-banking services has impact in improving customer satisfaction, impact in reducing waiting time for customers to get bank service and impact in improving customers to control their account movements.

5.3 Implications

The findings of the study contribute to bankers, customers, academicians and researchers in similar field. The findings indicated that ATM, internet banking, mobile banking, credit card, debit card and electronic fund transfers services had statistically insignificant impact on customer satisfaction.

Electronic banking services have become one of the mainstream banking strategies globally. In spite of it numerous advantages there have been some challenges which hinders it optimum usage both to the public and the bank themselves. The

complexities associated with e-banking patronage are so large that a single study could not discover all. In view of the above, the researcher recommends that funds be made available for the study to be replicated in the other banks since the findings of the current study indicated that there are varied challenges as well as advantages with electronic banking services.

The banks should work much in increasing the number of users from all aspects that is from gender, age, educational status, occupation and bankers should determine which customers with which demographic characteristics are more sensitive to e-banking service satisfaction. E-banking service should expand as much as possible in order to reduce the visits of bank hall for customers and to get investment cost advantage than opening bank hall as the current rent price per year for opening bank hall is much greater than buying an ATM machine. All Customers should be awaked to know the existence of e-banking service charge; official trainings should be organized by the banks for customers in order to increase customer's awareness about e-banking rather than providing the card only. The banks should exceed the promise of providing 24/7 rather than under delivering 24/7 availability that is the banks should ensure that at no time should service cease as a result of network problem, power failure and other technical problems. Should increase the effort to keep customers satisfaction above the current level and should conduct survey to measure customers' satisfaction empirically.

The types of service provided by e-banking should be increased for instance to accept the deposits and the banks should exploit the opportunities in expanding e-banking by mitigating the challenges. Finally more emphasis should be given by the banks on those aspects which have more impacts in determining customer's satisfaction in e-banking.

This study has provided a floor for future researchers to conduct the study incorporating demographic factors of customers. This study is focused on customer satisfaction of bank and financial institutions only. Further, research can be conducted in other sectors including hospitals, insurance, trading, manufacturing and technology.

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Appendix
Questionnaire for Banking Customers
Questionnaire

Dear Valued Banking Customers,

I am conducting a research study on “**Impact of Electronic Banking Service Delivery on Customer Satisfaction in Nepalese Private Commercial Banks**”. I am very pleased to have you as my respondent and really appreciate your contribution to this academic exercise. Your inputs will provide the most valuable information in disseminating finding for my research project. The information given will be treated as private and confidential and will only be used for the purpose of this research only.

Sincerely yours,

Sabin Parajuli

Name of the Customer (Optional):

1. Age of respondents

- a) 18-30 years
- b) 31-40 years
- c) 41-50 years
- d) 51 years and above

2. Gender

- a) Male
- b) Female

3. Education

- a) Under Graduate
- b) Graduate
- c) Master's Degree and above

4. Annual Income

- a) Up to Rs. 100,000
- b) Rs. 101,000 – Rs. 300,000
- c) Rs. 301,000- Rs. 500,000
- d) Rs. 501,000 and above

5. Since when have you been using E- banking Services?

- a) Less than 1 year
- b) 1-2 years
- c) 2-3 years
- d) 3-5 years
- e) More than 5 years

6. How did you come to know about E-banking services provided by your bank?

- a) From bank officials
- b) Advertisement in print media
- c) Television Advertisement
- d) On line advertisement
- e) From family members
- f) From Friends
- g) Any other (specify)

7. Which one is the main reason for you to use e-banking?

- a) Better Information
- b) Simplification of processes
- c) 24 Hr. service
- d) Limited time available

8. What would encourage you to use more the electronic banking services?

- a) Rewards (discounted fees for certain services)
- b) Simpler/ clearer service
- c) Higher Security
- d) Free transactions
- e) Other (specify)

The Delivery of E-banking Services

Indicate your level of agreement on the following statements by ticking the appropriate number using the key given below: **6 = Strongly Agree 5 = Agree 4 = Slightly Agree 3 = Slightly Disagree 2 = Disagree 1 = Strongly Disagree**

STATEMENTS	1	2	3	4	5	6
ATM (Automated Teller Machine)						
The ATM makes cash withdrawal very convenient						
There is less queuing using the ATM						
Transaction on the ATM is secured						
Transaction on the ATM is reliable						
ATM does not share my personal information with others						
Internet Banking Services						
Transaction via internet banking is secured						
Transaction via internet banking is reliable						
Internet banking does not share my personal information with others						
Statement can be requested through internet banking						
Mobile Banking						
Mobile banking makes banking very convenient						
Transaction on mobile banking is secured						
Mobile banking is easy to use						
Transactions on mobile banking is reliable						
Mobile banking does not share my personal information						
Credit Card Services						
Credit card helps to buy in advance and pay later						

Credit card is very convenient when travelling						
Online/ living expenses payment is easier						
Debit Card Services						
Transaction via debit card is secured						
Transaction via debit card is reliable						
Debit card is easy to carry						
Electronic Fund Transfer Services						
Transaction is very secured and reliable						
Fast processing at reasonable cost						
Most efficient digital payment method						
Customer Satisfaction						
Satisfaction level with using e-banking services						
Continuity of using e-banking services						
I will recommend e-banking services to my friends and family members						

**IMPACT OF ELECTRONIC BANKING SERVICE DELIVERY ON
CUSTOMER SATISFACTION IN NEPALESE PRIVATE
COMMERCIAL BANKS**

A Thesis Proposal

Submitted By

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

The contemporary world is faced by a rapid development in technology; such advancement has introduced a number of new systems in all the aspect of life and the economy in general. Science has lately joined the world through the use of internet systems which were in the early 20th century used for mail communication and advertisement plans by several companies in the world. The 21st Century, shaped by the Technological Revolution, is the age of globalization. The Internet massively impacts all aspects of business. In the 21st century, electronic business is no longer an option for businesses; it is a need (Wisdom, 2012).

Customers are the key contributors for the success and survival of any business and this is the same for banking sector also. So, need arises not only to satisfy the customers but also to retain them because it may lead to increased profitability and better performance of banks. Technology is affecting the life of every individual in the present age and internet banking is one of the technologies which is fastest growing in banking practice now days. Moreover, customers are shifting from traditional banking to online banking very rapidly because of various benefits such as cost and time effectiveness. Technology is affecting the life of every individual both qualitatively and quantitatively in the present age. The quick expansion of information technology has imbibed into the lives of millions of people and introduced major changes in the worldwide economic and business atmosphere. Technological developments in the banking sector have speeded up communication and transactions for clients. It is defined as the provision of information or service by a bank to its customers over the internet. It is viewed as a supplemental channel used in conjunction with other channels to provide the convenience of banking anytime from one's home or work, without having to incur some of the costs associated with a branch visit like going to the branch or waiting on lines. Online banking eliminates physical and geographic boundaries and time limitations of banking services.

E-banking services first emerged in the early 1990's, when credit card, ATM, and telephone banking services were three major applications. During the last decade, database, information system and other technologies were applied into banking services at different levels. After the availability of internet facility, e-banking services are now conducted through a secure website operated by local banks and includes online enquiry, e-payments, e-transfer etc. There are two general business models to provide online banking facilities to its customers- First one is, incumbent bank also known as "bricks and clicks" model, applying online banking as an enhancement to its traditional banking sector and integrating branches, ATM, call centers and online service into a whole system and using e-banking as a new channel of delivering services. Whereas the another one is known as direct bank or virtual bank or internet primary bank with no branch offices but using internet, telecommunication network and wireless networking to provide banking services.

Banks plays a vital and dynamic part in a country's financial and economic development. The development of a country is exceptionally affected by successful banking in the different areas of the economy. With the advancement in the technology one of the latest technology adopted by the bank is the e-banking (electronic banking) (Mukherjee, 2004). The presentation of electronic banking has revolutionized and redefined the way bank operate now. E- Banking is a quick spreading service that permits clients to utilize the computer to access account specific information and potentially direct exchanges from a remote area. E- Banking channels helps bank customers to perform their financial transactions electronically over the internet through their personal computer or laptop or mobile at the time convenient to them, without having to be restricted to regular bank operating hours. E- Banking is an innovative distribution channel that offers less waiting time and higher spatial convenience than traditional branch banking with significantly lower cost structure than traditional delivery channels. E- Banking reduces not only operational cost to the bank but also leads to higher level of customer satisfaction and retention. As a result, e-banking is very attractive to banks and customers who are adopting new technologies.

Electronic banking is the use of electronic means to transfer funds directly from one accounts to another, rather than by cheque or cash. Through reducing banks costs, electronic banking can increase bank incomes.

E-banking offers the convenience of conducting most of the banking transactions at a time that suits the customer. The customers can access funds and transfer funds between accounts, pay bills and make purchases 24 hours a day, 7 days a week.

With the establishment of Nepal Bank Limited in 1937, banking sector and its customers had to wait for 65 years to use the E-banking service in Nepal (around 2002 A.D.). Still e-banking is not yet popular among the customers who live in rural areas in Nepal. Hence, this research focuses on the Impact of Electronic Banking on Customer Satisfaction and Service Delivery of Nepalese Commercial Banks. In addition, it focuses future prospective of e-banking in the context of Nepalese Commercial Banks. But in the current scenario, almost every bank in Nepal has the electronic banking facility. Moreover, these banks are extending their presence in rural areas also to lure more customers by educating them with new advancement in information technology.

1.2 Problem Statement and Research Questions

The Nepalese banking industry has transformed tremendously over the last decade. Previously the banking industry was without simple electronics like ATM and SMS alert. This made all customers of banks to personally walk to the banking hall to be able to transact simple transactions like checking accounts balances, verifying deposits and making withdrawals. This led to long queues, energy exacting and time consuming and on the whole, it was costly. However, the situation has changed in recent times due to the introduction of electronic banking services into the Nepalese banking industry by various financial institutions. Technological follow ups like the ATMs, Electronic Funds Transfer at Point of Sale (EFTOPS), internet banking, SMS alert, credit and debit cards have graced the Nepalese banking environment. They further argue that these highly economic innovations go a long way to decrease

drastically the pressure on manual services to bank's customers which enhance services delivery and also improve banks profitability.

Internet technology is rapidly changing the way personal financial services are being designed and delivered. Now, commercial banks in Nepal are trying to introduce internet-based e-banking systems to improve their operations and reduce costs. Nepalese commercial banks are generally found to have been adopting the services of e-banking as competitive tools and as a step towards innovative services. However, Nepal is yet a developing country; there are many ambiguities about the applications of e-banking. Therefore, there is a need to understand how commercial banks are practicing e-banking and delivering the better service. The problem of the study therefore is to investigate the Electronic Banking products and services, and the extent to which they contribute to the bank's customer satisfaction and service delivery in the banking sector of Nepal. Thus, providing online facility by banks is increasingly becoming a "need to have" than a "nice to have" service.

The study aims at answering the following research questions

1. What are the facilities provided by the Nepalese Private Commercial Bank under E-Banking Services?
2. What is the impact of e-banking service delivery on customer satisfaction in Nepalese Private Commercial Banks?

1.3 Objective of the Study

Understanding the link between internet banking and performance is an empirical issue. Thus, the main objectives of the study rests upon the examination and analysis of e-banking services provided by commercial banks and its impact on customer satisfaction and service delivery. More over the study has specified the following objectives:

1. To analyze the facilities provided by Nepalese Private Commercial Bank under E-Banking services.
2. To examine the impact of e-banking service delivery on customer satisfaction in Nepalese Private Commercial Bank.

1.4 Significance of the Study

This study, contributes to knowledge and serve as source of reference in the academia. For this future researcher can read the methodology as well as the findings of this study. The utilization of Information and Communication Technology (ICT) in the banking industry has affected service delivery as well as the bank's profits. Many banks are moving gradually from the traditional way of banking and are gradually introducing ICT into their service delivery. At present, the commercial banks are gaining a wide popularity within and outside the country through their efficient management and professional services and playing an eminent role in the economy. E-banking is one of the main services provided by the commercial banks where the whole bank is rested upon. Study on E-banking of commercial bank carries a great significance and importance to various groups.

Most of the Nepalese people are still not aware about the E-banking or online banking transactions; this study will help them to get the concept of internet services available to them. Today most of the parts of the world's economy depends upon financial institutions, which cannot survive without the support of IT. Therefore, this study will provide a useful feedback to the IT policy maker for the bank and becomes a useful reference for other commercial banks for the formulation of appropriate strategies. The study will be very significant to those students and scholars who wish to make further research on the subject. The outcome of this study will provide evidence for other banks to improve upon their electronic banking services so that prospective customers will have better experiences with the service and hence the bank's profit will be affected through the revenue generated.

1.5 Limitations of the Study

Because of the infrastructure and level of computerization in the industry, it is clear that banks in future are going to be modern with inter connectivity facilitated by emerging technologies. Banks in future cannot survive without the support of Information Technology. Therefore, banks are to be prepared to exploit the opportunities that globalization and financial liberalization provides. The scope of the

study will be limited to the electronic banking services provided by the commercial banks in Nepal. Investigation will focus on some of the selected commercial banks of Nepal.

The study is highly constrained to the researcher due to the fact that there is not a ready data available to the subject matter. Another case in point is the fact that the busy schedules of commercial bank will make the study very cumbersome in that going for relevant information or data to aid the study would be stressful, and also due to the confidentiality clauses of the commercial bank, data needed is not readily available. The administering of questionnaires to busy respondents will pose a limitation to the study.

1.6 Organization of the Study

The entire research will be organized into five sections and the outline of each chapter is given as takes after. Chapter one is Introduction and it will present the Background of the whole study, Statement of the Problem, Research questions, Objectives of the Study, Significance of the study and Scope and Limitations of the study. The second chapter is literature review. It includes the reviews of relevant theories, research works and reports, journals, websites and other referenced sources. It likewise includes the theoretical framework used for the study. Chapter three will cover the methodologies used for the study. The fourth chapter will be the data presentation and analysis which will cover the presentation and investigation of information by method for figures, graphical presentation and insights. The fifth chapter will cover an outline of the research, conclusion and recommendation on the contribution of electronic banking to a bank's profitability and service delivery with commercial banks as a case study.

In **Chapter 1**, an introduction to the research area is given and the research purposes together with the research questions will be stated.

In **Chapter 2**, literature review will be done along with the theoretical framework used for the study.

In **Chapter 3**, the methodology used for this thesis will be discussed.

In **Chapter 4**, the data gathered from the respected sources and the users of electronic banking services will be presented and analyzed.

Finally, in **Chapter 5**, the presentation of this study's contribution will be brought up under conclusions. This chapter will also discuss the implications for the service providers and for the future research.

CHAPTER 2

LITERATURE REVIEW

2.1 Literature Review

Online banking primarily introduced in the early 1990's, uses the computer technology to give users the ability to manage their transactions on their own more quickly and efficiently from anywhere around the world by just a click of the mouse. Internet banking however is now use as the term for new age banking system. E-banking is having 24-hour access to banking operations such as through an Automated Teller Machine (ATM) with Personal Identification Number (PIN) or making a direct deposit into checking or saving accounts. Technologies has transformed the world of banking from traditional branch banking to a modern way of banking through the use of e-banking tools such as ATMs, e-utilities payments, e-loan applications among others. "Electronic banking is the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash through reducing bank costs, electronic banking can increase bank incomes." (Bahram Meihami, 2013)

Bhattacharjee (2001) expands this definition by stating that "e-banking is as an integrated system that can provide customers flexible, convenient and inexpensive platform with integrated services of online personal banking products including online checking and saving accounts, money market accounts, certificate of deposit, credit cards, home equity loan, home mortgage, insurance, investment services, portfolio management and other related financial services".

Singhal (2008) defined internet banking as the use of the internet deliver banking activities such as fund transfer, paying bills, viewing current and saving account balance, paying mortgages and purchasing financial instruments and certificate of deposits. Internet banking started with simple functions such as real time access to information about interest rate, checking account balances and computing loan eligibility. However, these services have graduated to online bill payment, transfer of

funds between accounts and cash management services for corporate organizations and individuals (Khan M.S. & Mahapatra, 2009)

The only way to stay connected to customers at any place and any time is through internet applications, it results in high performance in the banking industry through faster delivery of information from the customer and service provider (Williamson, 2006). In addition, e-banking is largely driven by the factors of minimizing the operating costs and maximizing operating profit, suggests (Simpson, 2002). According to (Centeno, 2004) the e-banking adoption factors are divided into two categories. 1) Factors relating to accessing technology. 2) Factors that are related to retail banking factors. The prior factors include skills on the part of consumers in using internet and other related technologies, attitudes towards technologies, internet penetration rate, Privacy and security concerns.

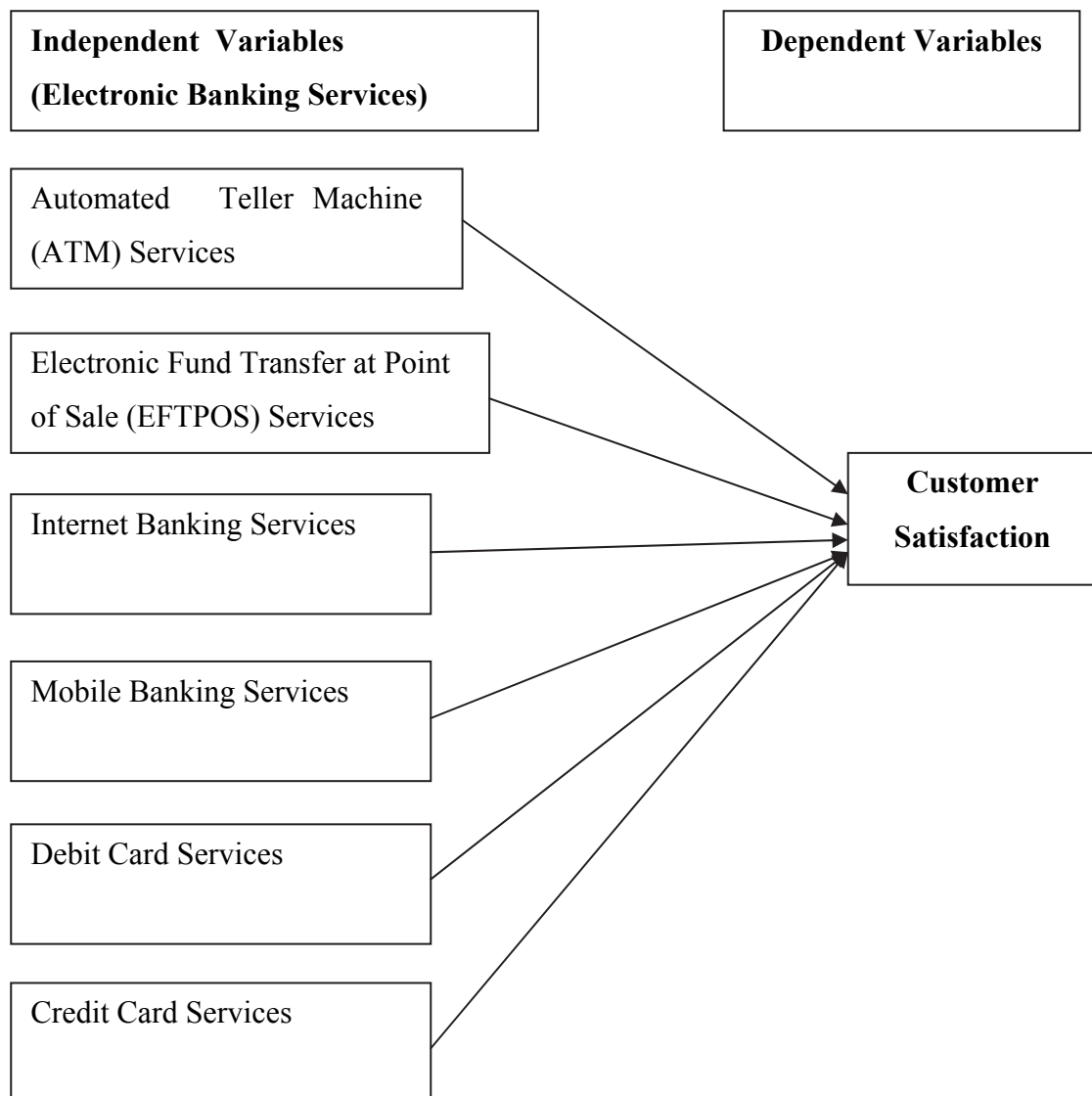
Avasthi (2000-01) Have analyzed in their study that advancement in technology are set to change the face of the banking business. Technology has transformed the delivery channels by banks in retail banking. It has additionally impacted the markets of banks. The study additionally explored the challenges that the banking business and its regulator face. The revolution of information technology has brought about fundamental transformation in the banking industry. Perhaps no other sector has been affected by advances in technology as much as the banking sector. It has the most important factor for dealing with the intensifying competition and the rapid proliferation of financial innovations. Thus, the service delivery of banking industry has changed from traditional branch banking to electronic banking services.

In any “business to customer” (B2C) type of environment, satisfying a customer is the ultimate goal of business. It is an important theoretical as well as practical issue for most marketers and consumer researchers because organizations sometimes do not really understand what actually goes on in customer’s mind (Fournier, 1999). The concept of customer satisfaction is equally important for service organizations, such as banks, as many of them subscribe to the fact that higher customer satisfaction will lead to greater customer loyalty (Boulding, 1993) which in turn leads to future revenue. “Customer satisfaction” not only means a happy customer but rather more

than that. The concept of customer satisfaction is a synthesis of two distinct words i.e. customer and his/her satisfaction. In common language, the word “customer” means a buyer who purchases a product or avails a service from another. “Satisfaction” occurs when one gets what one needs, desires, expects, deserves or deems to be one’s entitlement. (Oliver R. , 1980) Defines customer satisfaction as product performance equivalent to customer expectation. (Oliver R. , 1981) Expressed satisfaction as a psychological state resulting from a process of emotional and cognitive evaluation. Satisfying a customer in any banking business is the ultimate goal and objective. Satisfaction of customers is being generated through quick services, affordable service charge, easiness of depositing and withdrawing money, ATM booths, and account statement over SMS/e-mail services and error free records.

2.2 Theoretical Framework

The research is based upon the analysis and interpretation of dependent (customer satisfaction) and independent variables (Automated Teller Machine (ATM), Internet and Mobile banking, Credit cards, Debit cards and Electronic Fund Transfer). Information Technologies (ITs) have changed the approaches to directing business exchanges and meeting the developing demands of customer for most associations. The presentation of ICT into the banking business has led to a potential increase in the customer base, reduction in exchange costs, improvement in the quality and timeliness of response, enhanced opportunities for developing and branding, facilitate self-service and service customization and improvement in customer correspondence and relationship (Garau, 2002). The normal types of electronic banking services basically include Mobile Banking, Internet Banking, Automated Teller Machine (ATM), Debit Card, Credit Card, and Electronic Fund Transfer at Point of Sale (EFTPOS) etc.



2.3 Hypothesis

Based on the objectives of the study, theoretical and empirical literature review of the impact of e-banking service delivery on customer satisfaction following hypothesis are developed.

Hypothesis 1: There is significant impact of ATM services on customer satisfaction in private commercial bank in Nepal.

Hypothesis 2: There is significant impact of Internet Banking services on customer satisfaction in private commercial bank in Nepal.

Hypothesis 3: There is significant impact of Mobile Banking services on customer satisfaction in private commercial bank in Nepal.

Hypothesis 4: There is significant impact of Credit Card services on customer satisfaction in private commercial bank in Nepal.

Hypothesis 5: There is significant impact of Debit Card services on customer satisfaction in private commercial bank in Nepal.

Hypothesis 6: There is significant impact of Electronic Fund Transfer services on customer satisfaction in private commercial bank in Nepal.

CHAPTER 3

RESEARCH METHODOLOGY

Research methodology refers to the adopted method that is followed by a set of procedures applicable for a particular study. This chapter will show the research approach and the process followed to obtain relevant data for the study. In view of that, this chapter will focus on the research design, the population and sampling procedure, sources and nature of data and data analysis technique and tools.

3.1 Research Design

The study will be based on descriptive and casual research design. To describe the components of e-banking services descriptive research design will be used. Similarly, casual design helps to determine the relationship between dependent (customer satisfaction) and independent variable (e-banking services). Further casual research design will be used to examine the impact of e-banking service delivery on customer satisfaction of banking industry in Nepal. The study will use quantitative method for data collection for the purpose of analysis. Mainly structured questionnaire survey will be used to generate response based on which statistical analysis will be done to test hypothesis.

3.2 Population and Sample

Population is the complete set of cases or group from which a sample is taken. The sample is a subset of a larger population, selected by the researcher to participate in a research project. For this study all 28 commercial banks (Until November 2017) operating in Nepal will be the total population.

Sample is a sub set or some part of the larger population. The purpose of sampling is to reduce expenses in term of money, effort and time. A total of 120 respondents will be taken in this study and all of them will be banking customer. These customers will be selected using simple sampling technique. This strategy was chosen because sampling participants using the list of customers of the bank was a challenge. The accidental sampling (sometimes known as convenience or opportunity sampling) used

is a type of non-probability sampling which involves the samples being drawn from that part of the population which is close to hand. That is, a participant is selected because it is readily available and was convenient to be selected. In this study, the participants will be approached as they enter the banking hall for business and they agreed to participate in answering the questions on the questionnaire.

3.3 Sources of Data

Primary sources of data will be used to collect and analyze the impact of e-banking services and customer satisfaction.

3.3.1 Primary Sources of data Collection

The study research is based on the primary source of data for research questions. Primary data are the first hand data collected by the researcher to test the working of hypothesis and then used as evidence to support a researcher's claim. For the purpose of primary data the researcher used questionnaire method to collect the data. The respondents were requested to fill the questionnaire and were made fully aware about for what purpose the research was being carried out and the main objective of the study. This method of collecting data made a better understanding of customer regarding e-banking services and customer satisfaction of banking industry in Nepal. The questionnaire were distributed and collected during any flexible time of respondent and researcher.

3.4 Data Collection Techniques

Data collection is a process of gathering information from identified respondents to answer the research questions. This study will mainly base on the primary data. Primary data sources include observations, experiments, social surveys like questionnaires and interviews. Questionnaire methods will be used in this research to get information from the respondents.

3.5 Data Analysis

The frequency tables that reports the percentage of each of the categories and frequency that are easy to understand and interpret were used. Other than the descriptive analysis, correlation and regression analysis were conducted to validate the hypothesis.

3.5.1 Descriptive Analysis

Descriptive statistics will be used to explain the demographic characteristics of the respondents along with e-banking services and customer satisfaction. Frequencies, percentages, mean and standard deviation was calculated to describe the variables.

3.5.2 Correlation Analysis

The correlation coefficient will be used to depict the association of e-banking services and customer satisfaction.

3.5.3 Regression Analysis

To examine the impact of e-banking services and customer satisfaction, regression model will be used. The model is specified as:

$$Y = \beta_0 + \beta_1 (\text{ATM}) + \beta_2 (\text{Internet Banking Services}) + \beta_3 (\text{Mobile Banking Services}) + \beta_4 (\text{Credit Card Services}) + \beta_5 (\text{Debit Card Services}) + \beta_6 (\text{Electronic Fund Transfer Services}) + e_i$$

Where,

Y = Customer Satisfaction

Regression Coefficients = $\beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5 + \beta_6$

Error term = e_i

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