CHAPTER I

INTRODUCTION

1.1 Background of the study

Barri Segal and Laura woods (2018) online banking has become so widespread today that customers expect accounts to include free online banking and many banks only operate on the internet, effectively decreasing overhead costs to offer more competitive rates on savings accounts and enjoy higher profit margins. 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 business it is a need.

In a survey on consumer billing and payment trends, Fiserv, a financial services technology company, found that online and mobile banking were growing at a faster pace that the internet. Online banking has continued to evolve as more innovations and conveniences have been offered (Moraru, A.,& Duhnea,C.2018).

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 network as channel of providing banking services. In addition, this new channel of electronic of online banking is known as e- banking (Subedi, P.P.2019).

Customers are the key contribution for the success and survival of any business and this is the same for banking sector also. So, need arises not 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 faster growing in banking practice now days .Moreover, customer 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 development 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 (Morawetz,K.2018).

Yoon, C.(2010) E- banking services first emerged in the early 1990's, when credit card ,ATM and telephone banking services were three major application .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 2 enquiry, e-payment, 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 baking 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. With the advancement in the technology one of the latest technology

adopted by the bank is the e-banking (electronic banking)(Mukherjee,2004).E – banking is a quick spreading services 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 innovation 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 operation cost to the bank but also leads to higher level of customer satisfaction and retention. As a result, e-banking is very attraction to banks and customers who are adopting new technologies.

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 banks cost, electronic banking can increase bank income. E-banking generally means that a home user direct dials the bank via a modern or network card logging on to the internet via an internet services 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 transaction 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 week.

Globalization of economies and financial liberalization within the economics has opened new opportunities of growth for technology-based institution, while for the others these have resulted in shrinking of revenue. 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, (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 customer had to wait for 65 years to use the E-banking services 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 Services Delivery of Nepalese Commercial Banking .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

The Nepalese banking industry has transformed tremendously over the last decade. Previously the banking industry was with simple electronic like ATM and SMS alert. This made all customers of banks to personally walk to the banking hall to be able to transact simple transaction 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, 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 customer which enhance services delivery and also improve banks profitability.

The banking industry in Nepal is highly competitive, and the combinations of this with the growing sophistication of the customer have led to the adoption of technology by most commercial banks to delivery banking services. Nepal is yet a developing country: there are many ambiguities about the application of e-banking. Therefore, there is a need to understand how commercial banks are practicing e- banking and delivering the better services. 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 services 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 question.

1. What are the facilities provided by the Nepalese Private commercial Bank under E-Banking Services?
2. Is there any impact of e-banking services 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 objective of the study rests upon the examination and analysis of e-banking services provided by commercial banks and its impact on customer satisfaction and services delivery. More over the study has specified 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, theoretical and literature review of the impact of e-banking services 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 Electronic Fund Transfer services on customer satisfaction in Nepalese private commercial bank.

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

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

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

Hypothesis 6: There is significant impact of Debit Card services on customer satisfaction in Nepalese private commercial bank.

1.5 Rationale of the study

The study mainly focused the commercial bank in terms of "services delivery" and "customer satisfaction". This study contributes to knowledge and serves as source of reference in the academia. The utilization of Information and communication technology (ICT) in the banking industry has affected services 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 services 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 transaction; this study will help them to get the concept of internet services available to them. Today most of the part of 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 experience with the service and hence the bank's profit will be affected through the revenue generated .It is expected and hoped that the finding of this study would contribution and the other relevant issues.

1.6 Limitation of the study

The study seeks to ascertain the impact the electronic banking services delivery on customer satisfaction in Nepalese private banks. 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 Nepal. Investigation will focus on some of the selected commercial banks of Nepal. Through there has been in operation of 27 commercial banks in Nepal, most of the banks are using e-banking, but only 5 banks has selected as sample.

The study is highly constrained to the researcher due to the fact that there is not ready data available to the subject matter. Another case in point is fact that the busy schedules of commercial bank will make 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 availability. Many respondents have a little knowledge about the e-banking services in Nepal. They have not enough time for responding to the questionnaires. The administering of questionnaires to busy respondents will pose a limitation to study.

1.7 Chapter plan

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 table, 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 reference, 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 services 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 variable based on previous literature.

The third chapter discusses researcher 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 compromises of various tables, figures intended to answer the purpose and research question 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 have been reviewed and presented. The related e-banking services 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 completion 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 services quality. 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 services 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 services and may not hold for another services 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 services quality is interrelated with each other.

As electronic banking is becoming more prevalent, so is the level of customer services 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 coat. 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 services 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

Contrastivism or the contrast theory of meaning, is an epistemological theory proposed by Jonathan Schaffer that suggests that knowledge attributions have a ternary structure of the form 'S know that p rather than q'. This is in contrast to the traditional view where by knowledge attributions have binary structure of the form 'S knows that p'. Contrastivism was suggested as an alternative to contextualize. Both are semantic theories that try to explain Skepticism using semantic methods (Wikipedia Information Technology, 2019).

Contrast theory was first introduction by Hovland, Harvey and Sherif (1987). It define confine theory as the tendency to magnify the discrepancy between one's own attitudes and the attitudes represented by opinion statement. Contrast theory presents an alternative view of the consumer post-usage evaluation process than was presented in assimilation theory in that post-usage evaluation 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 surprises effect occurs leading to the discrepancy being magnified or exaggerated. According to the contrast theory, any discrepancy of experience from expectation 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/services would be rejected as totally un-satisfactory. Conversely, under- promising in

10

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 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 (2019). Rogers argues that diffusion is the process by which an innovation is communicated over time among the participations 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 teachers critical mass.

Diffusion of innovation is all about understanding trends, and factoring in consumer tendency groups like influencers, early adopters, and those "laggards" that vex company marketing executives so much. Economists have credited the diffusion of innovation theory for major-even historic-advancements in history, including the on-ramping and commercial usage of the printing press, paper, explosives, and other consumer and business innovations (Brian o'connell, 2018).

The categories of adopters are innovations, early majority, late majority, and laggards. Diffusion manifests itself in different ways and is highly subject to the types 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 choice may be discretionary (where the individual or organization has a genuine chance to receive or reject the though), 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).

The change operators capacities are: to build up a requirement for change with respect to the customer; to set up a date 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

A banking system in which customers can view their account detail; pay bills, and transfer money by mean of the internet. E- Banking or electronic banking is a major innovation in the field of banking. It 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 (Robinson, 2000).

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. 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 (Pikkarainen,2004).

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 institution, enabled new financial products and services, and services,, and made existing financial services available in different package(Agbada,2008).

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 the 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 Services Delivery". Hence,

this translates into improved customer services 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 (Wise and Ali,2009).

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 device 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. Technology has transformed the world of banking from traditional branch banking to a modern way of banking the use of e-banking tools such as ATMs, e-utilities payments, e-loan applications among others.

The bank gives the opportunity to its customers to gain access to their account and the implementation of their transactions and purchase products delivery via the internet. A portal through which customers can all kinds of banking services from paying bills and end of the financial investments (Ahmand and al Zubi, 2011).

"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 banki8ng 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. It 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 witnessed a major boom. Being a globalized market, the customers seek and demand world class products. In today's global market, the competitive advantage lies in delivering high quality services 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. E-banking is "a high–order construct comprising several distribution channels". Although generally seen as banking through the internet, it is a concept which is larger than just the delivery of banking services via the internet(Business times, September 2013).

E- banking therefore, is a transactional online, online banking which comprises of systems that allow, including buying of financial products/services and make other enquiries through public or private networks. E- banking services are providing to customers through various forms, including Automated Teller Machines ATMs, Telephone Banking, Computer Banking, Internet' Online Banking and Mobile Banking (Sarlak, 2010).This has offered customers of banks that operate e-banking the ability to access the e-banking services with the aid of electronic devices, including personal computers (pc), personal digital assistant (PDA), automated teller machine (ATM) and telecommunication routes.

E-banking refers to all the financial transactions undertaken by any financial institution over the internet. From paying bills and transferring money into accounts to applying for loans, you can take advantage of all the facilities that a traditional bank offers-without even having to get off your comfy couch (Merrchat Blog, 2018).

In Nepal the use of modern technology in banking system is no so old just like that in develop countries though it's becoming mushrooming so faster and emerging successful. Several innovation IT based services such as Automated Teller Machine (ATM), Internet banking, Mobile banking, Credit cards, Debit cards anywhere anytime

banking have provided number of convenient services to customer so as the services quality improves.

2.3 Forms of electronic banking

Our modern life today is hard to imagine without information and communication technology as it has changed our daily life dramatically. Information Technologies (Its) have changed the approaches to directing business exchange 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, exchanged opportunities for developing and branding, facilitate self- services and services 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 services and Credit Card Services.

2.3.1 Automated Teller Machine (ATM)

An automated teller machine (ATM) is a computerized telecommunication device that provide the customer of a financial institution with access to financial transaction in a public space without the need for a human clerk of bank teller. 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 bank statements etc. It saves customers time in services 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 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 Sales (EFTPOS)

Electronic fund transfer are electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, via computer based system, without the direct intervention of bank staff. 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 services 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. Sale center and department store are where POS is used.

2.3.3 Internet Banking

Internet banking is a convenient way to do banking from the comfort of our home or office. Avoid the queue or delays and try our simple and secure Internet Banking facility for an unmatched online banking experience. The banking services, which includes every single customary services 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). 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 is a services provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smart phone or tablet.(Wikipedia) 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 Internet but can also use special program downloaded to mobile device.

2.3.5 Debit Card

A debit card is a payment card that deducts money directly from a consumer's checking account to pay for a purchase. Debit cards eliminate the need to carry cash or physical checks to make purchase, In addition, debit cards, also called checks cards, offer the convenience of credit cards and many of the same consumer protections when issued by major payment processors like visa or MasterCard. Debit card usually also allows for instant withdrawal of cash, acting as an ATM card for withdrawing cash. Merchants may also offer cash backs facilities to customers, where a customer can withdraw cash along with their purchase. 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 to enable the cardholder to pay a merchant for goods and services based on the issues to pay them for the amounts 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 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 services delivery and Satisfaction

Customer Satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services ratings exceeds specified satisfaction goals"(Wikipedia,2019).

Customer satisfaction is very important feature of all commercial banks as satisfied customer tend to revisit and use the services of bank again and again whereas

unsatisfied customers tend to prefer other competitive banks. (PPT on customer satisfaction in banking sector ,2017)

Salhiel et al.(2013) Provide banking services to customers and allow them to carry out financial operation of (withdrawals and deposits, transfer funds, pay bills, request loans, make sure the account balance … and others) 24 hours through the internet. 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. This is the reason why banks listen to customer requirements and complains. Profitable business cannot exist without satisfied customers, especially in services oriented industries. Customer satisfaction is a customer's felling of pleasure or displeasure after he or she has distinguished a performance of a product services with respect to his or has expectancy. Consistent with these definitions, and in so far as this study is concerned, customer satisfaction is the attitude of the customer formulated in response to using any form of E-banking services. According, E-banking attributes may increase, decrease, or keep the same customer satisfaction.

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. Avashthi (2001) 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 sectors . It has the most important factors for dealing with the intensifying competition and the rapid proliferation of financial innovations. Thus the services delivery of banking industry has changed from traditional branch banking to electronic banking services. In any "business to customer "(B2C) type of as practical issue for most marketers and consumer researchers because organization sometimes do not really understand what actually goes on in customer's mind.The concept of customer of customer satisfaction is equally important for services

organizations, such as banks, as many of them subscribe to the fact that higher customer satisfaction will lead to greater customer loyalty which in turn leads to future revenue ."Customer satisfaction "not only means a happy customer but rather more than that. The concept of customer and his/ her satisfaction .In common language, the word "customer" means a buyer who purchases a product or avails services from another. "Satisfaction" occurs when one gets what one need, desires, expects, deserves or deems to one's entitlement.

Satisfaction is an overall customer attitudes towards a service provide, or an emotional reaction to the differences between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire. Satisfaction is not simply an overall evaluation of a services experience, but an influence of different components of the services (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 .Thus, the unique characteristics of internet based services are extensive human- computer interactions and high level self–services may imply that customers perceive satisfaction from online services differently when contrasted with their offline counterparts. 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 facilities cost-effecting decision thinking and applications on the part of the e-bank's operations and IT managers to enhance customer services quality, develops trust in customers and boosts market share in this expanding but increasingly competitive business area. It thus, generates customer satisfaction and satisfaction and also customer commitment.

2.5 Benefits of e-banking

E-banking provides many benefits for banks and customer's. E-banking has made life much easier and baking much faster for both customers and banks. To begin with a foremost benefit e-banking services 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.

Main Benefits/ Advantages are as follows:

- ⟩ It saves time spent in banks.
- ⟩ It provides ways for international banking.
- ⟩ It provides banking throughout the year 24/7 days from any place have internet access.
- ⟩ It provides well- organized cash management for internet optimization.
- ⟩ It provides some security and privacy to customers, by using state –of- the- art encryption and security technologies.
- ⟩ Offers convenience to customer since they are not required to go to the bank's facilities.
- ⟩ There is a very low incidence of errors.
- ⟩ The customer can obtain funds at any time from ATMs.

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, 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 development of new plans of action.

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 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 Challengers of e-banking

E-banking presents both opportunities and challenges to various stakeholders. According to Miryala (2015), e-banking leads to poor relationship between the bank customer and bank officials, as most electronic banking services do not allow for face-to- face interaction with the customer .A number of these services however provides avenue for feedback from the customer through phone calls or text messaging. It was further suggests that some e-banking products involve complex transactions or process that must go through. The customer therefore tends to shy away from the patronage of products that seem complicated. A number of e-banking products, services involve the use of the internet which comes with both perceived and real security threats including attacks from hackers, phishing, malware and identity theft that could result in an unauthorized access to a customer's account.

Security remains a key challenge for banks implementing e-banking as the threats exists from within or outside the bank. To the security challenges includes breaches leading to unauthorized access to the bank's system, attacks in the form of "brute force", "hijacking", "sniffing" or spoofing for access to customer information and accounts. The breaches also occur at the customer's end when security details such as account number and passwords are shared or kept loosely. Nsouli & schaechter (2002) further asserts that Banks are also faced with risks associated with the implementation of e-banking including regulatory, legal and operational risk.

The management of technology is also a key challenge for banks implementing e-banking . For an efficient implementation of e-banking, it is essential to develop or acquire the appropriate technology, deploy it optimally and then leverage it to the maximum level. Banks have the challenge of achieving and sustaining optimum services and adeptness of standards for e-products, while remaining cost effective and providing viable dividend to shareholders (Miryala, 2015). It was also asserts that banks are posed with the challenge of preventing the use of the e-banking channels for unlawful activities such as money laundering. Ensuring constant availability of e-banking services, including functional ATMs , preventing system breakdown , slow

network, as well as providing user friendly website are some other challenges confronting banks that are implementing e-banking.

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 administration that have not been institutionalized. Financial institutions should therefore provide reliable services to help customers gain easy access at all times.

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 forwarded and the use of questionnaires, 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) conducted 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 firm have heard of internet banking whiles 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.

Ahmad (2011) studied 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.

Bhosale & Nalawade (2012) identified that E- banking is the main provision of banking services through electronic channels and customer can easily use it without any geographical limitation. The new technology creates huge competition in the market but the changing market conditions demands to better understand the consumers need. This paper considered the advantages and disadvantages of E-banking.

Narayana & Paramashivaiah (2013) studied take into the consideration the overall satisfaction level of customer using internet banking services. The study explore relationship between customer satisfaction and services quality of the bank the main aim of study was to investigates the factors that influence the level of satisfaction of online customer in Nepal. The used tool of this study was regression analysis.

Kaur & Kiran (2014) also found that customers show preference for electronic banking platforms relative to branch banking because they often convenience and reduced manpower costs. Technology adoption reduces the manpower needs of business organizations.

Kwarteng (2015) explored the nexus between electronic banking and customer services delivery in Kumasi, Ghana. A sample of 69 bank customers and 29 bank staff were selected from three branches of three deposit money banks based on purposive sampling technique. The study showed branch banking as the preferred delivery channel for banking services in spite of the high level of awareness of electronic banking services among the respondents and the long queues associated with branch banking. However, to the extent that digital banking is used among the study group, the ATM channel was preferred.

Choudhury & Bharttachargee (2016) used the survey method to examine the nexus between electronic banking channels and customer loyalty. The study was based on data collected from a sample of 400 salaried employees selected through the stratified random sampling method. Electronic banking services delivery channels were evaluated based on Ease of use, usefulness, cost-saving and self control while loyalty was measured in terms of attitudinal loyalty and behavioural loyalty.The result showed that electronic banking delivery channels have strong positive impact on customer loyalty.

Khatri (2017) uses data from five banks and 60 of their customers to analyze internet banking. They find out that through 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 off 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.

Singh (2018) the examination paper was centered around to distinguish the elements that are the boundaries for the use of web banking administrations and furthermore to contemplate the impression of client about web banking. The investigation distinguish the nine components for example cost, unwavering quality, handling boundaries, security issues, innovative incontinence, absence of foundation, regular methodology, hazard and opposition, which never the hindrances in the utilization of Internet Banking administrations in the semi-urban regions.

Otech, Ibok and Nto (2019)aimed at identifying the various e-banking channels, their level of usage and their implications for financial deepening in Nigeria using a sample of 120 respondents (business owners) selected from two markets in Aba North and Aba south local Government Areas of Abia state, Nigeria sample selection was based on multi-stage sampling technique. The authors found ATMs/Debit cards as the most preferred channel.

2.8 Research gap

The present study attempts to examine the impact of electronic banking services 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. There are many study have been done related to customer satisfaction on marketing sector but there is little study in banking sector, So this study has tried to fill up this gap. And all the previous researches in Nepal had not incorporated all these variables to examine the impact of e-banking services 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 (2015) 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 the advent of 21 century, E-Banking revolution has an impact nearly each facet of human life. The new data technologies have some alters the whole image of services sectors (Gautam, 2015) .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 (2015) 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 tellerimply more productivity for the bank during banking hours. An ATM is defined as an automated telecommunication device that enables consumers to access banking services without any need for bank operators. Sasidharan and Mathews (2008) discussed the advantages of ATMs, such as access to various banking operations, fund withdrawals, bill payments, fund deposits, access to statements, and 24-7 banking services/ ATMs are also convenient, innovative, safe, and play a role as a value- added services to attract many new clients. As discussed, out- of-branch services accessibility and other physical factors of banking services can lead to an increase in the bank's market share. Moreover, ATM services can be found in every location.

Electronic Fund Transfer at Point of Sale (EFTPOS) Services

One of the most prevalent channels of providing new banking services is the POS terminal which is an electronic device used for credit and debits cards transactions at retail locations, such as shops, restaurant and hotels. It enables customers to perform banking transactions using their credit or debit cards, 24 hours a day. POS terminals are accessible, and they significantly facilitate banking transactions: thus, they can lead to improvement of the bank's market share (Salhiel et al, 2013).

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). Internet banking provides various online services, such as balance enquires, ordering checks, instructions for various services (such as balance transfer, opening accounts, perusing account balance), making payments, paying bills, transferring cash, saving and investing money, printing money.

Mobile Banking Services

Mobile banking is accessible through short message services SMS technology, wireless applications. Mobile banking has many benefits.AS a case in point, the problem of inaccessibility to physical branches has vanished because of these kinds of practical and frugal services. Consequently, financial services are available to the majority of people. Furthermore, mobile phones have improved services quality, since customer can accomplish transactions whenever they want (Schierholz and Laukkanen 2014).

Debit Card Services

A debit card is a payment card that deducts money directly from a consumer's checking account to pay for a purchase. Debit cards eliminate the need to carry cash or physical checks to make purchase directly from your savings. In addition, debit cards, also called "check cards", offer the convenience of credit cards and many of the same consumer protections when issued by major payment processors such as visa or master card. Unlike credit cards, debit cards do not allow the user to go into debt, except perhaps for small negative balances that might be incurred if the account holder has signed up for overdraft protection. Debit cards usually shave daily purchase limits, meaning it may not be possible to make an especially large purchase with a debit card (Amy Fontinelle, 2019).

Credit Card Services

A credit card is a thin rectangular slab of plastic or metal issued by a financial company, that lets cardholders borrow funds with which to pay for goods and services. Credit cards impose the condition that cardholders pay back the borrowed money, plus interest, as well as any additional agreed-upon charges. Credit cards feature higher annual percentage rates (APRs) than other forms of consumer loans. Interest charges to the unpaid balance charged to the card are typically imposed one month after a purchase is made. By law, credit card issuers must offer a grace period of at least 21 days before interest on purchase can begin to accrue. That's why paying off balance before the grace period expires is a good practice when possible(Thomas J. Catalano 2019).

CHAPTER III
RESEARCH METHODOLOGY

The chapter discusses, in detail, the methodology the researcher adopted in undertaking this research. It provides a description of methods and reasons for their adoption during the data gathering process of the study. 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

The study is based on descriptive and casual research design. To describe the components of e-banking services descriptive 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 services delivery on customer satisfaction of banking industry in Nepal. A descriptive study is undertaken in order to ascertain and 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

 The sample is a subset of a larger population, selected by the researcher to participate in a research project. For this study all 27 commercial banks operating in Nepal are the total population.

The sample is selected from the total population. The purpose of sampling is to reduce expenses in term of money, effort and time. Total question for the study was 150. Out of 150, only 120 were collected from the respondents. Out of 120, only 80 meet the study requirement. 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 source includes observations, experiments, social surveys like questionnaires and interviews. Questionnaire method is used in this research to get information from the respondents.

3.4.1 Questionnaires

Our methodological approach is to use a questionnaire in order to measure the effects of Electronic Banking efficiency over customer satisfaction in Nepal, and analyzes the dimensions of E-Banking services that would affect customer satisfaction. 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 disagrees, 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 responses were mainly analyzed using SPSS software to test whether the study tools were valid or not. The questionnaires used were distributed randomly to the banking customers. Feedback and reviews received from them as well as expert's opinion were incorporated and questionnaires were adjusted accordingly.

3.6 Reliability test

Reliability test 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	4	0.881
Internet Banking Services	4	0.821
Mobile Banking Services	5	0.885
Credit Card Services	3	0.781
Debit Card Services	3	0.891
Electronic Fund Transfer Services	3	0.865
Customer Satisfaction	3	0.929
Total	25	0.946

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 services delivery on customer satisfaction.I t is observed that Automated teller machine has Cronbach's Alpha of 0.881, Internet banking services has Cronbach's Alpha of 0.821,Mobile banking services has Cronbach's Alpha of 0.885, Credit card services has Cronbach's Alpha of 0.781, Debit card services has Cronbach's Alpha of 0.891, Electronic fund transfer services has Cronbach's Alpha of 0.865 and Customer satisfaction has the Cronbach's Alpha of 0.929.The table 3.1 revealed that Cronbach's Alpha for all the statement are above 0.7 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 table 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:

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

Where,

Y=Customer Satisfaction

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

Error term = ei

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 collected from surveys. The data are analyzed statistically and result are presented and interpreted. With an aim to fulfill the objection of the study, the collected data through questionnaire had been analyzed using statistical tool. This chapter also covers 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 questionnaires sent to potential respondents, only 120 responses were collected. There were eight 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 112 respondents were collected and analyzed. Out of the total respondent's male respondents accounted for 42.9 percent (48) of the sample and female respondents accounted for 57.1percent (64) of the total sample. This shows that there is slightly higher number of female respondents in comparison to male 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 20.5 percent of the respondents. It is followed by age group by 31-40 years group representing 61.6 % of the respondents and 17.0% were between the ages of 4% to 50 years. This could be as a result o the banks being on a tertiary institution campus where majority of the customers are students. This finding suggest that most of the customer were found in the working ag 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 60 Master's and above programmers representing 53.6% while 48 representing 42.9% were Graduate holders and 4 representing 3.6% 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 6.3% followed by the 301,000 -500,000 representing 25.0%, 101,000 – 300,000 representing 36.6% and 32.1% of representing 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 112 respondents, 15 respondents representing 13.4% have been using the services for less than one while a total of 28 representing 25.0% have been using the services for about 1 -2 years. IT was also found that, 27 respondents representing 24.1% have been using the services for about 2- 3 years , 18 respondents representing 16.1% have been using the services for about 3-5 years and 24 respondents representing 21.4% have been using the services for more than 5 years.

Table 4.1 Demographic Profile of the respondents

Demography	Characteristics	Frequency	Percent
Gender	Male	48	42.9
	Female	64	57.1
Age Group	18-30	23	20.5
	31-40	69	61.6
	41-50	19	17.0
	51 years and above	1	0.9
Education	Under Graduate	4	3.6
	Graduate	48	42.9
	Master's degree and above	60	53.6
Income	Up to Rs. 100,000	36	32.1
	Rs. 101,000- Rs. 300,000	41	36.6
	Rs. 301,000- Rs. 500,000	28	25.0
	Rs. 501,000 and above	7	6.3
Years of using e-banking services	Less than 1 year	15	13.4
	1-2 years	28	25.0
	2-3 years	27	24.1
	3-5 years	18	16.1
	More than 5 years	24	21.4

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, Internal 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 man 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 where as 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 "ATM does not share my personal information with others" with mean score value of 5.12. It means that the particular factor is most agreed among the component of Automated Teller Machine services. Similarly, the lowest mean score is 4.68 for the statement "There is less queuing using the ATM" which shows that the most of the respondents agrees less compared to other statement.

Likewise, the highest standard deviation is 1.1795 for the factor "Transaction on the ATM is secured" which shows that high risk is associated with this particular factor among the factors of Automated Teller machine. Similarly, the lowest standard deviation is 0.927 for the factor."ATM does not share my personal information with others which represents it has low risk associated among the factors of Automated Teller machine.

Table4.2 Descriptive Statistics of Automated Teller Machine Services

Statement	Minimum	Maximum	Mean	Std. deviation
The ATM makes cash withdrawal very convenient	1.00	6.00	5.045	1.085
There Is less queuing using the ATM	2.00	6.00	4.679	1.076
Transaction on the ATM is reliable	1.00	6.00	4.821	1.181
ATM does not share my personal information with others	1.00	6.00	5.116	0.928

4.2.2 Internet banking services

AS presented in table 4.3 the highest score of mean is for "Statement can be required through internet banking" with the mean value of 5.179. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly the lowest mean score is 4.893 for the "Transaction via internet banking is secured" which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 1.176 for the factor "Transaction via internet banking is reliable" which shows that high risk is associated with the particular factor among the factors of internet banking services. Similarly, the lowest standard deviation is 0.785 for the factor "Statement can be required through internet banking" 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	1.00	6.00	4.893	1.007
Transaction via internet banking is reliable	1.00	6.00	4.929	1.176
Internet banking does not share my personal information with others	1.00	6.00	5.036	0.899
Statement can be required through internet banking	2.00	6.00	5.179	0.785

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 5.268. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 5.071 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 1.002 for the factor "Transaction on mobile banking is secured" which shows that high risk is associated with the particular factor among the factors of mobile banking services. Similarly, the lowest standard deviation is 0/719 for the factor "Mobile banking does not share my personal information which represents it has low risk associated among the factors of mobile banking services.

Table 4.4 Descriptive Statistics of Mobile Banking Services

Statement	Minimum	Maximum	Mean	Std. deviation
Mobile banking makes banking very convenient	1.00	6.00	5.232	0.939
Transaction on mobile banking is secured	1.00	6.00	5.071	1.002
Mobile banking is easy to use	1.00	6.00	5.268	0.995
Transaction on mobile banking is reliable	1.00	6.00	5.179	0.808
Mobile banking does not share my personal information	2.00	6.00	5.223	0.719

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 5.554. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 5.321 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 0.938 for the factor "Credit card is very convenient while travelling" which shows that high risk is associated with the particular factor among the factors of credit card services. Similarly, the lowest standard deviation is 0.642 for the facto "Credit card helps to buy in advance and pay later" which represents it has low risk associated among the factors of credit card services.

Table 4.5 Descriptive Statistics of Credit Card Services

Statement	Minimum	Maximum	Mean	Std.deviation
Credit card helps to buy in advance and pay later	3.00	6.00	5.554	0.641
Credit card is very convenient while travelling	1.00	6.00	5.357	0.938
Online/ living expenses payment is easier	1.00	6.00	5.321	0.808

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 5.259. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.527 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 1.031 for the factor "Transaction via debit card is secured" which shows that high risk is associated with the particular factor among the factors of debit card services. Similarly, the lowest standard deviation is

0.917 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

Statement	Minimum	Maximum	Mean	Std.deviation
Transaction via debit card is secured	1.00	6.00	4.527	1.031
Transaction via debit card is reliable	2.00	6.00	4.705	0.917
Debit card is easy to carry	2.00	6.00	5.259	0.928

4.2.6 Electronic fund transfer services

As presented in table 4.7, the highest score of mean is for "Most efficient fund transfer is the payment method in the electronic fund transfer" with the mean value of 4.991. It means that the particular factor is the most agreed factor among the component of internet banking services. Similarly, the lowest mean score is 4.911 for the statement "Electronic fund transaction is very secured and reliable' which shows that most of the respondents agree less compared to other statements.

Likewise, the highest standard deviation is 0.964 for the factor "Electronic fund transaction is very secured and reliable" 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 0.844 for the factor "Most efficient fund transfer is the payment method in the electronic fund transfer" which represented it has low risk associated among the factors of electronic fund transfer services.

Table 4.7 Descriptive Statistics of Electronic Fund Transfer

Statement	Minimum	Maximum	Mean	Std.deviation
Electronic fund transaction is very secured and reliable	1.00	6.00	4.911	0.964
Electronic fund transaction is the fast processing with reasonable cost	1.00	6.00	4.973	0.925
Most efficient fund transfer is the payment method in the electronic fund transfer	2.00	6.00	4.991	0.844

4.2.7 Customer satisfaction

As presented in table 4.8. the highest score of mean is for" I will continue to use electronic banking services in the future of the bank" with mean score 5.214. It means that the particular factor is the most agreed factor among the component of customer's satisfaction. Similarly, the lowest mean score is 5.089 for the statement "I am satisfied about E- banking services of this bank" 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 0.865 for the factor "I am satisfied about E-banking services of this bank" which shows that high risk is associated with this particular factor among the factors of customer satisfaction. Similarly, the lowest standard deviation is 0.788 for the factor "I will continue to use electronic banking services in the future of the bank" which represents it has low risk associated among the factors of customer satisfaction.

Table 4.8 Descriptive Statistics of Customer Satisfaction

Statement	Minimum	Maximum	Mean	Std.deviation
I am satisfied about E-banking services of this bank	1.00	6.00	5.089	0.865
I will strongly recommend other to use online banking of this bank	1.00	6.00	5.134	0.865
I will continue to use electronic banking services in the future of the bank	1.00	6.00	5.214	0.788

4.3 Summary of descriptive analysis

The table 4.9 depicts that Credit Card Services (CCS) ranks first i.e. the highest mean value of 5.411. Similarly, Debit Card Services (DCS) ranks last i.e. sixth with mean value of 4.830.Likewise,Mobil Banking services (MBS), Internet Banking Services (IBS), Electronic Fund Transfer Services (EFTS), Automated Teller Machine (ATM) ranks second, third, fourth and fifth with mean value of 5.195, 5.009, 4.958 and of 5.195, 5.009 ,4.958 and 4.915 respectively. From the validity perspective, Credit card services ranks first with the lowest standard deviation of 0.672.Similarly, ATM ranks

sixth and has highest standard deviation of 0.919.Likewise, mobile Banking Services (MBS), Internet Banking Services (IBS), Electronic Fund Transfer Services (EFTS), Debit Card Services (DCS) ranks second, third, fourth and fifth with the standard deviation of 0.744, 0.788, 0.809 and 0.870 respectively.

Table 4.9 Descriptive Statistics Summary

Components of e-banking Services	Mean	Std.Deviation
Automated Teller Machine (ATM)	4.915	0.919
Internet Banking Services (IBS)	5.009	0.788
Mobile Banking Services (MBS)	5.195	0.744
Credit Card Services (CCS)	5.411	0.672
Debit Card Services (DCS)	4.829	0.869
Electronic Fund Transfer Services (EFTS)	4.958	0.809
Customer Satisfaction (CS)	5.146	0.786

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 -1and +1. The correlation between two variables can be positive (i.e. highest 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 result reflected in Table, the analysis depicts that the r value is 0.627 which indicates there is weak uphill positive linear relationship between Automated Teller Machine (ATM) and customer satisfaction. Moreover, the p value is 0.00 which is less than 0.05.It indicates that Automated Teller Machine (ATM) and customer satisfaction has statically significant association.

The analysis depicts that the r value is 0.674 which indicates there is weak uphill positive linear relationship between Internet Banking Services (IBS) and customer satisfaction. Moreover, the p value is 0.00which is less than 0.05.It indicates that Internet Banking Services (IBS) and customer satisfaction has statically significant association.

The analysis depicts that the r value is 0.733 which indicates there is weak uphill positive linear relationship between Mobile Banking Services (MBS) and customer satisfaction. Moreover, the p value is 0.00 which is less than 0.05.It indicates that Mobile Banking Services (MBS) and customer satisfaction has statically significant association.

The analysis depicts that the r value is 0.673 which indicates there is weak uphill positive linear relationship between Credit Card Services (CCS) and customer satisfaction. Moreover, the p value is 0.00 which is less than 0.05. It indicates that Credit Card Services (CCS) and customer satisfaction has statically significant association.

The analysis depicts that the r value is 0.696 which indicates there is weak uphill positive linear relationship between Debit Card Services (DCS) and customer satisfaction. Moreover, the p value is 0.00 which is less than 0.05.It indicates that Debit Card Services (DCS) and customer satisfaction has statically significant association.

The analysis depicts that the r value is 0.722 which indicates there is weak uphill positive linear relationship between Electronic Fund Transfer Services (EFTS) and customer satisfaction .Moreover, the p value is 0.00 which is less than 0.05.It indicates that Electronic Fund Transfer Services (EFTS) and customer satisfaction has statically significant association.

Table 4.10 Correlations of E-banking Services and Customer Satisfaction

Correlations		Customer Satisfaction	ATM (Automated Teller Machine)	Internet Banking Services	Mobile Banking	Credit Card Services	Debit Card Services	Electronic Fund Transfer Services
Customer Satisfaction	Pearson Correlation	1	.627**	.674**	.733**	.673**	.696**	.722**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	112	112	112	112	112	112	112
ATM (Automated Teller Machine)	Pearson Correlation	.627**	1	.796**	.789**	.686**	.747**	.733**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	112	112	112	112	112	112	112
Internet Banking Services	Pearson Correlation	.674**	.796**	1	.828**	.703**	.674**	.769**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	112	112	112	112	112	112	112
Mobile Banking	Pearson Correlation	.733**	.789**	.828**	1	.685**	.755**	.807**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	112	112	112	112	112	112	112
Credit Card Services	Pearson Correlation	.673**	.686**	.703**	.685**	1	.622**	.612**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	112	112	112	112	112	112	112
Debit Card Services	Pearson Correlation	.696**	.747**	.674**	.755**	.622**	1	.768**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	112	112	112	112	112	112	112
Electronic Fund Transfer Services	Pearson Correlation	.722**	.733**	.769**	.807**	.612**	.768**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	112	112	112	112	112	112	112

**.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 variables 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 0.645 percent of its variance.

Table 4.11 Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803[a]	.645	.625	.48153

a. Predictors: (Constant), Electronic Fund Transfer Services, Credit Card Services, Debit Card Services, ATM (Automated Teller Machine), Internet Banking Services, Mobile Banking

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.306	6	7.384	31.847	.000[b]
	Residual	24.347	105	.232		
	Total	68.653	111			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Electronic Fund Transfer Services, Credit Card Services, Debit Card Services, ATM (Automated Teller Machine), Internet Banking Services, Mobile Banking

Further, statistical estimates of the predictors of regression model have been reported in table 4.13. The results of the finding showed that the effect of ATM whose (b=-0.125, $p > 0.05$) 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= 0.039, p < 0.05) on customer satisfaction was found to be statistically significant because p- value is less than 0.05.

The effect of Mobile Banking Services (MBS) whose (b= 0.268, 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=0.328, 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= 0.194, 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=0.251, p > 0.05) on customer satisfaction was found to be statistically insignificant because p- value is greater than 0.05.

Table 4.13 Coefficients

Coefficients						
Model		Under standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.214	.393		.544	.587
	ATM (Automated Teller Machine)	-.125	.097	-.146	-1.295	.198
	Internet Banking Services	.039	.121	.039	.323	.747
	Mobile Banking	.268	.134	.254	2.004	.048
	Credit Card Services	.328	.102	.280	3.206	.002
	Debit Card Services	.194	.094	.214	2.068	.041
	Electronic Fund Transfer Services	.251	.109	.259	2.305	.023

a. Dependent Variable: Customer Satisfaction

4.6 Summary of result of hypothesis

Variables	Hypothesis	P- value	Results
Automated Teller Machine Services	H1:Thre is insignificant impact of Automated teller machine on customer satisfaction in private commercial bank in Nepal	0.198	Rejected
Internet Banking Services	H2: There is insignificant impact of internet banking services on customer satisfaction in private commercial bank in Nepal	0.747	Rejected
Mobile Banking Services	H3: There is significant impact of mobile banking services on customer satisfaction in private commercial bank in Nepal	0.048	Accepted
Credit Banking Services	H4: There is significant impact of credit card services on customer satisfaction in private commercial bank in Nepal	0.002	Accepted
Debit Banking Services	H5: There is significant impact of debit card services on customer satisfaction in private commercial bank in Nepal	0.041	Accepted
Electronic Fund Transfer Services	H6: There is significant impact of electronic fund transfer services on customer satisfaction in private commercial bank in Nepal	0.023	Accepted

4.7 Major finding

The key finding of the study are summarized as follows.

i. Out of the 112 respondents, 42.9 percent were male and remaining 57.1 percent were female.

ii. The majority of the respondents, 20.5 percent were of age group 18-30 followed by age group of 31-40 with 61.6 percent and 41-50 with 17.0 percent.

iii. The majority of the respondents, 53.6 percent have completed master's degree and above followed by Graduates with 42.9 percent and under graduates with 3.6 percent.

iv. In terms of years of using e- banking services, most of the respondents 25.0 percent have been using the e-banking services for 1-2 years. Similarly, only 21.4 percent of the respondents have been using e-banking services for more than 5 years.

v. Credit Card Services (CCS) has the highest mean value of 5.411 and Debit Card Services (DCS) has the lowest mean value of 4.829. Hence, it can be implied that banking customers were more satisfied with Credit Card Services (CCS) as bank gives more preference to credit card services in terms of customer satisfaction.

vi. Credit Card Services (CCS) has the lowest variation of 0.672 and Automated Teller Machine (ATM) has highest variation of 0.919. This shows that banking institutions in Nepal have been providing credit card services more than other services.

vii. The r value of ATM and customer satisfaction is 0.627 which indicates that there is weak uphill positive relationship. P value generated is 0.00 which indicated that ATM and customer satisfaction has statically significant association.

viii. The r value of Internet Banking Services (IBS) and customer satisfaction is 0.674 which indicates there is weak uphill positive relationship. Moreover, the p value is 0.00 which is less than 0.05.It indicates that Internet Banking Services (IBS) and customer satisfaction has statically significant association.

ix. The r value of Mobile Banking Services (MBS) and customer satisfaction is 0.733 which indicates there is weak uphill positive relationship. Moreover, the p value is 0.00 which is less than 0.05. It indicates that Mobile Banking Services (MBS) and customer satisfaction has statically significant association.

x. The r value of Credit Card Services (CCS) and customer satisfaction is 0.673 which indicates there is weak uphill positive relationship. Moreover, the p value is

0.00 which is less than 0.05. It indicates that credit Card Services (CCS) and customer satisfaction has statically significant association.

xi. The r value of Debit Card Services (DCS) and customer satisfaction is 0.696 which indicates there is weak uphill positive relationship. Moreover, the p value is 0.00 which is less than 0.05.It indicates that Debit Card Services (DCS) and customer satisfaction has statically significant association.

xii. The r value of Electronic Fund Transfer Services (EFTS) and customer satisfaction is 0.722 which indicates there is weak uphill positive relationship. Moreover, the p value is 0.00 which is less than 0.05.It indicates Electronic Fund Transfer Services (EFTS) and customer satisfaction has statically significant association.

xiii. Hypothesis 1 was rejected. The result showed that the impact of ATM on customer satisfaction was found to be statistically insignificant.

xiv. Hypothesis 2 was rejected. The result showed that the impact of Internet Banking Services on customer statistically insignificant.

xv. Hypothesis 3 was accepted. The result showed that the impact of Mobile Banking services on customer satisfaction was found to be statistically significant.

xvi. Hypothesis 4 was accepted. The result showed that the impact of Credit Card services on customer satisfaction was found to be statistically significant.

xvii. Hypothesis 5 was accepted. The result showed that the impact of Debit card services on customer satisfaction was found to be statically significant.

xviii. Hypothesis 6 was accepted. The result showed that the impact of Electronic fund transfer services on customer satisfaction was found to be statically significant.

4.8 Discussion

The main purpose of this study was to examine the impact of electronic banking services delivery on customer satisfaction in Nepal 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 (Parasuramn A.S. 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. Additionally, the finding of this study goes in line with that of by (Parasuramn A.B. 1988) in their empirical work they argue that "if the expected quality of services 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 services 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 predictive relationship between some of 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.

CHAPTER V
CONCLUSION

This chapter presents conclusion and implications that could be drawn from the study. It is divided into three sections. In the 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 Conclusions

The study investigated the practices of e-banking services delivery in banking industry. Along with that, the study had also analyzed the impact of electronic banking services 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-banking users are between the age of 31 up to 40, gender wise the female 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 CCS has the lowest variation of 0.672 and automated teller machine has highest variation of 0.919. This shows that banking institutions in Nepal have been providing credit card 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 services and impact in improving customers to control their account movements.

5.2 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 transfer 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 some challenges which hinder 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 services satisfaction. E-banking services should expand as much as possible in order to reduce the visit of bank hall for customer 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 services 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 services 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 customer" satisfaction empirically.

The types of services providing 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 providing 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, insurances, trading, manufacturing and technology.

REFERENCES

Agbada, J. (2008). Technological innovations and banking in Ghana: An evaluation of customer's perceptions. *IFE Psychologla, 13*(1).

Ahmad, A.M. (2011). Improving customer service in the banking industry-case of Ghana commercial bank (GCB)-Ghana. *International Business Research, 5*(4).

Ahmad, A. M., & Al-Zu'Bi, H. A. (2011). E-banking functionality and outcomes of customer satisfaction: An empirical investigation. *International Journal of Marketing Studies, 3*(1).

Avasthi, O. A. (2001). Internet banking functionality in Nigeria and outcomes of customer satisfaction: An empirical Investigation. *International Journal of Academic Research in Business and Social Sciences, 4*(8).

A Logistic regression model of customer satisfaction of e-banking service quality in Bangladesh. (2013). *Journal of Business Management & Economics, 4*(5).

Bhosale, M. & Nalawade, S. (2012). Customer loyalty and electronic-banking : A conceptual framework (Industry trend or event). *Journal of global information management, 9*(3), 5-15.

Chaudhary, K. & Bharttacharya, P. (2016). Customer acceptance of online banking in developing economics. *Journal of Internet banking and commerce, 13(*1), 19-30.

Connell, B. (2018). Varying impacts of electronic banking on the banking industry. *The Journal of Internet Banking and Commerce, 20*(2).

Datta, S. (2010). Customer perception and emergence of electronic banking: A case study on Kolkata. *International Journal of Banking, Risk and Insurance, 3*(1).

Earl, M. J. (2000). Evolving the e business. *Business Strategy Review, 11*(2), 33-38.

Fontinelle, A. (2019). E-Banking effects on customer satisfaction: The survey on clients in Jordan banking sector. *International Journal of Marketing Studies, 10*(2), 151-158.

Garau, C. (2002). Online banking in transition economies: The implementation and development of online banking systems in Romania. *International Journal of Bank Marketing, 20*(6), 285-296.

Gautam, J. (2015). The Financial Performance of Pure Play Internet Banks. *CFA Di*

Hamisah, A. A. (2013). The impact of electronic banking services on customer satisfaction in the Sudanese banking sector. *International Business Research, 11*(6), 102-124.

Hovland, T. C., Harvey, A. & Sherif, M. (1987). Total quality management as competitive advantage: A review and empirical study: *Strategic Management Journal, 16*(1), 15-37.

Kaur, C. & Kiran, R. (2014). Customer relationship management with special reference to Bangladesh. *Journal of international business research, 19*(1).

Kaynak, A. S. (2015). The Impact of mobile banking on customer satisfaction. *International Journal of Trend in Scientific Research and Development, Special Issue*(Special Issue-FIIIIPM2019), 21-23.

Khatri, J. R. (2017). Internet banking in Nepal: Use and Challenges. *Banking Journal, 3*(2), 57-77.

Koirala, U. (2019). E- banking in Nepal- past, present and future! *The Nepalese Management Review. Vol. XVI, No.1,* P:190-195.

Kwarteng, U. (2015). Impact of Electronic Banking on Customer Satisfaction. *International Journal of Trend in Scientific Research and Development, Volume-2(Issue-5), 31(4),* 978-982.

Meihami, B. (2013). Modernization of Banking System of Chechen Republic In The 21st Century.

Merrchat, B. (2018). Digital Marketing Strategy for Affinity Marketing. *Digital Multimedia,* 1142-1160.

Moraru, A., & Duhnea, C. (2018). E-banking and customer satisfaction with banking services. *Strategic Management, 23*(3), 3-9.

Morawetz, K. (2018). Historical background. *Oxford scholarship online*.

Michael, Z. (2006). Measuring consumer satisfaction in internet banking. *Communications of the ACM, 51*(4), 47-51.

Miryala, T. (2015). Changes in the internet banking sector- UK. *Internet research on electronic networking applications and policy, 10*(1), 19-35.

Mukharjee, D. (2004). Deconstructing consumer behaviour: Theory and practice. *Journal of Consumer Behaviour, 1*(1), 9-21.

Narayana, N. & Paramashi, O. (2013). An empirical investigation of the Turkish consumers acceptance of internet banking services. *International journal of bank marketing, 19*(4), 156-165

Nath, P. (2003). A model of trust in online relationship banking. *International Journal of Bank Marketing, 21*(1), 5-15.

Nsouli, T., & Schaechter, J. (2002). Consumer value creation in mobile banking services. *International Journal of Mobile Communications, 3*(4), 325.

Pikkarainen,M. D. (2004). Achieving customer satisfaction, loyalty, and retention through strategic Alignment. *Customer Retention in the Automotive Industry, 5(2),* 117-139.

Otech, A., Ibok, V. A., & Nto, L. L. (2019). A conceptual model of service quality and its implications for future research. *Journal of Marketing, 49*(4), 41-50.

Robinson, I. (2000). Bureaucratic versus non-bureaucratic organization: Explaining form, function, and change in New Forms of Organizing. *Management and Organizational Studies, 2*(1), 33-40.

Salhiel, H. A. (2013). Impacts of service quality on customer satisfaction: Study of online banking and ATM services in Malaysia. *International Journal of Trade, Economics and Finance,* 1-9.

Sarlak, G. (2010). The impact of service quality delivery on customer satisfaction in the banking sector in Riyadh, Saudi Arabia. *International Journal of Business Administration, 5*(4).

Schierholoz, K., & Laukkanen, W. (2014). Customer satisfaction towards e-banking services. A study of selected banks in Gulbarga. *International Journal of Scientific Research, 2*(1), 35-38.

Segal, B. & Woods, L. (2018). Customer satisfaction on banking services in Indian Growing Economy Nainital District. *SSRN Electronic Journal*.

Sekraran, U. (2015). E-banking services quality and customer loyalty: The moderating effect of customer service satisfaction: Empirical evidence from the UAE banking sector. *Management Science Letters,* 3663-3674.

Singh, A. (2018). E-banking and customer satisfaction with banking services. *Strategic Management, 23*(3), 3-9.

Subedi, P. P. (2019). Customer satisfaction in retail banking services in Nepal. *PYC Nepal Journal of Management, 12*(1), 45-58.

Thomas, J. C. (2019). The Impacts of electronic banking on customer satisfaction in Ethiopian Banking Industry (The Case of Dashen and Wogagen Banks in Gondar City). *SSRN Electronic Journal*.

Yoon, C. (2010). Online Banking Application Customer Satisfaction Measure. 46-50

Wise, Z. & Ali, R. T. (2009). Customer perceived value, satisfaction, and loyalty: The role of switching costs. *Psychology and Marketing, 21*(10), 799-822.

Wind, M. (2001*). Diffusions of innovation, 4ᵗʰ edition*. New York: free press.

Woldie, A. (2008). E-Banking practices and customer satisfaction . A Case Study in Botswana. *SSRN Electronic Journal*.

Appendix

Questionnaire for Banking Customer

Questionnaire

Dear Valued Banking Customers,

I am conducting a research study on **"Impact of Electronic Banking Services 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,

Aliza Maharjan

Name of the Bank:

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 – 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 prints media
   c) Television Advertisement
   d) Online advertisement
   e) From friends
   f) Any other

7. Which one is the main reason for you to use e – banking ?
   a) Better Information
   b) Simplification of processes
   c) 24 hour services
   d) Limited time available

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

   a) Rewards (discounted fees for certain services)
   b) Simple and clearer services
   c) Higher security
   d) Free transaction
   e) Other (specify)

The Delivery of E-banking Services

Indicate your level of agreement on the following statement 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)						
1. The ATM makes cash withdrawal very convenient						
2. There is less queuing the ATM						
3. Transaction on the ATM is secured Transaction on the ATM is reliable						
4. ATM does not share my personal information with others						
Internet Banking Services						
1. Transaction via internet banking secured						
2. Transaction via internet banking is reliable						
3. Internet banking does not share my personal information with others						
4. Statement can be requested through internet banking						
Mobile Banking						
1. Mobile banking makes banking very convenient						
2. Transaction on mobile banking is secured						
3. Mobile banking is easy to use						
4. Transactions on mobile banking is reliable						
5. Mobile banking does not share my persona information						
Credit Card Services						
1. Credit card helps to buy in advance and pay later						

2. Credit card is very convenient while travelling						
3. Online/Living expenses payment is easier						
Debit Card Services						
1. Transaction via debit card is secured						
2. Transaction via debit card is reliable						
3. Debit card is easy to carry						
Electronic Fund Transfer Services						
1. Electronic Fund transaction is very secured and reliable.						
2. Electronic fund transfer is the fast processing with reasonable cost.						
3. Most efficient digital payment method in the Electronic fund transfer.						
Customer Satisfaction						
1. I am satisfied about the E-banking services of this bank.						
2. I will strongly recommend other to use online banking of this bank.						
3. I will continue to use electronic banking services in the future of the Bank.						