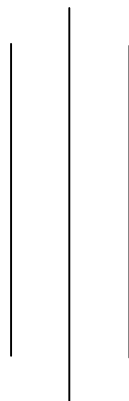


Customer Satisfaction with E-banking Services of Private Commercial Banks in Nepal



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*In partial fulfillment of the requirement for the degree of
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February, 2019

RECOMMENDATION

This is to certify that the thesis

Submitted by:

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Entitled

CUSTOMER SATISFACTION WITH E-BANKING

SERVICES OF PRIVATE COMMERCIAL BANKS IN NEPAL

has been prepared as approved by this department in the prescribed format of the Faculty of Management. This is forwarded for examination.

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VIVA-VOICE SHEET

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and found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the degree of Master of Business Studies (MBS).

Viva- voice Committee

Chairperson, Research Committee :

Member (Thesis Supervisor) :

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DECLARATION

I hereby declare that the work reported in this thesis entitled **CUSTOMER SATISFACTION WITH E-BANKING SERVICES OF PRIVATE COMMERCIAL BANKS IN NEPAL** submitted to office of Dean, Faculty of Management, Tribhuvan University is my own work done in the form of partial fulfillment of requirement for the Master's Degree in Business Studies (M.B.S.), which is prepared under the supervision of Dr. Arhan Sthapit, Tribhuvan University.

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February, 2019

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ABBREVIATIONS

ANOVA	Analysis of Variance
SPSS	Statistical Package for Social Scientists
BFI	Bank and Financial Institutions
ICTs	Information and Communications Technologies
ATM	Automated Teller Machine
SMS	Short Message Service
E-Banking	Electronic Banking
PDA	Personal Digital Assistant
EDI	Electronic Data Interchange
NBS	Nottingham Building Society
BBC	British Broadcasting Corporation
BACS	Bankers Automated Clearing Service
EFT	Electronic Funds Transfer
POS	Point of Sale
IVR	Interactive Voice Response
TAM	Technology Acceptance Model
SSTs	Self Service Technologies
IT	Information Technology
SEM	Structural Equation Mode
FDIC	Federal Deposit Insurance Corporation
IB	Internet Banking
PCA	Principle Component
Acc	Accessibility of E-banking Service
Rel	Reliability of E-banking Service
Con	Convenience of E-banking Service
Sec	Security of E-banking Service
Cs	Customer Satisfaction

CHAPTER 1

INTRODUCTION

1.1 Background of the study

The internet communication is one of the most recent developments in communication to be developed with the first email being sent in 1972 in a split second. This communication allows the transmission of seemingly limitless amounts of information across the globe (Poster, 2011). The use of information and communications technologies (ICTs) have changed the way of conducting business transactions and meeting the growing demands of customers for most organizations. The use of ICTs has brought in new products, service market opportunities and developing more information systems that are business oriented and support management processes such as planning, controlling and co-ordination. One of the areas ICTs has gained growing significance is in the banking sector where BFIs seek to be more competitive, increase customer base, reduce transaction costs, improve the quality and timeliness of response, enhance opportunities for advertising and branding, facilitate self-service and service customization, and improve customer communication and customer relationship management.

In recent years, there has been fast development in information technology and internet in particular. Generally the rapid development of World Wide Web and internet has affected many businesses including banking sector. Banks have been using information technology and internet to enhance operational efficiency, intensify business and provide better customer service with reduced cost of operation. Apart from these, banks are using information technology to enhance and strengthen their electronic service delivery channels. The electronic service delivery channels include electronic payment, electronic banking and so on. All these services allow customers to have direct access to their financial information and to undertake financial transactions with no need to go to the bank. Furthermore, from a banks viewpoint the new delivery channels lead to cost reductions and increased competitiveness. Moreover, this service delivery channel seen as powerful because it can retain current web-based customers who continue using banking services from any location.

Moreover, internet banking provides opportunities for the bank to develop its market by attracting a new customer base from existing internet users.

In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy (Gitman & Carl, 2005). To understand the economic problems and choices facing Banks, it is useful to regard them as firms, and apply the general principles of microeconomics, which shape the environments of all firms. However, Banks are firms of a specialized type not simply in terms of the services they provide, but in terms of how and by whom those services are provided (John, 2003). These days customers face many problems regarding services and customer satisfaction provided by Banks. Studies have shown that many international internet users demonstrate similar behaviors and preferences across nations (Masukujjaman & Akter, 2010). Other researchers have studied the internet in the context of traditional cultures, and yet delimited by national borders. Some have investigated customer preferences of e-banking. Some have examined the issues on the evolution of e-banking and investigated the success factors in various e-delivery channels in banking scenario (Sohail & Shanmugham, 2003).

The precursor for the modern home online banking services were the distance banking services over electronic media from the early 1980s. The term online became popular in the late '80s and referred to the use of a terminal, keyboard and TV (or monitor) to access the banking system using a phone line. 'Home banking' can also refer to the use of a numeric keypad to send tones down a phone line with instructions to the bank. Online services started in New York in 1981 when four of the city's major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotext system. Because of the commercial failure of videotext, these banking services never became popular except in France where the telecom provider subsidized the use of videotext (Minitel) and the UK, where the Prestel system was used.

The UK's first home online banking services known as Home link was set up by Bank of Scotland for customers of the Nottingham Building Society (NBS) in 1983. The system used was based on the UK's Prestel view link system and used a computer, such as the BBC Micro, or keyboard (Tandata Td1400) connected to the telephone

system and television set. The system allowed on-line viewing of statements, bank transfers and bill payments. In order to make bank transfers and bill payments, a written instruction giving details of the intended recipient had to be sent to the NBS who set the details up on the Home link system. Typical recipients were gas, electricity and telephone companies and accounts with other banks. The account holder via Prestel input details of payments to be made into the NBS system. A cheque was then sent by NBS to the payee and an advice giving details of the payment was sent to the account holder. Bankers Automated Clearing Service (BACS) was later used to transfer the payment directly.

Stanford Federal Credit Union was the first financial institution to offer online internet banking services to all of its members in October 1994. Today, many banks are internet only banks. Unlike their predecessors, these internet only banks do not maintain brick and mortar bank branches. Instead, they typically differentiate themselves by offering better interest rates and more extensive online banking features.

Banking started in Nepal in 1937 by the establishment of the Nepal Bank Ltd. Currently; there are 28 commercial banks, 33 development banks licensed and over 100 other financial institutions that operate in Nepal. The banking sector is the major financial services industry in Nepal that offers several banking services, such as acceptance of deposits, granting of credit facilities, and management of loans, among others. Nepalese financial market is late adopter of information technology including electronic payment, electronic banking. However, many of Nepalese private banks at present are providing electronic banking, electronic payment. In response to competitive pressure in the banking industry, banks continued to make significant investments in upgrading information technology platforms by automating and centralizing various back office activities to enhance the quality of service delivery to their customers.

When we look at the historical development of electronic payment, electronic banking, we can find that NABIL Bank was pioneer bank to introduce credit cards in 1990. After the introduction of credit cards in Nepalese banking, various banks tried to come up with new service innovations. Among them, Himalayan Bank was first bank to introduce ATM cards in 1995 and it also introduced telephone banking,

Kumari Bank was first commercial bank to start internet banking in 2001 and Laxmi Bank was first to started mobile banking in 2004. When we look at present, we can find that almost every financial institution is providing ATM facility. Similarly, most of the commercial banks are providing internet banking and SMS banking services. However, the electronic payment including mobile payment services are still new and primitive in case of financial institution of Nepal. So, in most of the Nepalese banks, till today ATM and branch are the primary delivery channels. Further, there are few users of mobile banking and internet banking as these areas of innovations is new to Nepalese customers in Kathmandu valley. Nepalese banks are motivated to adopt these new technologies to remain competitive in the market. Therefore, we can say that Nepalese financial is slowly moving towards the technology mediated medium such as electronic payment, electronic banking.

1.2 Statement of Problem

Banking practices have undergone significant changes since the advent of the Internet. Banks provide many services online, which are extremely convenient for banking customers. Electronic banking (e-banking) has existed for decades, starting with automatic teller machine (ATM) in the late 1960s (**Broderick & Vachirapornpuk, 2002**). Internet Banking makes it possible for banks and their customers to do business from anywhere in the world. This greatly increases the bank's potential client base. Nevertheless, the global approach to banking that e-banking permit makes it extremely difficult for regulatory authorities to enforce finance laws. Additionally, regulations differ from nation to nation and banks are not always proficient in the financial laws for every nation in which they have business (**Flavian, Guinaliu, & Gurrea, 2006**).

Overtime, more and more concerns are associated with electronic banking, as the industry branched out to phone and on line banking. However, regardless of the benefits obtained from e-banking, e-banking in Nepal is passing into different challenges. Although, there has been a rapid expansion of internet banking products and services by banks and financial institution in Nepal e-banking services have not been widely adopted by bank's customers. This may be due to lack of trust, customer's ignorance towards technologies and perceived risk towards the services.

Electronic banking is conducted by the customer instead of a bank teller, so there is no face to face interaction. The customers do not seek any additional services or help on by pro-actively contacting the bank. Some customers refuse to use these services because they feel they are entitled to in-person customer service. On the other hand, there are Customer's complains on the issues with security and accuracy. At this situation, we need to analyze satisfaction and experience of customers toward e-banking services. Further, the role played by demographic factors such as gender, age, occupation, income and education in adoption of e-banking are to be analyzed. Further, we also need to analyze the risks, limitations and problems in using e-banking.

1.3 Research Questions

Though there is a rapid growth in Nepalese financial sector, e-banking is still in infancy. Banks are investing lots of amount on technology but they are not been successful enough in E-banking activities. If the banks do not see the scenario and challenges of e-banking, they can't be profitable. In this context, this study has examined into the following problems:

- Are customer satisfied with e-banking services offered by banks and financial institutions?
- Are customers aware of technical complexity in using e-banking?
- What is the customer's frequency of using online banking services to access the banking services?
- What are the factors that determine customer's choice of e-banking service?
- What are the problems and risks to customers faced in using e-banking services?

1.4 Objectives of the Study

- To identify the major e-banking service attributes that satisfy customers in e-banking;
- To examine the relationship between the various e-banking service attributes and the customer satisfaction; and
- To study the impact of the e-banking service attributes on the satisfaction of customers.

1.5 Hypotheses

Six hypotheses have been drawn for the purpose of identifying relationship between dependent and independent variables in this study. These hypotheses were drawn from the theoretical framework of the study.

- H1: There is no significant relationship between accessibility of e-banking and customer satisfaction;
- H2: There is no significant relationship between reliability of e-banking and customer satisfaction;
- H3: There is no significant relationship between convenience of e-banking and customer satisfaction;
- H4: There is no significant relationship between security of e-banking and customer satisfaction;
- H5: There is no significant relationship between e-banking service attributes and customer satisfaction.
- H6: There is no significant impact of e-banking service attributes on the satisfaction of customers.

1.6 Significance of Study

This research paper is of great importance especially for banking industry in Nepal. With knowing the awareness and satisfaction of internet enables the bankers to cope the problems of customers and ultimately helps to customize their e-banking products and services to cater their needs. Further, this research paper also provides guidelines to the policy makers to make policies, rules and regulations on e-banking. This study should be beneficial for the academic institutions and individuals who might be interested in carrying out related researches in the future.

The study stresses that there are variables associated with e-banking and those variables have huge impact upon level of customer satisfaction. Customer satisfaction with regard to any services offered greatly exceeds the expectations of customer, and then satisfaction will be elevated. So, through this study, various factors that affects customer satisfaction while using e-banking service has been identified.

Thus, this study assists to the banking professional to know the customer's awareness and satisfaction toward e-banking ultimately helps to increase the accessibility of financial services of customers creating awareness through workshop and seminar on the importance and business value of e-banking.

1.7 Organization of the Study

The whole research includes five chapters, which include:

Chapter 1: Introduction

The first chapter deals with the general information of the e-banking as a whole and pinpoints the objectives and theme of the research. Also included in this chapter is the statement of problem and importance or significance of this study to the end users. Furthermore, a brief synopsis of how the chapter flows has shown under the title organization of the study.

Chapter 2: Review of Literature

The second chapter presents comprehensive surroundings of e-banking. Precisely, this chapter examines the effectiveness of e-banking also relate it with the practiced approach. This chapter includes benefits and challenges of e-banking. Further this chapter provides related words, definitions, and findings on the related topic from other researchers, journals, papers, and similar works which are very important in guiding the research. Besides, this chapter includes theoretical framework around which the whole work have been put together.

Chapter 3: Research Methodology

The research design and methodology includes the planned methods used while conducting the research, which has helped to guide the research towards its main findings and conclusion. It includes information on research design, data analysis methods, questionnaire, population and sample size, sampling techniques, data collection instrument, methods of data analysis and limitations or barriers incorporated while preparing the report.

Chapter 4: Presentation and Analysis of Data

The fourth chapter is the major part of the research work, which is related with the presentation, analysis and interpretation of data with reference to e-banking and customers' satisfaction. Hence, this chapter includes presentation of data and analysis

of the findings using diagrammatic representations such as pie charts, bar graphs as well as mathematical and statistical tools like descriptive analysis & inferential analysis.

Chapter 5: Summary, Conclusions and Recommendations

The fifth chapter is the concluding chapter where summary is discussed, conclusions are drawn, and recommendation is made. In this chapter, the theme of the research presented. In other words, this chapter identifies what has been achieved through the research and to which extent. In addition, this segment of the research provides recommendation satisfying the research question priority set. Additional pages include References, Appendices and other supporting documents.

CHAPTER 2

REVIEW OF LITERATURE

2.1 Review of Theoretical Framework

This chapter endeavors to analyze the relevant body of knowledge to understand the concept of customer satisfaction with internet banking service quality, from an academic point of view. It commences with the literature that relates the research objectives and the research questions. Several literatures are reviewed that is related to given subject or chosen topic area. This chapter comprises of conceptual definitions, theories, empirical studies and gap of the study.

2.1.1 Conceptual Definitions

Conceptual definitions are related with all the possible concepts related with online shopping some of which are discussed below:

E-banking

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business or obtain information on financial products and services through a public or private network, including the internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM). (Encyclopedia Britannica online)

Use of computers and telecommunications to enable banking transactions rather than through human interaction is e-banking. Its features include electronic funds transfer for retail purchases, automatic teller machines (ATMs), and automatic payroll deposits and bill payments. (Encyclopedia Britannica online).

Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television.

Ovia (2001) argues that electronic banking is a product of e-commerce in the field of banking and financial services. In what can be describe as business to consumer domain for balance enquiry request for cheque books recording stop payment instruction balance transfer instruction account opening and other forms of traditional banking service. Banks are also offering payment services on behalf of their customer who shop indifferent e-shops.

E-banking is the term that signifies and encompasses the entire sphere of technology initiatives that have taken place in the banking industry. E-banking is a generic term making use of electronic channels through telephone, mobile phones, internet etc. for delivery of banking services and product. The concept and scope of e-banking is still in transitional stage. E-banking has broken the barriers of branch banking (Nidhi, 2016).

Electronic banking has vastly reduced the physical transfer of paper money and coinage from one place to another or even from one person to another. Electronic banking systems can be retail payment systems, such as Automated Teller Machine (ATMs) networks, point-of-sale systems, and interbank payment systems. E-banking implies exchange of banking products and services through electronic delivery channels. Electronic banking has been around for quite some time in the form of automated teller machines and telephone transactions.

Electronic banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution. The following terms all refer to one form or another of electronic banking: personal computer (PC) banking, Internet banking, virtual banking, online banking, home banking, remote electronic banking, and phone bank. PC banking and Internet or online banking is the most frequently used designations. It should be noted, however, that the terms used to describe the various types of electronic banking are often used interchangeably.

There are many electronic banking delivery channels to provide banking service to customers. Among them ATM, POS, mobile banking and internet banking are the most widely used and discussed below.

ATM: Automated Teller Machine (ATM) is a machine where cash withdrawal can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry (Fenuga & Kolade, 2010).

Internet banking: Internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society. It may include of any transactions related to online usage. Banks increasingly operate websites through which customers are able not only to inquire about account balances, interest and exchange rates but also to conduct a range of transactions. Unfortunately, data on Internet banking are scarce, and differences in definitions make cross-country comparisons difficult (Timothy, 2012).

POS: Point of sale (POS) also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A 'checkout' refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface. The same system allows the creation and printing of the receipt (Worku, Tilahun, & Tafa, 2016).

A point of sale (POS), or point of purchase, is the place where a customer executes the payment for goods or services, and where it be in a physical store, where POS terminals and systems are used to process card payments, or a virtual sales point such as a computer or mobile electronic device. (Investopedia online)

Mobile banking: Mobile banking (also known as M-banking, mbanking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS, a service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where most of their population is un-banked. In most of these places, banks can only be found in big cities, and customers have to travel hundreds of miles to the nearest bank. The scope

of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information (Tiwari & Buse, 2007).

The ATM was one of the earliest electronic banking products, being introduced in the mid 1970's. It provided customers with the ability to withdraw or deposit funds, check account balances, transfer funds and check statement information. Electronic Funds Transfer (EFT) is another electronic banking product that facilitates transfer of funds from any branch of a bank to any other branch of any bank in the shortest time. Telephone banking is only a new electronic banking product. It is rapidly becoming one of the most popular products. Customer can perform a number of transactions from the convenience of their own home or office. In fact, from anywhere they have access to phone. Customer can check balances and statements information, transfer funds from one account to another, and pay certain bills.

Attributes of E-Banking

Joseph, McClure, and Joseph (1999) considered banking service quality with respect to technology use, such as ATMs, telephone, and the internet and identified six dimensions. They were convenience/accuracy; feedback/complaint management; efficiency; queue management; accessibility; and customization. Yang and Jun (2002) redefined the traditional service quality dimensions in the context of online services, and suggested an instrument consisting of seven online service dimensions (reliability, access, ease of use, personalization, security, credibility, and responsiveness). It also indicated that there is a significant positive relationship between overall service quality and satisfaction. It has been argued that for any service or technology to success it must be adopted by the users and accepted. The major four attributes of e-banking have been identified during this study and are discussed below:

Accessibility: Peterson, Zsidisin, and Daily (1999) revealed ease of use/accessibility had considerable impacts on both customers perceived overall service quality and satisfaction. Accessibility is defined as the ability of users to access information and services from the web, this depends on many factors. They include the content format; the user's hardware, software and settings; internet connections; the environmental conditions and the user's abilities and disabilities (Hackett &

Paramanto, 2009). The term "web accessibility" generally relates to the implementation of website content in such a way as to maximize the ability of users with disabilities to access it. For example, providing a text equivalent for image content of a web page, allows users with some visual disabilities access to the information via a screen reader. The techniques and approaches that create web pages that are more accessible for people with disabilities also address many other access issues such as download speed and discoverability (Hackett & Paramanto, 2009). Therefore, accessibility has positive effect on customer satisfaction.

Reliability: Joseph, McClure, and Joseph (1999) also considered reliability of the service as an important factor of service quality. Research on the use of computers or technologies which share similar characteristics also affect performance (or dependability) as it is an important attribute. Zeithaml and Bitner (2000) advised that customers should be specifically influenced by the reliability of new technology because they might be associated with risks such as the technology malfunctioning. It involves two concepts, dependability and uniformity in performance. Yang and Jun (2002) posited that reliability is the most crucial characteristics for customers in the evaluation of service quality. Reliability also means honoring the commitments in areas such as billing accuracy, proper record maintenance and delivering the service within acceptable time limit (Saha & Zhao, 2005). It also "refers to the correct technical functioning of a self-services technology and the accuracy of service delivery". Many authors have detected that reliability is significant in the determination of service quality (Zeithaml, Bitner, & Gremler, 2005). Finally, Maenpaa, (2008) in his study revealed that reliability and accuracy are appropriate measure for assessing service that has to do with technology.

Convenience: Ainscough and Lockett (1996) the provision of customer interactivity is an important criterion that attracts users in the delivery of e-banking. E-banking provides higher degree of convenience that enables customers to access internet bank at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (Polatoglu & Ekin, 2001). Gerrard and Cunningham (2003) identified other factors of paramount importance in ensuring the success of e-banking, i.e. the ability of an innovation to meet users' needs using different feature availability on the web site. For instance, the provision of interactive

loan calculators, exchange rate converters, and mortgage calculators on the web sites draw the attention of both users and non-users into the bank's web site.

Privacy or Security: Assurance about security relates to the extent to which the website guarantees the safety of customers' financial and personal information, an area which has witnessed a proliferation of research interest (Kimery & Mccord, 2002). All transactions occur on a secure server of a bank via the internet. The bank has all of the required data and software to execute the transactions. Customers go the bank's Web site, log in, and then take advantage of the bank's internet services. Typical bank services are account access and review, transfers of funds between accounts, bill payment, and then a widening variety of new services and products. Security plays an important role in internet banking and so there are several protocols for internet security of encrypted data packets (Kolsaker & Payne, 2002).

Encryption technology is the most common feature at all bank sites to secure information privacy, supplemented by a combination of different unique identifiers, for instance, a password and key. Thus, a combination of smart card and biometric recognition using fingerprints offers a more secure and easier access control for computers than the password method. Customers have doubts about the trust ability of the e-bank's privacy policies; trust has striking influence on user's willingness to engage in online exchanges of money and personal sensitive information. Privacy is an important dimension that may affect users' intention to adopt e-based transaction systems (Gerrard & Cunningham, 2003).

Security can be assured by providing a privacy statement and information about the security of the shopping mechanisms and by displaying the logos of trusted third parties. For example, displaying trusted third party logo guarantees a certain level of security protection and has been shown to significantly influence how consumers regard the trustworthiness of e vendors (Constantine, 2004).

The benefits of electronic banking cannot be over emphasized. This is to say that it provides a lot of benefits both to the customer and the bank itself. Online banking is a new phase in retail banking services. With the help of online banking several types of services through which customers can request information and carry out their banking transaction such as balance inquiry, inter-account transfers, utility bills payment,

request check book etc., Via a telecommunication network or internet without physically visiting the branches In future, along with physical market competition the virtual market (market space) also going to take place (Rayport & Sviokla , 1994). Mols (1998) 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 Rotchanakitumnuai and Speece (2003) E- banking provides various benefits to both banks and customers. With electronic banking customers can check accounts, transfer money and can have access to numerous banking products and services. There is no need for Customers to visit banks to make transactions. Tremendous progress in the field of information technology has reduced the world to a global village and it has caused unprecedented change in the banking industry. Huge developments in the technology of telecommunications and electronic data processing have further stimulated these changes. Automation has revolutionized financial and banking sectors globally. Apart from branch banking in the brick and mortar mode, click and order channels like internet banking, ATMs, Tele-banking and mobile banking are now in vogue. Customers can view the accounts, get account statements, transfer funds, purchase drafts by just making a few key punches. Availability of ATMs and plastic cards to a large extent make it necessary for customers going to branch premises. Smart Cards with an embedded microprocessor chip have brought about revolutionary change. Electronic Data interchange (EDI) is another development that has made its impact felt in the banking arena. Transaction costs have fallen down, productivity has tremendously improved, new banking products and services have entered the market.

Mobile banking has a great contribution in online banking revolution, which is given a competitive edge to the banks against their rivals. Especially “Transaction Alert / Confirmation” is most demanding service by users. Customers feel that after monetary transaction, the SMS should be received and they prefer the version of the IVR (Interactive Voice Response) banking service that provides (out-of-band) SMS confirmation over those one that does not. Therefore, online banking helps bank to retain and enhance the loyalty of their existing customers, increase customer satisfaction, provide opportunity to the bank to increase market share, reduce

administrative and operational cost and to improve bank's competitive position against their rivals. 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. 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.

To begin with a foremost benefit e-banking service is competitive branding and as well as better appreciation to the market demands. As such banks that provide services are known to be leaders in technology implementation and advancement. Thus, the better image brand they enjoy (Kwarteng, 2015). Due to this fact, more and more banking companies have been thinking about switching their businesses from the physical to virtual market (online technology). As advancements in technology and information system are arising rapidly and different kinds of electronic banking system are introducing by banks, where each system has a unique and systematic way that facilitate the user to interact with the bank in easiest way. The increase use in credit card is attributable to electronic banking. Customers are able to shop worldwide without the need of carrying paper money.

A research by Daft and Richard, (1982) demonstrated that the rise of E-banking may be a smart thought however with respect to customers they may confront some risk connected with the specific type of innovation. Daft identified what he described Strategic Risk. Management of financial institutions should know and understand risks associated with e- banking and provide remedies for it. Poor E-banking planning and investment decisions can increase a financial institutions strategic risk. The evidences of various researches show that there is a high association between consumer's usage patterns of ATM's and their demographic profiles. But nowadays, the relationship between ATM's usage patterns and psychographic profiles is also found significant (Stevens & Ben McFarlane, 1986).

The security problems have a large contribution to reduce customer satisfaction. The success of any new product and service is highly depending on customer acceptance and customer satisfaction. In contrast, the customer dissatisfaction and resistance is one of the major causes of market failure of innovation (Ram & Sheth, 1989).

Another security issue associated with E-banking as introduced by the Economist journal (1999) recounts that E-banking insecurities is classified into three categories, firstly those associated with fraud and theft secondly those by hackers and lastly flaws in systems design or set up leading to security breaches (genuine users seeing / being able to transact on other users accounts). All of these insecurities have financial and legal reputations. Other challenges associated with electronic banking spans from the type of technology selected, lack of knowledge and lastly implementation. The costs of establishing e-banking services are high. Establishing a trusted brand is very costly, as it requires the purchase of expensive technology. Some of the problems that customers face in using electronic banking services include risk arising from fraud, network and system errors and other unanticipated events resulting in the organization's inability to convey banking products and services. This risk could be inherent in different products and services (Earl, 2000). Earl further commented that banking activities can expand their activities of establishment's and the amount of its transaction or operational risk, particularly if the organization is putting forth imaginative administrations that have not been institutionalized. 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.

In online business trust, security and safety are the most challenging issue for the banks. Beside them, to build and retain the customer's trust will also become a future challenge for banks especially in internet banking (Aladwani, Change Management Strategies for Successful ERP Implementation, 2001). Majority of the customers hesitate to use e-banking services because of security and privacy issues (Turban & Warkentine , 2001). In online banking business the Automated Teller Machine (ATM) is the first popular system that was introduced to facilitate the users to access and carry out their banking transactions in minimum time. In other to embrace global technology, there ought to be a satisfactory level of infrastructure and human capacity building before developing nations can receive the global technology for their nearby necessity. The society for worldwide interbank financial telecommunications (SWIFT) to the internet shows that in many developing countries full migration has not occurred as a result of inadequate infrastructure, required technical expertise and working capital.

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. Financial institutions should therefore provide reliable services to help customers gain easy access at all times. Although opportunities to banks, there are various difficulties such as the innovation of IT applications, the obscuring business sector limits, rupturing modern boundaries, the passage of emerging competitors, and the development of new plans of action (Liao & Cheung, 2002).

When we see, the challenges and opportunities of e-banking in Nepal 47.31 percent of the population are connected to broadband internet and a large number of people are served by one bank branch compared to other countries. Un-served market, stable and secure political environment, rapidly growing mobile infrastructure, availability of delivery channels (outlets), safe and sound financial sector are the most important opportunities in Nepal. However, low level of financial literacy of the public, level of readiness and capacity of financial institutions to provide service, infrastructure, insufficient cash flow in rural areas limited potential agents, and presence of a few branches in rural areas are some of the challenges facing the country. Legal and related issues, the importance of looking in to the role of newly emerging third party technical providers, reconsidering pre-paid balance requirements and widening the scope of mobile banking service are also critical.

Customer Satisfaction

Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables, which correlate with satisfaction behaviors

such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products.

Organizations of all types and sizes have come to realize that their main focus must be to satisfy their customers. Organizations are increasingly interested in retaining existing customers while targeting noncustomers; measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace. According to the classification by Jones and Sasser (1995) customers can be grouped into four (4), these are “Apostles”, “Hostages”, “Mercenaries” and “Terrorists”. An “Apostle” is a high satisfied and high loyalty customer. Such as customer due to their loyalty and satisfaction are willing to recommend the product or service to others whilst “Hostages” are lowly satisfied but high loyal customers because they have fewer choices or alternatives. “Mercenaries” are those customers who are interested in changing their supplier in order to obtain lower prices although they are high satisfied. Such customers are said to be highly satisfied but lowly loyal. “Terrorists” on the other hand are lowly satisfied and lowly loyal and uses alternative suppliers to express their dissatisfaction with their initial supplier. In this study the researcher is interested in the two extreme, that is, apostle and terrorist hence the interest in the term customer satisfaction. The interest in the two groups is because the researcher is interested in knowing the dimension of the services that makes such individuals or customers either highly satisfied or not satisfied at all.

Oliver (1997) defined satisfaction as a judgment following a consumption experience—it is the consumer’s judgment that a product provided (or is providing) a pleasurable level of consumption-related fulfillment. Kotler (2000) defined satisfaction as a person’s feelings of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectations.

According to Hansemark and Albinsson (2004) satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire. Any business aims to achieve customer satisfaction among its customers.

This is no different for BFIs. Dissatisfied customers will not make use of the services of BFIs again and might be discouraged from buying online in the future. Satisfaction can be associated with feelings of acceptance, happiness, relief, excitement, and delight. Most research confirms that the confirmation or disconfirmation of pre-consumption expectations is the essential determinant of satisfaction. This means that customers have a certain predicted product performance in mind prior to consumption. During consumption, customers experience the product performance and compare it to their expected product performance level. Satisfaction judgments are then formed based on this comparison. The resulting judgment is labeled positive disconfirmation if the performance is better than expected, negative disconfirmation if it is worse than expected and simple confirmation if it is as expected. In short, customers evaluate product performance by comparing what they expected with what they believe they received. Customer satisfaction is a measure of how products and services supplied by a company meet or surpass customer expectation. That means, it is approval when comparing a product's perceived performance with his or her expectations.

According to Kotler & Keller (2009) a buyer goes through five stages while making a decision to purchase. These stages are best explainable when a buyer goes for buying costly items, such as a house, a car, diamond jewellery etc. However, in day- to- day purchase, consumers may not go through all these stages, since some commodities do not need information, and based on buyer's previous experience they will visit a store for the purchase. These stages are: "problem recognition, information search, evaluation of alternatives, purchase decision, and purchase behavior" (Kotler & Keller, 2009).

Models of Customer Satisfaction

Various models of factors influencing customer satisfaction have been developed; some of them were discussed below:

SERVQUAL Model (Service Quality Gap Model)

SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses (Parasuraman, Zeithaml, & Berry, 1988). The approach starts from the assumption that the level of service quality experienced by customers is determined by the gap between their expectations of the

service and their perceptions of what they actually receive from a specific service provider. (Parasuraman, Zeithaml, & Berry, 1985) developed the "Gap Model" of perceived service quality. This model has five gaps: Gap 1. Consumer expectation - Management perception gap Gap 2. Management perception - Service quality specification gap Gap 3. Service quality specifications –Service delivery gap Gap 4. Service delivery - External communication gap Gap 5. Expected service - Experienced service Gap One--Positioning Between customer's expectation and management's perceptions of those expectations i.e. not knowing what customers expect The SERVQUAL model proposes five dimensions upon which customers evaluate service quality. These are:

Tangibles – the appearance of the physical facilities and materials related to the service

Reliability – the ability to perform the service accurately and dependably

Responsiveness – the willingness to help customers and provide prompt service

Assurance – the competence of the system and its security, credibility and courtesy

Empathy – the ease of access, approachability and effort taken to understand customers' requirements

The use of perceived as opposed to actual service received makes the SERVQUAL measure an attitude measure that is related to, but not the same as, satisfaction (Parasuraman, Zeithaml, & Berry, 1988). It is arguably that if the service offered to customers constituents and meet the five dimensions of the service quality model, the customer perception towards the services offered will be positive. SERVQUAL can measure attitude of the customers towards services. Various studies have developed alternatives concepts for service quality, some state that services quality should include three dimensions, like technical quality, functional quality and corporate quality (Gronroos, 1982). Others propose that services quality may be evaluated on the functional dimension, described by five components: tangibility, responsibility, assurance, and empathy. Service quality is determined by the differences between customer's expectations of the services and their perceptions of the service experiences (Parasuraman, Zeithaml, & Berry, 1988).

The Kano Model

The Kano model is a theory of product development and customer satisfaction developed in the 1980s by Professor Noriaki Kano that classifies customer preferences into five categories: Attractive, One-Dimensional, Must-Be, Indifferent, Reverse.

- **Must-be Quality:** Simply stated, these are the requirements that the customers expect and are taken for granted. When done well, customers are just neutral, but when done poorly, customers are very dissatisfied. Kano originally called these “Must-be’s” because they are the requirements must be included and are the price of entry into a market.
- **One-dimensional Quality:** These attributes result in satisfaction when fulfilled and dissatisfaction when not fulfilled. These are attributes that are spoken and the ones in which companies compete. An example if this would be a milk package that is said to have ten percent more milk for the same price will result in customer satisfaction, but if it only contains six percent then the customer will feel misled and it will lead to dissatisfaction.
- **Attractive Quality:** These attributes provide satisfaction when achieved fully, but do not cause dissatisfaction when not fulfilled. These are attributes that are not normally expected, for example, a thermometer on a package milk showing the temperature of the milk. Since these types of attributes of quality unexpectedly delight customers, they are often unspoken.
- **Indifferent Quality:** These attributes refer to aspects that are neither good nor bad, and they do not result in either customer satisfaction or customer dissatisfaction. For, example, thickness of the wax coating on a milk carton. This might be key to design and manufacturing of the carton, but consumers are not even aware of the distinction. It is interesting to identify these attributes in the product in order to suppress them and therefore diminish production cost.
- **Reverse Quality:** These attributes refer to a high degree of achievement resulting in dissatisfaction and to the fact that not all customers are alike. For example, some customers prefer the basic model of a product and will be dissatisfied if a product has too many extra features.

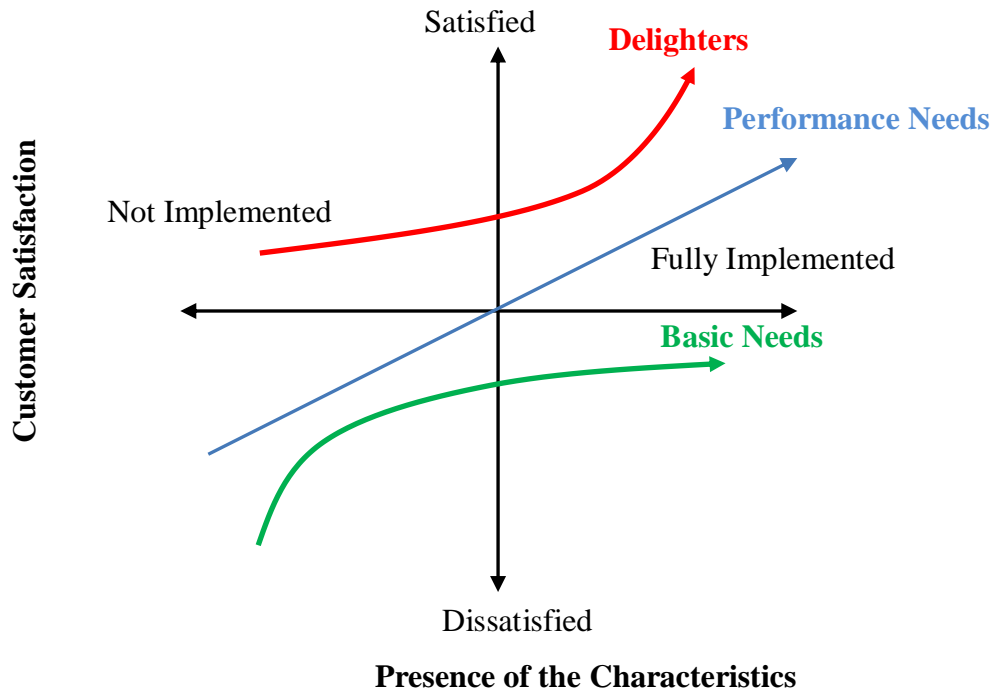


Figure 2.1: Product Development and Customer Satisfaction

Source: Kano Model (1980)

An attribute will drift over time from exciting to performance and then to essential. The drift is driven by customer expectations and by the level of performance from competing products. For example, mobile phone batteries were originally large and bulky with only few hours of charge. Over time we have come to expect 24 hours of battery life on slim lightweight phones. The battery attributes have had to change to keep up with customer expectations.

Quality Function Deployment (QFD) makes use of the Kano model in terms of the structuring of the Comprehensive QFD matrices. Mixing Kano types in QFD matrices can lead to distortions in the customer weighting of product characteristics. For instance, mixing Must-Be product characteristics such as cost, reliability, workmanship, safety, and technologies used in the product in the initial House of Quality will usually result in completely filled rows and columns with high correlation values. Other Comprehensive QFD techniques using additional matrices are used to avoid such issues. Kano's model provides the insights into the dynamics of customer preferences to understand these methodology dynamics.

The Kano model offers some insight into the product attributes which are perceived to be important to customers. The purpose of the tool is to support product specification and discussion through better development team understanding. Kano's model focuses on differentiating product features, as opposed to focusing initially on customer needs.

Theory of Planned Behavior (TPB)

The theory of planned behavior is a theory about the link between attitudes and behavior. The concept was proposed by Icek Ajzen to improve on the predictive power of the theory of reasoned action by including perceived behavioral control (Koger & Winter, 2010). It is one of the most predictive persuasion theories. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors (Sniehotta, 2009).

The Theory of Planned Behavior (TPB) helps to understand how the behavior of people can change. The TPB is a theory, which predicts deliberate behavior, because behavior can be deliberative and planned. TPB is the successor of the similar Theory of Reasoned Action (TRA) of Icek Ajzen and Martin Fishbein. Koger and Winter (2010) the succession was the result of the discovery that behavior appeared not to be 100 percent voluntary and under control, which resulted in the addition of perceived behavioral control. With this addition the theory was called the Theory of Planned Behavior. According to TPB, human action is guided by three kinds of considerations: toward the behavior, subjective norm, and perception of behavioral control lead to the formation of a behavioral intention. As a general rule, the more favorable the attitude and subjective norm and the greater the perceived control, the stronger should be the person's intention to perform the behavior in question. Stern (2005) investigated Residual Effects of Past on Later Behavior. He came to the conclusion that this factor indeed exists.

- (i) Behavioral Beliefs (beliefs about the likely consequences of the behavior)
- (ii) Normative Beliefs (beliefs about the normative expectations of others)

(iii) Control Beliefs (beliefs about the presence of factors that may facilitate or impede performance of the behavior).

Ajzen's three considerations are crucial in circumstances / projects / programs when changing behavior of people. In their respective aggregates, behavioral beliefs produce a favorable or unfavorable attitude toward the behavior, normative beliefs result in perceived social pressure or subjective norm, and control beliefs give rise to perceived behavioral control (Koger & Winter, 2010). In combination, attitude cannot be described to habituation as many people think. A review of existing evidence suggests that the residual impact of past behavior is attenuated when measures of intention and behavior are compatible and vanishes when intentions are strong and well formed, expectations are realistic, and specific plans for intention implementation have been developed.

E-Banking and Customer Satisfaction

Davis (1998) proposed that customers' intentions to use internet banking can be affected by customers' attitudes toward using internet banking. When customers have positive attitudes, they are more likely to adopt internet banking and vice versa.

Aladwani (2001) mentioned that while the industry has moved instantly to deploy and offer new banking services via e-channels for customers and in consequence the e-banking services have boomed promptly. Today, several financial institutions are endeavoring to emphasize customer-oriented services. For this sake, it is crucial to implement new banking services in order to develop and keep better relationships with customers. Rationale for 'banks' to provide Internet banking services, Ongkasuwan and Tantichattano (2002) indicate that internet banking helps banks in cost saving, increase customer base, enable mass customization for e-Business services, extend marketing and communication channel, search for new innovation services, and explore and development of non-core business. Customers' attitudes are significant factor affecting customer behaviors in accepting or rejecting technology. It was found that the relationship between attitude towards using and usage was significant. Customers' attitudes are a significant factor affecting customer behaviors in accepting or rejecting technology (Broderick & Vachirapornpuk, 2002). Hence building up competitive predominance almost depends on customers' satisfaction with banking service. It is recognized that banks gaining higher customer satisfaction

will have a conspicuous marketing ascendancy because the higher customer satisfaction is associated with greater revenues, increased cross-sell ratios, higher customer retention and bigger market share (Gonzalez, Quesada, Picado, & Eckelman, 2004).

Gan (2006) identified that user input factors are a function of control, enjoyment and intention to use. Control could be described as the amount of effort and involvement required by consumers in electronic banking. Enjoyment is the perceived playfulness and intrinsic value that consumers experience from the utilization of electronic banking and this would influence the level of satisfaction; when consumers are aware of the availability of electronic banking, they will use adopt, though some may not.

Lichtenstein and Williamson (2006) noted that several theories converging reference domains and theories suggest numerous potential influences on consumer adoption of internet banking including theories of consumer behavior in mass media choice and use, gratification theories, innovation diffusion, technology acceptance, online consumer behavior, online service adoption, service switching costs and the adoption of internet banking. Boateng and Molla (2006) contend that operational constraints related to customer location, the need to maintain customer satisfaction and the capabilities of the Bank's main software are influential factors in motivating the decision to enter electronic banking services and consequently influencing the usage experience and thus affecting the level of satisfaction.

Raman, Stephenaus, Alam, and Mudiarsan (2008) said that service as an intangible good appeal differently to each customer and certain extent of service should be achieved in order to satisfy the customer and that the resulting commitment, loyalty and retention are critical indicators of customer satisfaction. Customer commitment; Power and Associates note that on average, highly committed customers use more products or services, give more referrals and are much less likely to switch to another bank, compared with customers who have lower commitment levels. Indeed, this view is supported by Casalo, Flavian, and Miguel (2008) who contends that higher levels of website usability might lead to higher levels of consumer's affective commitment to the website as well a direct, positive and significant relationship between.

However, customers' ability to subscribe to the Internet-based banking services depend on several factors such as user-friendly interface, level of Internet experience, types of services provided, (for example e-mail, file transfer, news, online financial services, shopping and multimedia services), attitude and perception, access and delivery time and experience with the Internet. The introduction of internet banking services is facilitated by the bank's reputation in terms of size, awareness and trust awareness of Service and its benefits in form of the amount of information a customer has about Internet banking and its benefit may have a critical impact on the adoption of Internet banking (Kwarteng, 2015).

2.2 Review of Related Empirical Studies

Nath (2001) tried to study examines banker's view on providing banking services to customer using the web. Especially, it addresses issue such as the strategic need for internet banking, its effect on customer-bank relationships and customer's experiences in internet banking. Data collected from 75 banks show that most banks do not yet offer full-fledged internet banking. However, most banks have plans to do so. Furthermore, bankers see internet banking as a strategic opportunity that can reduce transaction costs, enhance customer service, increase the customer base and improve cross-selling opportunities. In addition, internet banking is perceived more favorably by banks that offer it compared to those that do not.

Kumbhar (2001) evaluated major factors (i.e. service quality, brand perception and perceived value) affecting on customer's satisfaction in e-banking service settings. This study also evaluates influence of service quality on brand perception, perceived value and satisfaction in e-banking. Required data was collected through customer's survey. For conducting customer's survey liker scale, based questionnaire was developed after review of literature and discussions with bank managers as well as experts in customer service and marketing. Result indicates that, perceived value, brand perception, cost effectiveness, easy to use, convenience, problem handling, security assurance and responsiveness are important factors in customers satisfaction in e-banking. It explains 48.30 percent of variance. Contact facilities, system availability, fulfillment, efficiency and compensation are comparatively less important because these dimensions explain 21.70 percent of variance in customer's satisfaction.

Security assurance, responsiveness, easy to use, cost effectiveness and compensation are predictors of brand perception in e-banking and fulfillment, efficiency, security assurance, responsiveness, convenience, cost effectiveness, problem handling and compensation are predictors of perceived value in e-banking.

Speece (2003) conducted a research on barriers of internet banking adoption to the corporate customer of Thailand. The findings of this research suggest that security of the internet is a major factor inhibiting wider adoption. Those already using internet banking seem to have more confidence that the system is reliable, whereas non-users are much more service conscious, and do not trust financial transactions made via internet channels. Non-internet banking users tend to have more negative management attitudes toward adoption and are more likely to claim lack of resources. Legal support is also a major barrier to internet banking adoption for corporate customers.

Laforet (2005) conducted a study to investigate the market status for online banking in China. With the recent and forecast high growth of Chinese electronic banking, it has the potential to develop into a world-scale internet economy and requires examination. The results shows Chinese online bank users were predominantly males, not necessarily young and highly educated, in contrast with the electronic bank users in the West. The issue of security was found to be the most important factor that motivated Chinese consumer adoption of online banking. Main, barriers to online banking were the perception of risks, computer and technological skills and Chinese traditional cash-carry banking culture. The barriers to mobile banking adoption were lack of awareness and understanding of the benefits provided by mobile banking.

Eriksson (2005) conducted a study of technology acceptance of internet banking in Estonia, an emerging East European economy. The findings suggest that internet bank use increases insofar as customers perceive it as useful. The perceived usefulness is central because it determines whether the perceived ease of internet bank use will lead to increased use of the internet bank. Put differently, a well-designed and easy to use internet bank may not be used if it is not perceived as useful. We thus, conclude that the perceived usefulness of internet banking is, for banks, a key construct for promoting customer use. We also suggest that models of technology acceptance

should be re-formulated to focus more on the key role of the perceived usefulness of the service embedded in the technology.

Curran (2005) conducted a research aims to focus on the examination of factors that influence consumer attitudes toward and adoption of self-service technologies (SSTs). A comparison of the results of the model tests on the three technologies provides evidence that different factors influence attitudes toward each of these technologies and offers an explanation of the varying degrees of acceptance found among consumers. This research has demonstrated that multiple factors need to be considered when introducing technologies into the service encounter and that the salient factors may vary among technologies and their stages in the adoption process.

Ahmed (2006) examined the issues related to the development of the internet and e-commerce (EC) in the Kingdom of Saudi Arabia. The key challenges identified for Saudi's organizations are the continuing relying on face-to-face contact principles, problems with information overload, charges still expensive, the need for technical support and expertise, lack of a management commitment and understanding the potential role of information technology (IT) on the country's future and middle aged and older people were more reluctant to use IT.

Jenkins (2007) conducted a study to examine the factors affecting the adoption of internet banking services by domestic commercial banks in a sparsely populated small island. Evidence from survey studies and from bank's websites indicated that banks in North Cyprus have been consistently moving toward providing internet-banking services despite a very small potential market to share. In 2004, the majority of commercial banks claimed that the potential market was too small to adopt internet-banking services in North Cyprus. In 2006, the same banks were in the process of introducing internet banking as an assurance to their customers that they would be able to maintain a competitive quality of service in the future, hence avoid losing their customers to the branches of foreign banks.

Laukkane (2007) conducted study to explore and compare customer value perceptions in internet banking. The purpose especially is to compare customer perceived value and value creation between internet and mobile bill paying service. The results indicate that customer value perceptions in banking actions differ between internet

and mobile channels. The findings suggest that efficiency, convenience and safety are salient in determining the differences in customer value perceptions between internets.

Dawson (2007) tried to illustrate how the process of technological change is shaped by a combination of contextual elements that relate to the political and social history of Sudan. The development in infrastructure, relationships with economically powerful industrialized countries and the attitudes and perceptions of key decision makers are discussed. The findings highlight the needs for bank general managers and IT managers to collaborate in the establishment of IT strategies and in ensuring that there are sufficient staff and budgetary resources for successful implementation. There is also a need to develop comprehensive banking policies in Sudan in order to support the replacement of traditional manual methods of banking with more advanced computer-based systems. Managing this process is not simply a technical issue, but a complex socio-political challenge that requires management sensitivity to the context within which change is taking place.

Kim (2007) conducted a study on the adoption of business-to-business and business-to-consumer, e-commerce have not simultaneously considered trust and risk as important determinants of adoption behavior. Further, trust in information technology has not been addressed to a great extent in the context of e-commerce. This research explicitly encompasses the electronic channel and the firm as objects to be trusted in e-commerce. Our conceptual model leads us to believe that trust in the electronic channel and perceived risks of e-commerce are the major determinants of the adoption behavior. Based on the social network theory and the trust theory, determinants of trust in the electronic channel are included in the research model. This research is expected to provide both theoretical explanations and empirical validation on the adoption of e-commerce.

Bastola (2007) financial institutions are slowly moving from Brick and Mortar (Physical branches) to Click and Order (e-banking). ATM's are the most popular electronic delivery channel for banking services in Nepal. Only few customers are using e-banking facilities. Nepalese financial institutions till date have not faced any kind of electronic fraud or risk. Banks have basic security tools like firewall, lightening power surge protection. However, it is found that the some banks are in

lack of having regular back up of website information and e-banking policy. Nepalese banks are using e-banking for their own convenience and for the purpose of retaining exiting customers. The cost analysis of most of the banks in Nepal seems to be either inadequate or not applied due to their narrow space of business transaction or lack of sufficient tools. No significant correlation was found between uses of e-banking and gender, marital status or salary of customer. However, it was found that use of e-banking was significantly associated with age and education.

Haque (2007) conducted a research to find out significant factors of consumer's perception on e-banking transaction by Malaysian Bank Consumers. The study utilizes a combination of theoretical frameworks and quantitative techniques to testify the statistical relationships between consumer perceptions on e-banking transaction. Meanwhile, factor analysis was performed to extraction and make initial decision on the number of factors underlying asset of measured variables of interest. Thereafter, structural equation mode (SEM) was estimated to anticipate the effects of the explanatory variables. This study shows that only protected transaction, have significant impact on consumer's perception about e-banking security, followed by service quality and regulatory framework issues. This study is the first that seeks to ascertain the insight into e-banking in Malaysia, which has not been previously been investigated and much statistical significance makes this study a potential cornerstone for future research. Therefore, this study thus sets an important benchmark for further research in the area.

Faullant (2008) studied on the acceptance of internet banking to investigate the role of internet trust as a specific form of technology trust in the context of internet banking. Furthermore, the integration of propensity to trust within the hierarchical structure of personality and its applicability to technological systems are investigated. The results confirm the influence of internet trust on risk perception and consumer attitudes towards internet banking. Propensity to trust is a determinant not only for interpersonal relationships but also for trust in technological systems.

Smith (2008) conducted a research on internet retail banking. The purpose of this research was to examine the online retail banking industry and determine if there is evidence that online banking will be a dominant player in the financial services retail marketplace. The researcher has used Porter's five-force model to conduct the

industry analysis. The result suggests that online banking is still in its infancy, although with great potential. According to FDIC, while approximately 40 percent of the 10,623 banks and thrifts in the US market have a website, only 376 offer transactional internet banking at the time of the study. About 30 internet-only banks or a pure-play format operates in the USA. All of the web-only banks in the USA combined have about 250,000 depositors, out of the nearly six million customers who have stated that they do significant banking activities over the internet.

Maenpaa (2008) examined the role of expertise measured in terms of use frequency and length of use in moderating consumer perceptions of dimensions of internet bank services. A survey of three hundred respondents investigated differences in perceptions of the proposed service dimensions. The results reveal that consumer's perceptions differed in four of seven dimensions of internet bank services when examined along the criterion of expertise. The most interesting result is that security is not a concern for any of the user groups. Also, an interesting finding is that the dimensions of status, personal finances and investment proved to be U-shaped. Practical implications the findings of this research provide several ideas for marketing of internet banking (IB) and for developing IB websites. For example, appeals of status and ego-gratification in advertising can be used to attract new consumers to IB. Also, designing auxiliary features or tools for personal finance management into bank's websites would prove to be sound investment. This research suggests that expertise has correlation with demographics as well as in perceptions of service dimensions. Thus, it may be possible to apply expertise for segmenting markets along demographic criteria and then to offer appropriate mix of services for each segment.

Wong (2008) tried to re-examine the role of traditional service quality in an e-banking environment by providing a review of how traditional service quality perceptions have evolved through the current and continuing stream of change in banking technology and the corresponding changes in the nature of how banks interact with their customers. The result of this study suggests that there exist a large discrepancy between customer expectations and their perceived performance of traditional banking services.

Pekka (2008) tried to explore understanding of innovation resistance by dividing internet banking non-adopters into three groups based on their intentions to use the

innovation. Thereafter, the aim is to identify how the resistance differs in these customer groups. Significant differences were identified between the groups explored. The resistance of the rejecters is much more intense and diverse than that of the opponents, while postpones show only slight resistance. The results also indicate that psychological barriers are even higher determinants of resistance than usage and value, which are constructs related to ease-of-use and usefulness determining acceptance in the traditional technology acceptance model. Moreover, the findings highlight the role of self-efficacy in bank customer's risk perceptions to internet banking.

Hwang and Thao (2008) tried to investigate how small and medium-sized travel agencies as business customers perceive the benefits and barriers of internet use that related to the development of a positive relationships and loyalty with their service suppliers. The major benefits of internet user were interactional and transactional benefits. The main barriers of the internet user were organizational weaknesses, poor IT infrastructure, mistrust of the internet system and legal issues. While the benefits positively contributed to the service and social bonds, the barriers negatively impacted the development of these bonds. The interactional benefits play a major role to increase switching costs. The customer relationships and switching costs concurrently enhanced the customer loyalty.

Clark (2009) examined the relationships among three dimensions of service quality that influence overall internet banking service quality and it is subsequently effect on customer satisfaction in a New Zealand banking context. The results show significant relationships among online customer service quality, online information system quality, banking service product quality, overall internet banking service quality and customer satisfaction.

Manzano (2009) tried to analyze the determinants of internet banking use, paying special attention to the role of product involvement, perceived risk and trust. Data analysis shows that technology acceptance model (TAM) beliefs and perceived risks (security, privacy, performance and social) have a direct influence on e-banking adoption. Trust appears as a key variable that reduces perceived risk. Involvement plays an important role in increasing perceived ease of use.

Rensleigh (2010) conducted a study on what are internet banking customer's perception on information protection when using internet banking services and products? The research study consisted of a detailed literature review, followed by an empirical component, which consisted of a quantitative questionnaire. The questionnaire used in this study consisted of eight sections covering biographical information, financial institution and internet banking, internet banking service quality and delivery, internet banking functionality, internet banking costs, internet banking convenience and relationships, internet banking trust and internet banking security. The final conclusion was internet-banking products and services will continue to grow across various divides and platforms as the internet costs decrease in future, the growth of internet related products and services such as internet banking will increase.

Kawamala, (2013), tried to study examines customers perception on e-banking services in Tanzania. Especially, it addresses issue such as the strategic need for internet banking, its effect on customer-bank relationships and customer's experiences in internet banking. The results of this research reveal that internet banking is perceived more favorably by banks that offer it compared to those that do not. It was revealed that there were different factors causes Azania bank to adopt e-banking system such as Government support, availabilities of the equipments, customers satisfaction on their needs, competition with other bank perceived ease of use and perceived usefulness, trust and security aspects are deemed crucial factors to explaining internet banking adoption in Tanzania and level of education and income level of respondents may be a major determinant in influencing the adoption of internet banking. The introduction of Mobile banking, the m-banking/mobile phone banking such as M-Pesa and Tigo Pesa have increased the speed of money deposits and transfers via the use of electronic banking run by these companies both in urban and rural areas.

2.3 Concluding Remarks

This chapter explored the concept of electronic banking. It was revealed that the varied definition was based on the context, situation and the environment under which the concept existed. However, the common theme that permeates through all the definitions was underlined by key words such as the exchange of information using

ICT tool to foster good customer relation. In other words, electronic banking was explained as a mechanism by which banks adopt in order to deliver quality services to their clients.

The review also looked at the various forms of electronic banking. Benefits and challenges associated with adaptation of electronic banking was also captured under the chapter. Lastly, empirical studies were also reviewed. Various published and unpublished papers are followed to make the research fruitful and fill the gaps of previous studies. This study helps to conceptualize about the theoretical framework within which this study was conducted.

There is gap between the present research and previous researches in terms of some objectives, tools used for analysis, period of data collection and so on. The topic is also considered as the difference between the previous researches and the current research. The main objective here is to draw a genuine conclusion about the customer satisfaction towards e banking considering the previous studies. In this context, the previous studies can't be ignored because they provide the foundation to present study. Thus, to complete this research work, many books, journals, articles and various published and unpublished dissertations are followed as guideline to make the research effective and smooth through these reference materials.

2.4 Study Framework

A study framework is the basis for thinking about what to do and about what it means, influenced by the ideas and research of others. A framework can help to explain why a study can be doing a in a particular way. It can also help us to understand and use the ideas of others who have done similar things. Framework can be used like a travel map. With reference to the literature review, the following conceptual model was developed. The model draws much input from the literature mentioned. Specifically, this study considers various attributes of internet banking such as accessibility, reliability, convenience, privacy and security as antecedents for adaptation of e-banking.

In order to fill the research gaps the following study framework model is proposed with respect to aforementioned literature review. In order to fill the research gaps the

following theoretical framework, which is presented in figure 2.2, is proposed with respect to literature review.

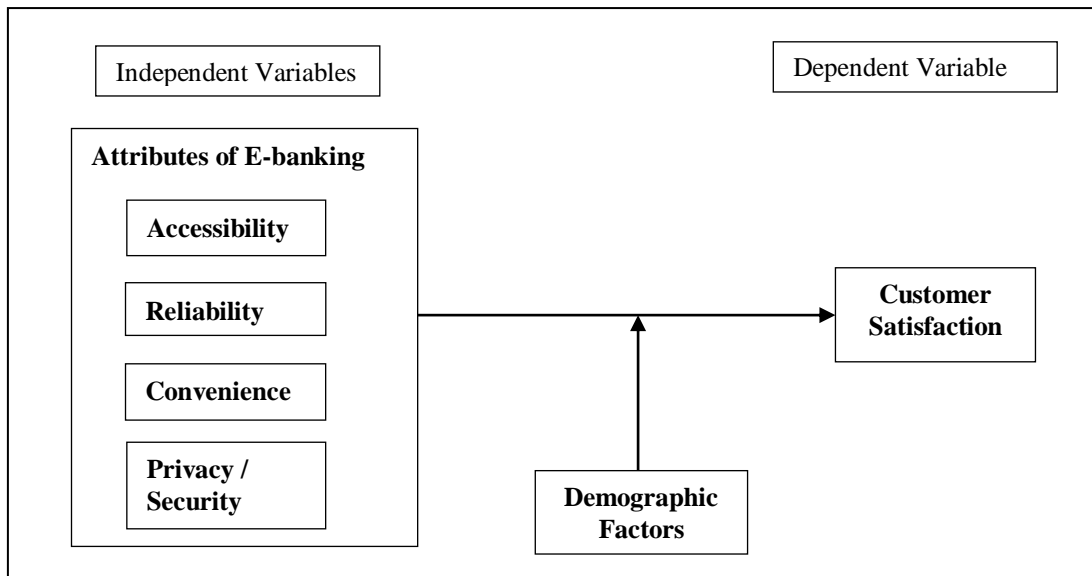


Figure 2.2 Study Framework

This study framework shows all the independent variables and dependent variable associated with this study. This framework explains the relationship that existing between variables used in the present study. To understand customers' satisfaction on E-banking, the following variables reliability, accessibility, ease of use, privacy/security and demographic variables were considered.

Dependent Variable: The dependent variable represents the output or outcome whose variation is being studied. In this study customer satisfaction on e-banking is a dependent variable.

Independent Variable: The independent variable is known as regressors in statistical context, which represent inputs or causes i.e. potential reason for variation. However, there are various dimensions of e-banking service but this study considered reliability, accessibility, convenience, privacy/security as the major attributes of e-banking service.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter is designed to explain the research methods used to meet the stated objectives of the study. It explores the research process regarding E-banking and Customer Satisfaction in the context of Nepalese society. This chapter hence provides information about research design, sources of data, questionnaire, data collection procedures, pilot study, population and sampling, instrumentation, administration of instrument and data analysis plan. The primary objective of this chapter is to highlight the methods and procedure utilized to get the most accurate result following the set objective of the research topic. The design and methods have been applied according to the research type, which is descriptive.

3.1 Research Design

Sekaran (2003) a research design is the determination and statement of the general research approach or strategy adopted for the particular research work. Sekaran (2003) indicated that after identifying the variables in developing the conceptual framework, the subsequent step is to design the research in a way that the data can be collected and analyzed. Malholtra (2004) research design is a framework or blueprint for conducting marketing research project. It provides details of the necessary procedures for obtaining the information needed to structure and to solve marketing research problems.

A systematic research is carried out for the purpose of making findings. A descriptive as well as explanatory research was carried out for the purpose of this research. The research is descriptive in nature as it describes data and characteristics about the population being studied, solely on the basis of statistics, without any form of manipulation. The research is also explanatory since it has been conducted to identify the extent and nature of cause-and-effect relationships among the dependent and independent variables.

Basically, this study is based on survey research design for understanding consumer response towards e-banking service of banks. Hence, for this, questionnaire and semi structured interviews were used. For the collection of primary data, a set of

questionnaire has been prepared and distributed within the customers of private banks inside Kathmandu valley. This study was conducted using both the qualitative and quantitative research.

3.2 Nature and Sources of Data

The data used in this research is primary in nature. All the data has been collected from the respondents via the structured questionnaire and field survey. Primary data is a type of information that is obtained directly from first-hand sources by means of surveys, observation or experimentation. It is data that has not been previously published and is derived from a new or original research study and collected at the source such as in marketing. In this research primary data has been used to meet the research objectives and draw genuine conclusions in the end. Primary data was gathered by means of questionnaires and semi structured interview questions.

The findings of this research were based on the primary survey. The data was collected by formulating a set of questionnaire and then the questionnaire was distributed to the customers of the bank. So, the findings have been totally based on the data and facts provided by the sampled respondent. The study used various instruments of data gathering such as questionnaires and interview questions in order to collect quality and reliable data. In this way, the research has been designed to pinpoint the major existing problems and issues and thereby providing the applicable recommendation and thus, facilitate the end user of this research study.

3.2.1 Pilot Test

The purpose of pilot test is to refine the questionnaire so that the respondents do not face any problems answering the questions and also to eliminate further problems in recoding the data collected. Pilot test ensures that the collected data will be helpful in answering the research questions. For this research, the pilot study was done within the Bagbazar area randomly by distributing the questionnaires taking 30 respondents as per convenience. The pilot study showed that the respondents did not find the questionnaire long and were clear and understandable. Hence, no modifications were made for the same and were used for further research. Only when the pilot test seems to be reliable for the study, data were collected in full-fledged. Through the pilot test it became sure that the designed questionnaire can meet the research objectives defined at chapter one.

The data obtained from the research was analyzed by using statistical tools. Mainly, descriptive statistical analysis was used for the purpose of generating findings. Apart from these analyses in some of the variables, inferential analysis was also done to find relationship between the variables. On top of it the recommendation and conclusion is totally based upon the findings.

3.2.2 Reliability and Validity

Reliability is synonymous with the consistency of a test, survey, observation, or other measuring device. Research requires dependable measurement. Measurements are reliable to the extent that they are repeatable and that any random influence, which tends to make measurements different from occasion to occasion or circumstance to circumstance, is a source of measurement error. Reliability is the degree to which a test consistently measures whatever it measures. The idea behind reliability is that any significant results must be more than a one-off finding and be inherently repeatable. Other researchers must be able to perform exactly the same experiment, under the same conditions and generate the same results. This will reinforce the findings and ensure that the wider scientific community will accept the hypothesis. Without this replication of statistically significant results, the experiment and research have not fulfilled all of the requirements of testability.

Validity refers to the degree in which our test or other measuring device is truly measuring what we intended it to measure. In other words, validity reflects the truthfulness of findings. It determines whether the study truly measures what it was intended to measure or how truthful the study results are. It refers to the accuracy of a measure and a measurement is valid when it measure and perform the functions that it support to perform. Validity refers to how well a measurement truly represents characteristics that exist in the phenomenon being investigated. In order to guarantee external validity, measures were taken to collect a sample that is as representative as possible.

The purpose of the validity and reliability analysis is to determine whether data are trustworthy or not. The designed questionnaire is finalized before requesting the respondents to participate. For the reliability test, Cronbach's Alpha was calculated for this questionnaire. The result of the reliability test is shown in Table 3.1.

Table 3.1: Cronbach's Alpha Coefficients

<i>S. No.</i>	<i>Variables</i>	<i>No. of items</i>	<i>Cronbach's Alpha</i>
1	Accessibility	6	.759
2	Reliability	6	.762
3	Convenience	6	.783
4	Security	6	.794
5	Customer Satisfaction	4	.728

Note: Researcher's Survey, 2019

Table 3.1 shows the Cronbach's alpha coefficients of independent variables- Accessibility, Reliability, Convenience, Security and dependent variable-Customer Satisfaction. Cronbach's Alpha coefficient less than 0.6 is considered as 'poor'; greater than 0.6 but less than 0.8 is considered 'acceptable' and greater than 0.8 is considered 'good' (Sekaran U. , 2000). Here, Cronbach's Alpha of all the variables are considered as acceptable, since they are greater than 0.7. Therefore, the instruments used in this research are considered to be reliable.

Data for this survey was collected through questionnaire for measuring impact of e-banking service of banks on customer satisfaction. Samples of 140 respondents' i.e. individuals who use e-banking service of banks were selected. The questionnaires were distributed among the respondents and the responses were collected thereafter.

The questionnaire developed includes personal information about respondents such as gender, age, education and profession. There are also six point Likert scale questions in which respondents were asked to express to what extent they perceive the determinants of e-banking service (Accessibility, Reliability, Convenience, Security). Simple descriptive statistics such as simple frequency count, percent, mean, median and standard deviation, etc. is used particularly to analyze the factors affecting customer satisfaction and issues related to it.

3.3 Population and Sampling

Population or universe refers to the industries of the same-nature of its service and product. It is the collection or the aggregate of objects or the set of results of an operation. On the other hand, sample means the representative parts of population selected from it with the objectives of investigating its properties. Thus, a sample is

just a portion of the population selected with a view to draw conclusions about the population under study. For the purpose of this study, survey method has been adopted. The overall survey and study was guided by the objectives of the study that is set as mentioned in the first chapter. In conformity with the objective, the study was designed to understand the relationship between e-banking and customer satisfaction in the context of Nepalese society.

The target population for this study includes all the customers of private commercial banks inside Kathmandu valley. Researcher used the convenience sampling by sub grouping the occupation as government employees, private employees, self-employed and student and the sample respectively. This study obtained data from 140 people out of whom some are working in various organizations, some are students, and some are businessperson. Convenience sampling was used in this study to track the respondents for the study. With this sampling technique, subjects are selected because of their convenient accessibility and proximity to the researcher. Convenience sampling was appropriate for this research because of its advantages like availability and the quickness with which data can be gathered.

Samples were collected from the different sub-groups and they were the customers of different 4 commercial banks (NCC, Mega, Janata and Civil). Moreover, sample of customers were from the different age groups, educational background and gender. In the survey, all respondents had to respond through filled questionnaire.

3.4 Methods of Analysis

In this research, the major source of data was the data collected from the questionnaire and the whole research is based on this data. So, all the questionnaires were distributed and collected by the researcher. Further, the researcher was personally presented while asking respondents to fill the questionnaire. After collecting questionnaire, every questionnaire was thoroughly checked. On the basis of questionnaire some research hypothesis were created which, are described in the first chapter.

For the distribution of the pre-designed questionnaire all the identified respondents were given a set of printed copy of questionnaire. They were then asked to fill them without being biased and confirmed that their response will be kept confidential. After

filling out the questionnaire their response were abstracted via the use of various statistical tools and techniques.

At the initial phase for the purpose of developing theoretical framework the secondary sources of data collection was used. The secondary source of data was internet, books, journals, newspaper and articles. Similarly, in the later stage the primary sources of data collection was used. The primary source of data was structured questionnaires, which consisted of multiple-choice questions and rating scales so as to meet the intended objective of the study.

The key instrument used in the study is the structured questionnaire, which was designed to meet the stated objectives of the research. To maximize content validity, a comprehensive literature review was done in order to grasp the relationship of e-banking and customer satisfaction. On the basis of the questionnaire, data were collected and were analyzed using the analytical tools in an attempt to describe what has been observed regarding theoretical framework developed by referring the related literatures in this topic.

The questionnaire mainly included multiple choice questions and Likert scale questions, which is a widely used rating scale that requires respondent to indicate a degree of agreement or disagreement with each series of statement. The survey contains 28 questions using a six-point Likert scale for each question ranging from 'Strongly Disagree' to 'Strongly Agree', coded by 1 representing 'Strongly Disagree' and 6 representing 'Strongly Agree'.

The first part of the questionnaire deals with demographic information of respondents, which includes gender, age, education, and profession. The second part deals with questionnaires concerning various determinants of e-banking that have a relationship with customer satisfaction, as stated in the theoretical framework for the study. The different variables included independent variables such as accessibility, reliability, convenience, privacy of e-banking and a dependent variable- customer satisfaction. All the independent variables consist of 6 questions each and dependent variable-customer satisfaction consists of 4 questions.

The study aims to analyze the relationship between e-banking service attributes and customer satisfaction. The determinants of e-banking service are used as independent

variables. Four different determinants are taken as independent variables namely accessibility, reliability, convenience and security. Customer satisfaction is taken as dependent variable. Multiple regression models are used in this study to analyze the relationship between the determinants of e-banking service and their impact on customer satisfaction. The multiple regression model used in this study is as follow:

$$\hat{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i \dots\dots\dots (i)$$

Where, \hat{Y} = Customer Satisfaction X_1 = Accessibility, X_2 = Reliability, X_3 = Convenience, X_4 = Security, α = constant, e_i = Error term and $\beta_1, \beta_2, \beta_3, \beta_4$ are the beta coefficients of the explanatory variables to be estimated. All the observed relationship and findings have been interpreted to drive at meaningful conclusions regarding the relationship between e-banking service and customer satisfaction.

In this way, the research required the collection of both primary and secondary data for the purpose of making useful finding.

3.6 Limitations of the Study

There are always some limitations present while performing any work. The basic limitations of this research are as follows:

- The study was restricted to the Kathmandu city, capital of Nepal as the capital city is far more developed than other cities in terms of information technology and communication.
- The study made use convenience sampling method and non probability sampling method.
- The study has used only limited analytical tools due to limited time and resources.

The study as a matter of fact should have captured all the customers of major banks in Nepal. This is, however, too difficult and impractical due to many factors like limited time and resources. Respondents individual opinions are collected so whatever they provided may be different to other context. That is why further evidence is needed for generalization purpose.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

This chapter describes the analysis results generated from the process of data collection. It deals with the analysis and interpretation of the primary data collected through questionnaire from 140 respondents. Data were analyzed with reference to the objectives of this research as mentioned in the earlier chapter. The primary purpose of this chapter is to analyze and interpret the collected data and present the results of the questionnaire survey. The main objective of this research study will be fulfilled with the outcomes derived from the analysis of the data. The data collected from the procedure as stated in chapter three were further taken for analysis and presentation. This analysis part consists of details of the respondents' profile, descriptive analysis of respondents' answers on e-banking service and the respective correlation among the dependent and independent variable.

The main purpose of this section is to test relationship between the attributes of e-banking and customer satisfaction along with the presence of dependent variable which is employee engagement and independent variables such as Accessibility, Reliability, Convenience and Security. This section is further sub-divided into various sections. The first part deals with the respondents' profile and their demographic characteristics. The second part is descriptive analysis, which analyzes the collected data through frequency analysis and measures of central tendency. The third part analyzes the collected data through inferential analysis, which includes hypothesis testing and correlation analysis. Fourth part is regression analysis. The fifth and the final part of this chapter deals with discussion and inferences by analyzing and interpreting the collected data on attributes of e-banking service and customer satisfaction in Nepalese banking industry.

4.1 Respondents' Profile

This section deals with the demographic analysis and interpretation of primary data collected through questionnaires. It gives an insight into the demographic characteristics of the respondents under study. In this study the respondents has been sub divided into various categories for the purpose of simplicity and they are:

- Gender wise
- Age wise
- Occupation wise
- Education level wise

The main reason behind sub categorization is that it will help the end users to know ‘what specifically is the main key variable in this research influencing the output?’ For example, in this research gender wise categorization helps the end users to know whether male or female are using more of the internet banking service.

4.1.1 Gender of Respondents

The questionnaire was distributed to both male and female respondents. The objective was to determine the percentage of distribution of respondents by gender. The frequency and percentage of the respondents is depicted in Table 4.1 and Figure 4.1 below:

Table 4.1: Distribution of Respondents Based on Gender

<i>Gender</i>	<i>Frequency</i>	<i>Percentage</i>
Male	84	60
Female	56	40
Total	140	100.0

Note: Researcher’s survey, 2019

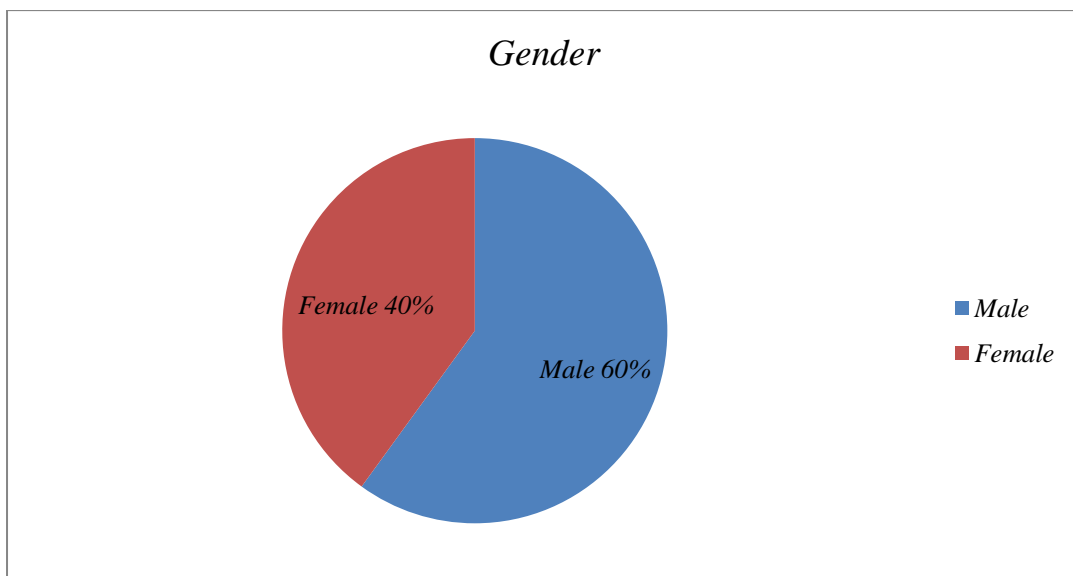


Figure 4.1 Distribution of Respondents based on Gender

Figure 4.1 and Table 4.1 show gender distribution of the respondents. From the above figure and table, it is clear that out of total respondents, 84 were male and 56 were female. Hence, respondents comprised of 60 percent male and 40 percent female.

4.1.2 Age group of Respondents

The questionnaire was distributed to respondents of different age groups. This was to determine the percentage distribution of the age groups of people who responded to the given questionnaire, as shown in Table 4.2 and Figure 4.2.

Table 4.2 Distribution of Respondents based on Age

<i>Age</i>	<i>Frequency</i>	<i>Percentage</i>
Below 20	14	10
20-30	56	40
31-40	36	25.7
41-50	20	14.3
Above 50	14	10
Total	140	100

Note: Researcher's survey, 2019

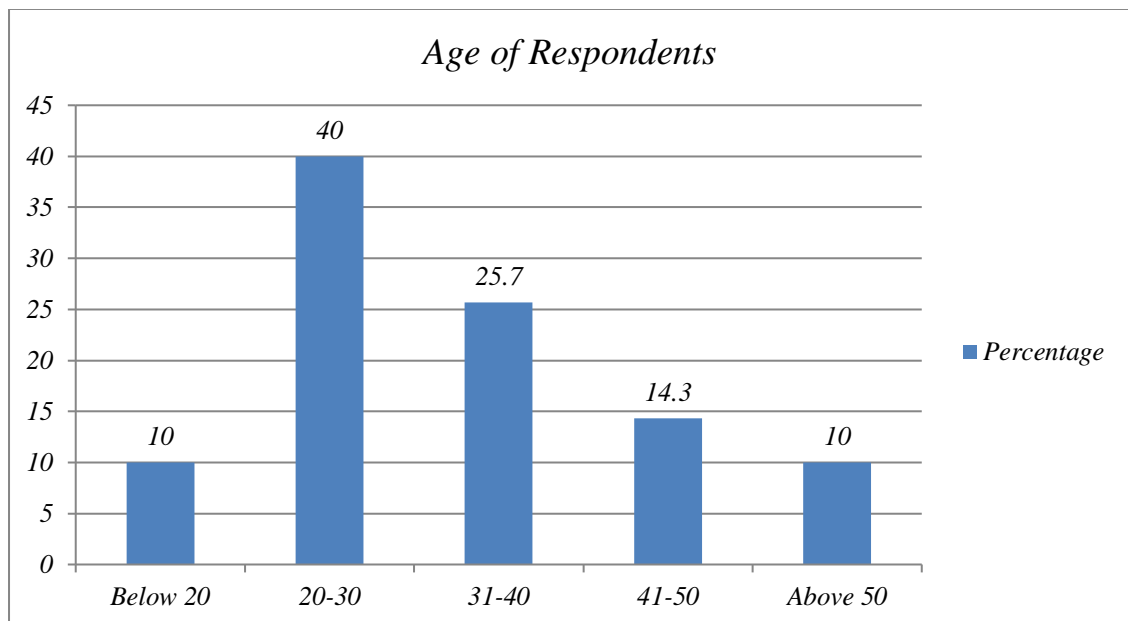


Figure 4.2 Distribution of Respondents based on Educational Qualification

Figure 4.2 and Table 4.2 show age distribution of the respondents, where majority of the respondents fall under the age group of 20-30. From the above figure and table it is clear that 14 respondents were under the age group of below 20, 56 respondents

were of age group 20-30, 36 respondents were of age group 31-40, 20 respondents were of age group 41-50 and 14 respondents were under the age group of above 50. Out of total respondents, 10 percent were below 20 years of age, 40 percent fall in the age group of 21-30, 25.7 percent fall in the age group of 31-40, 14.3 percent fall in the age group of 41-50 and 10 percent respondents were above 50 years of age. Hence, this result shows that the majority of people using e-banking service fall within the age group of 21 -30.

4.1.3 Educational Qualification of Respondents

The questionnaire was distributed to respondents having different levels of academic experience. The educational qualification of respondents is shown in Table 4.3 and Figure 4.3.

Table 4.3 Distribution of Respondents based on Educational Qualification

<i>Educational Qualification</i>	<i>Frequency</i>	<i>Percentage</i>
SLC	8	5.7
Intermediate	14	10
Bachelor Degree	60	42.9
Master	58	41.4
Total	140	100

Note: Researcher's survey, 2019

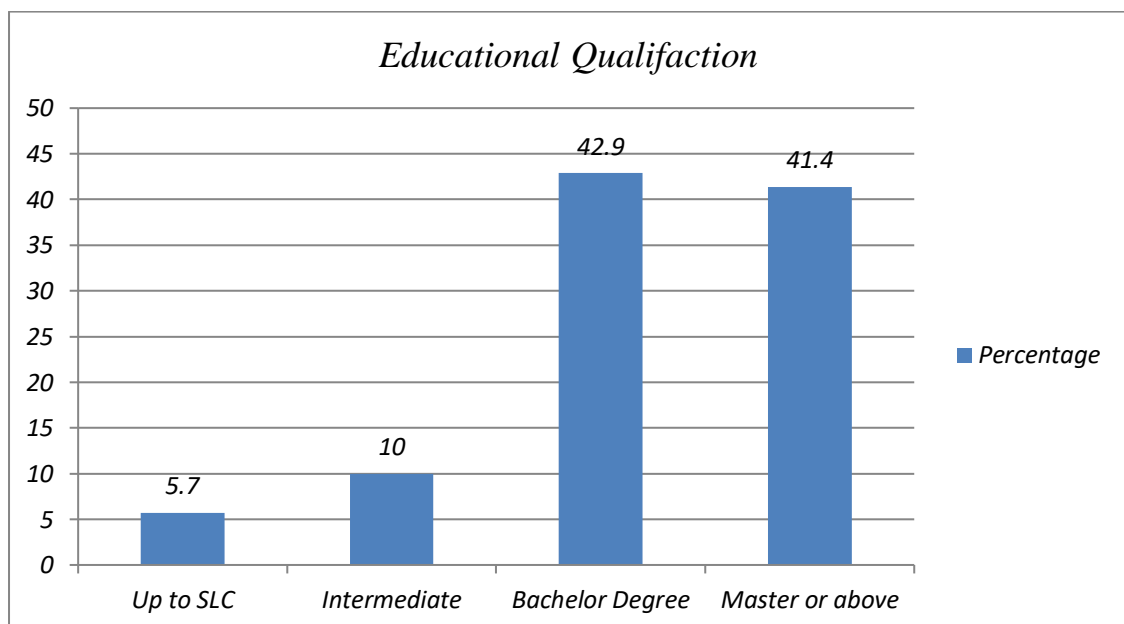


Figure 4.3 Distribution of Respondents based on Educational Qualification

Figure 4.3 and Table 4.3 depict educational qualification of the respondents. It shows that 5.7 percent of the respondents i.e. only 8 respondents were in SLC level, 10percent of the respondents i.e. 14 respondents were in the intermediate level, 42.9 percent of the respondents i.e. 60 respondents were in Bachelor level and 41.4 percent of the respondents i.e. 58 respondents were in Masters Level. Therefore, this result shows that the majority of the e-banking users have a qualification Bachelor degree.

4.1.4 Profession of Respondents

The questionnaire was distributed to respondents working in different fields. The profession of respondents is shown in Table 4.4 and Figure 4.4.

Table 4.4 Distribution of Respondents based on Profession

<i>Profession</i>	<i>Frequency</i>	<i>Percentage</i>
Government Employee	34	24.29
Private Employee	54	38.57
Self Employed	21	15
Student	12	8.57
Other	19	13.57
Total	140	100

Note: Researcher's survey, 2019

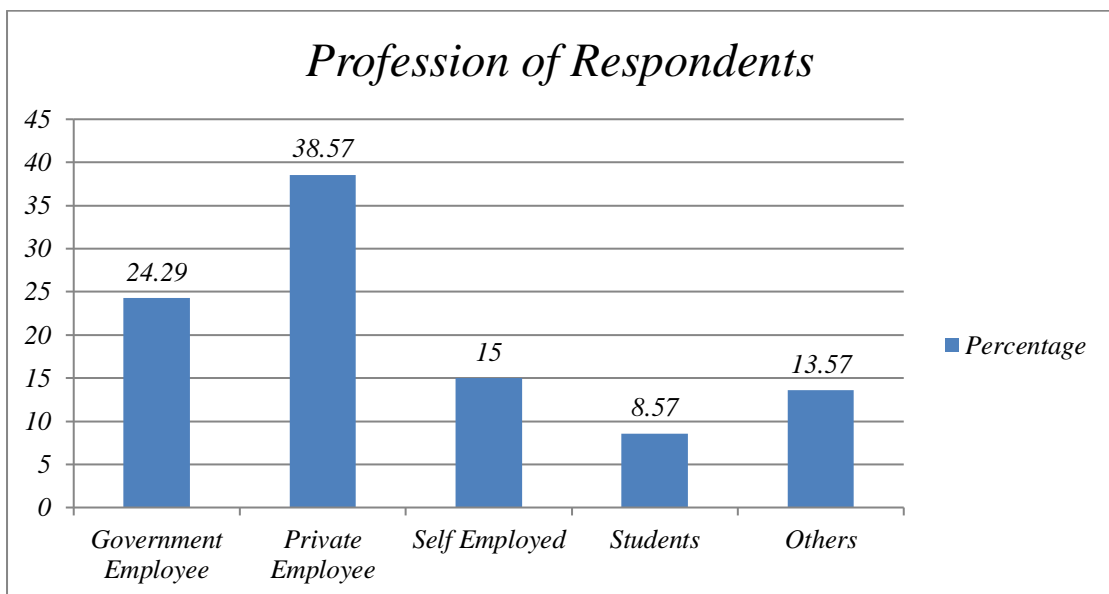


Figure 4.4 Distribution of Respondents based on Profession

Table 4.4 and Figure 4.4 depict the distribution of respondents based on profession such as government employee, private employee, self-employed, students and other. It shows that majority of the respondents i.e. 38.57 percent belong to private employees other than which are mentioned.

4.2 Descriptive Analysis

In order to present descriptive scores for each of the variables used in the survey, descriptive analyses were performed. Descriptive statistics summarizes the sample and observations that have been made. In this study, descriptive analysis incorporates the calculation of statistical measures such as mean and standard deviation. A total of 28 items (questions) with particular mean score were obtained as output. A six-point Likert scale was used for each question ranging from ‘Strongly Disagree’ to ‘Strongly Agree’; coded by 1 representing ‘Strongly Disagree’, 2 representing ‘Disagree’, 3 representing ‘Neutral’, 4 representing ‘Agree’ and 5 representing ‘Strongly Agree’. These values are used to analyze the data with respect to frequencies and aggregation relating to research questions and variables.

4.2.1 Accessibility of e-banking service

Accessibility of e-banking service is one of the independent variables of this research. Descriptive study of each question drafted and overall descriptive study on this variable is shown below:

Table 4.5 Descriptive Statistics of Accessibility of e-banking service

<i>Code</i>	<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
Acc1	E-banking Service of the bank is easy to use.	140	4.17	1.262
Acc2	Website of the bank is properly designed.	140	4.10	1.250
Acc3	Easy to get access to all the financial information in the bank’s e-banking service.	140	4.13	1.290
Acc4	Easy to find the policy and notice statements in the bank’s website.	140	4.15	1.255
Acc5	Speed to login and logout of the bank website is fast	140	4.28	1.132
Acc6	Website of the bank does not freeze during transactions.	140	4.40	1.254
<i>Accessibility of e-banking</i>		140	4.21	1.082

Note: Researcher’s survey, 2019

The results in Table 4.5 show descriptive statistics of an individual item and as a whole of accessibility sub-factor. There are six statements used to measure the accessibility of e-banking service. Each of the 140 respondents submitted their responses in the six-point Likert scale. The Table show that the items have a mean value ranging from 4.10 to 4.40 i.e. the response is positive.

The Table shows that “Acc6” has the highest mean and “Acc2” has the lowest. The highest mean of 4.40 indicates that it is the most agreed statement, stating, “Website of the bank does not freeze during transactions”. Lowest mean of 4.10 shows that respondents are less agreed by the statement “Website of the bank is properly designed”.

Additionally, the Table shows that “Acc6” has the highest standard deviation whereas “Acc5” has the lowest standard deviation. This means respondents have more deviation with the statement “You get access to all of your financial information in the bank’s e-banking service.”

4.2.2 Reliability of e-banking service

Reliability of e-banking service is another independent variable of this research. Descriptive study of each questions drafted and overall descriptive study on this variable is shown below:

Table 4.6 Descriptive Statistics of Reliability if e-banking service

<i>Code</i>	<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
Rel1	Can rely on the accuracy of the information provided in web page of the bank.	140	4.61	0.967
Rel2	Contents on bank’s website are up to date.	140	4.56	1.393
Rel3	The bank’s website provides all details of products and services.	140	4.78	1.080
Rel4	The bank provides customer service over the telephone when needed.	140	3.52	0.942
Rel5	Can rely on bank for not misusing information.	140	4.26	0.975
Rel6	The bank’s website provides an error free transaction.	140	4.12	1.184
	Reliability of e-banking service	140	4.31	0.997

Note: Researcher’s survey, 2019

The results in Table 4.6 show descriptive statistics of an individual item and as a whole of reliability of e-banking service sub-factor. There are six statements used to measure the reliability of e-banking service. Each of the 140 respondents submitted their responses in the six-point Likert scale. The Table show that the items have a mean value ranging from 3.52 to 4.78 i.e. the response is positive. Among the six statements, the statement with code "Rel4" has scored the lowest mean of 3.52 with a standard deviation of 0.942 and statement with code "Rel3" has scored the highest mean of 4.78 with standard deviation of 1.080.

The highest mean of 4.78 indicates that it is the most agreed statement, stating "The bank's website provides all details of products and services" and the lowest mean of 3.52 shows that respondents are less agreed by the statement "The bank provides customer service over the telephone when needed". Additionally, the table shows that "Rel2" has the highest standard deviation of 1.393 whereas "Rel4" has the lowest standard deviation of 0.942. This means respondents have more deviation with the statement "Contents on bank's website are up to date".

4.2.3 Convenience of e-banking service

Convenience of e-banking service is another independent variable of this research. Descriptive study of each questions drafted and overall descriptive study on this variable is shown below:

Table 4.7 Descriptive Statistics of Convenience of e-banking service

<i>Code</i>	<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
Con1	Language of bank's website is easy to understand.	140	4.02	1.104
Con2	E-banking service of the bank is user friendly.	140	3.89	1.220
Con3	The bank's website is easy to navigate.	140	4.15	1.314
Con4	The e-banking service of bank is available for 24 hours per day & 7 days a week.	140	4.32	1.080
Con5	Instructions on bank's website are very helpful.	140	3.93	1.261
Con6	The bank handles complains and solves problem quickly through live chat service.	140	3.42	1.187
Convenience of e-banking service		140	3.95	1.173

Note: Researcher's survey, 2019

The results in Table 4.7 show the descriptive statistics of an individual item and as a whole of convenience sub-factor. The Table show that the items have a mean value ranging from 3.42 to 4.32 i.e. the response is positive. Among the six statements, the statement with code "Con6" has scored the lowest mean of 3.42 with a standard deviation of 1.187 and statement with code "Con4" has scored the highest mean of 4.32 with the lowest standard deviation of 1.080. The highest mean of 4.32 indicates that it is the most agreed statement, stating, "The e-banking service of bank is available for 24 hours per day & 7 days a week". Lowest mean of 3.42 shows that respondents are less agreed by the statement "The bank handles complains and solves problem quickly through live chat service".

Additionally, the table shows that "Con3" has the highest standard deviation of 1.314 whereas "Con4" has the lowest standard deviation of 1.080. This means respondents have more deviation with the statement "The e-banking service of bank is available for 24 hours per day & 7 days a week".

4.2.4 Security of e-banking service

Security of e-banking service is the sixth and the final independent variable of this research. Descriptive study of each questions drafted and overall descriptive study on this variable is shown below:

Table 4.8 Descriptive Statistics of Security of e-banking

<i>Code</i>	<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
Sec1	The transaction on bank's website is confidential.	140	3.74	1.243
Sec2	Bank collects personal information very carefully.	140	4.22	1.110
Sec3	The e-banking service of bank suggest for creation of strong password.	140	4.45	1.075
Sec4	Session timeouts occurred in the bank's website after some times.	140	3.92	1.215
Sec5	The bank's website has dedicated security software, which updates on regular basis.	140	4.12	1.126
Sec6	The bank sends messages & mails during every transaction to alert or notify.	140	4.24	1.344
	Security of e-banking service	140	4.12	1.102

Note: Researcher's survey, 2019

The results in Table 4.8 show the descriptive statistics of an individual item and as a whole of security sub-factor. There are six statements used to measure security of e-banking service. Each of the 140 respondents submitted their responses in the six-point Likert scale. The Table shows that the items have a mean value ranging from 3.74 to 4.45.

Among the six statements, the statement with code "Sec1" has scored the lowest mean of 3.74 with standard deviation of 1.243 and statement with code "Sec3" has scored the highest mean of 4.45 with a standard deviation of 1.075. The highest mean of 4.45 indicates that it is the most agreed statement, stating, "The e-banking service of bank suggest for creation of strong password". Lowest mean of 3.74 shows that respondents are less agreed by the statement "The transaction on bank's website is confidential".

Additionally, the table shows that "Sec6" has the highest standard deviation of 1.344 whereas "Sec3" has the lowest standard deviation of 1.075. This means respondents have more deviation with the statement "The bank sends messages& mails during every transaction to alert or notify".

4.2.5 Customer Satisfaction

Customer satisfaction is the dependent variable of this research. Descriptive study of each questions drafted and overall descriptive study on this variable is shown below:

Table 4.9 Descriptive Statistics of Customer Satisfaction

<i>Code</i>	<i>Statements</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
Cs1	Easy to access the e-banking service of the bank satisfies the customer.	140	4.17	0.969
Cs2	Reliability on e-banking service of the bank encourages using the service.	140	4.41	0.948
Cs3	User-friendly characteristic of e-banking service of bank satisfies the customer.	140	4.27	0.921
Cs4	Dedicated security software in bank's website gives confidence to use the service.	140	3.98	0.993
	Customer Satisfaction	140	4.20	0.946

Note: Researcher's survey, 2019

The results in Table 4.9 show the descriptive statistics of an individual item and as a whole of Customer Satisfaction. There are four statements used to measure Customer Satisfaction on e-banking service. Each of the 140 respondents submitted their responses in the six-point Likert scale. The Table shows that the items have a mean value ranging from 3.98 to 4.41.

Among the four statements, the statement with code "Cs4" has scored the lowest mean of 3.98 with standard deviation of 0.993 and statement with code "Cs2" has scored the highest mean of 4.41 with a standard deviation of 0.921. The highest mean of 4.41 indicates that it is the most agreed statement, stating, "Reliability on e-banking service of the bank encourages using the service". Lowest mean of 3.98 shows that respondents are less agreed by the statement "Dedicated security software in bank's website gives confidence to use the service".

Additionally, the table shows that "Cs4" has the highest standard deviation of 0.993 whereas "Cs3" has the lowest standard deviation of 0.921. This means respondents have more deviation with the statement "Dedicated security software in bank's website gives confidence to use the service".

4.3 Inferential Analysis

The purpose of this section is to present the method for analyzing the empirical results, test the hypothesis set, built in previous chapter. Inferential statistics are procedures used that allow researchers to infer or generalize observations made with samples to the larger population from which they were selected. It enables use of one or more samples of observations to infer values of a population. Inferential analysis test hypotheses to determine if observed differences between groups or variables are real or occur simply by chance. It produces new information by making predictions and generalizations based on samples. This section consists of two analysis tools which are:

4.3.1 Correlation Analysis

Correlations Analysis between variables was studied to find relations among them. Pearson's correlations analysis was carried out for variables having simple multi option answers. Correlation matrix was computed to assess the extent or degree of relationship in between the research variables. Correlation between Independent and Dependent variables is shown in Table 4.10:

Table 4.10 Correlation Analysis

	<i>Accessibility</i>	<i>Reliability</i>	<i>Convenience</i>	<i>Security</i>	<i>Customer Satisfaction</i>
Accessibility	1				
Reliability	.459**	1			
Convenience	.531**	.648**	1		
Security	.420**	.577**	.688**	1	
Customer Satisfaction	.554**	.644**	.533**	.479**	1

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

Note: Based on researcher's calculation from the survey data

Relationship between Accessibility and Customer Satisfaction

The Pearson Correlation coefficient between the independent variable accessibility of e-banking service attributes and dependent variable Customer Satisfaction is 0.554, which implies that the two variables are positively correlated. The positive coefficient of correlation is 0.554 at 1 percent significant level.

Relationship between Reliability and Customer Satisfaction

The Pearson Correlation coefficient between the independent variable reliability of e-banking service and dependent variable Customer Satisfaction is 0.664, which implies that the two variables are positively correlated. The positive coefficient of correlation is 0.664 at 1percent significant level.

Relationship between Convenience and Customer Satisfaction

The Pearson Correlation coefficient between the independent variable convenience of e-banking service and dependent variable Customer Satisfaction is 0.533, which implies that the two variables are positively correlated. The positive coefficient of correlation is 0.533 at 1percent significant level.

Relationship between Security and Customer Satisfaction

The Pearson Correlation coefficient between the independent variable security of e-banking service and dependent variable Customer Satisfaction is 0.479, which implies that the two variables are positively correlated. The positive coefficient of correlation is 0.479 at 1percent significant level.

4.3.2 Regression Analysis

The general purpose of multiple regressions is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. In statistical modeling, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables.

A correlation analysis can only tell whether or not a strong relationship exists between two variables. But even if a correlation coefficient indicates that a strong relationship exists between two variables, the exact shape of the relationship between the two variables cannot be determined. In this case, regression analysis provides more information about the slope of the relationship. It is used to describe the nature of a relationship and to make predictions.

This section determines which independent variable explains variability in the outcome, how much variability in dependent variable is explained by independent variables and dependent variable, and which variables are significant (over other variables) in explaining the variability of the dependent variable. Multiple regressions were used to explore the impact of independent variables on dependent variable.

Multiple Regression Model

$$\hat{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i$$

Where,

\hat{Y} = Customer Satisfaction (Dependent variable)

X_1 = Accessibility of e-banking service

X_2 = Reliability of e-banking service

X_3 = Convenience of e-banking service

X_4 = Security of e-banking service

α = Constant

e_i = Error term

$\beta_1, \beta_2, \beta_3$ & β_4 are the beta coefficients of the explanatory variables

Table 4.11 Multiple Regressions Analysis

<i>Dependable variables: Customer Satisfaction</i>	
$\hat{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_t$	
Coefficients	
(Constant)	0.464 (.232)
Factor 1: Accessibility	0.503 (.000)
Factor 2: Reliability	0.488 (.001)
Factor 3: Convenience	0.510 (.000)
Factor 3: Security	0.678 (.000)
<i>F</i> -value	33.849 (.000)
<i>R</i> ²	66.40
Adjusted <i>R</i> ²	64.40

Note: The numbers in the parentheses are the p-values.

Based on researcher's calculation from the survey data

Model summary indicates the R- square also known as coefficient of determination which can help in explaining variance. The value of R-square as evident from Table is 0.644 which means 64.4 percent variation in Customer Satisfaction is explained by accessibility of e-banking service, reliability of e-banking service, convenience of e-banking service, security of e-banking service. This shows moderate relationship between all variables of e-banking service and customer satisfaction. Model summary also indicates the standard error of the estimate of 0.33849 which shows the variability of the observed value of customer satisfaction from regression line is 0.33849 units. However, the remaining 35.6 percent (100 percent-64.4 percent) is still unexplained in this research. In other words, there are other additional variables of e-banking service that are important in explaining customer satisfaction, that have not been considered in this research.

Based on ANOVA, the p-value is 0.00 which is lesser than alpha value 0.01. Therefore, the model is a good predictor of the relationship between the dependent and independent variables. As a result, the independent variables (Accessibility, Reliability, Convenience and Security) are significant in explaining the variance in Customer Satisfaction.

Taking four dimensions of e-banking service i.e. accessibility, reliability, convenience and security as independent variable (X1, X2, X3, X4,) and Customer Satisfaction as the dependent variable, the model is constructed with equation as below:

$$\hat{Y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e_i$$

Based on the coefficients, the regression equation for customer satisfaction can be written as:

$$\hat{Y} = .464 + 0.503X_1 + 0.488X_2 + 0.510X_3 + 0.678X_4$$

Regression coefficient of Accessibility, Reliability, Convenience and Security are .0.503, 0.488, 0.510 and 0.678 respectively.

4.4 Hypothesis Testing

Hypothesis testing is the use of statistics to determine the probability that a given hypothesis is true. Hypothesis testing is done using inferential analysis. Inferential analysis test hypotheses to determine if observed differences between groups or variables are real or occur simply by chance. The best way to determine whether a statistical hypothesis is true would be to examine the entire population. Since that is often impractical, researchers typically examine a random sample from the population. If sample data are not consistent with the statistical hypothesis, the hypothesis is rejected.

Six alternative hypotheses were drawn for the purpose of identifying relationship between dependent and independent variables in this study. Each hypothesis is tested on the basis of the Pearson's correlation coefficient. Test on each of these hypotheses is discussed below:

Hypothesis 1

H₁: There is no significant relationship between accessibility of e-banking service and Customer Satisfaction.

The correlation analysis shows that there is a positive correlation between accessibility of e-banking service and Customer Satisfaction. The correlation is significant at 1 percent where p-value is less than alpha i.e. $0.000 < 0.01$. Hence, the alternative hypothesis (H₁) is not accepted.

Hypothesis 2

H₂: There is no significant relationship between Reliability of e-banking service and Customer Satisfaction.

The correlation analysis shows that there is a positive correlation between reliability of e-banking service and Customer Satisfaction. The correlation is significant at 1 percent where p-value is less than alpha i.e. $0.001 < 0.01$. Hence the alternative hypothesis (H₂) is not accepted.

Hypothesis 3

H₃: There is no significant relationship between Convenience of e-banking service and Customer Satisfaction.

The correlation analysis shows that there is a positive correlation between convenience of e-banking service and Customer Satisfaction. The correlation is significant at 1 percent where p-value is less than alpha i.e. $0.000 < 0.01$. Hence the alternative hypothesis (H₃) is not accepted.

Hypothesis 4

H₄: There is no significant relationship between Security of e-banking service and Customer Satisfaction.

The correlation analysis shows that there is a positive correlation between security of e-banking service and Customer Satisfaction. The correlation is significant at 1 percent where p-value is less than alpha i.e. $0.000 < 0.01$. Hence, the alternative hypothesis (H₄) is not accepted.

Hypothesis 5

H₄: There is no significant relationship between e-banking service attributes and Customer Satisfaction.

The correlation analysis shows that there is a positive correlation between e-banking service attributes and customer satisfaction. Hence, the alternative hypothesis (H₅) is not accepted.

Hypothesis 6

H₄: There is no significant impact of e-banking service attributes on the satisfaction of customers.

The correlation analysis and regression analysis shows that there is a positive correlation between security of e-banking service and Customer Satisfaction. The p-value is less than alpha i.e. $0.000 < 0.01$. Hence, the alternative hypothesis (H6) is not accepted.

From the above analyses, it can be concluded that all the independent variables have a significant positive relationship with Customer Satisfaction. However, among all the independent variables the independent variable ‘Reliability’ has the highest correlation coefficient. Therefore, it can be concluded that Reliability has a greater impact on Customer Satisfaction.

4.5 Major Findings

A survey was conducted to find out the influence of different independent variables, used in research, on customer satisfaction. The research was done with the sample size of 140 representing the population size.

The descriptive statistics study and the hypothesis test were conducted and the final result was presented. The results obtained from descriptive statistics for the dependent variables and independent variables are summarized as below:

- The overall average mean value of Accessibility is 4.21, which show that respondents agree that Accessibility is an important factor of e-banking service that affects level of customer satisfaction.
- The overall mean of Reliability is 4.31, which show that the respondents give importance to Reliability and it influences customer satisfaction.
- The overall mean of Convenience is 3.95, which show that respondents agree that Convenience is an important factor of online shopping that affects customer satisfaction levels.
- The aggregate mean of Security is 4.12, which show that accurate product information is an important aspect of customer satisfaction.
- The aggregate mean of Customer Satisfaction is 4.20, which show that the level of customer satisfaction with e-banking service attributes is good.
- The correlation coefficient analysis shows that the relationship between dependent variable and independent variables is positive, which indicates that e-banking service attributes, influence customer satisfaction.

The descriptive findings suggest that among various independent variables, Reliability has the highest mean of 4.31 with standard deviation of 0.997. This shows that Reliability has a greater influence on customer satisfaction. Similarly, the dependent variable, customer satisfaction has a mean of 4.20 and standard deviation of 0.946. This shows that level of customer satisfaction with e-banking service of Nepalese bank is good. Standard deviations of some variables are below the level of 1.00 and some are above 1.00 which depicts that there is variation in responses of the respondents. Six research hypotheses were formulated and tested to test the impact of four dimensions of e-banking service (accessibility, reliability, convenience and security) on customer satisfaction.

The significance of the hypothesis between the variable are also analyzed from the significant value drawn from the sample. The correlation results were used to answer the six research hypotheses. The result showed that all the constructs are statistically significant at the 0.01 level. This is because the p-value 0.001 is less than alpha value i.e. 0.01. Hence, the results proved that all the independent variables including accessibility, reliability, convenience and security have a significant positive relationship with customer satisfaction.

The results of test of hypothesis indicated that the correlation is significant at 1percent where p-value is less than alpha i.e. $0.001 < 0.01$. There exists positive correlation between Accessibility and Customer Satisfaction. Hence, the first alternative hypothesis “There is significant relationship between Accessibility and Customer Satisfaction” is not accepted. Similarly, there exists positive correlation between Reliability and Customer Satisfaction. Hence, the second alternative is also not accepted. Similarly, there exists a positive correlation between convenience and Customer Satisfaction. Hence, the third alternative hypothesis is not accepted. Likewise, there exists positive correlation between Security and Customer Satisfaction. What this states is e-banking service provider who ensures secure mode which may generate greater level of satisfaction among the customers. Thus, the fourth alternative hypothesis is not accepted.

The findings of inferential analysis show that there is positive and influential relationship between independent variables and dependent variable. The significance value is less than the alpha value (i.e. $0.000 < 0.01$), this indicates that there is a

significant relationship between e-banking service attributes and customer satisfaction. Hence, the fifth hypothesis is not accepted.

The findings from this research document the relationship between customer satisfaction and e-banking service in the context of Nepalese banking sector, as documented in the literature. Thus, sixth and final hypothesis cannot be accepted.

This relationship is one that can help e-banking service providers to improve their service and sustain more number of customers. Understanding how various factors of e-banking service contribute to customer satisfaction provides the service provider with insight for developing and sustaining highly motivated customers.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the research process and result of the study. The entire chapter is summarized in three sections. The first one summarizes the study and general overview about research, the second section derives the conclusion of the study and the third section delivers the recommendations.

5.1 Summary

The study is conducted with the general objective to relationship between dimensions of e-banking service and customer satisfaction and in what way those factors of e-banking service affects customer satisfaction. Moreover, the specific objectives of the study were to identify the major service quality dimensions of e-banking service that affects customer satisfaction in e-banking banking and to study the impact of the e-banking service quality dimensions on the satisfaction of customers.

Different materials were reviewed to build up the conceptual framework and to find out the clear destination of the research work. Concept of e-banking, attributes, advantages and challenges of e-banking in Nepal, models of customer satisfaction reviewed as conceptual review. Various studies related to e-banking service of various people have been reviewed and their ideas have been explained. Based on the literature review four major determinants of e-banking service was derived i.e. accessibility, reliability, convenience and security. A theoretical model was then developed taking into account the prescribed variables and perceived relationships among them. The hypotheses were then developed from the study of the literature.

This study consisted of 140 participants belonging to different background. For the purpose of conducting the study, a 28 item questionnaire was used. A survey was carried out using convenience sampling and the sample obtained included the respondents with different gender, age, and work background of Kathmandu Valley.

In order to determine the survey result, different statistical tests have been performed. At first, descriptive analysis was done to determine the average value and standard

deviation of each variable under each hypothesis. There were at least 4 to 6 questions or variables to measure each hypothesis. Respondents answered on a six-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree'.

The findings from this research document the relationship between e-banking service and customer satisfaction, as documented in the literature. The descriptive statistics study and the hypothesis test were conducted and the final result was presented.

The descriptive findings suggest that among various independent variables, Reliability has the highest mean of 4.31 with standard deviation of 0.997. This shows that Reliability has a greater influence on customer satisfaction. Similarly, the dependent variable, customer satisfaction has a mean of 4.20 and standard deviation of 0.946. This shows that level of customer satisfaction with e-banking service of Nepalese bank is good.

Six research hypotheses were formulated and tested to test the impact of four dimensions of e-banking service (accessibility, reliability, convenience and security) on customer satisfaction. The significance of the hypothesis between the variable are also analyzed from the significant value drawn from the sample. The correlation results were used to answer the six research hypotheses. The result showed that all the constructs are statistically significant at the 0.01 level. This is because the p-value 0.001 is less than alpha value i.e. 0.01. Hence, the results proved that all the independent variables including accessibility, reliability, convenience and security have a significant positive relationship with customer satisfaction.

5.2 Conclusions

The study helps to identify the major attributes of e-banking service which plays important role in the customer satisfaction. This study also helps to examine the relationship between those attributes and customer satisfaction. In addition, this study helps to examine the impact of e-banking service quality dimensions on customer satisfaction.

Major e-banking service attributes that influence customer satisfaction

This study identified the four major e-banking service attributes; accessibility, reliability, convenience and security satisfy customer satisfaction. These four service

quality dimensions plays vital role in the customer satisfaction. The results are somewhat similar with Yang and Jun (2002) that studied the similar construct in the Hong Kong context. Yang and Jun (2002) redefined the traditional service quality dimensions in the context of online services, and suggested an instrument consisting of seven online service dimensions (reliability, access, ease of use, personalization, security, credibility, and responsiveness).

Relationship between e-banking service attributes and customer satisfaction

This study examined that the factors of e-banking service, which have significant impact upon the level of customer satisfaction in the context of Nepalese banking sector. Upon examining the factors of e-banking service, it has been found that a relationship between the factors and customer satisfaction does exist. The results are consistent with Clark (2009) that studied the similar construct in the New Zealand context. Clark (2009) examined the relationships among three dimensions of service quality that influence overall internet banking service quality and its subsequently effect on customer satisfaction in a New Zealand banking context. The results show significant relationship among online customer service quality, online information system quality, banking service product quality, overall internet banking service quality and customer satisfaction.

E-banking service influence customer satisfaction

This study identified that the e-banking attributes, accessibility, reliability, convenience and security; influence the customer to use the e-banking service through satisfaction. Hence, the present study has slightly differed from Gerrard and Cunningham (2003) in the Singapore Context. Gerrard and Cunningham (2003) revealed that there are some service quality determinants that are predominantly satisfiers and others that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality.

The results indicated that e-banking service providers could utilize all the factors significantly to improve the level of customer satisfaction. In addition, the research findings help the banks in re-drafting/re-considering their managerial strategies as how to get better performance to increase the customer satisfaction level and standout

in the highly competitive business. Banks should re-evaluate all four variables that highly affect customer satisfaction and should initiate and re-construct their strategies accordingly to sustain in the extremely competitive business environment. These variables are actually acting as customer feedback for e-banking service, what exactly they feel and what they need. This study acts as an important part for evaluating and enhancing their performance.

5.3 Recommendations

This research paper is of great importance specially for banking industry in Nepal. Based on the research findings of this study, the following recommendations are prescribed to serve as a guideline for future research work of similar nature:

- The data collection for this study was conducted in a single location i.e. Kathmandu, which is the capital city of the country. This highlights the necessity to extend this research to a larger and geographically more diversified sample of consumers.
- With knowing, the factors of e-banking enable the banks to cope the problems of customers and ultimately helps to customize their e-banking products and services to cater their needs.
- This study focuses on overall e-banking service and the impact on customer satisfaction. However, future research can focus upon level of consumer satisfaction in relation to different groups e-banking users. This will have better understanding about behavior of consumers, variables associated with e-banking as well as the impact on satisfaction level of consumers while using e-banking service.
- For the purpose of this study, a quantitative approach was adopted to identify level of satisfaction towards e-banking service. Although the use of quantitative methods is considered valuable in examining relationships between variables, it is considered to be weak when trying to explore the reasons for the relationships. As a result, using qualitative along with quantitative methods is recommended in future studies, to further examine relationships among the variables.

The study contributes to the general body of empirical evidence about e-banking service and the behavior of the users and tries to explain this phenomenon with respect to Nepalese society. However, the study does have certain methodological limitations. First of all, this study uses sample only from Kathmandu, thus results might not be generalizable. Moreover, for this study, convenience sampling technique was used which has certain drawbacks. Results generated from such sampling might not be the true representative of the target population. All this raises a new agenda for future researches. Any researcher examining a similar topic in future has to investigate these parameters and should try to conduct a large-scale survey to make the results more representative and generalizable. The findings of this research study will help banks to increase their sales through e-banking service. However, the results of this study might not be exhaustive and further research still needs to be done to validate the findings

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ANNEXURE

Questionnaire

SURVERY QUESTIONNAIRES FOR CUSTOMER SATISFACTION WITH E-BANKING

(A Research on Customer satisfaction with E-Banking service of Private
Commercial Banks in Nepal)

Instruction: Please tick (√) as appropriate.

Section A: Demographic data:

1. **Gender:** Male Female
2. **Age:** Below 20 20-30 31-40 41-50 Above 50
3. **Education:** SLC +2 Bachelors Masters
4. **Occupation:** Government Service Private Employee Self Employed
 Student Other

Section B: Level of satisfaction with e-banking service.

S.N.	Accessibility of e-banking service	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	E-banking Service of the bank is easy to use.					
2	Website of the bank is properly designed.					
3	Easy to get access to all the financial information in the bank's e-banking service.					
4	Easy to find the policy and notice statements in the bank's website.					
5	Speed to login and logout of the bank website is fast					
6	Website of the bank does not freeze during transactions.					

S.N.	Reliability on e-banking service	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Can rely on the accuracy of the information provided in web page of the bank.					
2	Contents on bank's website are up to date.					
3	The bank's website provides all details of products and services.					

4	The bank provides customer service over the telephone when needed.					
5	Can rely on bank for not misusing information.					
6	The bank's website provides an error free transaction.					

S.N.	Convenience of e-banking service	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Language and contents used in bank's website is easy to understand.					
2	The e-banking service of the bank is user friendly.					
3	The bank's website is easy to navigate.					
4	The e-banking service of bank is available for 24 hours per day & 7 days a week.					
5	Instructions on the bank's website are very helpful.					
6	The bank handles complains and solves problem quickly through live chat service.					

S.N.	Privacy/Security of e-banking service	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The transaction on bank's website is confidential.					
2	The bank collects personal information very carefully through e-banking.					
3	The e-banking service of bank suggest for creation of strong password.					
4	Session timeouts occurred in the bank's website after some times.					
5	The bank's website has dedicated security software, which updates on regular basis.					
6	The bank sends messages& mails during every transaction to alert or notify.					

S.N.	Satisfaction with e-banking service	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Easy to access the e-banking service of the bank satisfies the customer.					
2	Reliability on e-banking service of the bank encourages using the service.					
3	User-friendly characteristic of e-banking service of bank satisfies the customer.					
4	Dedicated security software in bank's website gives confidence to use the service.					

Proposal on
Customer Satisfaction with E-banking Services of Private
Commercial Banks in Nepal



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Chapter 1. Introduction

1.1 Background

In recent years, there has been fast development in information technology and internet in particular. Generally the rapid development of World Wide Web and internet has affected many businesses including banking sector. Banks have been using information technology and internet to enhance operational efficiency, intensify business and provide better customer service with reduced cost of operation. Apart from these, banks are using information technology to enhance and strengthen their electronic service delivery channels. Moreover, this service delivery channel seen as powerful because it can retain current web-based customers who continue using banking services from any location. Moreover, internet banking provides opportunities for the bank to develop its market by attracting a new customer base from existing internet users.

1.2 Statement of Problem

Although, there has been a rapid expansion of internet banking products and services by banks and financial institution in Nepal e-banking services have not been widely adopted by bank's customers. This may be due to lack of trust, customer's ignorance towards technologies and perceived risk towards the services.

1.3 Research Questions

- Are customer satisfied with e-banking services offered by banks and financial institutions?
- Are customers aware of technical complexity in using e-banking?
- What is the customer's frequency of using online banking services to access the banking services?
- What are the factors that determine customer's choice of e-banking service?
- What are the problems and risks to customers faced in using e-banking services?

1.4 Objectives of the Study

- To identify the major e-banking service attributes that satisfy customers in e-banking;
- To examine the relationship between the various e-banking service attributes and the customer satisfaction; and
- To study the impact of the e-banking service attributes on the satisfaction of customers.

1.5 Hypotheses

Hypotheses will be developed for the purpose of identifying relationship between dependent and independent variables in this study.

1.6 Significance of Study

This research paper will be of great importance especially for banking industry in Nepal. With knowing the awareness and satisfaction of internet enables the bankers to cope the problems of customers and ultimately helps to customize their e-banking products and services to cater their needs. Further, this research paper also provides guidelines to the policy makers to make policies, rules and regulations on e-banking. This study will also be beneficial for the academic institutions and individuals who might be interested in carrying out related researches in the future.

1.7 Organization of the Study

This section will briefly give details of the chapters of the study. The whole research will include five chapters, which include:

Chapter 1: Introduction

The first chapter will deal with the general information of the e-banking as a whole and pinpoints the objectives and theme of the research. Also in this chapter the statement of problem and importance or significance of this study will be included. Furthermore, a brief synopsis of how the chapter flows will be shown under the title organization of the study.

Chapter 2: Review of Literature

The second chapter will present comprehensive surroundings of e-banking. Further this chapter will provide related words, definitions, and findings on the related topic from other researchers, journals, papers, and similar works which are very important in guiding the study. Besides, this chapter will include study framework.

Chapter 3: Research Methodology

The research design and methodology chapter will include the planned methods for conducting the research, which will help to guide the research towards its main findings and conclusion and limitations or barriers of the study.

Chapter 4: Presentation and Analysis of Data

This chapter will include presentation of data and analysis of the findings using diagrammatic representations such as pie charts, bar graphs as well as mathematical and statistical tools like descriptive analysis.

Chapter 5: Summary, Conclusions and Recommendations

The fifth chapter will conclude this study which will include summary, conclusions, and recommendation.

Chapter 2. Review of Literature

2.1 Review of Theoretical Framework

This chapter will analyze the relevant body of knowledge to understand the concept of customer satisfaction with internet banking service quality, from an academic point of view.

2.2 Empirical Review

Wong, (2008), tried to re-examine the role of traditional service quality in an e-banking environment by providing a review of how traditional service quality perceptions have evolved through the current and continuing stream of change in banking technology and the corresponding changes in the nature of how banks interact with their customers. The result of this study suggests that there exist a large discrepancy between customer expectations and their perceived performance of traditional banking services.

Laukkane (2007) conducted study to explore and compare customer value perceptions in internet banking. The purpose especially is to compare customer perceived value and value creation between internet and mobile bill paying service. The results indicate that customer value perceptions in banking actions differ between internet and mobile channels. The findings suggest that efficiency, convenience and safety are salient in determining the differences in customer value perceptions between internets.

Kawamala, (2013), tried to study examines customers perception on e-banking services in Tanzania. Especially, it addresses issue such as the strategic need for internet banking, its effect on customer-bank relationships and customer's experiences in internet banking. The results of this research reveal that internet banking is perceived more favorably by banks that offer it compared to those that do not. Hence, it is recommended that education and marketing of E-banking products should be encouraged in the bank to attract more customers.

2.3 Concluding Remarks

This chapter will conclude the second chapter and help to find the gap of previous researches.

2.4 Proposed Study Framework

The proposed study framework will show a relationship that exists between variables that will be used in the study.

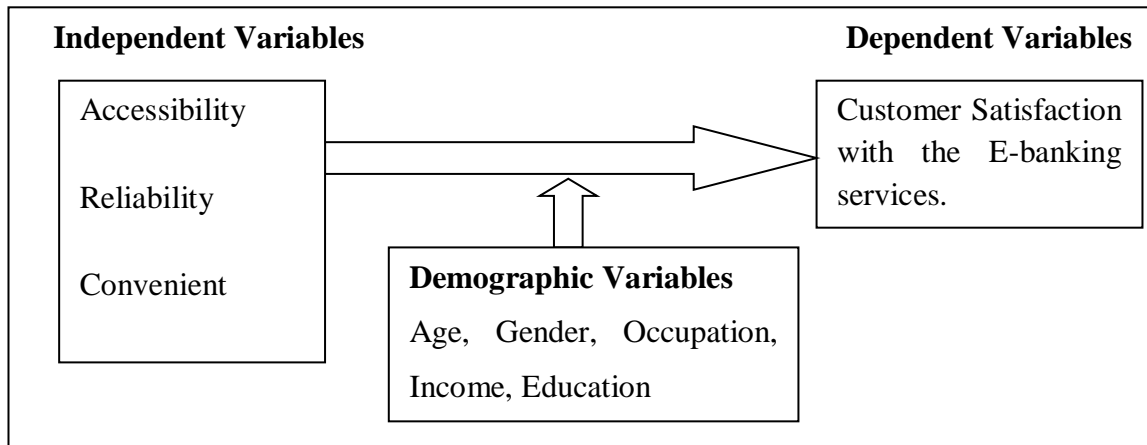


Figure: Theoretical Framework for the Study

Chapter 3. Research Methodology

3.1. Research Design

Research plan and design is the process to identify the relationship between the dependent and independent variables to meet the objectives. In order to attain the objectives mentioned includes sampling, empirical research with the help of data analysis and questionnaire.

3.2. Nature and Sources of Data

The data used in this research is primary in nature. All the data will be collected from the respondents via the structured questionnaire and field survey.

3.3. Population and Sample

At the initial phase for the purpose of developing theoretical framework the secondary sources of data collection was used. The secondary source of data was internet, books, journals, newspaper and articles. Similarly, in the later stage the primary sources of data collection will be used. Further, the primary source of data will be gathered from structured questionnaire.

The researcher will collect altogether 140 samples from the customers of different 4 commercial banks (NCC, Mega, Janta and Civil). Moreover, sample of customers will from the different age groups, income groups, educational background and gender.

3.4. Method of Analysis

The data obtained from the research will be analyzed by using statistical tools. Mainly, descriptive statistical analysis will be used for the purpose of generating findings. Apart from these analyses in some of the variables, inferential analysis will also be used to find relationship between the variables.

3.5. Limitation of the Study

The basic limitations of this research are as follows:

- The study will be restricted to the Kathmandu city, capital of Nepal as the capital city is far more developed than other cities in terms of information technology and communication.
- The study will use convenience sampling and limited analytical tools.

Chapter 4. Presentation and Analysis of Data

This chapter will include presentation of data and analysis of the findings using diagrammatic representations such as pie charts, bar graphs as well as mathematical and statistical tools like descriptive analysis.

Chapter 5: Summary, Conclusions and Recommendations

The fifth chapter will conclude this study which will include summary, conclusions, and recommendation.

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