

**ALTERNATIVE BANKING CHANNELS AND CUSTOMER SATISFACTION IN
COMMERCIAL BANKS IN NEPAL**

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Certification of Authorship

I hereby corroborate that I have researched and submitted the final draft of the dissertation entitled “**Alternative Banking Channels and Customer Satisfaction in Commercial Banks in Nepal**”. The work of this dissertation has not been submitted previously for conferral of any degrees nor it has been proposed and presented as part of requirements for any other academic purposes. The assistance and cooperation that I have received during this research work have been acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of the dissertation.

Dammar Bahadur Gadai

February, 2022

Recommendation Letter

This is certify that the dissertation entitled “**Alternative banking channels and customer satisfaction in commercial banks in Nepal**” submitted by Dammar Bahadur Gadal is an original piece of research work carried out by the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for the critical examination and independent judgment. Candidate has put in at least 60 days after registering the proposal. The thesis is forwarded for examination.

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Approval Sheet

We have examined the dissertation entitled “**Alternative Banking Channels and Customer Satisfaction in Commercial Banks in Nepal**” presented by Dammar Bahadur Gadai for the degree of Master of Business Management. We hereby certify that the dissertation is acceptable for the award of degree.

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Abbreviations

ABC	Alternative Banking Channels
ANOVA	Analysis of Variance
ATM	Automated Teller Machine
BFIS	Bank and Financial Institutions
CS	Customer Satisfaction
EFT	Electronic Funds Transfer
GBIME	Global IME Bank Limited
IB	Internet Banking
ICT	Information and Communications Technology
INT	Internet Banking
IT	Information Technology
KBL	Kumari Bank Limited
MB	Mobile Banking
NBL	Nepal Bank Limited
NSBL	Nepal SBI Bank Limited
POS	Point of Sale
SBL	Siddhartha Bank Limited
SEM	Structural Equation Mode
SMS	Short Message Services
SPSS	Statistical Package for Social Scientists

Abstract

This study is to determine the effect of alternative banking channels on customer satisfaction in commercial banks in Nepal. To achieve this, seven commercial banks (NSBL, NBL, Nic Asia, GBIME, NABIL, KBL, and SBL bank) in Nepal were studied. The study design is a survey, which focused on the population of the seven selected commercial banks in Nepal. Three hundred eighty-four (384) respondents were judgmental proportionately amongst customers of the selected banks with the aid of a questionnaire randomly administered. Correlation and regression analysis were employed in testing whether there is a significant relationship between the alternative banking channels and customer satisfaction. The study concludes that an alternative banking channel has a significant positive impact on customer satisfaction in a commercial bank in Nepal. The banking institutions should enhance the application of mobile banking to increase the satisfaction of their customers. They should work hand in hand with major retail outlets and other organizations that use point of sale systems to ensure the cards issued to customers and point of sale banking are useful, reliable, and can work with speed. They should enhance their internet banking to make it flexible, fast and easy to use. They should increase no of ATMs outlet for better customer delivery.

CHAPTER 1

INTRODUCTION

1.1 Background

Advances in electronic banking technology have created new ways of handling banking transactions, especially via the online banking channel. A feature of the banking industry across the globe has been that it is increasingly becoming turbulent and competitive, characterized by an increasing trend towards internationalization, mergers, takeovers and consolidation of the banking industry (Muhammad, Akin & Abdul, 2015).

Today there are new conduits and techniques, which have emerged in banking services known as alternative banking delivery channels, which are directly serving customers. Recently, financial threats have along with the rising complexity of markets have caused a financial institution to embrace current rapidly growing changes (Kohali and Sheleg, 2011). The need for modern methods of doing things and the springing up of new technology has brought changes at the workplace. Additionally, a critical shift in demography and manageable framework, are putting the finance sector to fundamental challenges in times of market uncertainty, which is rigorous. It is during a time like this that commercial banks should seize opportunities to adopt changes arising from innovations of financial service delivery.

The banking sector in the world has gone through a transformation over the years due to recent technological advancement, besides an enormous transition in the laws that govern the use of this technology (Buitenhek, 2016). Hence, several banks have adopted new delivery channels changing from teller person service to marketing and selling directly via phone, emails, and other electronic transactions (Dermish et al, .2011). Banking channels are categorized as direct and indirect. Direct channels refer to those that are owned by the bank thus it has control over them while indirect channels refer to the bank that does not wholly control. The two types of direct channels are location-based (those that occupy a physical space as branches, roaming vans, kiosks, and business units) and remotely-based channels that do not occupy physical space such as internet, interactive Voice Response and call centers (Buitenhek, 2016).

In the United States, commercial banks use alternative banking to reduce costs and enhance the delivery of customer care service (Kolodinsky et al., 2014). In Turkey,

empirical evidence reveals that alternative banking service is widely adopted. In 2015, the country recorded the highest users accessing alternative banking compared to others. America (Coskun, 2014). In Australia, most of the banks have adopted alternative banking services at high rates to match consumer needs, with most of the rural banks lagging due to inadequate supply of infrastructure (Khatri and Kurnia, 2011).

In India, both private and public service providers provide alternative banking, and research has tied this banking mode with increased levels of service satisfaction. In Pakistan, the adoption of alternative banking has been at a slower pace (Hussain et al., 2017). Malaysian banks have been known as communication and electronic channels (Abubakar et al., 2012). The services have made it easier for their client to make transactions remotely without having to present themselves physically to the banks. In developing nations, and more specifically, the African continent, the adoption of alternative banking services has significantly improved the stiff competition from local banks and the entry of internal banking institutions has forced all banks to provide services that enhance consumer delivery and profitability. Nigeria ranks high among all other African nations in using alternative banking followed by Ghana. (Ackh and Agboy, 2014). Within the East African Region, Kenya, Tanzania, and Uganda have embraced alternative banking by enormous investment in ICT.

Banking sectors have innovated the use of branchless banking through internet banking, mobile banking, automated teller machine (ATM), point of sale (POP), and credit card service outlets. This allows banks to reach a wider scope of the client, reduce their transaction costs, and increase access to financial services by the poor in remote areas. Hence, the marketer's emphasis on research in the area of consumer behavior intention is a strong induction of his actual behavior (Adewoye, 2013). According to Miah (2018) customers always like to get quick, customized, and secured services from the bank. So, it is important to understand the customer's satisfaction level with digital services on banks.

1.2 Problem Statement

Customer satisfaction is a much sought-after phenomenon in today's highly competitive and globalized marketplace. Today's customers seek more than price bargains and want useful, dependable, and reliable technologies. Many Kenyan banks have exponentially embraced the use of information and communication technologies in their service provision. Huge amounts of money have been invested in implementing self and virtual

banking services to improve the quality of customer service. However, the adoption of e-commerce has been inhibited by the quality, availability, and cost of accessing telecommunication infrastructures, lack of skilled staff, low internet penetration, low bank account, and lack of timely delivery of physical goods (Jalal, Marzooq & Nabi, 2011). Satisfying customers is the first major mission and purpose of any organization. When the customers are satisfied the organization achieves higher, profit, and market share and vice versa. Customer satisfaction also leads the organization to gain loyalty and achieve the desired objective. Therefore, organizations need to satisfy their customer promptly so that they can achieve what they plan. Bank as a business organization should provide great care for its customer to attract, retain gain their loyalty. Nevertheless, banks fund in Nepal have little care about their customers. This leads them to use more obsolete and traditional technologies that cause dissatisfaction and switching among customers. This means the banks are not satisfying their customers enough due to many factors in which using traditional technologies is among them.

Levesque and McDougall (1996) have confirmed and reinforced to the nation that consistent poor customer experience as a result of poor service quality leads to a decrease in the level of customer satisfaction and the chances of further willingness to recommend the service.

In Kenya, most bank customers have raised complaints on improving service delivery, an issue banks have overlooked, especially when using modern technologies (Aker, 2010). Customer dissatisfaction with the online banking services is increasing in commercial banks (Aker, 2010; Bichanga & Wario, 2014; Kombo *et al.*, 2016). The key challenges of electronic banking are getting the balance between convenience, speed, and security. Frequent system failure especially on ATMs has also been a concern and affects the quality of customer service delivery. Similarly, complaints have also been raised on failures at the point of sale terminals in stores whenever access to the host bank fails, thus causing inconveniences to customers, sometimes leading to litigations.

E-banking was adopted by banks to improve their service delivery, decongest queues in the banking hall, enable customers to withdraw cash 24x7, aid international payment and remittance, track personal banking transactions, request for online statements, or even transfer the deposit to a third-party account. Despite the effort of banks to ensure that customers reap the benefits of e-banking, the bank is met with complaints from customers

as regards, malfunctioning automated teller machines (ATMs), network downtime, online theft and fraud, non-availability of financial service, payment of the hidden cost of electronic banking like Short Message Services (SMS), for sending an alert, mandatory acquisition of ATM cards, non-acceptability of Nigerian cards for international transaction amongst others (John and Rotimi, 2014).

However, whereas local banks most commonly practice real-time online intranet banking, the integration of customers into the process is far from being realized. Many of the reasons are attributed to the high prevalence of internet fraud and lack of an adequate regulatory framework to protect the banks from the volatility of risks associated with Internet banking, especially at the levels of communication and transaction.

The researcher has been identifying the contribution of technology to satisfying customers of banks in Nepal. The purpose of this study is to determine the effect of alternative banking channels on customer satisfaction. This study deals with the following issues in the form of research questions.

- i. What is the perception of customers on the level of satisfaction in alternative banking channels i.e. e-banking, mobile banking, automated teller machines, and point of sale in commercial banks in Nepal?
- ii. Is there is any relationship between independent variables i.e. e-banking, mobile banking, ATM and POS with customer satisfaction?
- iii. Is there is any effect of alternative banking channels i.e. e-banking, Mobile banking, ATM and POS on customer satisfaction among commercial banks in Nepal?

1.3 Objectives of the study

The general objective of the study is to determine the effect of alternative banking channels on customer satisfaction in commercial banks in Nepal. The specific objectives of the research are as follows:

- i. To analyze the customer's satisfaction level in alternative banking channels.
- ii. To examine the association between the independent variables i.e. e-banking, mobile banking, ATM, and point of sale with customer satisfaction.
- iii. To assess the effect of e-banking, mobile banking, ATM, and POS banking on customer satisfaction in commercial banks in Nepal.

1.4 Hypotheses

The hypothesis is a formal statement that presents the expected relationship between independent and dependent variables (Creswell, 2000). The following hypotheses have been set based on the review of past articles and research papers. Eight alternative hypotheses have been drawn to identify relationships and analyze the effect of dependent and independent variables and their effect in this study. These hypotheses were drawn from the theoretical framework of the study.

H1: There is a significant positive relationship between internet banking channel and customer satisfaction.

H2: There is a significant positive relationship between ATM banking channel and customer satisfaction.

H3: There is a significant positive relationship between mobile banking channel and customer satisfaction.

H4: There is a significant positive relationship between POS banking channel and customer satisfaction.

H5: Internet banking channel has a significant positive effect on customer satisfaction.

H6: ATM banking channel has a significant positive effect on customer satisfaction.

H7: Mobile banking channel has a significant positive effect on customer satisfaction.

H8: Point of sale banking channel has a significant positive effect on customer satisfaction.

1.5 Rationale of the study

This study has importance especially for the banking industry in Nepal. Knowing the awareness and satisfaction of alternative banking channel enables the bankers to cope with the problems of customers and ultimately helps to customize their alternative banking products and services to cater to their needs. Further, this study also provides guidelines to the policymakers to make policies, rules, and regulations on alternative banking channels. This study should be beneficial for 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 alternative banking channel and those variables have a huge effect upon the level of customer satisfaction. Customer satisfaction about any services offered greatly exceeds the expectations of the customer,

and then satisfaction has been elevated. So, through this study, various factors that affects customer satisfaction while using alternative banking channel has been identified.

The study helps in analyzing the importance of attending to customers and ensuring they have a positive experience with alternative banking channel. It also justifies whether the banks can retain the customers as well as helping to ease the problem of the unbanked population. Moreover, the findings of this study can be used by the banking institution to improve or expand their services in a way geared to economic empowerment and customer satisfaction to all involved. Finally, the findings may use as secondary data for other studies.

1.6 Limitations of the study

Despite the continuous efforts made for arriving at meaningful conclusions from the study, the following major limitations have been outlined.

- i. The study has covered limited factors that affect customers' satisfaction but there may be other factors that might affect customer satisfaction.
- ii. Due to time constrain the sample size was restricted to 384 respondents that may not represent the population.
- iii. The study was based on the assumption of linear regression between the dependent and independent variables. The study excluded the non-linear regression assumption.

1.7 Chapter Plan

The study has been organized into five chapters. The study starts with the first chapter that includes general background on alternative banking channels and the measures of customer satisfaction of Nepalese commercial banks. This chapter covers the statement of the problem, the purpose of the study, significance, research question and hypothesis formulation, limitation of the study, and finally the operational definitions.

The second chapter provides clear insights into the literature reviews. It includes the reviews of literature of all independent variables of study as a literature review of mobile banking, ATM banking, POS banking, and internet banking. In addition, the theoretical framework on how the study has been carried out is discussed under this chapter and it is ended with the summary of the literature review.

Chapter third covers the research design, nature, and sources of data, selection of sample and population, data analysis procedures, models used for data analysis, instrumentations, tools, and reliability test.

Chapter fourth focuses on the systematic presentation and analysis of data, descriptive analysis including mean and standard deviation, and inferential analysis including correlation, regression, and hypothesis testing, and discussion with the major findings of the study.

Finally, chapter fifth provides a summary of an overview of all studies carried out in chapters one through four including major findings derived from the study. This chapter includes conclusions, implications, and recommendations for future research. The reference and appendices have also been incorporated at the end of the study.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

This chapter deals with a review of empirical and conceptual literature on the effect of alternative banking channels on customer satisfaction in commercial banks in Nepal and presents the conceptual framework of the study. In another word, the literature review section summarizes the information from other researchers who have carried out their research in the same field of study. It is an imperative task to review different foreign pieces of literature on the topic to study so that it can be easier to reach an important conclusion. For more precision on the reviews by various researchers, this chapter is divided into two sections. The first section deals with the review of related literature, which is categorized into four parts as a review on different four independent variables. Similarly, the second section presents the theoretical framework of the study. The third section presents the summary of the literature review.

2.2 Theoretical review

2.2.1 Internet banking

Byamba and Chang (2012) analyzed the factors affecting online purchases in Mongolian airlines. The survey-based on 3 airlines, MIAT Mongolian airline, Aero Mongolia, Eznis Airways, and data were collected from 138 passengers of those airlines. In Mongolian customers ease of use interactivity and payment security of e-commerce services are important determinants of e-commerce customer satisfaction in the B2C market. This study found that website payment security, interactivity, and website ease of use ensure a high level of customer satisfaction toward e-ticket in Mongolia.

Jiradilok *et al.* (2014) examined the impact of customer satisfaction on online purchasing in Thailand. The total number of samples used in this study was 400, which is equally divided into two groups; the respondents with experience in purchasing online and the respondents with no experience in purchasing online. A survey questionnaire is used as an instrument. The study revealed that people mostly value assurance and empathy as the most influential dimensions. This finding is applicable for both types of internet users that are users with experience in purchasing and users with no experience in purchasing. The study also indicated that variety, website system quality, and tangibility do not influence

purchasing intention even though the respondents were quite satisfied with these dimensions.

Gbadeyan and Akinyosoye (2011) examined customers' preference for e-banking services: a case study of selected banks in Sierra Leone. This paper examined customers' choice of banks is influenced by the quality of e-banking services provided. Data were collected through a questionnaire method comprising open-ended 4 point scale Likert type of questions. The instrument contained 36 items and was administered to about 400 respondents, while 360 completed and returned their questionnaire. Stratified sampling was used in the study. The statistical techniques used for the analysis were the Chi-Square and correlation. The Chi-Square analysis revealed that the quality of e-banking services offered by banks has a significant influence on their customers at 95%, 3 degrees of freedom. The study also indicated that e-banking has become an important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology.

Ready and Ready (2015) examined consumer perception toward the convenience and willingness to use E-banking services are identified and measured. The data has been collected with the help of a self-administered questionnaire from a public and private bank's 200 customers. The judgmental sampling technique has been used. The data collected has been arranged in a tabular form and statistical technique ANOVA was used for data analysis. The study found that around 70 % of people have positive perceptions & are satisfied with E-Banking Services. The study also revealed that still, people are not using all the E-banking services frequently because they have less knowledge about computers and the internet, and they feel hesitation in using E-banking services.

Nochai & Nochai (2013) investigated the impact of internet banking service on customer satisfaction in Thailand. The purpose of this study was to find the internet banking service dimensions that impact customer satisfaction among the top three banks in the Bangkok area: Bangkok Bank, Kasikorn Bank, and Siam commercial Bank. Questionnaires were used to collect data from 450 respondents by using quota sampling. Multinomial logistic regression analysis was employed to obtain the important internet banking service dimensions that have an impact on customer satisfaction. Results showed that providing 24hours-7days service, completing a task accurately, contacting staff to check

immediately, and providing accurate information & up to date, the transaction process is fast, and providing online registration times were the important factors that have an impact on customer satisfaction.

Shakya (2016) assessed the impact of online banking on customer satisfaction and firm performance on Nepalese commercial banks. The study used a questionnaire survey to collect data. A sample of 145 respondents was analyzed in this study. Correlation and regression were employed for analysis. The study found that customer satisfaction in online banking positively related to the return on assets and return on equity.

Muhammad and Rana (2012) examined factors that are distressing the adoption of internet banking services among adult students in the Kingdom of Saudi Arabia. Data were collected from 150 adult students of Saudi Arabia and analyzed with the help of a T-test and correlation. Only adults were chosen for study. The study found that perceived ease of use, perceived usefulness, compatibility and innovativeness, and perceived credibility tend to influence customers to adopt internet banking. The study also revealed that trialability did not influence the adoption of internet banking.

John and Rotimi (2014) examined the impact of electronic banking on the satisfaction of corporate bank customers in Nigeria. The structured questionnaires were used 120 copies of the questionnaire were distributed to and 100 copies were returned. Data collected was analyzed using the simple percentages analysis and hypotheses were tested using the chi-square. The study found that there is a significant relationship between electronic banking and customers' satisfaction. Also, that E-banking has become popular because of its convenience and flexibility, and transaction-related benefits like speed, efficiency, and accessibility.

2.2.2 Mobile banking

Hossain and Hossain (2015) examined mobile banking and customer satisfaction: the case of Dhaka city. A sample of 250 respondents (users of mobile banking services) participates and a convenience sampling method is used. The study was conducted from January 2014 to July 2014. The correlation and regression analysis technique was used for the study. The study found that action loyalty, customer satisfaction has a positive relationship. In addition, service quality was seen to affect customer satisfaction, but its impact on action, the loyalty of customer was not significant to a greater extent. The

findings also revealed that the executives of these banks should put more focus on escalating switching costs, developing more creative activities to grow trust among clients to increase loyalty.

Saleem and Rashid (2011) assessed the relationship between customer satisfaction and mobile banking adoption in Pakistan. The study is survey-based research, using a non-probability sampling technique. The sample frame is limited to three banks. The questionnaires are given to a sample of 230 bank employees and 230 bank customers. Questionnaires are used to conduct data collection and then analyzed using statistical techniques: regression analysis, correlation, and factor analysis. The study showed that customers' concerns about the security, authenticity, and reliability of the technology are of significance. The results showed that innovative services, security, customer trust, and risk are the key indicators of technology adoption.

Asfour and Haddad (2014) examined the impact of mobile banking on enhancing customers' e-satisfaction in Jordan. The study sample consisted of 360 customers from 400 who use banking services via mobile in Jordan Ahli Bank, Union Bank, HSBC Bank, Capital Bank and has been tested hypotheses through simple regression; the results indicated that there is an effect of using mobile banking services to reach customer e-satisfaction. The results showed that there is a statically significant impact of the overall dimensions of mobile banking service on customer E-satisfaction and after performing a simple regression that Privacy and accessibility are more influential compared to the rest of the mobile banking dimensions. The study also recommended that the bank should give more time and effort to activate and develop mobile banking services to do many different banking transactions to reach a customer's E-satisfaction.

Khraimet al. (2011) identified the factors affecting Jordanian consumers' adoption of mobile banking services: the case study of Jordanian consumers. The study aimed to identify the underlying factors that affect mobile banking adoption in Jordan while data have been collected for this study using a questionnaire containing 22 questions, out of 450 questionnaires that have been distributed, 301 are returned (66.0%) were the study population was in the Hashemite Kingdom of Jordan. According to the chosen methodological research approach, the quantitative data was analyzed using statistical methods by SPSS statistical descriptive was used to find out the respondents demographics and general characteristics to provide a descriptive of the respondents. This

study results found that all the six factors: self-efficacy, trainability, compatibility, complexity, risk, and relative advantage were statistically significant in influencing mobile banking that the potential factors that may influence the intention of mobile users to adopt mobile banking services.

Al-Kasasbeh *et al.* (2011) investigated factors affecting e-service satisfaction. The study aimed to explore the impact of website design navigation and personalization on e-service satisfaction. To examine factors affecting user satisfaction with e-services, a questionnaire was distributed to a random sample of (615) students out of (5918) at Petra University in Jordan to explore their perceptions. The study showed the impact of website design, navigation, and personalization on satisfaction. The study also revealed that higher the perceived quality of university's website design, navigation, and personalization, more than satisfaction in e-service occurs.

Masreket *al.* (2012) examined mobile banking utilization, satisfaction, and loyalty: the case study of Malaysian consumers. The study showed mobile banking utilization predicts user satisfaction and does satisfaction in mobile banking predicts loyalty. The study population was in Malaysia which consists of 312 respondents. The collected data were analyzed using statically computer programs known as IBM, SPSS version 20, and analysis of moment structure (AMOS) that used for structural equation modeling. The study found that mobile banking use is positively related to satisfaction, not loyalty also it is found that satisfaction significantly predicts loyalty. The study also found that mobile banking services and their influence on customer satisfaction in Malaysia, not all banks have implemented mobile banking this finding should alert banking practitioners that in line with the advancement of the ICT.

Adewoye (2013) investigated the impact of mobile banking on service delivery in Nigerian commercial banks. The study was carried out in Lagos state with One hundred and forty (140) Questionnaires administered and distributed to both senior and junior staff of the selected banks; Thirty-five (35) staff each was picked from the four (4) selected banks. One hundred and Twenty-five (125) Questionnaires were found useful for the study representing 83.3% of the total questionnaire distributed. Data collected were analyzed using a frequency table, percentage, and mean score analysis while the non-parametric statistical test Chi-square was used to test the formulated hypothesis using STATA 10 data analysis package/software to examine the impact of mobile banking on

service delivery and also look at the relationship between mobile banking and service delivery in the sampled banks. The results of the findings showed that mobile banking improves banks' service delivery in a form of transactional convenience, savings of time, quick transaction alert, and save of service cost which has recuperated customer's relationship and satisfaction.

Rahman and Hasan (2017) examined mobile banking service quality and customer satisfaction in Bangladesh. The study used customer satisfaction as the dependent variable, while five dimensions of the service quality model (namely-tangibles, reliability, responsiveness, assurance, and empathy) are taken as independent variables. A questionnaire had been developed and distributed among 166 customers of five mobile banking service providers of Bangladesh. The respondents were selected from Dhaka city by using Simple Random Sampling. Results were subsequently analyzed by using descriptive statistics, Pearson correlation, and multiple regressions. Results showed that the four variables tangible, reliability, responsiveness, and empathy have a significant positive relationship with customer satisfaction. However, the assurance factor has no significant relationship with customer satisfaction. The results imply that firms should focus upon tangible, reliability, responsiveness, and empathy variable as these are the key indicators of customer satisfaction with mobile banking services.

2.2.3 Automated teller machine

Mwatsika (2016) investigated the impact of ATM banking performance on customer satisfaction with the bank in Malawi. The study surveyed a total of 353 respondents. Data were collected through a self-administered questionnaire containing multi-dimension and multi-attribute Likert measurement scales. The relationship between ATM banking performance and customer satisfaction was analyzed through a regression model. The results indicated that the performance of automated teller machine banking has a 40 percent predictive capability of customer satisfaction with the bank. The study further found that despite influencing customer satisfaction with the bank, Automated teller machine banking cannot attract customers to switch banks. The study concluded that alternative marketing strategies should be sought to attract customers from rivals.

Adeniran and Junaidu (2014) examined customer satisfaction from ATM banking in Nigeria. The study surveyed a total of 100 respondents who are users of ATM services in the United Bank for Africa within the Sokoto metropolis. The research was carried

through a cross-sectional survey design which questioned respondents on ATM services. The data were analyzed through multiple logistic regression models. The study found that ATM service has a positive and significant impact on satisfaction in terms of their perceived ease of use, transaction cost, and service security. However, the study also revealed that the impact of ATM services in terms of the availability of money is positive but insignificant.

Medard and Venkatesan (2016) examined the impact of ATM service quality on customer satisfaction. The study surveyed a total of 141 customers through systematic random sampling at the ATM centers of the various banks in and around Chidambaram town. A three-stage design is adopted for the study with the first stage as a district, the second as a town, and the third stage as the customer. A Chi-square test of goodness of fit was applied to the data collected. Factor Analysis technique was used to establish all the significant dimensions of ATM service quality on customer satisfaction and their relationships and Cronbach's Alpha was used to measure the internal consistency. The study revealed that there was a great impact of ATM service by the quality on the demographic characteristic of customers. The study also showed that convenience, availability, trust, assurance, etc. in ATM service has a positive impact on customer satisfaction.

Shemsu (2017) assessed the level of usage of ATM banking services and customers satisfaction. To achieve the research objective descriptive survey design was employed; both primary and secondary data were used. The primary data was collected from respondents using questioners consisting of a five-point Likert scale and some close-ended. A convenience sampling technique was used to collect the data; designed questionnaires were distributed to 400 respondents having two and above years of ATM usage experience. From a total of 400 distributed questionnaires, 385 were returned from the customer of the selected switched member banks. The collected data are analyzed using descriptive analysis like tables, percentages, mean and standard deviation. The study indicated that the majority of the customers are dissatisfied with the ATM services due to various challenges associated with ATM such as; customers' accounts being debited without dispensing, Shortage of money in ATM's, ATM malfunction due to connectivity problems and power, delayed response time in case of errors transaction, availability of limited services, high service charge for ATM service, Machine complexity, and ATMs late to updated balances are major problems causing

dissatisfaction. Even there are problems; surprisingly the customers do prefer to get the service through the shared ATMs because it saves time and convenience.

Kaur (2013) examined customer's satisfaction in ATM service: an empirical study of banks in Chandigarh. The study investigates various dimensions of service quality and their effect on customer satisfaction. For this purpose primary data was collected from 100 respondents, who are the customers of various leading public and private sector banks of Chandigarh through a structured questionnaire. Data was analyzed to meet the objectives of the study and the result indicated that people are satisfied from service of ATM provided by banks. Accessibility, convenience, efficiency, responsiveness, security, privacy, and reliability are important dimensions of service quality. The majority of people still use ATMs for cash withdrawal purpose only.

Sing (2011) examined the impact of ATM services on customer satisfaction in Indian banks. This paper aims to understand the impact of ATM services on customer satisfaction in the Indian banking sector. The study has used the primary data and collected it through a structured questionnaire survey from 400 respondents. The research has been carried out primarily in urban and hence cannot be generalized on all Indian bases. The ANOVA and factor analysis was used to identify significant factor and frequency analysis was used to analyze customer satisfaction. The study found that ATM service has a positive impact on customer satisfaction if proper functioning is ensured by the banks there was significantly higher customers' satisfaction. The study also identified the significant factors which the banks may take care of to enhance customer satisfaction.

Shrestha (2016) assessed the factor affecting customer satisfaction from ATM services. A case of Nepalese commercial bank. The study used a questionnaire survey to collect the data. A sample of 196 respondents was analyzed in this study. Correlation and regression analysis technique was used in this study. The study found that there is a positive impact of ATM services factor (reasonability of fee charged, choice of ATM, Usage of services, and post-purchase behavior) on customer satisfaction. The study also indicated that there is a negative relationship between the frequency of problems faced and customer satisfaction.

Akpan (2016) investigated the influence of ATM service quality on customer satisfaction in the banking sector of Nigeria. The study investigated the influence of ATM service

quality on customer satisfaction in the banking sector of Nigeria. The study adopts survey research in which questionnaires are accidentally administered on customers of four banks randomly selected for the study First Bank of Nigeria Plc, United Bank for Africa Plc., Guarantee Trust Bank Plc. and Skye Bank Plc. at the ATMs terminals of the Banks during transactions. Multiple regression analysis, descriptive statistics of the mean, standard deviation, tables, and charts are the main tools of data analysis. Findings reveal that the higher the ATM service quality, the higher the level of satisfaction it provides. The study concluded that ATM service quality determines customer satisfaction.

2.2.4 Point of sale

Akbarzadeh (2013) investigated the performance of point of sales and its impact on customer satisfaction. The study surveyed a total of 384 respondents through the available sampling technique. Data were collected through questionnaires and the reliability was measured by Cronbach's alpha. The relationship among the study variables was tested through the Spearman correlation coefficient. The study found that poor dispersion of Melli bank POS in the store's levels has a negative impact on customers' purchase intention. The findings also indicated that there is a negative relationship between card recognition failure and purchase frequency in the case of Melli bank POS.

Fenuga (2010) assessed the effect of electronic payment on customer service delivery in Nigerian banks. The study was conducted taking 100 respondents from four of the Nigerian banks through stratified sampling. Data were collected through a randomly administered questionnaire. The relationship between study variables was tested through chi-square and regression analysis. The result showed that electronic payment like the point of sale has a significant and positive impact on customer satisfaction in Nigeria. Furthermore, the study concluded that electronic payment improves customer service delivery, management efficiency, and increased profit in Nigeria.

Khanna and Gupta (2015) investigated customers' perceptions about banks' technology for in-person interview channels of public sector banks (PSBS) of India. The study was based on primary data collected by a structured questionnaire. The survey as well as in-person interviews of the Bank's customers and Bank managers have been conducted to understand the factors influencing customers' perception about the technology used for innovative delivery channels by PSBs on five factors viz., acceptability, safety, availability, user-friendliness, and accessibility. Random sampling was used and the size

of the sample was 304. Hence, the type of study was exploratory and descriptive. The study found that public sector banks need to understand the factors that influence the perception of an individual to add greater value to customers in terms of delivering financial products and services through innovative delivery channels.

Singh (2013) examined the impact of perceived service quality on overall customer satisfaction in retail outlets in India. The study used a questionnaire survey to collect the required data on customer satisfaction. A sample of 600 respondents was analyzed in this study. The data analysis technique employed in this study is a descriptive, correlation, and ordinary least square technique. The study found a positive and significant relationship between five dimensions of service quality such as retail outlets in India. Moreover, this study revealed a positive and significant relationship between physical aspect, reliability, personal interaction, problem-solving, and policy with the customer.

Adeoti and Oshotimehin (2011) investigate the factors influencing the decision to adopt Point of sale terminals by consumers. Using the probit model applied to primary data collected from 650 consumers, the study finds that factors such as nativity, security, ease of use, availability, convenience, intention to use, the complexity of the technology are among the factors influencing the use of POS terminals. Efforts at improving the security of transactions, availability of the technology, and convenience of use are recommended to drastically reduce excess cash flow especially in developing economies.

Dion (2003) investigated the effects of POS implementation and retail technology on sales and profitability for small to mid-sized retailers this study was conducted in 1998 using a field research team that interviewed 580 Independent Retailers via phone calls that lasted on an average of 30 minutes. These retailers were using integrated Point of Sale, merchandising (inventory control), and customer profiling software. They were probed for satisfaction with their systems as well as increases in sales and decreases in operating expenses. This study did rely on the opinion of the retailer and has a margin of error based on the fact that sales increases (although documentable) could not be attributed to the deployment of technology. The study also found that the newer the system, the lower the sales increases attributed to the technology, and also a high correlation with low sales increases and dissatisfaction with the technology.

Lin and Sun (2009) examined factors influencing satisfaction and loyalty in online shopping based on technology acceptance factors. Data were collected from 221 online users through the snowball sampling technique and analyzed through AMOS and SEM. The findings indicated that customer e-satisfaction will positively influence customer e-loyalty directly, technology acceptance factors will positively influence customer e-satisfaction and e-loyalty directly, and website service quality can positively influence customer e-loyalty directly, but cannot positively influence customer satisfaction directly.

2.3 Summary of literature review

The table shows that the summary of the literature review of independent variables with the author's name and findings.

Table 2.3.1

Review on Internet Banking

Authors	Findings
Byamba and chang (2012)	The results showed that there are three significant factors, interactivity, payment security, and ease of use, that affect satisfaction with the e-ticketing experience on customer satisfaction in Mongolia.
Jiradiloket al.(2014)	The study discovered the core variables that influence the intention to perform the actual purchase in the perception of e-customers for all online users, experienced online purchasers, and inexperienced online purchasers.
Gbadeyan and Akinyosoye (2011)	The study found that the quality of e-banking services offered by banks has a significant influence on their customers at 95%, 3 degrees of freedom.
Ready and Ready (2015)	The study found that there is a significant relationship between family, income group, and perception regarding e-banking. The study found that around 70 % of people have positive perception & are satisfactory with E-banking services
Nochai and Nochai (2013)	The results showed that internet banking service quality dimensions have a positive impact on customer satisfaction of the top three banks in the Bangkok area.

Shakya (2016)	The study showed that online banking has a positive impact on customer satisfaction and the performance of Nepalese commercials.
Muhammad and Rana (2012)	The study found that perceived ease of use, perceived usefulness, compatibility and innovativeness, and perceived credibility have a positive impact on customers adopting internet banking.
John and Rotimi (2014)	There is a significant relationship between electronic banking and customers 'satisfaction.

Table 2.3.2*Review on Mobile Banking*

Authors	Findings
Hossain and Hossain (2015)	There is a significant relationship between service quality and customer satisfaction in the mobile banking sector of Bangladesh.
Saleem and Rashid (2011)	The study indicated that mobile banking has the most significant and strong impact on customer satisfaction.
Asfour and Haddad (2014)	The results of the simple regression analysis showed that there is a positive impact of the mobile banking service on customer satisfaction ($\beta=0.883$) at the level of Significance (0.000).
Al-Kasasbeh <i>et al.</i> (2011)	The study found that e-services factors website design navigation and personalization have a positive influence on customer satisfaction.
Masreket <i>et al.</i> (2012)	The result of the study showed that mobile banking has a positive and significant impact on customer satisfaction and loyalty.
Adewoye (2013)	The study found that there is a significant relationship between mobile banking and service delivery of sampled commercial banks in Nigeria.
Khraimet <i>et al.</i> (2011)	The results showed that self-efficacy, trialability, compatibility, complexity, risk, and relative advantage of mobile banking were statistically significant influences on the intention of mobile users to adopt mobile banking services.
Rahman and Hasan (2017)	The study found that mobile banking variables tangible, reliability, responsiveness, and empathy have a significant positive relationship with customer satisfaction.

Table 2.3.3*Automated Teller Machine*

Authors	Findings
Mwatsika (2016)	The study found that improvement in ATM banking has a positive impact on customer satisfaction.
Adeniran & Junaidu (2014)	The result revealed that there is a positive and significant impact of ATM services provided by banks on customer satisfaction.
Kaur (2013)	The result indicated that accessibility, convenience, efficiency, responsiveness, security & privacy, and reliability are important dimensions of service quality of ATM banking.
Olusanya & Fadiya (2015)	The result revealed that customer satisfaction increases with the improvement in service quality dimensions of ATMs in banks.
Shrestha (2016)	The study found that there is the positive impact of ATM services factor on customer satisfaction of Nepalese commercial bank
Shemsu (2017)	The study indicated that the majority of the customers are dissatisfied with the ATM services.
Akpan (2016)	The studies showed that ATM service quality has a positive significant impact on customer satisfaction in the banking sector of Nigeria.
Sing (2011)	The study found that ATM services have a positive impact on customer satisfaction.

Table 2.3.4*Review on Point of Sale Banking*

Authors	Findings
Adeoti & Oshotimehin (2011)	The study found that factors such as nativity, security, ease of use, availability, convenience, intention to use the complexity of the technology are among the factors influencing the use of POS terminals.
Getachew (2018)	The study shows that the customers of the bank are moderately satisfied with the service with a mean score of 57.2%. Non-users perceived the service as superior relative to users.
Fenuga & Oladejo (2010)	The study concluded that electronic payment has a significant impact on customer satisfaction in Nigeria.
Khanna and Gupta (2015)	The study showed that there are significant factors of customers' perception about technology being used by innovative delivery channels of PSBs of India. These significant factors can be helpful to PSBs for enhancing the effectiveness of delivery channels.
Omotayo & Dahunis (2015)	The study found that a moderate and positive significant relationship between SNs and POS among business organizations in Lagos and Ibadan metropolis.
Dion (2003)	The study shows that the deployment of technology POS) leads to sales increases and expense reductions which positively impact Profitability and customer satisfaction.
Lin and Sun (2009)	The study found that online shopping technology has a positive impact on customer satisfaction and customer loyalty.

2.4 Conceptual framework

The conceptual framework is developed to link a relationship between independent variables and dependent variable. It is used to make conceptual distinctions and organize ideas. A strong conceptual framework captures something real and does this in a way that is easy to remember and apply. The conceptual framework is a type of intermediate

theory that attempts to connect to all aspects of inquiry with problem definition, purpose, literature review, methodology, data collections, and analysis.

This study focused on the effect of alternative banking channels on customer satisfaction of Nepalese commercial banks. This study has taken customer satisfaction as dependent variable, whereas internet banking, mobile banking, ATM, and POS service as independent variables.

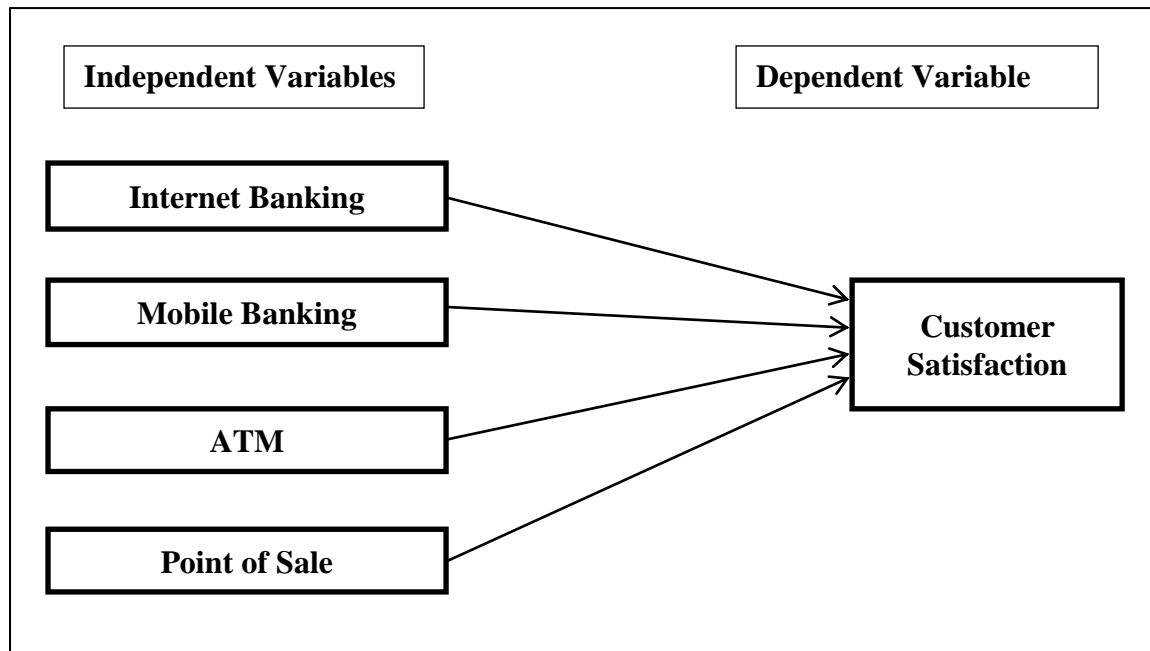


Figure 2.4: Conceptual framework

Source: Simon, V. T. & Thomas, A. S. R. (2016)

The study was to determine the effect of electronic banking and customer satisfaction among first-tier banks in Nairobi Town. The study adopted a descriptive survey research design. A stratified sampling technique was used to select a sample size of 225 respondents. Primary data was collected using structured questionnaires addressed to the participants. The study concluded that electronic banking including internet, mobile, ATM, and POS has a significant positive effect on customer satisfaction in Nairobi Town.

Figure 2.4 shows that the conceptual framework of alternative banking channels on customer satisfaction. This model is explaining the dependent and independent variables. According to this model, customer satisfaction depends on different factors like e-banking, mobile banking, ATM, and POS so that customer satisfaction is a dependent

variable whereas e-banking, mobile banking, ATM and POS are independent variables that are not affected by the dependent variable.

2.5 Operational definitions

Customer satisfaction: Customer satisfaction may be a basic standard of service performance and a possible standard of faultlessness for any business organization (Gerson, 1993). Satisfaction is a response to a perceived discrepancy between prior expectations and perceived performance after consumption (Eid, 2011; Lau, 2011; Merwe, 2010). Customer satisfaction is defined by how satisfied with product/services. Thus satisfaction is extremely important to marketers of products and services because a satisfied customer has a positive purchase intention such as repurchase, positive word-of-mouth, and loyalty in the long term. Rosen (2001) found that 35 to 40% of e-commerce website sales revenue comes from repeat visitors. Thus, customer satisfaction leads to customer loyalty and it has a positive growth in market share and predicts further market penetration (Yeoh & Chan, 2011). Fornell (1992) defined customer satisfaction as the overall post-purchase or usage evaluation. Customer satisfaction is a summation of satisfaction with various attributes of a product and will come from the satisfaction with the performance of its attributes (Churchill and Surprenant, 1992).

E-Banking: Daniel (1999) defined Internet banking services as major information services of a bank to serve its customers via the Internet. Internet banking permits consumers to carry out usual banking transactions on a computer that is equipped with an Internet connection. Among the most commonly used Internet banking services include transferring funds between accounts, checking the balance in one's bank account, and bill paying (Fox, 2006). Basel Committee Report on Banking Supervision (1998) defined internet banking services as bank account management, electronic bill payment, and financial advice over the internet. (Mukherjee and Nath, 2003) defined internet banking as a type of banking activity through which consumers can perform banking transactions such as checking account balances and making payments via telecommunication networks.

Ma (2012) identified privacy; reputation and price are the key factors that affect customer satisfaction in internet banking services in China. Litifi and Gharbi (2012) found that Internet Banking has a significant positive impact on e-satisfaction and influences positively and significantly the e-loyalty of the cyber consumer's shoppers in Tunisia.

Tulani *et al.* (2009) examined the extent of adoption and usage of internet banking by commercial banks in Zimbabwe and found people using internet banking for checking account balances, payment of bills, and fund transfer. Singhal and Padhmanabhan (2008) identified utility request, security, utility transaction, ticket booking, and fund transfer as the factors influencing users to adopt e-banking channels. Qureshi *et al.* (2008) evaluated factors that manipulate the nature of customers towards online banking and found almost 50% of the clients shifted from traditional banking to online banking. Likewise, Azouzi (2009) also examined the adoption of electronic banking in Tunisia and found the majority of respondents (95%) had internet access, but only a few of them used it as a primary banking channel.

Mobile banking: Mobile banking is a process of no branch banking that provides financial services to unbanked communities in both urban and rural areas at affordable cost. The aim of the service is not to destroy branch banking, but to consider those people under the umbrella of banking service that is away from banking facilities. Through Mobile banking one can avail various services i.e.; utility bill payment, Fund Transfer, Shopping, Cash Withdrawn from selected ATMs or Cashpoint, and many more exciting facilities (Islam, 2010).

Kahandawa and Wijayanayake (2014) investigated primarily identifying the factors that affect customer satisfaction in mobile banking services. The study concluded that mobile banking services have a positive impact on customer satisfaction in Sri Lankan State commercial banks. Rahman and Hasan (2017) examined mobile banking service quality and customer satisfaction in Bangladesh. The study showed that the four variables tangible, reliability, responsiveness, and empathy have a significant positive relationship with customer satisfaction. However, the assurance factor has no significant relationship with customer satisfaction. Aghdaie and Faghani (2012) in a study on mobile banking customers found that four factors reliability, responsiveness, tangibility, and empathy have a positive relationship with mobile banking customer satisfaction. Parvin (2013) showed that users of mobile banking customer's level of satisfaction were very high among the population of users, almost half of them describing themselves as very satisfied while only 8.3% stating that they are very disappointed

ATM: Automated teller machine is a computerized machine that provides the customers of banks the facility of accessing their accounts for dispensing cash and carrying out other

financial transactions without the need of actually visiting a Bank Branch. ATM is an electronic fund transfer terminal capable of handling cash deposits, transfers between accounts, balance inquiries, cash withdrawals, and paying bills (Hood, 1976). ATM provides 24 hours service, meaning that ATMs provide service around the clock. The customer can withdraw cash up to a certain limit during any time of the day or night (Akrani, 2011).

Islam et al. (2007) examined the satisfaction level of ATM cardholders of a leading bank (HSBC) in Bangladesh. The study found a significant relationship between ATM service qualities with customers' satisfaction. The study identified that location, personnel response, quality of currency notes, promptness of care delivery, and performance of ATM were positively and significantly related to customers' satisfaction. Khan (2010) in his study of Pakistani banks has stated that there is a positive and strong relationship between ATM service quality and customers satisfaction. Komal and Singh (2009) had identified that customer satisfaction is one of the major factors measuring the performance of the banks. They examined the relationship between various ATM facilities, factors affecting the choice of ATM, and its interplay with customer satisfaction. Mcandrews (2003) identified that secure and convenient location, adequate number of ATMs, user-friendly system, and functionality of ATM play important role in customers' satisfaction. However, Shemsu (2017) indicated the majority of the customers are dissatisfied with the ATM services.

POS: Point of sale terminal is electronic devices that are used for verifying and processing debit and credit card transactions. David (1982) confirms that there has been a very modest move away from cash. Patrick (1985) also contends that the advantage of cash is charismatic as the value of transactions increases. Consequently, the use of non-cash payments rises with increasing value. All these have been brought about by the advancement in Information and Communication Technology (ICT).

According to Steve (1996), electronic payment is a system that is automated through the use of information technology where bank transactions are done within and without banking halls and not necessarily the customer's branch. Information technology is the major driver that helps in the enhancement of the electronic system to enhance customer service delivery. Plastic cards are used to identify customers and pass the same to the machine to initiate a paper or electronic payment. Steve (1996) said it is a mechanism by

which personal customers could interface with the electronic banking industry. Financial institutions issue credit/debit cards designed as a system to provide credit or debit facilities to their customers.

Lin and Sun (2009) found that customer e-satisfaction has positively influenced customer e-loyalty directly, technology acceptance factors have positively influenced customer e-satisfaction and e-loyalty directly, and website service quality can positively influence customer e-loyalty directly, but cannot positively influence customer satisfaction directly. Dion's (2003) study shows that the deployment of technology POS leads to sales increases and expense reductions which positively impact profitability and customer satisfaction.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

This chapter is designed to explain the research methodology used to meet the stated objectives of the study. It explores the research process regarding the effect of ABC on customer satisfaction in commercial banks in Nepal. This chapter provides information about research design, sources of data, questionnaire, data collection procedures, population and sampling, instrumentation, reliability test, administration of instrument, and data analysis plan. The primary objective of this chapter is to highlight the methods and procedures 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.

3.2 Research design

The study has employed descriptive research design. The descriptive research design has been adopted for fact-finding and adequate information gathering about the fundamental issues associated with variables. Systematic research is carried out to make findings. The research is descriptive as it describes data and characteristics about the population being studied, solely based on statistics, without any form of manipulation. This study has based on a survey research design for understanding customers' responses toward alternative banking channels of commercial banks.

3.3 Population, sample, and sampling design

The study has been designed to understand the relationship between alternative banking channels and customer satisfaction in commercial banks in Nepal. The target population for this study is the customer of commercial banks they are using alternative banking channels such as internet banking, mobile banking, ATM, and POS banking. The researcher used Judgmental sampling for collecting responses.

For the study, the judgmental sampling technique was used in this study to track the respondents. Judgmental is a sampling technique in which the researcher relies on their judgment when choosing members of the population to participate in the study. Researchers often believe that they can obtain a representative sample by using sound judgment, which helps in saving time and money.

The standard sample size has been taken which were 384 from seven commercial banks. The population is unknown because the banks don't have permanent customers. They are frequently changed their service partner which was difficult to trace the population for dates due to have the right to choose their service partner. Samples were collected from the seven commercial banks i.e. NSBL, NBL, and Nic Asia, GBIME, Nabil, SBL, and KBL bank. Moreover, samples of customers were from different age groups, educational backgrounds, and gender. In the survey, all respondents had to respond through a filled questionnaire.

Table 3.3

List of Sample With Number of Response

Name of Bank	No. of Response
Nepal Bank Limited	88
Nepal SBI Bank Limited	94
NIC Asia Bank Limited	97
Global IME Bank Limited	29
Kumari Bank Limited	19
Nabil Bank Limited	33
Siddhartha Bank Limited	24
Total number of response	384

Source: Field Survey, 2021

Table 3.3 shows that the study has based on 384 observations. The 97 responses have been collected from NIC Asia bank, 94 responses have been from Nepal SBI. Similarly, 88 responses have been from Nepal bank, and 105 responses have been from other commercial banks which are GBIME, KBL, Nabil, and SBL.

3.4 Nature and sources of data

The data used in this research is primary. The primary data was collected from the respondents via the structured questionnaire. 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 instruments of data gathering such as questionnaires in order to collect quality and reliable data.

3.5 Data collection instrument and procedure

This study has been designed to understand the opinions of the respondents regarding the effect of alternative banking channels on customer satisfaction in commercial banks. The structured questionnaire has been used to collect the required information from the customer of commercial banks in Nepal. The questionnaire has been personally developed and distributed through different social media like Facebook, Viber, Whatapp, and Gmail and collected responses from a customer of commercial banks in Nepal.

The structural questionnaire has designed to collect information on customer satisfaction. The first part of the questionnaires deals with demographic information such as gender, age, education, marital status, and monthly income etc. This part of the questionnaire has been used for descriptive analysis of the respondents. Similarly, the second part of the questionnaire has been designed to analyze the effect of various factors on customer satisfaction. The questionnaire mainly included multiple-choice questions and Likert scale questions, which has a widely used rating scale that requires the respondent to indicate a degree of agreement or disagreement with each series of statements. The survey contains 30 questions using a five-point Likert scale for each question ranging from 'Strongly Disagree' to 'Strongly Agree', coded by 1 representing 'Strongly Disagree' and 5 representing 'Strongly Agree'.

The questionnaire in the second part consists of various statements of ATM, POS, mobile banking, and internet banking service. These variables have been used to determine customer satisfaction in commercial banks. This design was adopted to ascertain and understand the direction, magnitude, and forms of the observed relationship between different alternative banking channels and customer satisfaction in commercial banks in Nepal.

For the data analysis, the SPSS tool has been used to tabulate and analyze the valid responses. In the beginning, a comprehensive data file has created. Then, variable and their labels are defined as well as their values have inserted. Data has been entered using a user-friendly menu of SPSS operated commands. Different statistical tools such as frequencies, percentages, and mean, standard deviation, correlation, and regression have been used in this study to measure the effect of alternative banking channels on customer satisfaction in commercial banks in Nepal. Microsoft Excel sheet is also used for the

calculation of the average scores and used for the data collection procedure and tables as required.

3.6 Method of data analysis

This section provides a presentation on how collected data are used for the study purpose. The method of data analysis consists of three sections. The first section includes primary data analysis which included a summary of descriptive statistics associated with general information of respondents like age, gender, academic qualification, experience, occupation, and monthly income.

Second section analyses the descriptive statistics such as mean and standard deviation of four influencing factors i.e. internet banking, mobile banking, ATM banking, and POS banking service as well as customer satisfaction during the period. The study has been also used percentage frequency distribution and mean score of the responses to Likert scale items.

The third section dealt with Pearson's correlation analysis to study the relationship between different variables of alternative banking channels. Similarly, the fourth section deals with the regression analysis and hypothesis testing of primary data.

The study aims to analyze the relationship between alternative banking channels and customer satisfaction. The determinants of alternative banking channels are used as independent variables. Four different determinants are taken as independent variables namely internet banking, mobile banking, ATM, and POS. Customer satisfaction has taken as the dependent variable.

Multiple regression model has used in this study to analyze the relationship between the determinants of alternative banking channels and their effect on customer satisfaction.

The multiple regression model used in this study is as follow:

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

Where, \hat{Y} = Customer Satisfaction X_1 = Internet Banking, X_2 = ATM Banking, X_3 = Mobile Banking, X_4 = POS Banking, α = constant and $\beta_1, \beta_2, \beta_3, \beta_4$ are the beta coefficients of the explanatory variables to be estimated. All the observed relationships and findings have been interpreted to drive meaningful conclusions regarding the relationship between alternative banking channels and customer satisfaction.

Total responses collected from the respondents are coded and tabulated into the SPSS worksheet. The function of SPSS is to analyze the result of the questionnaire and then help to interpret the findings. The various tools such as frequencies, descriptive statistics, and casual comparative are applied to derive the result. Further, the p-value is used to check the level of significance of the different statements of alternative banking channels such as internet banking, mobile banking, ATM banking, and POS banking.

3.7 Reliability test

Data for this survey was collected through a questionnaire for measuring the effect of alternative banking channels on customer satisfaction in commercial banks in Nepal. 384 samples were selected. The questionnaires were distributed among the respondents and the responses were collected thereafter. For reliability tests through Cronbach's alpha, only Likert scale type questions, the thirty (30) questions are considered. The Cronbach's alpha reliability test is used to identify the validity and reliability of statements used in the survey.

Table 3.7

Cronbach's Alpha Coefficients

S.N	Variables	No of items	Cronbach's Alpha
1	Internet Banking	6	0.928
2	Mobile Banking	6	0.923
3	Automated teller Machine	6	0.940
4	Point of Sale	6	0.944
5	Customer Satisfaction	6	0.938
	Overall	30	0.9346

Source: Field Survey, 2021

Table 3.7 shows that the Cronbach's alpha coefficients of independent variables i.e. e-banking, mobile banking, ATM, POS, and the dependent variable is customer satisfaction.

According to Sekaran U., 2000).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' 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 have considered being reliable.

According to McDonald & Hendrickson (1993), the alpha of a scale should be greater than 0.70 for items to be used together as a scale. Therefore, minimum 0.70 coefficient alpha values are accepted to finalize the item validity. Here in table 3.5, Cronbach's alpha for the data is 0.9346 which reveals that there consists of internal consistency and the data is reliable and valid for further process. The Cronbach alpha of 0.9346 also shows that 93.46 percent of the data taken for the study is reliable and the remaining 6.54 percent of data is an error.

The value of alpha is partially dependent on the number of items on the scale. Here, for the reliability of data, the Cronbach Alpha should be more than 0.70. In table 3.5 the value of Alpha is 0.9346 which is more than 0.70, so this study is reliable for further process. Hence, Cronbach's alpha for the data is 0.9346 which reveals that there consists of internal consistency and the data is reliable and valid for further process.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter provides a systematic presentation and analysis of primary data. Different statistical and multiple regression models described in the previous chapter have been used for the study purpose. This chapter is divided into three sections. The first section deals with the presentation and analysis of the primary data and presents the result of the questionnaire survey. The second section covers the analysis of multiple regressions and correlation analysis and hypothesis testing. The third section of this chapter deals with findings and discussion based on findings from primary data analysis.

4.1 Data presentation and analysis

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 a structure questionnaire from 384 respondents. The primary purpose of this chapter is to analyze and interpret the collected data and present the results of the questionnaire survey. 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' and the respective correlation among the dependent and independent variables.

The main purpose of this section is to test the relationship between the alternative banking channels and customer. 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. The fourth part is regression analysis. The fifth and final part of this chapter deals with discussion and inferences by analyzing and interpreting the collected data on alternative banking channels and customer satisfaction in commercial banks in Nepal.

4.2 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.

Table 4.2
Demographic Variables of Respondents

Respondents Detail's	No of responses	Percentage (%)
Gender of Respondents		
Male	220	57
Female	164	43
Total.	384	100
Age Group of Respondents		
Below 20 years	24	6.5
20-30 years	248	63.3
30-40 years	53	14
40-50 years	42	11.3
Above 50 years	18	5
Total	384	100
Marital status of Respondents		
Single	213	55.5
Married	171	44.5
Others		
Total	384	100
Respondents Education level		
High School	38	10
Undergraduate	65	16.8
Graduate	200	52.3
Postgraduate	81	21
Total	384	100
Occupation of Respondents		
Self-Employed	63	16.3
Employed	196	51
Student	113	29.5
Unemployed	12	3.2
Total	384	100
Monthly income of Respondents		
Below Rs.20,000	129	33.8
NRs.20,000-NRs.40,000	117	30.8
NNRs.40,000-NRs.60,000	76	19.8

Above NRs.60,000	60	15.7
Total	384	100
Experience of Respondents		
Less than 1 years	44	11.5
1-3 years	117	30.5
More than 3 years	223	58
Total	384	100
Source of knowledge		
Through Social Media	65	17
Through Friend	82	21.3
From Bank	228	59.3
Others	9	2.4
Total	384	100
Alternative banking channels users		
Internet Banking	270	70.2
ATM	345	89.8
Mobile Banking	334	87
Point of Sale	168	44
Respondent used alternative banking channels		
Nepal Bank Limited	88	22.8
Nepal SBI Bank Limited	94	24.5
Nic Asia Bank Limited	97	25.3
Other Commercial Banks	101	27.4
Total	384	100

Source: Field Survey, 2021

Gender is an important variable in expressing and giving responses about the problem. Hence, the variable gender was investigated for this study. Table 4.2 showed that majority of respondents are male (57%). The rest of the respondents are female (43%). The age of the respondents is one of the most important characteristics in understanding the views about the particular problems. The age of the respondent is categorized into five groups i.e. below 20 years, 20-30 years, 30-40 years, 40-50, and above 50 years. The majority of the respondents belong to the age group 20-30 years (63.30 %) and the age group below 20 years (6.50%), age group 30-40 years (14%), 40-50 years (11.30%) and the age group of above 50 years (5%).

Education is one of the most important characteristics that might affect attitudes and understanding levels towards any social phenomenon. The education level of the respondents is categorized into four groups' i.e. High school, undergraduate, graduate, and post graduate. Table 4.2 shows that majority of the respondents are graduates (52.30%) followed by postgraduate (21%), undergraduate (16.8%), and high school level (10%). The marital status of the respondents is categorized into three groups i.e. single, married, and others. The table indicate that majority of the respondents are single (55%) followed by married (45%) of the respondents.

The questionnaire was distributed to respondents working in different fields. Table 4.2 showed that majority of the respondents are employed (51%) followed by self-employed (16.30%), students (29.50%), and unemployed (3.20%) of the respondents. Monthly income has a significant influence on buying behavior of an individual. The monthly income of the respondents is categorized into three groups Table 4.2 showed that the majority of the respondents have monthly income less than NRs.20,000 (33.80%) followed by the respondents having monthly income between NRs.20,000-NRs.40,000 (30.80%), between NRs.40,000-NRs.60,000 (19.80%), and the rest of the respondents having monthly income of more than 60,000 (15.70%). Respondents classified based on the period the customers have been using alternative banking services are important classification for the study.

Table 4.2 indicates that the 223 respondents (58%) are using alternative banking channels from more than 3 years. Similarly, 117 respondents (30.50%) are using ABC between 1-3 years, and the rest of the respondents 44 (11.50%) are from less than 1 year. The study classified by respondents based on sources from which they learn about alternative banking channel i.e. through social media, through a friend, from a road show, from the bank, and other sources. The table showed that the majority of the respondents know the ABC from the bank (59.30%) followed by from social media (17 %). (21.30%) of from friends and (2.40%) respondents know about ABC from other sources. The table 4.2 shows that majority of the respondents are used ATM and mobile banking (89.80%) and (87%) respectively. Similarly, (70.20%) are internet banking whereas (44%) are POS banking. The table shows that 384 responses were collected from different commercial banks.

4.3 Descriptive analysis

Descriptive statistics summarize the sample and observations that have been made. In this study, the descriptive analysis incorporates the calculation of statistical measures such as mean and standard deviation. The thirty (30) questions with a particular mean score were obtained as output. A five-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 concerning frequencies and aggregation relating to research questions and variables.

4.3.1 Internet banking channel

Internet banking channel is one of the independent variable of this research. A descriptive study of each questions drafted and an overall descriptive study on this variable is shown below:

Table 4.3.1

Descriptive Statistics of Internet Banking Channel

Code	Statements	N	Test Scale-3	
			Mean	Std. Deviation
Int1	Internet banking is useful for easy banking transactions.	384	3.910	1.049
Int2	Internet banking service is less costly than other banking services. (Branch, ATM, Mobile & POS banking).	384	3.770	1.059
Int3	Internet banking transaction procedure is faster and more reliable.	384	3.780	1.056
Int4	Internet banking is convenient because it eliminates the risk of carrying cash.	384	3.900	1.049
Int5	Transaction through internet banking is confidential and secure.	384	3.710	1.011
Int6	You are satisfied with internet banking service	384	3.810	1.004
Internet banking channel		384	3.810	0.890

Source: Field Survey, 2021

Table 4.3.1 shows that the descriptive statistics of an individual item and as a whole. There are six statements were used to measure the perception of the customer regarding internet banking channel. Each of the 384 respondents submitted their responses on the five-point Likert scale. The table showed that the statements have a mean value ranging from 3.710 to 3.910 i.e. the response is positive.

The table also shows that “Int1” has the highest mean and “Int5” has the lowest. The highest mean of 3.910 indicates that it is the most agreed statement, stating, “Internet banking is useful for easy banking transaction” Lowest mean of 3.710 shows that respondents are less agreed with the statement "Transaction through internet banking is confidential and secure”.

Additionally, the table express that “Int2” has the highest standard deviation whereas “Int6” has the lowest standard deviation. This means respondents have more deviation with the statement “Internet banking service is less costly than other banking services.

The average mean score for internet banking channel is 3.810. It indicates that customers are satisfied with internet banking channel provided by Nepalese commercial banks. In other words, the result indicates that Nepalese commercial banks can satisfy their customers through internet banking channel.

4.3.2 ATM banking channel

Automated teller machine banking channel is another independent variable of this research. A descriptive study of each questions drafted and an overall descriptive study on this variable is shown below:

Table 4.3.2*Descriptive Statistics of ATM Banking Channel*

Code	Statements	N	Test Scale-3	
			Mean	Std. Deviation
Atm1	ATM banking is convenient for daily banking transactions.	384	3.960	1.072
Atm2	I am satisfied with ATM banking because of its 24x7 availability.	384	3.900	1.128
Atm3	The speed of processing transactions by ATMs is much faster.	384	3.870	1.082
Atm4	ATM banking transactions are highly secure and safe.	384	3.680	1.069
Atm5	You are satisfied with the transaction fee charged by the bank for using an ATM card.	384	3.440	1.159
Atm6	ATMs save me from transport costs and time by bringing self-service to convenient locations.	384	3.780	1.030
ATM banking channel		384	3.770	0.928

Source: Field Survey, 2021

Table 4.3.2 indicates that the descriptive statistics of an individual statement and as a whole. There are six statements used to measure the perception of customers on ATM banking channel. Each of the 384 respondents submitted their responses on the five-point Likert scale. The table show that the statements have a mean value ranging from 3.430 to 3.960 i.e. the response is positive. Among the six statements, the statement with code "ATM5" has scored the lowest mean of 3.440 with a standard deviation of 1.159, and the statement with code "ATM1" has scored the highest mean of 3.960 with a standard deviation of 1.072.

The highest mean score of 3.960 indicates that it is the most agreed statement, stating "ATM banking is convenient for daily banking transaction" and the lowest mean score of 3.440 shows that respondents are less agreed with the statement "You are satisfied with the transaction fee charged by the bank for using ATM card".

Additionally, the table shows that “ATM5” has the highest standard deviation of 1.159 whereas “ATM6” has the lowest standard deviation of 1.030. This means respondents have more deviation with the statement “ATMs save me from transport costs and time by bringing self-service to convenient locations”.

The average mean score for ATM banking channel is 3.770. It indicates that customers are satisfied with the quality of ATM banking channel provided by Nepalese commercial banks. In other words, the result indicates that Nepalese commercial banks are satisfying their customers through ATM banking channel.

4.3.3 Mobile banking channel

Mobile banking channel is another independent variable of this research. A descriptive study of each questions drafted and an overall descriptive study on this variable is shown below:

Table 4.3.3

Descriptive Statistics of Mobile Banking Channel

Code	Statements	N	Test Scale-3	
			Mean	Std. Deviation
Mob1	Mobile banking is more convenient than other banking i.e. Internet, ATM, POS banking.	384	3.960	1.112
Mob2	Mobile banking is convenient because it reduces the risk of carrying cash.	384	4.070	1.024
Mob3	I am using mobile banking because of its 24 X 7 availability.	384	4.090	1.062
Mob4	Mobile banking procedures are Clear and understandable.	384	3.820	1.055
Mob5	Mobile banking is cost-effective as compared to visiting banks	384	3.870	0.990
Mob6	You are satisfied with the user interface of mobile banking.	384	3.780	1.005
Mobile banking channel		384	3.930	0.914

Source: Field Survey, 2021

Table 4.3.3 indicates that the descriptive statistics of an individual statement and as a whole. There are six statements used to measure the perception of customers on mobile banking services. Each of the 384 respondents submitted their responses on the five-point Likert scale. The table shows that the statements have a mean value ranging from 3.780 to 4.090. Among the six statements, the statement with code "Mob6" has scored the lowest mean of 3.780 with a standard deviation of 1.005, and the statement with code Mob3" has scored the highest mean of 4.090 with a standard deviation of 1.062.

The highest mean of 4.090 indicates that it is the most agreed statement, stating "I used mobile banking because of its 24 X 7 availability" and the lowest mean of 3.780 shows that respondents are less agreed with the statement "You are satisfied with the User Interface of mobile banking".

Additionally, the table shows that "Mob1" has the highest standard deviation of 1.112 whereas "Mob5" has the lowest standard deviation of 0.990. This means respondents have more deviation with the statement "Mobile banking is more convenient than the other banking (Internet, ATM, POS banking)".

The average mean score for mobile banking channel is 3.930. It indicates that customers are satisfied with the quality of mobile banking channel provided by Nepalese commercial banks. In other words, the result indicates that Nepalese commercial banks are satisfying the customers through mobile banking channel.

4.3.4 Point of sale banking channel

POS banking channel is another independent variable of this research. A descriptive study of each question drafted and an overall descriptive study on this variable is shown below:

Table 4.3.4*Descriptive Statistics of Point of Sale Banking Channel*

Code	Statements	N	Test Scale-3	
			Mean	Std. Deviation
Pos1	POS banking is reliable and trustworthy for shopping and service payments.	384	3.590	0.962
Pos2	POS banking ensures an effective payment mechanism.	384	3.520	0.961
Pos3	POS banking is very useful among consumers at a retail store.	384	3.560	0.976
Pos4	POS banking is flexible in addressing the specific needs of customers.	384	3.480	1.032
Pos5	POS is convenient because it reduces the risk of carrying cash.	384	3.690	1.030
Pos6	Technology use in POS banking helps to execute transactions fast	384	3.560	1.036
Point of sale banking channel		384	3.570	0.884

Source: Field Survey, 2021

Table 4.3.4 shows that the descriptive statistics of an individual statement and as a whole. There are six statements used to measure the perception of customers on POS banking channel. Each of the 384 respondents submitted their responses on the five-point Likert scale. The table shows that the statements have a mean value ranging from 3.480 to 3.690. Among the six statements, the statement with code "Pos4" has scored the lowest mean of 3.480 with a standard deviation of 1.032 and the statement with code "Pos5" has scored the highest mean of 3.690 with a standard deviation of 1.012.

The highest mean score of 3.690 indicates that it is the most agreed statement, stating "POS is convenient because it reduces the risk of carrying cash" and the lowest mean of 3.480 shows that respondents are less agreed with the statement "POS banking is flexible in addressing specific needs of customers".

Additionally, the table shows that "Pos6" has the highest standard deviation of 1.032 whereas "Pos2" has the lowest standard deviation of 0.9610. This means

respondents have more deviation with the statement “Technology use in POS banking helps to execute transaction fast”.

The average mean score for point of sale banking channel is 3.570. It indicates that customers are satisfied with the quality of POS banking channel provided by Nepalese commercial banks. In other words, the result indicates that Nepalese commercial banks are satisfying customers through POS banking channel.

4.3.5 Customer satisfaction

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

Table 4.3.5

Descriptive Statistics of Customer satisfaction

Code	Statements	N	Test Scale-3	
			Mean	Std. Deviation
Cs1	You are completely happy with your bank providing alternative banking services.	384	3.900	1.002
Cs2	You are satisfied with the customer support provided on your bank’s website	384	3.740	0.957
Cs3	You are satisfied with the payment system provided on the bank’s website.	384	3.790	1.024
Cs4	Your alternative banking services are easy to use.	384	3.890	0.931
Cs5	You are satisfied with the transaction Procedures.	384	3.840	0.985
Cs6	Your bank's alternative banking services are user-friendly.	384	3.880	0.952
Customer satisfaction		384	3.840	0.859

Source: Field Survey, 2021.

Table 4.3.5 shows that the descriptive statistics of an individual statement and as a whole. There are six statements used to measure customer satisfaction. Each of the 384 respondents submitted their responses on the five-point Likert scale. The Table show that the items have a mean value ranging from 3.740 to 3.900 i.e. the response is positive.

Among the six statements, the statement with code "Cs2" has scored the lowest mean of 3.740 with a standard deviation of 0.9720 and the statement with code "cs1" has scored the highest mean of 3.900 with a standard deviation of 1.002.

The highest mean of 3.900 indicates that it is the most agreed statement, stating "You are completely happy with your bank providing alternative banking services." And the lowest mean of 3.740 shows that respondents are less agreed with the statement "You are satisfied with the customer support provided on your bank's website".

Additionally, the table shows that "Cs3" has the highest standard deviation of 1.024 whereas "Cs4" has the lowest standard deviation of 0.931. This means respondents have more deviation with the statement "You are satisfied with the payment system provided on the bank's website".

The weighted average mean score for customer satisfaction is 3.840. It indicates that customers are satisfied with the alternative banking channels provided by Nepalese commercial banks.

4.4 Inferential analysis

The purpose of this section is to present the method for analyzing the empirical results, test the hypothesis set, built-in a previous chapter. This section consists of two analysis tools which are:

4.4.1 Pearson's correlation analysis between alternative banking channels and customer satisfaction

Having indicated the descriptive statistics, Pearson's correlation coefficients are computed and the results are presented in table 4.4.1. More specifically, it shows the correlation coefficients of dependent and independent variables for selected Nepalese commercial banks. The table presents the Pearson correlation coefficients between dependent and independent variables. Customer satisfaction is a state in which customers' needs or problems are solved by the product offering. Customer satisfaction is the dependent variable.

The independent variable is e-banking. E-banking banking is the mode of delivering banking services through the internet where customers without required to visit a physical branch, ATM banking is a form of delivering banking services like withdrawing money, balance inquiry, etc. through convenient ATMs nearby without reaching actual bank

branches, mobile banking is a medium of performing banking and financial services and interacting with customers through the use of the mobile application which is faster and easier than traditional banking and point of sale banking refers to the identification of customer details through a card with a chip that is read by a machine which allows access to payment function through the same card without going to an actual bank, however, loan disbursement function cannot be undertaken.

Table 4.4.1

Pearson's Correlation Analysis between Alternative Banking Channels and Customer Satisfaction

Variables	E-Banking	ATM	Mobile Banking	POS	Customer Satisfaction
E-Banking	1				
ATM	0.724**	1			
Mobile Banking	0.724**	0.738**	1		
Point of Sale	0.635**	0.613**	0.654**	1	
Customer Satisfaction	0.639**	0.669**	0.706**	0.624**	1

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

*** Correlations are significant at the 0.01 level (2-tailed).*

Source: Field survey data, SPSS, 28.

Table 4.4.1 indicates that the Pearson Correlation coefficient between internet banking and customer satisfaction is 0.639, which implies that the two variables are positively correlated. This indicates that the greater the internet banking, the higher the customer satisfaction. The positive coefficient of correlation is 0.639 at a 1 percent significant level.

Similarly, the Pearson Correlation coefficient between ATM banking and customer satisfaction is 0.669, which implies that the two variables are positively correlated. It indicates that the more the number of ATM services, the higher the customer satisfaction. The positive coefficient of correlation is 0.669 at a 1 percent significant level.

Additionally, the Pearson Correlation coefficient between mobile banking service and customer satisfaction is 0.706, which implies that the two variables are positively correlated. It means that an increase in mobile banking services leads to an increase in customer satisfaction. The positive coefficient of correlation is 0.706 at a 1 percent significant level.

Likewise, the Pearson Correlation coefficient between point of sale banking service, and customer satisfaction is 0.624, which implies that the two variables are positively correlated. This indicates that an increase in point of sale services in retail stores leads to an increase in customer satisfaction. The positive coefficient of correlation is 0.624 at a 1 percent significant level.

4.4.2 Regression analysis of customer satisfaction

The general purpose of multiple regressions is to learn more about the relationship between independent variables and a dependent 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 independent variables.

Multiple regressions were used to explore the effect of independent variables on a dependent variable. The regression model has developed from the theoretical framework. This model has determined the independent variables that explain variability in the outcome, how much variability in the dependent variable is explained by independent variable, and which variables are significant in explaining the variability of the dependent variable. The regression model has been used in this study to analyze the relationship between alternative banking channels and customer satisfaction. Therefore, it is designed to test the hypothesis, and the questionnaire analyzed using the following regression model.

Multiple Regression Model (\hat{Y}) = $\alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4$

Where,

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

X_1 = Internet Banking, X_2 = ATM Banking, X_3 = Mobile Banking, X_4 = POS Banking,

α = constant, β_1 , β_2 , β_3 & β_4 are the beta coefficients of the explanatory variables

The model summary indicates the R- square also known as the coefficient of determination which can help in explaining variance. The value of R-square as evident from table 4.3.2 is 0.610 which means 61 percent variation in customer satisfaction is explained by internet banking channel, ATM banking channel, mobile banking channel, and POS banking channel. This shows a moderate relationship between all variables of alternative banking channels and customer satisfaction.

Table 4.3.2

Regression analysis of customer satisfaction

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	0.783 ^a	0.614	0.610	3.223

Note: Based on calculation from the survey data

Source: Field survey data, 2021, SPSS, 28

a. Predictors: (Constant), Point of Sale, ATM, Internet Banking, Mobile Banking

b. Dependent Variable: Customer Satisfaction

The model summary also indicates the standard error of the estimate of 3.223 which shows the variability of the observed value of customer satisfaction from the regression line is 3.223 units. However, the remaining 39 percent (100%-61%) is still unexplained in this research. In other words, there are other additional variables of alternative banking channels that are important in explaining customer satisfaction that has not been considered in this research.

Table 4.3.3

Summary of one-way ANOVA Results Customer Satisfaction

Model	Sum of Squares	d.f	Mean Square	F	Sig.
1 Regression	6254.606	4	1563.652	150.589	<.001 ^b
Residual	3935.384	379	10.384		
Total	10189.990	383			

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

Source: Field survey data, 2021, SPSS, 28.

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Point of Sale, ATM, Internet Banking, Mobile Banking

The ANOVA Test shows the table Sig. value 0.05 is greater than the calculated Sig. value 0.001. It reflects the alternative hypothesis at a 5% level of significance. This shows that the overall model was significant. It means there was a significant correlation between dependent variables and independent variables. Therefore customer satisfaction level depends on the service quality of alternative banking channels in commercial banks in Nepal. But it does not mean that all factors of alternative banking channel have a significant correlation with customer satisfaction level. Taking four dimensions of alternative banking channels i.e. internet banking, ATM, mobile banking, and point of sale as the independent variable (X1, X2, X3, X4,) and customer satisfaction as the dependent variable, the model is constructed with the equation as below.

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

Based on the coefficients, the regression equation for customer satisfaction can be written as: $\hat{Y} = 3.901 + 0.100X_1 + 0.231X_2 + 0.303X_3 + 0.208X_4$.

Regression coefficient of Internet, ATM, Mobile and POS banking are 0.100, 0.231, 0.303 and 0.208 respectively.

Table 4.3.4

Multiple Regression Analysis of Customer Satisfaction

	Model	Unstandardized		Standardized	T	P-value
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	3.901	0.804		4.851	0.001
	E-Banking	0.100	0.050	0.104	1.985	0.048
	ATM	0.231	0.050	0.249	4.659	0.001
	Mobile Banking	0.303	0.052	0.322	5.865	0.001
	Point of Sale	0.208	0.044	0.214	4.752	0.001

a. Dependent Variable: Customer Satisfaction

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

Source: Filed survey data, 2021, SPSS, 28.

Table 4.3.4 indicates that all the factors i.e. e-banking, mobile banking, ATM, and point of sale banking are constant at zero the level of customer satisfaction is 3.901.

Furthermore, the results indicate that taking independent variable at zero, a unit increase in internet banking channel leads to a 0.100 increase in customer satisfaction and a unit increase in mobile banking channel leads to a 0.303 increase in customer satisfaction.

Further, the findings show that a unit increase in ATM banking channel leads to a 0.231 increase in customer satisfaction while a unit increase in the point of sale banking channel leads to a 0.208 increase in customer satisfaction. In terms of magnitude, the findings indicated that mobile banking have the highest effect on customer satisfaction followed by automated teller machines, then point of sale while internet banking had the least effect on customer satisfaction. All the variables were significant as their p-values were less than 0.05.

4.4.3 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. 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 judgmental sample from the population. There are eight alternative hypotheses have been drawn to identify relationships and analyze the effect of independent variables on a dependent variable in this study. Each hypothesis has been tested based on Pearson's correlation coefficient. Test on each of these hypotheses has discussed below:

H1: There is a significant positive relationship between e-banking service and customer satisfaction. The correlation analysis shows that there is a positive correlation between e-banking service and customer satisfaction. The correlation is significant at 1 percent where the p-value is less than alpha i.e. $0.001 < 0.01$. Hence, the alternative hypothesis (H1) is accepted.

H2: There is a significant positive relationship between ATM banking service and customer satisfaction. The correlation analysis shows that there is a positive correlation between ATM banking service and customer satisfaction. The correlation is significant at 1 percent where the p-value is less than alpha i.e. $0.001 < 0.01$. Hence, the alternative hypothesis (H2) is accepted.

H3: There is a significant positive relationship between mobile banking service and customer satisfaction. The correlation analysis shows that there is a positive correlation

between mobile banking service and customer satisfaction. The correlation is significant at 1 percent where the p-value is less than alpha i.e. $0.001 < 0.01$. Hence, the alternative hypothesis (H3) is accepted.

Table 4.3.5

Testing of Alternative Hypothesis

	Hypotheses	Null Hypothesis	Alternative Hypothesis
H1	There is a significant positive relationship between internet banking and customer satisfaction.	Rejected	Accepted
H2	There is a significant positive relationship between ATM banking and customer satisfaction.	Rejected	Accepted
H3	There is a significant positive relationship between mobile banking and customer satisfaction.	Rejected	Accepted
H4	There is a significant positive relationship between POS banking and customer satisfaction.	Rejected	Accepted
H5	Internet banking channel has a significant positive effect on customer satisfaction.	Rejected	Accepted
H6	ATM banking channel has a significant positive effect on customer satisfaction.	Rejected	Accepted
H7	Mobile banking channel has a significant positive effect on customer satisfaction.	Rejected	Accepted
H8	POS banking channel has a significant positive effect on customer satisfaction.	Rejected	Accepted

Source: Field Survey, 2021

H4: There is a significant positive relationship between POS banking channel and customer satisfaction. The correlation analysis shows that there is a positive correlation between POS banking channel and customer satisfaction. The correlation is significant at 1 percent where the p-value is less than alpha i.e. $0.001 < 0.01$. Hence, the alternative hypothesis (H4) is accepted.

H5: Internet banking channel has a significant positive effect on customer satisfaction. The regression analysis shows that there is a positive effect of internet banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.048 < 0.05$. Hence, the alternative hypothesis (H5) is accepted.

H6: ATM banking channel has a significant positive effect on customer satisfaction. The regression analysis shows that there is a positive effect of ATM banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.001 < 0.05$. Hence, the alternative hypothesis (H6) is accepted.

H7: Mobile banking channel has a significant positive effect on customer satisfaction. The regression analysis shows that there is a positive effect of mobile banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.001 < 0.05$. Hence, the alternative hypothesis (H7) is accepted.

H8: POS banking channel has a significant positive effect on customer satisfaction. The regression analysis shows that there is a positive effect of POS banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.001 < 0.05$. Hence, the alternative hypothesis (H8) is 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 independent variables the mobile banking channel has the highest coefficient of correlation with customer satisfaction. Therefore, it can be concluded that mobile banking has a greater impact on customer satisfaction.

4.4.4 Findings

A research was conducted to find out the influence of different independent variables, used in research, on customer satisfaction. The research was done with a sample size of 384 which representing the population. The descriptive statistics and inferential statistics were conducted and the final result was presented. The results obtained from descriptive statistics for the dependent variable and independent variables are summarized as below:

- i. The overall mean score of e-banking is 3.81, which shows that respondents agree that internet banking is an important factor of alternative banking channel that affects the customer satisfaction.

- ii. The overall mean score of ATM is 3.77, which shows that the respondents give importance to ATM banking and it influences customer satisfaction.
- iii. The overall mean score of mobile banking is 3.93, which shows that respondents agree that mobile banking is an important factor of alternative banking channel that affects the customer satisfaction.
- iv. The aggregate mean score of POS banking is 3.57, which shows that respondents agree that POS is also an important factor of alternative banking channel that affects the level of customer satisfaction.
- v. The aggregate mean score of customer satisfaction is 3.84, which shows that the level of customer satisfaction with alternative banking channels is good.
- vi. The descriptive findings suggest that among various independent variables, the mobile banking has highest mean of 3.93 with a standard deviation of 0.914. This shows that the mobile banking channel has a greater effect on customer satisfaction.
- vii. The dependent variable, customer satisfaction has a mean of 3.84 and a standard deviation of 0.859. This shows that level of customer satisfaction with alternative banking channels of Nepalese commercial banks is good. Standard deviations of some variables are below the level of 1.00 and some are above 1.00 which shows that there is variation in responses of the respondents.

The correlation coefficient analysis shows that the relationship between a dependent variable and independent variables is positive, which indicates that the factors of alternative banking channels influence customer satisfaction.

The eight research hypotheses were formulated and tested to identify the effect of alternative banking channels i.e. Internet, Mobile, ATM, and POS banking on customer satisfaction. The significance of the hypothesis between the variable is also analyzed from the significant value drawn from the sample. The correlation and regression results were used to answer the eight research hypotheses.

The result showed that all the constructs are statistically significant at the 0.01 level. This is because the p-value of 0.001 is less than the alpha value i.e. 0.01. Hence, the results proved that all the independent variables i.e. Internet, Mobile, ATM, and POS banking have a significant positive relationship with customer satisfaction.

The results of a test of hypothesis indicated that the correlation is significant at 1 percent where the p-value is less than alpha i.e. $0.001 < 0.01$. There is a positive correlation between internet banking and customer satisfaction. Hence, the alternative hypothesis (H1) is accepted. Similarly, there is a positive correlation between ATM and customer satisfaction. Hence, the alternative hypothesis (H2) is also accepted. Likewise, there is a positive correlation between mobile banking and customer satisfaction. Hence, the alternative hypothesis (H3) is accepted. Additionally, there is a positive correlation between POS and customer satisfaction. Hence, the alternative hypothesis (H4) is accepted.

The findings of the regression analysis show that there is a positive effect of internet banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.048 < 0.05$. Hence, the alternative hypothesis (H5) is accepted. Similarly, there is a positive effect of ATM banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.001 < 0.05$. Hence, the alternative hypothesis (H6) is accepted. Likewise, there is a positive effect of mobile banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.001 < 0.05$. Hence, the alternative hypothesis (H7) is accepted. Additionally, there is a positive effect of POS banking channel on customer satisfaction. The regression is significant at 5 percent where the p-value is less than alpha i.e. $0.001 < 0.05$. Hence, the alternative hypothesis (H8) is accepted.

The value of R-square as evident from the research is 0.610 which means 61 % variation in customer satisfaction is explained by internet, ATM, mobile, and POS banking service and the remaining 39% (100%-61%) other factors of alternative banking channels. The result of regression analysis shows that the beta coefficients for e-banking, ATM, mobile, and POS banking are positive with customer satisfaction.

4.5 Discussion

The result indicates that the beta coefficients are positive and significant for internet banking with customer satisfaction. This indicates that internet banking has a positive impact on customer satisfaction. This finding is consistent with the findings of Nochi and Nochi (2013), while the study result showed that the internet banking service quality dimensions have a positive impact on customer satisfaction.

Gbadeyan and Akinyosoye's (2011), the study results showed that the quality of e-banking service offered by the banks has a significant influence on their customers at a 95% degree of freedom. John and Rotimi's (2014) study result showed that there is a significant relationship between electronic banking and customer satisfaction.

The beta coefficients are positive and significant for mobile banking with customer satisfaction. It indicates that mobile banking has a positive impact on customer satisfaction. This finding is similar to the findings of Masrek et al. (2012) The result of the study showed that mobile banking has a positive and significant impact on customer satisfaction and loyalty. Rahman and Hasan (2017). The study found that mobile banking variables tangible, reliability, responsiveness, and empathy have a significant positive relationship with customer satisfaction. Saleem and Rashid (2011) study result showed that mobile banking has the most significant and strong impact on customer satisfaction.

Similarly, the beta coefficients are positive and significant for ATM banking with customer satisfaction. This indicates that ATM banking has a positive effect on customer satisfaction. This finding is similar to the findings of Adeniran and Junsidu (2014), while the study result showed that there is a positive and significant impact of ATM service provided by banks on customer satisfaction. Akpan (2016), the study result showed that the ATM service quality has a positive significant impact on customer satisfaction in the banking sector in Nigeria. The result indicated that accessibility, convenience, efficiency, responsiveness, security & privacy, and reliability are important dimensions of service quality of ATM banking (Kaur, 2013).

Likewise, the beta coefficients are positive and significant for POS banking with customer satisfaction. This indicates that POS banking has a positive impact on customer satisfaction. This finding is consistent with the findings of Fenuga and Oladejo (2010), while the study result showed that electronic payment has a significant impact on customer satisfaction in Nigeria.

The study of Dion (2003) found that the development of technology (POS) leads to sales increase and expense reduction which positively impact profitability and customer satisfaction. Lin and Sun's (2009), study result showed that online shopping technology has a positive impact on customer satisfaction.

CHAPTER 5

CONCLUSION AND IMPLICATIONS

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 conclusions of the study and the third section provides the implications and recommendations for future researchers.

5.1 Summary

Customer dissatisfaction with the online banking services is increasing in commercial banks (Aker, 2010; Bichanga & Wario, 2014; Kombo *et al.*, 2016). The key challenges of electronic banking are getting the balance between convenience, speed, and security. Frequent system failure especially on ATMs has also been a concern and affects the quality of customer service delivery. Similarly, complaints have also been raised on failures at the point of sale terminals in stores whenever access to the host bank fails, thus causing inconveniences to customers, sometimes leading to litigations.

The major purpose of the study is to examine the effect of alternative banking channels on customer satisfaction in commercial banks in Nepal. The specific objectives of the study were to analyze the customer's satisfaction level in alternative banking channels, and to examine the association between each of the independent variables i.e. e-banking, mobile banking, ATM, and point of sale with customer satisfaction.

This study provides guidelines to the policymakers to make policies, rules, and regulations on alternative banking channels. This study should be beneficial for academic institutions and individuals who might be interested in carrying out related researches in the future.

The study has covered limited factors that affect customers' satisfaction but there may be other factors might affect customer satisfaction. The study was based on the assumption of linear regression between the dependent and independent variables. The study excluded the non-linear regression assumption. 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 alternative banking

considering the previous studies. Based on the previous literature review the conceptual framework model was developed. The hypotheses were developed on the basis of conceptual framework.

The study consisted of 384 respondents belonging to different backgrounds. Primary data was collected by using structured questionnaires addressed to the respondents. To conduct the study, a set of thirty (30) questions has been prepared and distributed to the customers. The researcher has taken samples from NSBL, NIC-Asia, NBL, SBL, KBL, Nabil, and GBIME bank. The judgmental sampling technique was used for collecting samples.

Correlation analysis was conducted to establish the relationship between e-banking, mobile banking, ATM and point of sale with customer satisfaction. The study also used a multiple regression analysis to identify the effect of e-banking, ATM, mobile banking and point of sale on customer satisfaction. Respondents answered on a five-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree'.

The descriptive findings suggest that among various independent variables, the mobile banking has the highest mean score of 3.930 with a standard deviation of 0.914. This shows that mobile banking has a greater effect on customer satisfaction. Similarly, the dependent variable, customer satisfaction has a mean score of 3.840 and a standard deviation of 0.859. This shows that level of customer satisfaction with the alternative banking channels of Nepalese bank is good.

The correlation results were used to answer the eight research hypotheses. The result showed that all the constructs are statistically significant at the 0.01 level. This is because the p-value of 0.001 is less than the alpha value i.e. 0.01. Hence, the results proved that all the independent variables i.e. e-banking, ATM, Mobile and POS banking have a significant positive relationship with customer satisfaction.

The model summary indicates the R-square also known as the coefficient of determination which can help in explaining variance. The value of R-square as evident from finding is 0.610 which means 61 percent variation in customer satisfaction is explained by internet banking service, ATM banking service, mobile banking service, and POS banking service. However, the remaining 39 percent (100%-61%) is still unexplained in this research. In other words, there are other additional variables of

alternative banking service that are important in explaining customer satisfaction that has not been considered in this research.

ANOVA Test shows the table Sig. value 0.05 is greater than the calculated Sig. value 0.001. It reflects the null hypothesis at a 5% level of significance. This shows that the overall model was significant. The result of regression analysis shows that the beta coefficients for e-banking, ATM, mobile and POS banking are positive with customer satisfaction. It indicates that e-banking, ATM, mobile and POS banking services has a positive effect on customer satisfaction.

The internet banking has a positive impact on customer satisfaction. This finding is consistent with the findings of Nochi and Nochi (2013) and Gbadeyan and Akinyosoye's (2011). The mobile banking has a positive impact on customer satisfaction. This finding is similar to the findings of Masrek et al. (2012), Rahman and Hasan (2017) and Saleem and Rashid (2011). The ATM banking has a positive effect on customer satisfaction. This finding is similar to the findings of Adeniran and Junsidu (2014) and Akpan (2016). The POS banking has a positive impact on customer satisfaction. This finding is consistent with the findings of Fenuga and Oladejo (2010) and Lin and Sun's (2009).

5.2 Conclusions

The results of the correlation and regression analysis provide support for eight hypothesized relationships. The statistical analysis has showed that there is a significant positive relationship between alternative banking channels and customer satisfaction. From the findings, the study found that the internet banking service has a significant positive effect on customer satisfaction. It concluded that customers of selected commercial banks are satisfied with internet banking services but not more than ATM, M-banking, and POS banking service. Similarly, the study found that ATM banking has a significant positive effect on customer satisfaction. It indicates that the commercial banks are satisfied their customers by improving service quality and increasing the number of ATMs service.

Likewise, the study result showed that the mobile banking service has a significant positive effect on customer satisfaction of Nepalese commercial banks. It concluded that the customers are satisfied with the mobile banking service provided by commercial banks in Nepal. The study also concluded that mobile banking is the most influencing

factor of alternative banking channels. The study result also found that point of sale banking has a significant positive effect on customer satisfaction. It indicates that the customers are satisfied with the point of sale banking channel.

5.3 Implications

Based on the findings of the study, the following implications are made for further improvement in alternative banking channels to increase customer satisfaction in commercial banks in Nepal.

- i. The study found that internet banking has a positive effect on customer satisfaction. Hence, the commercial banks willing to increase the level of customer satisfaction should focus more on providing better internet banking services to their customers.
- ii. The study observed a positive relationship between ATM banking with customer satisfaction. Hence, the commercial banks are willing to increase customer satisfaction and should focus more on improving services through ATM banking and increasing no of ATMs services.
- iii. The study found that mobile banking is positively related to customer satisfaction. Hence, the commercial banks willing to increase the level of customer satisfaction should focus more on providing better mobile banking facilities to their customers.
- iv. Based on the study, the commercial banks willing to increase the level of customer satisfaction should focus on improving the point of sales service. Since the study observed a positive effect of a better point of sales service on customer satisfaction.

Recommendations for future researchers

This study has tried to cover the issues related to the effect of alternative banking channels on customer satisfaction. Therefore, further studies can be carried out based on the findings of this study. Some of the recommendations for future researchers are listed as below:

- i. This study has based on commercial banks. However, further studies should include other financial institutions like development banks, and finance companies to grab a wider view of alternative banking channels and their effect on customer satisfaction.

- ii. The study has explained four factors of alternative banking channels whereas further analysis might be made on the determination of other factors of customer satisfaction.
- iii. It has taken three hundred eighty four samples from seven commercial banks, where the futures studies should take more sample and banks.
- iv. It has been used limited analytical tools where the future studies should use more analytical tools which provide more accurate results.

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Appendix

Dear Respondent,

I am Dammar Bahadur Gadai, a student of Masters of Business Management (MBM) at Central Department of Management, TU. I am pleased to inform you that I am undertaking a graduate research project entitled "Alternative banking channels and customers satisfaction in commercial banks in Nepal" for the partial fulfillment of my master's degree. I will be grateful if you provide just a few minutes to answer my questions appearing in the enclosed questionnaire. Your ideas and information will be of great importance to my research.

I would also like to assure you that all information contained in this questionnaire will be kept confidential and used only at the aggregate level for research purposes. Your kind cooperation will be highly appreciated.

Sincerely

Dammar Bahadur Gadai

MBM 4th Semester

Central Department of Management

Tribhuvan University

General information	Responses
Gender	
Male	
Female	
Age	
Under 20 years	
20-30 years	
30-40 years	
40-50 years	
Above 50 years	
Marital status	
Single	
Married	
Others	
Education level	
High School	
Undergraduate	
Graduate	
Postgraduate	
Occupation	
Self-employed	
Employed	
Student	
Unemployed	
Monthly income	
Below Rs.20,000	
NRs.200,000-NRs.40,000	
NRs.40,000-NRs.60,000	
Above Rs.60,000	
How long have you been using alternative banking channels?	
Less than 1 years	
1-3 years	

More than 3 years	
How did you learn about alternative banking channels?	
Through Social Media	
Through friend	
From Banks	
Others	

Which alternative banking channels you are using?

You can choose more than one option

- a. Internet Banking b. ATM c. Mobile Banking d. Point of Sale (POS)

Which bank's alternative banking channels do you use?

S.N	Bank Name	Response
1	Nepal Bank Limited	
2	Nepal SBI Bank Limited	
3	Nic Asia Bank Limited	
4	Other Banks (Please write)	

How do you rate internet banking service?

Please rank your preferences from 1 to 5 (1 being the lowest and 5 being the highest) 1-Strongly Disagree 2-Disagree 3- Neutral 4- Agree 5- Strongly Agree

Internet Banking (IB)	1	2	3	4	5
1. Internet banking is useful for easy banking transactions.					
2. Internet banking service is less costly than other banking services. (Branch, ATM, Mobile & POS banking).					
3. Internet banking transaction procedure is faster and more reliable.					
4. Internet banking is convenient because it eliminates the risk of carrying cash.					
5. Transaction through internet banking is confidential and secure.					
6. I am satisfied with internet banking service					

How do you rate ATM banking service?

Automated teller machines (ATM)	1	2	3	4	5
1. ATM banking is convenient for daily banking transactions.					
2. I am satisfied with ATM banking because its 24 X 7 availability.					
3. The speed of processing transactions by ATMs is much faster.					
4. ATM banking transactions are highly secure and safe.					
5. I am Satisfied with the transaction fee charged by the bank for using an ATM card					
6. ATMs save me from transport costs and time by bringing self-service banking into convenient locations.					

How do you rate mobile banking service?

Mobile banking (MB)	1	2	3	4	5
1. Mobile banking is more convenient than other banking (Internet, ATM, POS banking)					
2. Mobile banking is convenient because it reduces the risk of carrying cash.					
3. I am using mobile banking service 24x7					
4. Mobile banking procedures are clear and understandable.					
5. Mobile banking cost-effective as compare to visiting banks					
6. You are satisfied with the user interface of mobile banking					

How do you rate POS banking service?

Point of sale (POS)	1	2	3	4	5
1. POS banking is reliable and trustworthy for shopping and service payments.					
2. POS banking ensures an effective payment mechanism.					
3. POS banking is very useful among consumers at a retail store.					
4. It is banking is flexible in addressing the specific needs of customers.					
5. POS is convenient because it reduces the risk of carrying cash.					
6. Technology use in POS helps to execute transactions fast.					

Questionnaire relating to customer satisfaction

Customer satisfaction	1	2	3	4	5
1. You are completely happy with your bank providing alternative banking services.					
2. You are satisfied with the customer support provided on your bank's website.					
3. You are satisfied with the payment system provided on the bank's website.					
4. Your banking services are easy to use.					
5. You are satisfied with the transaction Procedures.					
6. Your bank's alternative banking services are user-friendly.					

Thank you for your valuable time!