ONLINE BANKING SERVICE: AN ANALYSIS ON CONSUMER ADOPTION AND SATISFACTION ON NEPALESE BANKING SERVICES

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RECOMMENDATION LETTER

This is to certify that report "Online Banking Service: An Analysis on Consumer Adoption and Satisfaction on Nepalese Banking Services" submitted by Ram Bachhan GT in an original piece if research work carried out by the candidate under my supervision. Work evinces the capacity of the candidate for critical examination and independent judgment. Candidate has put at least 60 days after registering the proposal. The report is forwarded for examination.

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Date: February, 2021

APPROVAL PAGE

We, the undersigned, certify that we have carefully read the research project report submitted by Ram Bachhan GT and conducted the viva-voce examination of the candidate. We are fully satisfied with the quality and academic standard of the research project report. The candidate has defended his research work very satisfactorily. We therefore recommend that the research project entitled "Online Banking Service: An Analysis on Consumer Adoption and Satisfaction on Nepalese Banking Services" be accepted as partial fulfillment of the requirements for the award of the degree of Master of Business Management (MBM) of Tribhuvan University.

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STATEMENT OF AUTHORSHIP AND ORIGINALITY

I hereby certify that I am the author of this document and that any assistance I received in its preparation is fully acknowledged and disclosed in the document. I have also cited all sources from which I obtained data, ideas or words that are copied directly or paraphrased in the document. Sources are properly credited according to accepted standards for professional publications.

I also certify that this research project report was prepared by me for the purpose of partial fulfillment of requirements for the MBM degree of Faculty of Management, Tribhuvan University.

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Ram Bachhan GT

Date: February, 2021

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Ram Bachhan GT

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Abbreviations

ATMs	:	Automated Teller Machines
MB	:	Mobile Banking
TAM	:	Technology Acceptance Model
PU	:	Perceived Usefulness
PEOU	:	Perceived Ease of Use
PCR	:	Perceived Credibility
SPSS	:	Statistical Package for Social Sciences
EFA	:	Exploratory Factor Analysis
MSA	:	Measure of Sampling Adequacy
VIF	:	Variance Inflation Factors

Abstracts

Technological developments, particularly in the area of telecommunications and information technology, are revolutionizing the banking industry, including Nepalese banking sector. These developments have prompted new delivery channels and banking systems. Mobile banking can reduce costs, increase the speed of service, expand the market, and improve overall customer service. Despite the efforts of the banking sector, numerous consumers are not satisfied and are still not using mobile banking services. This research investigates the factors that affect consumers' adoption and satisfaction level of mobile banking services in Nepal.

This research has analyzed the different factors of mobile banking using regression analysis. It analyzed the factors and used significant beta for comparing the factors that has maximum or minimum effect on adoption of mobile banking. Using paired t-test; means were compared for mobile banking expectations and satisfaction and satisfaction level of mobile banking was analyzed.

The findings reveal that Perceived Usefulness, Perceived Ease of Use and Perceived Credibility have an impact on customers' decisions to adopt and satisfaction on mobile banking. The results of this research will help banks and financial institutions to implement efficient services strategies to increase the rate of mobile banking adoption and satisfied costumer. Furthermore, this research provides useful information for future researchers.

CHAPTER 1
INTRODUCTION

1.1 Background of Study

Online banking service is where customer can access his or her bank account via internet using personal computer or mobile phone and web-browser. In the world of banking, the development of information technology has an enormous effect on development of more flexible payment methods and more-user friendly banking services. Mobile banking involves consumer using bank's mobile application to access their bank account and undertaking banking transactions.

Information technology is used as a tool to bring about process innovations and has emerged as a new channel for businesses over the internet. Businesses use information technology innovations to achieve strategic objectives. Customers have found online banking as a cost efficient and time saving channel to transact with bank at anytime, anywhere as compared to traditional real bank branches (Kalaiarasi & Srividya, 2013). E-banking has become increasingly prevalent, employed by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods, increase speed, improve the flexibility of business transactions and provide better service overall (Shih & Fang, 2004).

Online banking constitutes a fusion of conventional banking and web technology. Being increasingly patronized by banking sectors worldwide, injection of information technology facilities like online banking has led to improved service quality and superior service delivery within the banking sector which provide consumer satisfaction on banking service. Online banking facility, in general, provides direct access to information and data related to account and transactions, latest balance, account detail viewing, facilitates giving instruction, customization, print, obtaining a history statement of customers (Musiime & Ramadhan, 2011), enables funds transfer and payments as per the needs of the account holder (Sikdar, Kumar, & Makkad, 2015). The main benefits to banks are cost savings, reaching new segments of the population, efficiency, enhancement of the bank's reputation and better customer service and satisfaction (Jayawardhena & Foley, 2000).

To customers, online banking offers also new value. With the help of the online banking, banking transactions are no longer bound to time or geography. Consumers all over the world have relatively easy access to their accounts 24 hours per day, seven days a week. It ensures availability of full range of services to customers; including some services not offered at branches. Mobile banking has the advantage that the customers do not have to travel to and from a bank branch. This way, Mobile banking saves time and money, provides convenience and accessibility (Karjaluoto, Mattila, & Pento, 2002). Internet is a channel that simultaneously provides direct and indirect advantage. Direct advantage is that it does not need paper documents; the processing of which can give rise to error and delays, requires more personnel; thus lowering transaction handling fees. Indirect advantage of internet is that banking transactions can be carried out anytime and anywhere in the world (Capece & Campisi, 2013). Customers are also demanding greater convenience and accessibility so banks provide alternative service delivery systems such as Automated Teller Machines (ATMs), telephone, internet and wireless channels. Consumers can now perform their banking transactions online in addition to the traditional branch banking (Adapa & Cooksey, 2013), although due to insufficiency on information system literature to use portable device in banking service is still in its infancy, furthermore, MB broad adoption still remains low even within established markets (Shaikh, Glavee-Geo, & Karjaluoto, 2015). Clearly, in order to grow consumer online banking adoption, banks must make key improvements that address consumer concerns. Thus, it would behoove financial institutions to gain an understanding of the key factors that influence consumer online banking adoption.

According to National Bureau of Statistics Nepal October 2017, 16.67 million Nepali were connected to the internet, rising by 15.60 percent per year. The staggering growth means that nearly 63 percent of Nepal's total population is now connected to internet. In Nepal 45% of total population are formally banked through an account with a financial institution and among them, 45% are adults. Banking institutions are facing difficulty to provide physical bank branch in remote and rural area for which online banking can help to expand the coverage of banking system in Nepal (Government of Nepal, 2018). This application of information technology appeals to financial institutions because it can standardize service delivery, reduce labor and service costs, expand the options for

delivery, and reach consumers who are unreachable through other channels (Montazemi & Qahri-Saremi, 2015).

Consumer online behavior and adoption is highly affected by the risk of monetary loss, risk of loss of privacy associated with personal information provided and comfort to use the service (Pavlou, 2003). Online banking comes with a horde of hazards and security threats but still more and more banks are using the benefits the internet has to deliver to their customers (Perkins & Annan, 2013). Online banking satisfaction results from a process of comparison where consumers compare service satisfaction against their expectations. Satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfillment of some need, goal or desire (Kodithuwakku, 2018). This study focuses to understand consumer adoption and satisfaction of online banking services, particularly mobile banking provided by financial institutions of Nepal.

1.2 **Problem Statements**

In modern era where advance technology provides many features and by using them, each service industry can enhance its performance and easily interact with their customer. Similarly, financial industry is adopting the facility provided by technical advancement; internet is one of most used medium. By using internet, banks and financial institutions develop different kind of products and services to make it easy for their customers to carry out financial transactions. Financial institution tries to ease their customers on the basis of time and cost by introducing such services. Many services are introduced by using internet but use rate of these services is very low.

Satisfaction has been taking concern in all business as satisfied customers can become long lasting user of what the businesses has to offer and bring in new customers to business through word of mouth. Satisfaction is only possible when consumer adopts service and the service fulfills their expectation. Many business sectors have failed miserably due to low customer satisfaction. Online banking services are giving unique facility to the customers to deal with their financial transaction anywhere, anytime; but in Nepal, many consumers have not adopted this service despite increase in service facility and internet usage. This has ultimately led to lower level of satisfaction in online banking services. Although, there are a number of studies focused on online banking, there lack

specific focus on its consumer adoption and satisfaction in Nepal. For that, this study intends to investigate customer adoption and satisfaction with online banking services in Nepal.

1.3 **Research Questions:**

The purpose of this research is an investigation of the factors that affects customer adoption and satisfaction level on mobile banking service:

1. How independent factors affect customer's perception on adoption of MB service provides by Nepalese banks?
2. What are the most important factors of MB service that affect customers in terms of their adoption and use in Nepal?
3. Does mobile banking service satisfy their customers?

1.4 **Research Purpose:**

The main purpose of the studies is to analyze on customer adoption and satisfaction on Nepalese bank's online banking services and the specifics objectives of the study as follows.

1. To examine the factors that affect bank customer's perception on adoption of MB service provides by Nepalese banks.
2. To examine most important factors on adoption and use of MB service in Nepal.
3. To analyze satisfaction level of customer by adopting MB service in Nepal.

1.5 **Rationale of the study**

An understanding of why mobile banking service is adopted (or not) and how these service satisfy users can lead to the development of customer centered strategy to enhance acceptance of mobile banking service.

Online banking services (mobile banking) can be attributed to all the advantages that it is offering to both banks and customers; like convenience and ease of use combined with low fees and time. Banks are able to reduce any excessive personnel and branching costs by offering services at lower cost, and increase their profits through IT systems. A secured and profitable banking sector is better able to survive negative shocks and contribute to the stability of the financial system.

This study also determines the most important factors that are associated with the adoption and satisfaction of Mobile banking. The study can be useful in providing financial services in geographically remote areas of Nepal, where branch banking is costly and difficult because of lack of infrastructures in the remote areas. The use of mobile devices and internet as a new channel in providing financial services has been admirable and it can contribute significantly towards developing financial institutions.

In addition, Nepal has the largest portion of internet and mobile phone users. Understanding the factors that influence the adoption of mobile banking in Nepal may lead to an increase in the use of these online banking services among banking customers and service provider. The findings may also prove helpful in understanding mobile banking adoption issues and satisfaction of these services. This information should also enable banks to strategically plan their products and service offerings. This will further provide opportunities for growth in banking industry that may lead to economic growth.

1.6 **Limitations of the study**

A number of limitations arise when conducting the study; the main limitations are as follows.

- The study focused on the customers as individuals rather than firms or banks orientations.
- The study only focused on costumer adoption and satisfaction of mobile banking among various online banking services provided by Nepalese banks.
- The sampling method used could be viewed as limitation given that the study used convenience sampling. The most obvious criticism about convenience sampling is the possibility of sample being biased and that the sample may not be representative of the entire population. Due to time, cost and other factor the survey was conducted from customers who visited banks in Kirtipur Municipality from November 2019 to December 2019.
- The study only focuses on three variables; usefulness (time, cost, convenience and compatibility), ease of use (internet, understandability, website and service quality) and credibility (privacy, trust, security, risk) of mobile banking service.

CHAPTER 2
LITERATURE REVIEW

Online banking can be defined as the delivery of banking services to customers through the internet network (Yiu, Grant, & Degar, 2007). At the basic level, Internet banking means establishing a Web page by a bank to provide information about its product and services (Daniel, 1999). At an advance level, online banking is the enabling of transactional banking services to customers over the internet (Karjaluoto, Mattila, & Pento, 2002). Banking services involve: verifying account balances, moving funds from one account to another, confirming that transactions have taken place, ensuring checks have been cleared, placing orders for new check books, submitting applications for loans and credit cards, and carrying out bill payments (Rose & Hudgins, 2008). The terms Internet banking and online banking are often used in the literature to refer the same things (Rose & Hudgins, 2008). MB has become the self-service delivery channel that allows banks to provide information and offer services to their customers with more convenience via the web services technology.

In a dynamic environment, linking banking business to customers through mobile devices is one of the competitive strategies. MB refers to using mobile devices to provide financial information, communication and transactions to customers such as checking account balances, transferring funds and accessing other banking products and services from anywhere, at any time (Aboelmaged & Gebba, 2013). In case of lost or stolen mobile phones, MB service will be immediately blocked on deactivation of Subscriber Identity Module cards, providing more security to uses (Saxena, 2011). It has been more than a decade of the launch of MB services. During the initial period of its launch, the use of MB was limited to only SMS or basic banking services, such as balance check. The limitation of MB service was triumph over by the technological advancement, leading to dynamic functionalities (Vaidya, 2011).

Internet banking is defined as “the provision of retail and small value banking products and services through electronic channels. Such products and services include deposit-taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment product and services such as electronic money” (Basel, 1998).

The first online banking was started in 1999 by the European company called PayBox which was supported by Deutsche Bank. As a MB service, it was SMS banking at the time of evolution due to the limitation of mobile phone functionality. The expensive data cost and the quality of network were also the issues during the development phase of online banking. Until 2010, majority of online banking used to be performed by SMS or mobile web. With the success of Apple's product such as Iphone and other operating system such as Android based phone, online banking these days can be accessed with its special client application or apps which has taken online banking into new path. With the development of web technologies such as HTML5, CSS3 and JavaScript, more banks have started to offer online banking web services to supplement native applications (Limayem & Cheung, 2008).

Financial institutions have made significant investments in e-banking systems, so as to provide easier, quicker and more convenient banking services to their customers. The majority of these banking institutions offer basic and more advanced banking services. It is stated that the services offered have two operating models; the online and the offline. In this way, customers can reduce the costs of communication, which is actually the only cost of this service. The study concluded that the online banking services are a major penetration strategy for the foreign bank branches in Romania which forces local banks to implement various online banking services (Gurau, 2002).

The convergence of mobile communications and distributed networked computing has provided the foundation for the development of a new channel of electronic business. Many new e-commerce applications will be possible and significantly benefit from emerging wireless and mobile networks. These applications can collectively be termed wireless e-commerce or mobile commerce (Safeena, Hundewale, & Kamani, 2011).

2.1 **Online banking services environment in Nepal**

With the establishment of Nepal Bank Ltd. in 1937, the first bank to start banking in Nepal, it took nearly 53 years for the introduction of credit cards by the Nabil Bank Ltd., Himalayan Bank Ltd. provided ATM in 1995, and Kumari Bank Ltd. was the first to start internet banking in Nepal in 2002. After seventeen years of introduction of online banking, it is still not popular in Nepal; people still rely on traditional ways of banking. Although the major cities like Kathmandu, Pokhara, Biratnagar have good internet

facilities and majority of the bank provides online banking in urban cities, still online banking is in its early stage and is not utilized by most of the bank's customers (Khatri & Dhungel, 2013).

Though government and the central bank are committed to enhancing financial inclusion through digitization of banking services, its pace is slow in Nepal. Financial system is no longer a prerogative of banking institutions due to innovation and application of technology in delivering products and services. New players such as telecom and mobile network operators have evolved as a strong force in delivering the financial services through technology based products and delivery channels. ATMs, credit cards, debit cards, agent banking, MB, branchless banking, among others, are becoming popular these days to enhance people's access to financial services (Nepal Bankers' Association, 2019).

Dhungel & Regmi (2019) argued the number of cash-based transactions has been decreasing every year. An increase in the number of ATM outlets is 2791 in 2074/75. Despite the internet's access to 63% of the total population, access to digital banking among the same mass is really low. This is because people still regard digital banking a complicated procedure. And although they know that a wide range of transactions can be done through their mobile phones, people hesitate to make use of them. We lack standard information technology tools; a dearth of skilled manpower, poor infrastructure and the use of pirated software are high, security is a big concern.

As of March 2018, only 394 of the 753 local levels designed under the new federal structure have bank branches. Additionally, ATM and commercial branch penetration in Nepal is significantly lower than that of most other countries in the region. Intelligent finance solutions combining digital technologies and telecom operator's nationwide presence can be a feasible way to boost financial inclusion in the country. Digital solutions are beginning to become available in Nepal from traditional financial institutions and FinTech start-ups. In financial year 2018-19 government have started to digitize government payments and revenue collection (e.g. tax payment via mobile applications) which means government tried to expand the financial inclusion through online banking (Government of Nepal, 2018).

Nepal Rastra Bank (2019) stated that in Nepal the commercial bank provide these type online banking services:

a) Internet Banking: Kumari Bank Limited was the first bank to introduce Internet Banking in Nepal (in 2002). Currently, all the Commercial banks are offering Internet Banking services to their customers. So far, Commercial banks in Nepal are providing the service of utility payments, fund transfers within and between selected banks and the generation of account statements as internet banking services.
b) Mobile Banking: Nepalese banks are providing services like balance inquiry, mini statement, last transactions information, withdrawal alerts, check book inquiry/request, inter-bank and intra-bank fund transfer, utility bill payments etc through mobile application. Growth rate of MB users was more than 90% in 2018 as compared to previous year. Since mobile service has a very high penetration ratio in the Nepalese population, it can be a very effective way to provide financial services to the domestic consumers.
c) Card Service: This includes Debit Card, Credit Card, and Prepaid Card. All Nepalese Commercial banks are providing debit card services to their customers and growth rate is 13.08%. Credit card service in Nepal was first introduced by Nabil Bank Ltd in the early 1990s. As on mid-July 2018, there were 104,721active credit card customers in the Nepalese banking industry.
d) ATMs: All Commercial banks have installed ATMs currently. Through ATMs, customers can withdraw cash up to certain limit at anytime free of service or at minimal charge.
e) Branchless Banking: Branchless banking is a distribution channel strategy used for delivering financial services without relying on bank branches. It is serviced through point of transaction (POT) machine by using smart cards. It is an agent based service. The services include deposit, withdrawal, balance enquiry, and fund transfer. As on mid-July 2018, there are 1,248branchless banking sectors in Nepal, which is 23.81% f growth from last year. Increasing number of banks introducing branchless banking, in the rural areas, has contributed to the growth in the number of branchless banking centers.

In the era of technological advancements, some of the banks in Nepal have been continuously taking steps to upgrade the systems and processes and adopt world class technologies to facilitate banking services to its customers in Nepal. These banks have taken various steps towards digitalization. In the recent time among the most trending one in the Nepalese banking industry is the system of online inquiry, customers now can sit at home and chat with the banks representative about their queries, banking service, banking products. It is sort of time saving for customers because they can solve issues in real time (Nepal Bankers' Association, 2019).

2.2 **Benefits of Online Banking**

Digital banking helps customers to get quicker service in a low cost. It also helps banks to increase service quality and reduction of cost. Online banking is more cost effective for banks. This would result in lower fees for customers. Digitalization of banking industry in developed country started in 19th century, but in Nepal it is a new trend. Now almost every bank in Nepal is trying to make their services based on online. Number of internet users in Nepal is rapidly growing over few years. According to Nepal Rastra Bank subscriber of internet in last few years are also increasing which shows positive results for digitalization.

As per the customer's view point, we can see that there is cost benefit as well as faster service, with digitalization. Online banking concept is new in Nepal, with digitalization now we don't have to sit on a long queue to open an account, withdraw cash, cash payment, bill payment, get inquiry about the banking services, balance information etc. everything can be done with just a click at anywhere which saves a lot of time.

Our economy is mostly cash driven. Bill payments, grocery and all those needy things we buy through cash, we have to stand in line to get the cash out even if we have so many ATMs around us mostly run out of cash or no service. Online banking charge minimum rupee yearly for using bank services but it is affordable then to spend time and energy in queue. Many people still don't use such facility given by information technology to us which enhance and make our time productive. Following are the benefits that consumer can get by using online banking (Nepal Bankers' Association, 2019):

1. Banking from any location with internet access (Internet based).
2. Working offline (bank program or personal finance software) after downloading account information.
3. Better control over money flows.
4. Monitoring check clearance.
5. Accessing account 24 hours a day, 7 days a week.
6. Monitoring account in real time (withdrawals, deposits, ATMs, debit card purchases).
7. Transferring funds from one account to another.
8. Setting up electronic bill payments.

The banking industry in Nepal witnessed slow transition from people-driven to technology based by increasing online banking services which in result enhanced efficiency at a faster pace than humans could do. Although there could be hiring's but the nature of skill sets required could change with a lot more focus on other activity like creative promotion of service, development of new financial service and increase the efficiency manual work at bank. Online banking services give quick response to customer which led them to satisfaction on service provided by bank.

Mols (1988) Conducted a survey in Denmark argued that online banking might be useful for strengthening cross-selling and price differentiation. Online banking makes it possible for banks to offer consumer a variety of services 24/7. Online banking is attractive because the consumer are more satisfied with their banks, are less price sensitive, have the highest intention to repurchase, and provide more positive word of mouth information than other bank customers.

2.3 **Online banking adoption**

Hettiarachchi (2013) argued that awareness of internet banking services is essential in early adoption stages. To access more potential adopters, information about internet banking should be provided by bank teller and bank assistants at branches. The

information should include references to ‘time saving’, ‘convenience’ at anywhere any time ‘low cost’, and ‘information availability’.

A study conducted in Jordon by Alwan & Al-Zu (2016) found that online banking service users may look at the perceived risks in a different way compared to non-users of online banking. Furthermore, the study found that the unique contribution was perceived through website quality, customer trust, perceived ease of use, perceived privacy and security. Where, Hettiarachchi (2013) concluded his study in Sri-Lanka that web site should be effective delivery channels and offer information beyond baking service, it is essential to provide a well-designed and user-friendly website to attract potential adopters’ attention and information on web site must be in both English and native language. The dimension of feedback negatively influenced customers’ adoption of internet banking. Accordingly, commercial banks in Jordan should focus their efforts on the security issues a bank should persevere what is new in online banking that provides more safety since the internet is being unveiled to hacking and unauthorized invasion. According to Adapa & Cooksey (2013), the banks should also consider providing step-by-step instructions, opportunity to test-drive the technological interface, and possible demonstrations on how to use online banking effectively and efficiently.

Reliability of good quality internet access also enhances mobile banking. Security in internet system must be enhanced continuously to guarantee integrity of online transaction. The security provision posted on bank webpage must be clear and understandable to consumers for their confidence and improved trustworthiness. Furthermore, banks should collaborate with internet service providers (ISPs) because it will enable banks to control quality of services; as well as enhance adopters’ accessibility (Akram & Asghar, 2012).

In addition, a high quality internet infrastructure should be provided since it is one of the primary requirements for online banking usage. In addition to lobbying the government, banks should also proactively participate in improving internet services in order to increase use of online banking. For example, electronic laws should be promoted by the banks in order to reduce customers’ perceptions of risks (Hettiarachchi, 2013). Speed of internet plays vital role, since some customers have problems in connection, page loading speed, login and logout time (Akram & Asghar, 2012). The perception of quality service

will increase the banks image for good services, accuracy and effectiveness. The value of online banking is increased by linking one activity with other both within banks and with outside suppliers, channels and customers (Hettiarachchi, 2013). The more they use services on a continued basis; service providers should increasingly look at the possibilities of providing business customer value and enhance their profitability (Adapa & Cooksey, 2013). Quick response and personal contact are also significant for establishing good relationship and gaining trust and loyal customers (Akram & Asghar, 2012).

Musiime & Ramadhan (2011) indicated that the relevant factors determining the adoption of online banking include the level of awareness or attention, the accessibility to computers and the internet, convenience, privacy, costs, and the availability of knowledge and support concerning online banking. Yu (2012) argued that awareness, perceived usefulness; social norms and risks are crucial factors influencing the adoption of mobile banking. Dixit and Datta (2010) mentioned that it is commonly assumed that demographics do influence the acceptance of electronic self-service tools, such as online banking. The results of the study were that people who use such services are young, trendy and high earning. They actively seek out online banking tools, and they want to conduct all transactions through the same channel.

According to Vakili (2015), investigation in Northern Cyprus, they figured that perceived ease of use and perceived usefulness have statistically significant effect on MB adoption. It means that when people's perceived usability of MB service is positive, they will recommend it to their environment. Additionally, age and gender of candidates have influence on amount of risk perception. Adapa & Cooksey (2013) found that the consumers often tend to evaluate various advantageous aspects of the different service delivery. Montazemi & Qahri- Saremi (2015) said that higher quality of information in an online banking system makes it more useful for consumers towards fulfilling their transactional and financial decision making needs.

Banks should develop effective promotional campaigns to create a greater awareness of Internet banking and its benefits to potential internet banking adopters. Banks may need to consider publicizing widely the various advantages associated with the technology-related internet banking interface (Adapa & Cooksey, 2013). It is essential that banks use

segmented marketing strategies via direct communication with current and potential clients (Boshkoska & Sotiroski, 2013). Lack of attention by the banking sector to inform or educate the consumers about the nature of the pertinent factors affected pre-adoption of the online banking (Montazemi & Qahri-Saremi, 2015).

An empirical analysis on Australia by Adapa & Cooksey (2013) showed that perceived safety and perceived specialty exhibited a significant impact on consumers' continued usage of internet banking. Banks may need to focus on implementing effective mechanisms to address any violation of the consumer's sensitive data by placing adequate controls in place to ensure security of personal data. Akram & Asghar (2012) pointed security as the main problem in online banking because there is a chance of being hacked and due to cyber theft and lack of privacy. They suggested bankers to improve security features of their systems, stress their system security and the precaution functions implemented. Many answered that the service was easy to use, but that they felt unsafe and a lack of trust.

Cheng, Lam, & Yeung (2006), passed an effective message to customers that the web security facility now available will eliminate any third-party intrusions into their online banking account in order to turn around the negative perceptions of their customers, thereby enabling customers to feel secure and comfortable in using online banking services. People have weak understanding of online banking; although they are aware about risks. It showed that adult customers are more reluctant to join new technologies or methods that might contain some risk (Dixit & Datta, 2010).

2.3.1 **Theory of planned behavior**

Ajzen & Fishbein (1975) Theory of Reasoned Action is an especially widely validated intention model that has proven successful in predicting and explaining behavior across a wide variety of domains. However, due to its limitation on volitional control, Ajzen (1991) extended the Theory of Reasoned Action by including another construct called perceived behavioral control, which predicts behavioral intentions and behavior. The extended model is called the Theory of Planned Behavior.

It is hypothesized by theory of planned behavior that the individual's behavioral intention to perform a behavior is jointly determined by the individual's attitude toward performing

the behavior, subjective norm and perceived behavioral control (Ajzen, 1991). Attitude toward behavior is defined as a person's general feeling of favorableness or unfavorable for that behavior, subjective norm is defined as a person's perception that most people who are important to him/her think he/she should or should not perform the behavior in question and Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior (Ajzen, 1991).

Briefly according to theory of planned behavior, Ajzen (1991) human action is guided by three kinds of considerations: behavioral beliefs (beliefs about the likely consequences of behavior), normative beliefs (beliefs about the normative expectations of others) and control beliefs (beliefs about the presence of factors that may facilitate or impede performance of behavior). To the extent that it is an accurate reflection that attitude toward behavior, subjective norms and perceived behavioral control can, together with intention, be used to predict behavior.

2.3.2 **Technology Acceptance Model (TAM)**

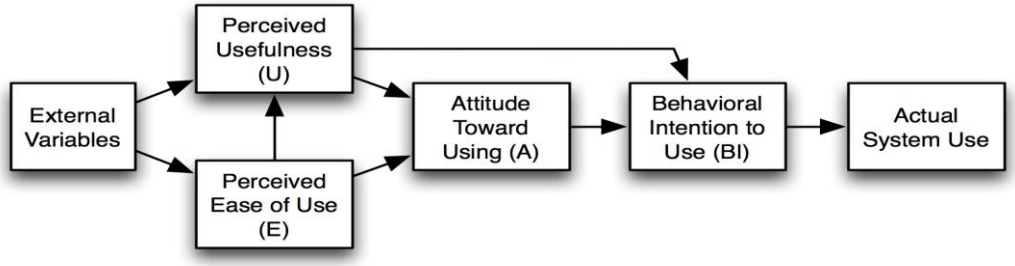
Davis (1989) developed the Technology Acceptance Model or TAM as it is commonly known, was an adaptation of the Theory of Reasoned Action (Ajzen & Fishbein, 1975) and theory of planned behavior (Ajzen, 1991). TAM proposes specifically to explain the determinants of information technology end-user's behavior towards information technology. TAM also suggests that intention is directly related to actual usage behavior. It was introduced by Fred D. Davis in 1985, and is one of the most popular research models to predict use and acceptance of information system and technology by individual users. The goal of Davis in TAM is to explain the general determinants of computer acceptance that lead to explaining users' behavior across a broad range of end-user computing technologies and user populations.

In TAM model Davis (1989) stated there are two factors; perceived usefulness (PU) and perceived ease of use (PEOU) relevant in computer usage behaviors. Davis defines PU as the prospective user's subjective probability that using a specific application system will enhance his or her job of life performance. PEOU can be defined as the degree to which the prospective user expects the target system to free of effort. According to TAM, PU and PEOU are most important determinant of actual system use. The two factors influenced by other external factors like included language, skills, facilitating conditions,

technological policies. The attitude to use is concerned with the user's evaluation of the desirability of employing a particular information system application.

The TAM hypothesizes that system use is directly determined by behavioral intention to use (Nasri, 2011). The originality of the TAM derives from two related beliefs, perceived usefulness (PU) and perceived ease of use (PEOU), which generalizes across different settings. TAM assumes that users engage in behaviors because they have evaluated the benefits and expected certain result (Alsajjan & Dennis, 2010).

Figure 2:1 Technology Acceptance Model Fred D. Davis (1985)



2.3.2.1 **Perceived usefulness (PU)**

Snoj, Korda & Mumel (2004) found that users do not use a system for its own sake but instead use it because of its attributes that drive value according to the utility provided by the combination of attributes, less the disutility represented by any sacrifices required to use the system in internet banking. PU is associated with perceived benefits. Lee (2009) proposed two types of benefits customers will get through internet banking; direct and indirect. Direct benefits refer to immediate and tangible benefits customers would enjoy by using online banking such as faster transactions and increased financial transparency. Indirect benefits are less tangible and difficult to measure such as allowing customers to perform banking transactions anywhere in the world and enjoy a 24-hour service. Wu, Lin, Li, & Lin (2010) stated that online banking has relative advantages of time and monetary savings, which were the most influential factors of online banking services advantage. Facilities offered in internet banking are very useful for the customers and the functional time and fast delivery of services add up to the advantages (Broderick & Vachirapornpuk, 2002). There are four items under this dimension; convenience, timeliness, compatibility and cost.

Perceived convenience indirectly affect PU and attitude toward using it (Chang, Yan, & Tseng, 2012), A way to determine whether a product or service is convenient depends on time and effort; Berry, Seiders, & Grewal (2002) and Yoon & Kim (2007) also defined perceived convenience as a level of convenience toward time, place and execution that one perceives when using the wireless network to complete a task.

Tornatzky & Klein (1982)argued for the existence of two types of compatibility: normative or cognitive compatibility referring to compatibility with what people feel or think about an innovation, and practical or operational compatibility, referring to compatibility with what people do. Karahanna, Agarwal, & Angst (2006) proposed four distinct aspects of compatibility: compatibility with prior experience, compatibility with preferred work style, compatibility with existing work practices, and compatibility with values; and concluded that compatibility with existing practices would positively relate to perceptions of usefulness. Compatibility is suitability of the innovation to the lifestyle of the user. Types of financial transactions offered in online banking should be relevant to the needs of the user and the ways of performing financial transactions by the user; which positively influence MB (Kalaiarasi & Srividya, 2013).

Jolly (2016)observed that there is a relationship between mode of banking adopted and cost saving of bank customers. Customers say internet banking helps save time and money, mainly the transport charges. When looking from the customer point of view the main financial gain is the reduction of transport expense, however the facilities offered in online banking are very useful for the customers and the functional time and fast delivery of services add up to the advantages (Broderick & Vachirapornpuk, 2002). Perceived cost of e-banking services has a negative influence on customer's attitudes towards e-banking; a result indicating that customer's attitude towards e-banking adoption will decrease with increases in the cost of the service being provided. Thus, banks providing e-banking services should ensure that the cost of the services is affordable to an average income earner (Fonchamnyo, 2013).

2.3.2.2 **Perceived ease of use (PEOU)**

Users will be satisfied if they believe that a particular system will be helpful to enhance their performance (Al-Azawei & Lundqvist, 2017). Previous studies (Cheng, Lam, & Yeung, 2006; Farmani, Kimiaee, & Fatollahzadeh, 2012; Amin, 2007) have found that

PEOU has a positive effect on PU. It directly associates with satisfaction because consumer is reluctant to continue using an online system if they face difficulties in employing it and may even stop using it or search for an alternative (Al-Azawei & Lundqvist, 2015). There are four items under this dimension; webpage design, internet, service quality, understandability.

Krug (2014)defines website usability as the degree of comfort of people using the website. The study of Limayem & Cheung (2008) argued that learner intrinsic motivation factors (e.g., perceived enjoyment or habit) influence their acceptance level of the course website. Internet banking should be treated free of effort and needed to ensure the system beneficial to customers at large (Amin, 2007). The evaluation of course website quality is potentially very complex due to the multitude of variables that influence the decision process. (Wang Y. S., 2003). Kalaiarasi & Srividya (2013) argued that user friendliness of the website, simplicity and ease to operate influence online banking adoption. The instructiveness of the website, hedonic features of website that attracts users to spend long hours exploring the various features available and the features of trial ability also influence online banking adoption. The influence of the ease of use also indicates that the ease of internet banking make the student's intention to use internet banking higher. Students believe that by using Internet banking, they can be more flexible in conducting banking transactions. (Danurdoro & Wulandari, 2016). Padachi et al. (2007)found that a user-friendly bank website and service quality is an important determinant of ease of use, which affects the adoption of internet banking services in Mauritius and Australia.

Al-Somali, Gholami, & Clegg (2009) found that the quality of internet connection is directly correlated with PEOU of online banking. Fonchamnyo (2013) also attempted to include a proxy for quality of internet connection, but found it to be incognizant. Dumpit & Fernandez (2017) found internet speed to be a significant factor to one's self-expression and productivity as well as to overall PU of the sites. Reliability of internet connection was also found to be significant in one public university. Padachi et al. (2007) found that the adoption of internet banking in Mauritius was affected by internet accessibility. Sohail & Shanmugham (2003) found that internet access is one of the main factors that influence the adoption of internet banking in Malaysia.

2.3.3 **Perceived credibility (PCR)**

Online banking could be affected by users' perceptions of credibility regarding security and privacy issues. The lack of PCR is manifested in people's concerns that the internet banking system (and/or the hackers intruding the system) will transfer their personal information or money to third parties without their knowledge or permission (Wang, et al., 2018). It is found that perceived risk in terms of security and performance risk arisen due to mistakes committed either by user or banker has direct influence on the online banking adoption. Daniel (1999) found that security was an important concern for the acceptance and adoption of new technology or innovation. Security and privacy has a negative relationship with trust and satisfaction (Kalaiarasi & Srividya, 2013; Gao, Waechter, & Bai, 2015). In other words, when users perceived MB services as highly credible, their trust level and satisfaction also increased (Susanto, Zo, & Ciganek, 2013). Without a proper security and privacy, online banking is looked as a menace to the customers instead of banking channel alternative (Amin, 2007). Online transactions contain sensitive information and if customers are certain that the bank will limit access to their critical files and information; they will be motivated to adopt and use these e-banking services (Fonchamnyo, 2013). Fonchamnyo concluded his study by saying, "If banks can ensure these security measures, customers will have confidence in adopting and using these e-banking services without any hesitations. There are four items under this dimension; privacy, trust, security and risk.

It is of paramount importance to develop online banking systems with valuable functions and trustworthy protection of security and privacy for the users. The findings of this study strongly suggested that PCR (trust or perceived risk) has the higher ability to predict and explain the intention of users to adopt online banking. It is of paramount importance to ensure trustworthy systems (Wang, Wang, Lin, & Tang, 2003). Although the study on young student in India by Kalaiarasi & Srividya (2013) perceive no risk associated with online financial transactions. Susanto, Zo, & Ciganek (2013) concluded perceived security and perceived privacy as the strongest antecedent to influence initial trust formation in online banking. Banking firms in developing countries should consider security a necessity, moving forward with online banking services. Security may be a difficult challenge for firms in developing countries to address as infrastructure deficiencies are common barriers to access and success.

2.4 **Satisfaction of Customer**

Sikdar, Kumar, & Makkad (2015) argued that web site design, transaction speed, security, information content, accuracy, timeliness within the website and customer support service are significant antecedents of customer satisfaction derived from online banking. The quality of output generated by internet banking websites has failed to meet the general expectations of banking customers. Customers also explicitly mentioned that response time of online banking websites lack consistency. This undermines the level of trust and reliance. Banks must strive toward investing in website safety, data encryption and maintenance with a view to ensure round-the-clock provision of high quality service in a secured online environment. Banks should further ensure that the customer interface toward the online banking application is user-friendly and comprehensible. The terminologies used within the website must be self-explanatory and enable the user to avail the desired service without any external assistance. Ease of use plays an important role at the early stages of usage as complexity of the new systems represents initial hurdles that need to be overcome by the consumers (Montazemi & Qahri-Saremi, 2015). Kumbhar (2011) found that convenience in internet banking services provided by public and private banks play important role for consumer satisfaction.

Study conducted by Boshkoska & Sotiroski (2013) states that awareness, age, level of education, complexity, computer and internet knowledge and skills have a different level of impact on customer adoption and satisfaction from the e–banking services in Macedonian banking sector. Reddy & Reddy (2015) concluded that E-banking is time saving process. Boshkoska & Sotiroski (2013) showed that fast performance of e-banking services depend on the level of satisfaction of bank's clients, but not on their quality. Sikdar, Kumar, & Makkad (2015) found that when online banking users expect the system to meet stated transactional timelines at all times, they would be satisfied.

Satisfaction; as Konradt, Christophersen, & Schaeffer-Kuelz (2006) have stated; is accepted by many researchers as a salient determinant of technology acceptance. Among the others, the user-friendly interface, the website design, and the safety of financial transactions are considered the most prominent factors that have great influence on the usage of e-banking services and customer satisfaction. Trust has been extensively cited as key determinant of e-commerce platforms in general and online banking in particular.

Customer satisfaction in the Lebanese banking sector users are more satisfied on responsiveness of bank's website (Hammoud, Bizri, & Baba, 2018). Banks should pay focus on tangibility dimension, reliability and responsiveness as well (Singh, 2013). So banks should further ensure that the webpage interface of online banking application should be user-friendly and comprehensible (Sikdar, Kumar, & Makkad, 2015).

Kodithuwakku (2018) concluded that cost incurred in internet banking facility was also questioned by the customers and most of them are not satisfied with it. By reducing service charges, a lot of non users could be attracted to internet banking facility. Transaction types, bill payment platforms and other transaction based features should be upgraded in accordance with the customer requirements. The research on MB satisfaction in Namibia finds that overall satisfaction of customer is determined by cost (Gomachab, 2018; Kumbhar, 2011).

Akram & Asghar (2012) suggested that banks have to provide more reliable services to the customers to make them more comfortable and confident. The management should develop more effective systems to quickly solve the issues of customers. Musiime & Ramadhan (2011) argued that good service will increase customer satisfaction i.e. there is positive and strong relationship between internet banking and customer satisfaction. Failure of execution of proposed facility not only causes dissatisfaction and uncertainty to customers but also makes the whole internet banking process more complex and less comprehensible (Hettiarachchi, 2013).

Bank management and retail banking marketers can try to control or minimize the losses and strive to enhance customer loyalty through customer satisfaction by offering a comprehensive service, striving to improve the products and services and further enhancing consumers' satisfaction and loyalty, regardless of how successful they have been in the past. Consumers who experienced internet banking as safe, special, secure, convenient and easy tend to perform internet banking transactions on a continuous basis (Adapa & Cooksey, 2013).

Consumers perceive their internet banking service channel as safe to perform their banking transactions, the more they use it on a continued basis (Adapa & Cooksey, 2013). Kumbhar (2011) finds negative perception about security in internet banking services

provided by public and private banks. Kumar & Mishra (2017) identified security dimension being negative for satisfaction of online banking customer.

The finding in Namibia showed that satisfaction rate of MB was determined by availability of network on different mobile networks (Gomachab, 2018). Although, in china internet accessibility impact negatively on e-banking satisfaction (Yang, Cheng, & Luo, 2009).

2.5 **Research Framework and Definition of Variables**

2.5.1 **Definition of Variables**

Figure 2:2 Definitions of Variables

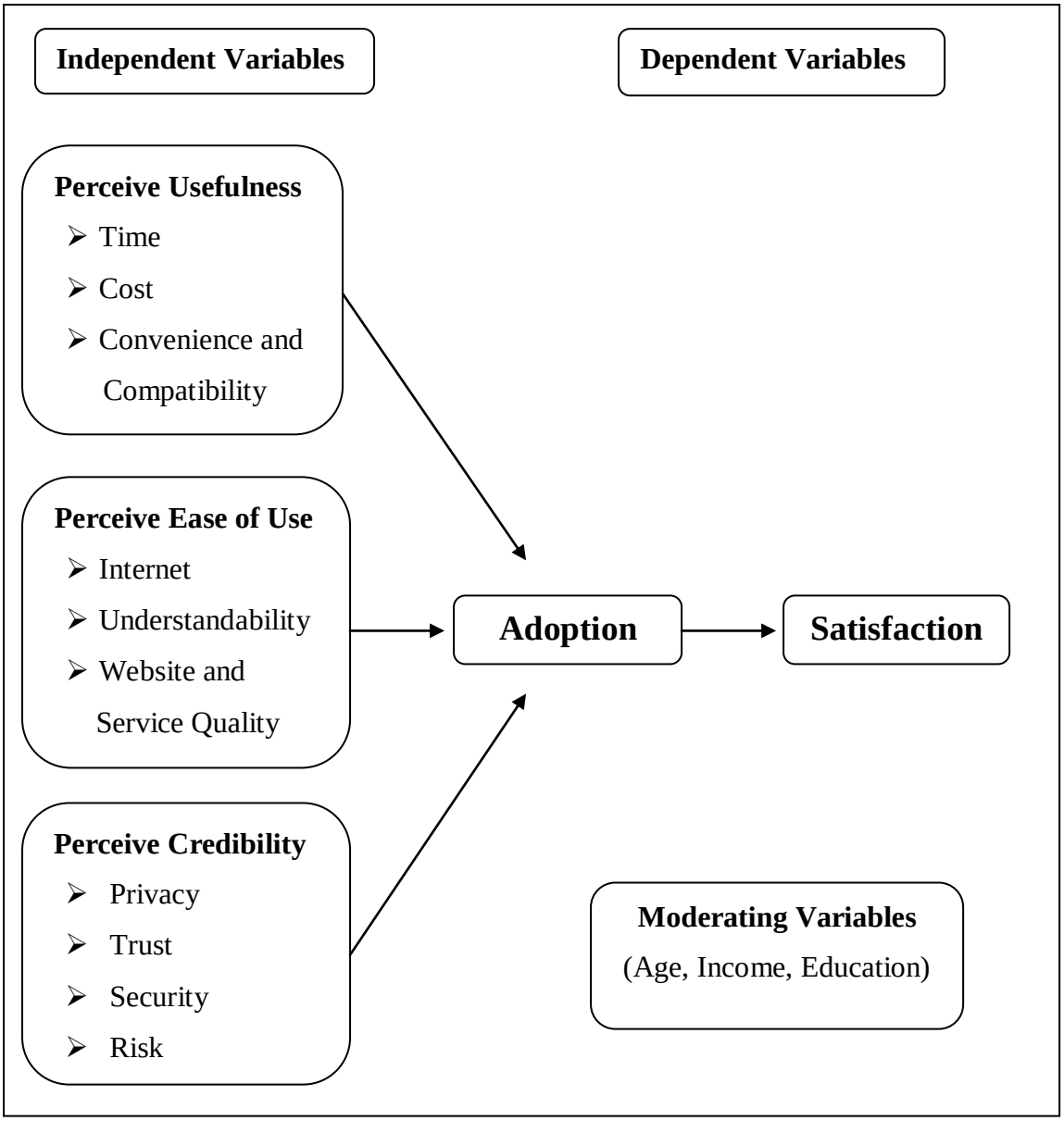
Variables	**Definition**
Satisfaction	Customer satisfaction is defined as a measurement that determines how happy customers are with MB. Customer satisfaction is the measure of how the needs and responses are collaborated and delivered in order to excel customer's expectation. It can only be attained if the customer believes that all the expected services are met.
Adoption	It is the choice to acquire and use MB service and represents the degree to which a person perceives MB as important for them; and should use MB services.
Perceived Usefulness	The word usefulness: "capable of being used advantageously"; PU is the degree to which a person believes that using MB services would enhance her/his job performance. A system high in PU, in turn, is one for which a user believes in the existence of a positive use-performance relationship.

Perceived Ease of Use	The degree to which a person believes that using MB services would be free of effort. This follows the definition of "ease": i.e. "freedom from difficulty or great effort.” In order to prevent the “under-used” problem, MB systems need easiness in learning and using. IT that is easy to use will be less threatening to the individual.
Perceived Credibility	The extent to which an MB is perceived to be acceptable, competent, and trustworthy by customer. Credibility refers to the belief that the promise can be relied upon; and that, in unforeseen circumstances, service provider will act in a spirit of goodwill and in a benign fashion. Credibility has four characteristics: trust, security, privacy and risk.

2.5.2 **Theoretical Framework**

PU is when person believes that using particular system would enhance performance; PEOU means that individual believes using particular system would be free of effort; and PCR is concern with privacy and security. These factors are keys for behavioral intention to adopt and satisfaction on mobile banking service.

Figure 2:3 Proposed Theoretical Framework For mobile banking adoption and Satisfaction.



CHAPTER 3
RESEARCH METHODOLOGY

The present study aims to examine main attributes that customers expect on adoption of MB services among bank's customers, specifically who are current users of online banking services in Kirtipur Municipality. The inquiry also aims to identify satisfaction level of MB service customers.

3.1 Research Design

Purpose of this study is to analyze how attributes of MB services influence adoption and satisfaction level. In this study descriptive cum analytical research was used for collecting and analyzing data in order to describe current status of MB service adoption and satisfaction level. Quantitative research question was adopted using self administered survey questioners. This decision was made because the research problem was clear, specific variable were already identified, there were a number of objective that needed to be analyzed and the aim was to collect quantifiable response from a large number of respondent. For that reason, survey was conducted and questionnaires were used as tool for data collection. The data was collected by using Google forms and on hand distribution of questionnaires to online banking customers from Kirtipur Municipality to examine the factor that impact on MB service.

3.2 Population and sample, and sampling Design

The study was conducted inside Kirtipur Municipality. The target population of this study is defined as MB service costumers of Kirtipur Municipality. The study was limited to six banks' (Prabhu Bank, Machhapuchhchre Bank, Global IME Bank, Everest Bank, Agricultural Development Bank and Kumari Bank) costumers of Kirtipur Municipality. From the interview with these banks officials, there were 5890 as MB service costumers in Kirtipur Municipality. Convenience sampling method was applied in this research. The respondents were MB service costumers from those six banks to represent the whole population.

Due to various reasons, it is not possible, practical and is expensive to gather data by considering entire population. In this research, 200 survey questionnaires were distributed to users of MB services provided by banks, which represent population of selected banks.

3.3 **Nature and source of Data**

In this study, researcher used primary data collection method. Primary data collection method is important data collection method for this study. Primary data were collected through distribution of questionnaires by the researcher individually and by using Google forms. Several source of secondary information were used as to get the information about the literature of this study and for writing some descriptions regarding the concepts and variables of the study. The secondary information was collected by internet, books, policy documents, journal articles etc.

3.4 **Instrument of Data collection**

The main goal of this study is to find out how the considered factors influence the adoption of MB from customer point of view and their satisfaction level. As we mentioned before, survey is the method of data collection for this research. Based on extended literature review, we have developed an appropriate research construct which had been validated in prior studies.

The survey questionnaire included questions for demographic information of customer namely; Age, Salary, Education, and also tried to measure dimensions of PU, ease of use and credibility under a study on a five-point Likert scale, indicating the respondent's strength of agreement and ranging from 1="I strongly disagree" to 5="I strongly agree". The findings of the research study may prescribe some resolutions. There can be continuous study in such area of administrative science.

The survey questionnaire had two sections. The first section was designed to know about online banking habit and personal information of online banking customer. Sections two included two parts; first part was designed to collect data relating to the factors that may have influenced consumer's decisions to adopt online banking, second part was designed to collect data on experience (satisfaction) after using online banking service.

Figure 3:1 Measurement of Construct for Mobile banking adoption and satisfaction

Construct	Factors	Measurement
Perceived Usefulness (PU)	Time	Five Point Likert Scale
	Convenience and Compatibility	
	Cost	
Perceived ease of use (PEOU)	Webpage/application and Service Quality	
	Understandability	
	Internet	
Perceived Credibility (PCR)	Privacy	
	Trust	
	Security	
	Risk	

3.5 **Data collection procedure**

Data collection was conducted from customers who visited banks in Kirtipur Municipality from November 2019 to December 2019. For the collection of data, researcher asked bank customers whether they use MB services or not. If they do use it, then the survey questionnaire was distributed to them.

A total of 164 survey questionnaires were responded from 200 questionnaire distributed using Google forms and on hand distribution. Further, 10 questionnaire were partly filled out and not suitable to use. This resulted in 154 useable questionnaires, or a 77% usable respond rate.

3.6 **Reliability analysis:**

Content validity assesses the correspondence of the variables to be included in a summated scale (Hair, Black, Babin, & Anderson, 2010). A commonly used measure of reliability is internal consistency, which applies to test whether the individual items of the scale measures the same construct and thus is highly intercorrelated. Cronbach‘s Alpha is one of the most widely used measures to test internal consistency (Hair et al., 2010).

Three independent variables (items) were subjected to reliability testing. Cronbach‘s alpha coefficient was used to measure reliability. According to Churchill (1979)a Cronbach‘s alpha of 0.60 or above is deemed to produce a reliable. The variables Cronbach‘s alpha coefficients are presented in following table.

Table 3:1 The Reliability Test for the Measures of Mobile Banking.

Construct	Factors	Cronbach's α	
		Adoption	Satisfaction
Perceived Usefulness (PU)	Time	0.749	.711
	Convenience and Compatibility		
	Cost		
Perceived ease of use (PEOU)	Webpage/application and Service Quality	0.607	.821
	Internet		
Perceived Credibility (PCR)	Privacy	0.793	.744
	Trust		
	Security		
	Risk		

3.7 **Method of Data Analysis**

Major work of data analysis is accomplished by using quantitative analytical tools. It is conceived that the different segments of the case provide sufficient information to reach some inferences. The research tool used for the execution of this study is the administration of the data collected through the primary sources and applying tools from Statistical Package for Social Sciences (SPSS) software to analyze the relationship between the dependent variable and other multiple independent variables. SPSS is also one of the most widely used software for the statistical analysis in the area of social sciences. It is one of the preferred software used by market researchers, health researchers, survey companies, government, and education researchers, among others.

3.7.1 **Factor analysis:**

Factor analysis is a multivariate statistical method whose primary purpose is to define the underlying structure among the variables in the analysis. Factor analysis is an interdependence technique in which all variables are simultaneously considered (Hair et al., 2010). The general purpose of factor analysis is to find a way to summarize the information contained in a number of original variables into a smaller set of new, composite dimensions or factors with a minimum loss of information; that is, to search for and define the fundamental constructs or dimensions assumed to underlie the original variables (Hair et al., 2010).

Stewart (1981)summarizes three functions of factor analysis: (1) minimizing the number of variables when the amount of information in the analysis is maximized; (2) searching qualitative and quantitative data distinctions when the data is too large; and (3) testing hypotheses about the number of distinctions or factors underlying a set of data.

Exploratory factor analysis (EFA) has two widely used models to obtain factor solutions: common factor analysis and component factor analysis (Hair et al., 2010). The selection of an appropriate model is based on two criteria: (1) the objectives of the factor analysis and (2) the amount of prior knowledge about the variance in the variables (Hair et al., 2010). Common factor analysis is used primarily to recover the underlying factors in the original variables. In contrast, component factor analysis is used when the objective of analysis is summarizing information (variance) from a large set of variables into a

minimum number of factors. Hair et al. (2010) noted that component factor analysis is appropriate when prior knowledge suggests that specific and error variance presents a relatively small proportion of the total variance. Principal Component Analysis is a dimensionality-reduction method that is often used to reduce the dimensionality of large data sets, by transforming a large set of variables into a smaller one that still contains most of the information in the large set (Jolliffe, 2002). EFA was used in this study as the decision factors that impact MB adoption which have not been determined in a Nepalese context.

For Objective One, EFA was used to determine the factors that were contributed to MB adoption. Subsequently, a linear regression analysis was used to identify the factors that influence customers in adopting MB.

Hair et al. (2010) suggested that there are several methods to determine whether the correlations in the data matrix are sufficient for factor analysis. The following methods were applied to the data of this study to ensure the data was appropriate for EFA.

(i) Examination of the Correlation Matrix.

Examination of the correlation matrix is one of the simplest procedures of determining the appropriateness of factor analysis. As factor analysis is concerned with the homogeneity of items, a pattern of low correlations indicates a heterogeneous set of items which may suggest the factoring is inappropriate (Stewart, 1981). Factor analysis is appropriate if visual inspection of the correlation matrix reveals a substantial number of correlations greater than 0.30 (Hair et al., 2010).

(ii) Bartlett's Test of Sphericity

Bartlett's test of Sphericity provides the statistical probability that the correlation matrix has significant correlations among the variables (Hair et al., 2010). This test shows that the correlation matrix came from a population of variables that are independent.

(iii) Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA)

MSA is used to measure the extent to which variables belong together (Stewart, 1981). The index ranges from 0 to 1, the index equals 1 when each variable is perfectly predicted

without error by the other variables (Hair et al., 2010). Kaiser & Rice (1974)give the different levels of MAS: 0.90+ (marvelous), 0.80+ (meritorious), 0.70+ (middling), 0.60+ (mediocre), 0.50+ (miserable), and below 0.50 (unacceptable).

3.7.1.1 **Factor Extraction in Principal Components Analysis**

For a large set of variables, factor extraction starts by extracting the combinations of variables that explain the greatest amount of variance (Hair, et al., 2010). There are two commonly used criteria to determine the number of factors to extract, which are:(1) latent root criterion, and (2) scree plot (Stewart, 1981).

i. Latent Root Criterion

The rationale for the latent root criterion is that any individual factor should account for the variance of at least a single variable if it is to be retained for interpretation. With factor analysis each factor contributes a value of 1 to the total eigenvalue (Stewart, 1981). Thus, only the factors having latent roots or eigenvalues greater than 1 are considered significant; all factors with latent roots less than 1 are considered insignificant and are disregarded (Stewart, 1981).

ii. Scree Test Criterion

The scree test is derived by plotting the latent roots against the number of factors in their order of extraction, and the shape of the resulting curve is used to evaluate the cutoff point (Hari et al., 2010). Stewart (1981, p. 58) explains the procedure: A straight edge is laid across the bottom portion of the roots to see where they form an approximately straight line. The point where the factors curve above the straight line gives the number of factors, the last factor being the one whose eigenvalue immediately precedes the straight line.

3.7.1.2 **Factor Rotation**

Factor loadings are the correlation coefficients between the variables and factors. Factor loadings are normally used to interpret the role each variable plays in defining each factor Loadings indicate the degree of correspondence between the variables and the factors (Hair et al., 2010). Factor rotation simplifies the factor structure and maximizes a

variable‘s loading on a single factor, thus improving interpretation. Two commonly used factor rotation methods are the orthogonal factor rotation and the oblique factor rotation.

Orthogonal factor rotation is the simplest case of rotation, in which the factor axes are maintained at 90 degrees which means the factors are not correlated (Hair et al., 2010). There are three major orthogonal methods: VARIMAX, QUARTIMAX and EQUIMAX.

The VARIMAX method maximizes the sum of variances of required loadings of the factor matrix (Hair et al., 2010). In a VARIMAX rotational approach, when the loadings are close to +1 or -1, it indicates a clear positive or negative association between the variable and the factor; and when the loading is close to 0, it indicates a lack of association (Hair et al., 2010). The VARIMAX method has proved successful as an analytic approach to obtaining an orthogonal rotation of factors (Hair et al., 2010).

No specific rules have been developed to guide the researcher in selecting a particular orthogonal or oblique rotational technique (Hair et al., 2010). Correlated factors and hierarchical factor solutions are intuitively attractive and theoretically justified in many marketing applications (Stewart, 1981). Therefore, in this research, a VARIMAX orthogonal rotation applied to the data.

3.7.2 **Paired t-test**

A paired t-test (also known as a dependent or correlated t-test) is a statistical test that compares the averages/means and standard deviations of two related groups to determine if there is a significant difference between the two groups. The groups can be related by being the same group of people, the same item, or being subjected to the same conditions. Paired t-tests are considered more powerful t-tests because using the same participants or item eliminates variation between the samples that could be caused by anything other than what’s being tested (Xu, et al., 2017).

3.7.3 **Multiple linear regression analysis:**

Yan & Su (2009) said that there are three types of regression. The first is the simple linear regression. The simple linear regression is for modeling the linear relationship between two variables. The second type of regression is the multiple linear regressions which is a linear regression model with one dependent variable and more than one independent

variable. The multiple linear regressions assume that the response variable is a linear function of the model parameters and there is more than one independent variable in the model. The third type of regression is nonlinear regression, which assumes that the relationship between dependent variable and independent variables is not linear in regression parameters.

Multiple regression analysis is a statistical technique that can be used to analyze the relationship between a single dependent (criterion) variable and several independent (predictor) variables (Hair et al., 2010). In summary, to apply multiple regression analysis: (1) the data must be metric or appropriately transformed, and (2) before deriving the regression equation, the researcher must decide which variable is to be dependent and which remaining variables will be independent. Data analysis in this research will use the linear regression analysis because it's useful to analyze the linear relation between two or more independent variables with the dependent variable (Danurdoro & Wulandari, 2016).

3.7.4 **Assumption of multiple linear regression and paired t-test**

Outliers are observations that have large residual values, or an observation that is far removed from the rest of the observations. Outliers can potentially influence the estimates of the regression parameters, and can produce confusing results and mask important information that could be obtained from the regression (Hair et al., 2010). Therefore, outliers should be deleted or modified from the analysis to reduce the disproportionate influences in the overall results.

Linearity predicts values that fall in a straight line by having a constant unit change of dependent variable for a constant unit change of the independent variable. Linearity can be examined through kurtosis and skewness (Hair et al., 2010).

A formal method of detecting the presence of multicollinearity that is widely accepted is use of variance inflation factors (VIF). These factors ensure how much the variances of the estimated regression coefficients are inflated as compared to when the predictor variables are not linearly related. A maximum VIF value in excess of 10 is frequently taken as an indication of multicollinearity (Kutner, Nachtsheim, Neter, & Li, 2005). Multicollinearity represents the degree to which any variable‘s effect can be predicted or accounted for by the other variables in the analysis. When multicollinarity arises, the

ability to define any variable‘s effect is diminished (Hair et al., 2010). It specifically indicates the magnitude of the inflation in the standard errors associated with a particular beta weight that is due to multicollinearity.

The tolerance level is the $1\text{-}R^2$ value when each of the independent variables is regressed on the other independent variables. Low tolerance levels indicate high levels of multicollinearity. Anytime a tolerance levels get somewhere below 0.40, then multicollinearity exist (Adeboye, Fagoyinboand, & Olatayo, 2014).

CHAPTER 4
RESULTS AND DISCUSSION

4.1 Results

This chapter presents the results of the data analysis according to the research methods discussed in chapter three. This is done in order to examine the issues of concern in this study. The data set is examined to ensure the statistical assumptions of factor analysis, multiple linear regression analysis and paired t-test are met. The results of factor analysis, multiple linear regression analysis and paired t-tests are tested and results are discussed in terms of their relation to each of the relevant research objectives.

4.1.1 Descriptive Statistics

Total of 154 respondents were selected for questionnaire that use online banking services provide by Nepalese banks. The following table represents the demographic characteristics of the respondents which include age, education and income of online banking customers; and their online banking behavior: use of online banking products and frequency of use per month.

Table 4:1 Descriptive Statistics of demographic characteristics

Variable	Classification of Variable	Frequency	Percentage (%)
Age	16-25	74	48.1
	26-35	63	40.9
	36-45	13	8.4
	Above 45	4	2.6
Education	10+2	23	14.9
	Bachelor	82	53.2
	Master	46	29.9
	Above master	3	1.9
Monthly Income	Below 20000	89	57.8
	20000-40000	32	20.8
	40001-60000	10	6.5
	60001-80000	9	5.8
	Above 80000	14	9.1

Online banking service	Internet banking	50	32.5
	Mobile banking	152	98.7
	ATMs	154	100
	Branchless banking	13	8.4
	C/C Deposit Kiosks	38	24.7
Online banking use per month	1 time	3	1.9
	2-3 times	26	16.9
	4-5 times	40	26.0
	5-10 times	33	21.4
	Over 10 times	52	33.8

Data were collected through the structured questionnaires. In the questionnaire, there were three moderating variables; age, income and education. In section first researcher wanted to know consumer online banking behavior; that is what online banking service they use provided by Nepalese bank and how often they use those services per month. The demographic characteristics of all respondents are established in following paragraph.

From the total of 154 respondents, there were no respondent below 16 years. The dominant age group was 16-25 years with 48.1 % of total respondents with 74 numbers of respondents. The age group of 26-35 years was 40.9% with 63 respondents from total of 154 respondents, age group 36-45 had 8.4% respondent and age group above 45 had least respondent of only 2.6% which is 4 respondents from total 154 respondents. Majority of respondents have income below 20000 which is 57.8% (89 respondents), 32(20.8%) of respondents have income 20000 to 40000, 6.5% of respondents monthly income is from 40001 to 60000. Only 5.8% of respondent have monthly income 60001-80000 which include 9 respondents and 9.1% of respondents have income above 80000. From total sample of 154 respondents, education level of SLC were not found, 14.9% respondent's education was 10+2. Majority of respondent's education level was bachelors which covered 53.2% of total sample, 29.9% respondents education level was masters degree and only 1.9% respondent education level was above masters.

From this survey researcher also try to find online banking habit of customer. In this survey all respondents use ATM service provide by Nepalese bank, 50(32.5%) respondents use internet banking service. Second most use online banking service is MB in which 98.7% respondents use this service. Only 8.4% of respondent use branchless banking which is also the least among respondent. Cash and Cheque deposit kiosks is use by 24.7% which is 38 of respondents. Frequency of online banking using habit is surveyed in this research. Majority of respondent use online banking over 10 times per months among 154 respondents 52 (33.8%) respondents use online banking service over 10 times per months, 40 respondents use online banking 4 to 5 times per months which is second highest percentage of respondent with 26%. Out of total respondent 33 (21.4%) respondents use online banking 5 to 10 times per months, 26 (16.9%) respondents use online banking 2 to 3 times per months and only 3 (1.9%) of respondents use online banking 1 time per months.

After the data was collected and tabulated, a series of statistical assumptions were met to ensure the appropriateness of the data for factor analysis, linear regression analysis and paired t-test.

4.1.2 **Statistical Assumptions for Factor Analysis:**

In order to avoid the observed correlations between variables being diminished, the statistical assumptions of normality, homoscedasticity and linearity for factor analysis needed to be fulfilled. A data matrix that has sufficient correlation can be used to justify factor analysis (Hair et al., 2010). As discussed in Section 3.5.1 the statistical assumptions to test the data include:

i. Examination of the Correlation Matrix

The correlation matrix (See Table 4:2) shows that most of substantial correlations are above 0.30 as recommend by Hair et al. (2010). The correlations indicated that the data shared common factors and was therefore appropriate for factor analysis.

ii. Barlett's Test of Sphericity

Barlett's Test of Sphericity assesses whether the correlation matrix comes from a population of variables that are independent (Stewart, 1981). If the test value is large and the level of signification is low, data set is appropriate for factor analysis (Stewart, 1981).

The test value in this study (See Table 4:3) is at 857.614 and the level of significance is 0.000. Therefore, the data set is appropriate for factor analysis.

iii. Kaiser-Meyer-Olkin Measure of Sampling Adequacy

The Kaiser-Meryer-Olkin index measures values from 0 to 1. In this study (See Table 4:3) the test result is 0.725. According to Kaiser & Rice (1974) this MSA value is middling (0.70+), which indicates that the data set is appropriate for factor analysis.

4.1.3 Factor Analysis Results

The assessment of statistical assumption tests indicated that data set is appropriate for factors analysis. Therefore, principle component factor analysis was conducted on all of the items that were consistent with information derived from the literature review. The results are interpreted using the following criteria.

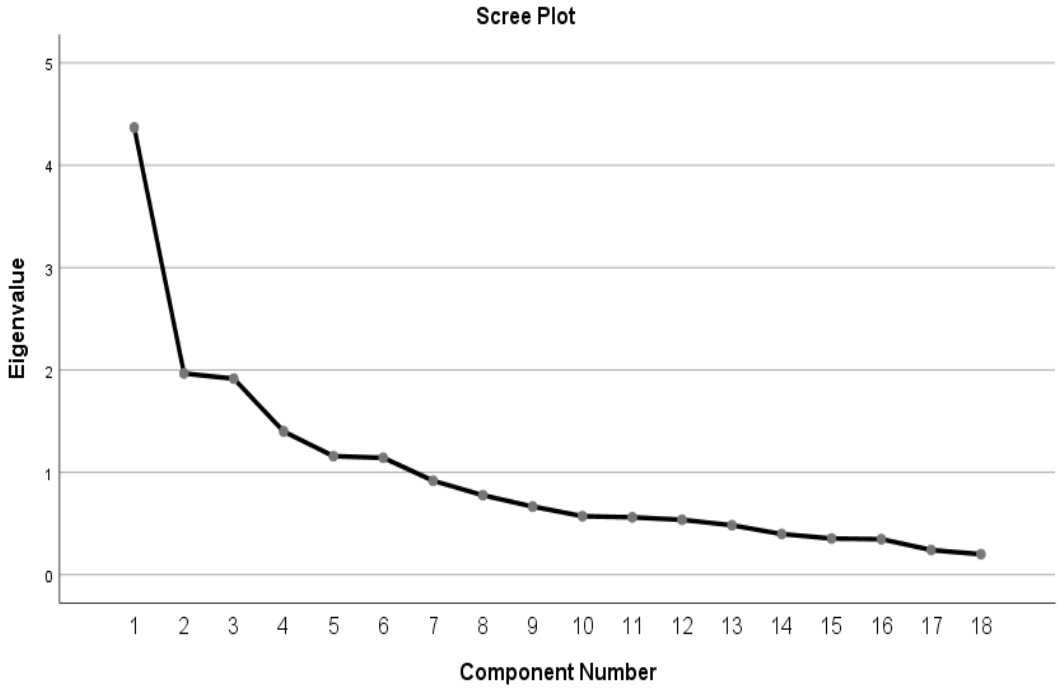
i. The Latent Roots Criterion

Results of the latent root criterion indicate that six factors should be extracted from the 18 question submitted for factor analysis. These six factors explain (See Table 4:4) 66.380% of the variation in the data.

ii. The Scree Test

Figure 4:1 shows that by laying a straight edge across the bottom portion of the roots, there are six factors before the curve becomes approximately a straight line. This procedure indicates that the extraction of six factors is appropriate for the factor analysis.

Figure 4:1 Scree Test Plot



iii. Factor Rotation

Factor rotation simplifies the factor structure and maximizes a variable‘s loading on a single factor, thus improving interpretation. For factor structure is based on the factor loadings from the VARIMAX rotation.

iv. Factor Interpretation

Hair et al. (2010) suggest that factor loadings of 0.30 and above are significant. However, the authors also recommend that values greater than ±0.50 are considered more practically significant. Therefore, 0.50 is used as a cut-off point in this analysis as ±0.50 resulted in an improved factor structure.

The results derived from VARIMAX rotation show all of the rotated items had significant loading above ±0.50. However, understandability excluded from the factor structure because the factor loadings is below ±0.50 and they do not load on any factors. The remaining 11 components are cleanly sorted into 6 factors (See Table 4:5), and each factor is subsequently named according to the construct they represented. The six factors are: (1) Credibility; (2) Webpage/application and service quality; (3) Convenience and compatibility; (4) Time (5) Cost and (6) Internet.

4.1.4 Statistical Assumptions for Multiple Linear Regression Analysis and Paired t-test:

The outliers were identified and removed from the analysis in order to reduce the effects of their influence on the multiple linear regression analysis and paired t-test.

The VIF was used to inspect the multicollineraity between the independent variables. Variance inflation factors of over 2.50 starts to indicate relatively high levels of multicollinearity (Adeboye, Fagoyinboand, & Olatayo, 2014). The result showed (see Table 4:9) that the VIF are all below 1.091, indicating no multicollinearity problems were found in the regression models.

Anytime a tolerance levels get somewhere below 0.40, then multicollinearity exist (Adeboye, Fagoyinboand, & Olatayo, 2014). The result showed that the tolerance is all above 0.916, indicating no multicollinearity.

Linearity predicts values that fall in a straight line by having a constant unit change of dependent variable for a constant unit change of the independent variable. Linearity is examined by kurtosis and skewness and residual plots. The most commonly used critical values ±1.96, which corresponds to a .05 error level. The critical value and residual plots shows that variable quite fall in to assumption so the there is no linearity problem were found in the regression model (Hair et al., 2010).

4.1.5 Results Relating to Research Objective One

Research objective one is to examine the factors that affect bank customer's perception on adoption of MB services provides by Nepalese banks. Linear regression analysis was used to satisfy research objective one. Model summary of Linear regression contains (See Table 4:7) the following information: R = 0.681, R Square = 0.464 and Adjusted R Square = 0.431. Additionally, adjusted R square 0.431 means 43.1% of MB adoption variance is explained by the independent variables. The linear regression model containing predictors is statistically significant (See Table 4-8) (P value = 0.000, Degrees of Freedom = 9). The summary results of linear regression are show in Table.

Table 4:10 Linear Regression Results for Influencing Factors and Demographic Characteristics on Mobile Banking Adoption Summary

	B	Sig.
(Constant)	1.012	0.000
Age	-0.027	0.007
Education	0.013	0.195
Income	0.002	0.694
Credibility	0.037	0.000
Webpage/application and service quality	0.027	0.000
Convenience and compatibility	0.033	0.000
Time	0.033	0.000
Cost	0.024	0.001
Internet	-0.017	0.020

The results presented in table shows that, perception of customers on credibility, convenience and compatibility, webpage/application and service quality, time and cost positively influence customers to adopt MB. There is a negative relationship between age and internet with MB adoption. Similarly, there is a positive relationship between education and income but significance level is above 0.05.

4.1.6 **Results Relating to Research Objective Two**

Research Objective two is; which are the most important factors and attributes of MB that affect customers in terms of their adoption and use in Nepal. Linear regression analysis was used to satisfy Research Objective two.

When evaluating the standardized beta values, the greatest influences upon the dependent variable are present in following table:

Table 4:11 Linear Regression Results of beta for Influencing Factors and Demographic Characteristics on Mobile Banking Adoption Summary.

	Standardized Coefficients (Beta)	Sig.	Ranking
(Constant)		0.000	
Credibility	0.321	0.000	1
Time	0.294	0.000	2
Convenience and compatibility	0.291	0.000	3
Webpage/application and service quality	0.242	0.000	4
Cost	0.210	0.001	5
Age	-0.175	0.007	6
Internet	-0.146	0.020	7
Education	0.082	0.195	8
Income	0.025	0.694	9

From the results of standardized coefficient beta the Table 4:11 shows, credibility has the maximum impact on customers adoption of MB. Time has the second highest impact on customer's adoption of MB. The third most important factor influencing customers to adopt MB is convenience and compatibility. Webpage/application and service quality is forth most important factor for adopting MB. Similarly, cost comes fifth among the factors that affect customers to adopt MB. Further, Age and Internet ranks as sixth and seven respectively important factors in influencing customer's adoption of MB, both factor affect MB adoption negatively. Education and Income ranks least important among factors which affect MB adoption.

Table 4:12 Linear Regression Results of beta for Influencing Factors on Mobile Banking Adoption.

	Standardized Coefficients (Beta)	Sig.	Ranking
(Constant)		0.000	
Credibility	0.321	0.000	1
Time	0.294	0.000	2
Convenience and compatibility	0.291	0.000	3
Webpage/application and service quality	0.242	0.000	4
Cost	0.210	0.001	5
Internet	-0.146	0.020	6

Table 4:12 is derived from Table 4:11 which shows the summary of standardized coefficient beta of influencing factors excluding the demographic characteristics. From the results of standardized coefficient beta the Table 4:12 shows, credibility has the

maximum impact on customers adoption of MB. Time has the second highest impact on customer's adoption of MB. The third most important factor influencing customers to adopt MB is convenience and compatibility. Webpage/application and service quality is forth most important factor for adopting MB. Similarly, cost comes fifth among the factors that affect customers to adopt MB. Further, Internet ranks as the least important factor in influencing customer's adoption of MB.

Table 4:13 Regression Results of standardized coefficient beta in Demographic Characteristics on MB Adoption.

	Standardized Coefficients (Beta)	Sig.	Ranking
(Constant)		0.000	
Age	-0.175	0.007	1
Education	0.082	0.195	2
Income	0.025	0.694	3

Table 4:13 is derived from Table 4:11 which shows the summary of standardized coefficient beta based on consumers 'different demographic characteristics. The result in table 4:13 show that age is most influencing factor among demographic factors determining the adaptation of MB, which effects negatively. Second and last demographic factors are education and income respectively, although these demographic factors significance level is more then 0.05.

4.1.7 **Results Relating to Research Objective Three**

The paired sample t-test (see Table 4:15 and 4:16) shows that all MB factors have significance level below 0.05. Consumer perception towards factors while adopting MB and their satisfaction on that factor is compared. Time has positive mean difference (0.179) with p value 0.011 and showing low correlation. Convenience and compatibility

have positive mean difference (0.182) with p value 0.002. Convenience and compatibility has very significant correlation (0.213) with p value 0.008. Cost has highest positive mean difference (0.289) with p value 0.000 and low correlation 0.199. Lowest positive mean difference was found to be 0.105 by webpage/application and service quality and 0.042 P value and correlation with 0.346. Credibility has negative mean difference of -0.083 with 0.033 p value and highest .673 correlation.

4.2 **Discussion**

4.2.1 **Discussion relating to research objective One and Two**

The statistical results of linear regression showed that credibility, webpage/application and service quality, convenience and compatibility, time and cost are positively related to customers' adoption of MB. Similarly, education and income were found to have positive impact but not significant enough but age and internet had negative significant relationship with MB adoption.

Demographic characteristic such as age was found to have a negative effect on customers' attitude towards MB adoption. This result implies that one unit increase in age can negatively change 2.7% MB adoption. Attitude towards technology innovation as a whole and MB in particular; as compared to younger adults who are more interested in using this new technology; was positive which is consistent with the findings of (Fonchamnyo, 2013). Education is proved to be a very important determinant of customer's attitude towards MB adoption in research of (Fonchamnyo, 2013), but researcher found that education only had 1.3% effect on MB adoption and also is not significant in MB adoption in Nepal. Customer's income level was statistically insignificant in influencing customer's attitude towards adoption (Fonchamnyo, 2013).

Previous research of Wu, Lin, Li, & Lin (2010) showed that online banking has relative advantages in terms of time and monetary savings, which were the most influential factors while explaining online banking services advantages. Facilities offered in online banking are very useful for the customers and the functional time and fast delivery of services add up to the advantages (Broderick & Vachirapornpuk, 2002). The finding of this research is consistent with Lin, Li, & Lin (2010), Lee (2009) and Safeena, Hundewale, & Kamani (2011), which shows that time is second most important factor

which have beta of 0.294 and positively affect MB adoption. One unit increase in perception of customer about time saving can positively increase 3.3% of MB adoption. MB provides flexibility in performing financial transaction with ease and speed.

This research support previous research finding of (Jolly, 2016; Yu, 2012). From regression result it is showed that cost has positive beta (0.21) on adoption of MB. One unit increase on perception about cost on consumer can positively change MB adoption by 2.4%. But research in Cameroon indicate that perceived cost of e-banking services has a negative and statistical significant influence on customer's attitudes towards e-banking, a result indicating that customer's attitude towards e-banking adoption will decrease with increases in the cost of the service being provided (Fonchamnyo, 2013).

Compatibility are suitability of the innovation to the lifestyle of the user types of financial transactions offered in MB that is relevant to the needs of the user and the ways of performing financial transactions by the user which positively influence MB. Perceived convenience was the strongest predictor of MB usage. Convenience and compatibility beta coefficient of 0.291 was third most important factor for MB adoption. This research is consistent with Kalaiarasi & Srividya (2013), Nasri (2011) and Agarwal & Angst (2006) finding. Karahanna, Agarwal, & Angst (2006) proposed four distinct aspects of compatibility: compatibility with prior experience, compatibility with preferred work style, compatibility with existing work practices, and compatibility with values and also concluded that compatibility with existing practices would positively relate to perceptions of usefulness and online banking adoption.

From the result of regression, credibility is found to be the most important factor that affects MB. It has highest significant beta coefficient 0.321 and positively affect adoption. The factor credibility includes privacy, trust, risk and security. This research support previous finding of Jolly (2016) which showed that internet banking services are gaining popularity and comfort as technology advances but the security in the service is a concern. Additionally, he found that as technology advances, steps should be taken to improve the security aspect. Furthermore, the results provided facts that perceived security significantly influences customers' attitude towards MB adoption. If banks can ensure these security measures, customers will turn to have confidence in adopting and using these e-banking services without any hesitations (Fonchamnyo, 2013). Online

transactions contain sensitive information and if they are certain that the bank will ensure limited access to their critical files and information, they will be motivated to adopt and use these e-banking services (Fonchamnyo, 2013). Findings of Wang, Wang, Lin, & Tang (2003) strongly suggested that PCR (trust or perceived risk) have higher ability to predict and explain the intention of users to adopt online banking.

Webpage/application and service quality has positive coefficient beta (0.242) which means, webpage/application and service quality positively influence on adoption of MB. Further, the variable 'webpage/application and service quality' has a positive estimated coefficient. This means that increase in this factor by one point would multiply the MB adoption by 0.027. This research supports previous finding of Yadav (2016); Padachi, Rojid, & Seetanah (2007); Akinci, Aksoy, & Atilgan (2004); Krug (2014); Amin (2007) and Wang (2003). For example, Padachi et al. (2007)found user-friendly bank webpage/application and service quality as an important determinant of ease of use, which affects the adoption of internet banking services in Mauritius and Australia.

Internet has negative significant coefficient which means that if consumer perception about internet increase by one point, MB adoption will decrease by 1.7%. Also internet has negative significant beta (-0.146) so internet strangely affect MB adoption. Padachi et al. (2007) found that internet accessibility affected the adoption of internet banking in Mauritius. Similarly, Sohail & Shanmugham (2003) found that internet access is one of the main factors that influence the adoption of internet banking in Malaysia.

4.2.2 **Discussion relating to research objective Three**

There is significant negative mean difference between credibility perception in MB services, this research support previous research finding of (Kumar & Mishra, 2017; Reddy & Reddy, 2015; Sikdar, Kumar, & Makkad, 2015). Kumar & Mishra (2017) identified security dimension being negative for satisfaction of online banking customer. Kalaiarasi & Srividya (2013) and Gao, Waechter, & Bai (2015) found that security and privacy have a negative relationship with satisfaction. In other words, when users perceived MB services as highly credible, satisfaction will also increase (Susanto, Zo, & Ciganek, 2013).

The mean difference of time is positive and significant that means the consumer believes that MB can save time. Research of online banking customer in India by Sikdar, Kumar, & Makkad (2015) found that online banking users expect the system to meet stated transactional timelines at all times and they will be satisfied. Bank's electronic services offers clients a chance to be cost effective in performing transactions, not only by saving money but also by saving time (Hammoud, Bizri, & Baba, 2018). Furthermore, Reddy & Reddy (2015) concluded E-banking as time saving process. Jolly (2016)observed that there is a relationship between mode of banking adopted and time saving of bank customers. The mean difference of cost is highest and significant supporting previous research finding of (Gomachab, 2018; Kumbhar, 2011). The research on MB satisfaction in Namibia found that overall satisfaction rate of cost effectiveness is positive (Gomachab, 2018). Jolly (2016) observed that there is a significant relationship between mode of banking satisfaction and cost saving of bank customers. Although, Kodithuwakku (2018) Conclude that cost incurred in this facility was also questioned by the customers and most of them are not satisfied with it.

There is significant positive mean difference between convenience and compatibility in MB services provided by Nepalese bank. Kumbhar (2011) found that there is significant mean difference between conveniences in internet banking services provided by private sector banks. Overall satisfaction rate of convenience was found to be positive (Gomachab, 2018).

Higher the gap score, the more is the satisfaction. The mean difference is positive with 0.105 that means consumers are satisfied with webpage/application and service quality of bank. This result supports study of Hammoud, Bizri, & Baba (2018); Adapa & Cooksey (2013) and Ramadhan (2011). Quality of E-Banking services has a significant effect on customer satisfaction in the Lebanese banking sector. Users are more satisfied on responsiveness of bank's website (Hammoud, Bizri, & Baba, 2018). In contrast, Singh (2013) found that average score of dimension tangibility is highest; hence this showing quite low customer satisfaction. So banks should further ensure that the customer interface toward the online banking application be user-friendly and comprehensible (Sikdar, Kumar, & Makkad, 2015). Sikdar, Kumar, & Makkad (2015) concluded quality of output generated by internet banking web sites had failed to meet the general

expectations of banking customers. Customers also explicitly mentioned that response time of online banking web sites lacked consistency.

Mean difference of internet was found to be positive and significant so consumer is satisfied with the internet speed. The finding in Namibia showed that overall satisfaction rate from availability of internet on different mobile networks is positive (Gomachab, 2018). Although, in china internet accessibility impact negatively on e-banking satisfaction (Yang, Cheng, & Luo, 2009).

4.3 **Major Findings**

1. All factors of independent variables; credibility, time, convenience and compatibility, webpage/application and service quality, cost, education and income have positive coefficient beta 0.321, 0.294, 0.291, 0.242, 0.210, 0.082 and 0.025 respectively that means they have positive effect on adoption of MB except age which has -0.175 and internet with -0.146 coefficient beta which have negative effect on adoption of MB.

2. Credibility was most important factor for adoption of MB, followed by time, convenience and compatibility, webpage/application and service quality, cost, age, internet, education and income respectively.

3. Consumers were satisfied in every factors that affect satisfaction of MB consumers, except credibility that has mean difference -0.083, that shows consumer were not satisfied in terms of credibility of MB services provided by Nepalese Banks.

CHAPTER 5
SUMMARY AND CONCLUSION

5.1 **Summary**

The primary purpose of this study was to investigate the factors that impact customer's perception towards adoption of MB services provided by Nepalese banks. Also, this research tries to identify the satisfaction level of consumers who are using MB service provided by Nepalese banks. The research outlined in this thesis was undertaken to contribute knowledge to the emerging area of MB. Its aim was to advance understanding about MB products and services so that it would be helpful for new product introduction by financial organizations. The overarching theoretical framework for this research is the TAM. TAM include two main factors 1) Perceived Usefulness 2) Perceived Ease of Use which effects directly in MB adoption and satisfaction. In order to carter for deficiencies in the TAM, the model included other factors that are important antecedents to MB as noted from the review of literature. These factors included PCR which is also important factor for MB adoption and satisfaction. Additionally, customer demographics is also included in this study. Data were collected using a structured questionnaire. A total of 154 usable responses were obtained. SPSS was used to analyze the data and the results have been presented and discussed in chapter 4. From the total eighteen questions representing expectation of consumer before use of MB which define factor that affect adoption of MB; six components is extracted. Three of them explain PU which are convenience and compatibility; time; and cost. Two of them explain PEOU which was webpage/application and service quality; and internet. Last factor is PCR which includes trust, security, privacy and risk of MB service consumer perception.

Multiple linear regression models were used to identify the relationship between independents variables and dependent variable of MB adoption. Paired t-test was used to identify the satisfaction level of customer which compared perceptions of customer while adopting MB and current status of satisfaction on each component. Research finding showed that age and internet have significant negative effect to the adoption of MB. Other components credibility webpage/application and service quality, convenience and compatibility, time and cost has significant positive effect on MB adoption. MB

consumers are satisfied with other component except credibility which has negative mean difference.

The purpose of this chapter is to summarize the main findings in relation to each of the objectives of the study and indicate the conclusions drawn from the findings. The chapter also outlines the major implications of the findings in relation to efforts aimed at encouraging customers to start/continue using MB services. The chapter is concluded by offering suggestions for future research.

5.2 **Conclusion**

5.2.1 **Conclusions relating to research objective one and two**

Research objective one was to examine the factor that affects adoption of MB services. The results of the multiple linear regression analysis showed that the component of PU convenience and compatibility, time and cost, perceived credibility and component of PEOU webpage/application and service quality positively influenced customers' decisions to adopt MB. Component of PEOU: internet influence negatively to adopt MB. Demographic factor age has negative influence on adoption of MB and other two demographic factors education and income does not influence MB adoption.

Objective two was to identify most important factor that affect adoption of MB adoption. The results of the multiple linear regression analysis showed that PCR has maximum impact on MB adoption. The component of PU i.e. time is second most important factor to determine adoption of MB. Convenience and compatibility is third important factor that affect adoption on MB. Cost is fifth most important factor for MB adoption. Component of PEOU, webpage/application and service quality is forth most important factor that impact on MB adoption. Internet is seventh factor that affects MB. With regards to the demographic characteristics, age has the maximum impact on customers' adoption of MB, followed by education and income.

5.2.2 **Conclusions relating to research objective three**

Objective three was to identify satisfaction level of customers by adopting MB services in Nepal. The results of the pair t-test analysis show consumer were satisfied with all factors that affect MB, except perceived credibility. Consumer was highly satisfied with cost

compared to other factors. Convenience and compatibility and internet come second while comparing level of satisfaction on customer. Time saving was in third to satisfy customers and webpage/application and service quality was the last factor that satisfied customers. Credibility; which includes trust, security, privacy and risk about MB dissatisfied the customer.

5.3 **Implications**

This study reveals that PCR is a most important factor influencing customers' adoption of MB. And consumers are not satisfied with security issue of MB. Therefore, banks need to search for risk-reducing strategies that can assist in inspiring high confidence in potential customers.

In Nepal, Security/Privacy in terms of authorized use and abuse of accounts, and keeping customers' personal details private is a concern to the majority of customers and it affects the adoption of MB. To overcome such risk issues, bank management should take steps to manage and minimize perceived security risks. Bank management should consider focusing on the prevention of intrusion, fraud and identity theft. Banks can use encryption, firewall, intrusion detection and other related security devices to properly safeguard their MB security systems. Banks should also advise customers about how to best protect online accounts. For example, banks should advise customers never to respond to e-mails requesting confirmation of logins and passwords, and memorize their password. Banks should also recommend that customers install a firewall, anti-virus and anti-spyware and protective software on their computers. In addition, banks should emphasize that the online systems are only accessible to registered customers who use the correct password and the customers' information remains confidential at all times. Furthermore, banks should develop service recovery program to provide a guarantee for every transaction to increase confidence in their MB services.

Time is second most important factor to determine MB adoption, and customer were satisfied with MB service because it saves time. It can be improved by providing quick response when the consumers face some difficulty. Quick problem solving facility may help to increase time advantage of MB users.

Convenience and compatibility also play major role on adoption and satisfaction of mobile service. Consumers are satisfied with this factor. But most of the consumers use MB service for personal use where they find low risk. So bank can increase the MB customers by fixing risk issue and also provide other product for big business organization.

This research reveals that a webpage/application and service quality has the strongest influence on bank customers of Nepal on adoption of MB. A user-friendly webpage/application design, in respect to information availability and ease of use, affect consumers' choices of MB. Unfriendly webpage/application has discouraged consumers from using MB technology. It is essential for banks to provide a well-designed and user-friendly webpage/application to attract potential adopters' attention with required products.

In order to enhance the adoption rate of MB, banks should develop the user-friendliness of their webpage/application by considering several factors, such as clear and comprehensible instructions which are easy to read, prompt processing of transactions, and a wide range of services. In addition, application open time and bank response to customers is a major concern of MB customers, therefore materials on a application should not take excessive time to open and a bank's webpage/application should respond quickly and efficiently.

The results of this study confirm that Price is another important factor influencing consumers to adopt MB. In order to attract more customers to adopt MB services, banks should implement pricing strategies. For example, banks can offer lower fees or free services for MB transactions. As a result, customers should be positively motivated to adopt low cost MB.

Another valuable finding from this study is the importance of internet access/internet speed. Familiarity with the internet environment encourages acceptance of MB by individuals who have used the internet for a long period and easy access of internet. One reason many users do not have satisfaction on MB is that they do not have access to the internet or internet speed in Nepal is very slow. In order to increase the rate of MB

adoption, government should make strict policy for ISPs because in Nepal the download speed of internet is very low.

5.4 **Further Research**

The limitations stated above provide opportunities for further research:

1. Future research can explore the possibility of using probability sampling methods so as to make the results generalized to a wider population.

2. A similar study can be conducted using a bigger sample drawn from different parts of the country.

3. A longitudinal study could be conducted to determine how attitudes towards and usage of MB changes over time and to further determine the factors that lead to this change.

4. This study empirically examined three factors that may influence consumers 'adoption of MB. However, there may be some other factors that can impact on customers 'adoption of MB but were not identified in this study. Further research is required to identify other factors that may impact on customers' adoption of MB.

5. Extra measures can be taken in future studies to reduce respondents' unwillingness to provide answers relating to their banking practices. For example, future studies can investigate the possibility of directly involving banks by way of support for such studies; in this way, potential respondents are not left to interact only with unknown individuals or entities.

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Table 4:2 the Correlation Matrix for mobile Banking Adoption

Correlations						
	Time (Quick)	Time (Anytime)	Convenience (Better service then bank office)	Convenience (Flexible)	Compatibility (Easier)	Compatibility (Enhance)
Time (Quick)	1	.621**	.182*	.223**	.200*	0.105
Time (Anytime)	.621**	1	0.121	.199*	0.113	0.042
Convenience (Better service then bank office)	.182*	0.121	1	.455**	.414**	.406**
Convenience (Flexible)	.223**	.199*	.455**	1	.441**	.347**
Compatibility (Easier)	.200*	0.113	.414**	.441**	1	.450**
Compatibility (Enhance)	0.105	0.042	.406**	.347**	.450**	1
Cost (Satisfactory)	0.146	0.056	0.149	0.112	.204*	.173*
Cost (Other Cost)	.502**	.226**	.319**	.262**	.341**	.225**
Language	.225**	.238**	0.143	.280**	.213**	0.001
Webpage/application	.244**	.174*	.167*	.185*	0.146	0.038
Service Quality (Feature)	.226**	0.106	0.107	0.157	.185*	-0.045
Service Quality (Less mental effort)	0.120	0.101	0.016	0.100	.183*	-0.072
Internet	-0.028	0.001	0.066	-0.043	0.073	-0.009
Understandability	.238**	0.146	0.017	0.099	0.125	-0.008
Privacy	0.076	0.052	0.088	0.136	0.035	0.095
Trust	.174*	0.143	.165*	0.136	.167*	0.137
Security	0.156	0.080	0.075	.210**	0.109	0.140
Risk	0.107	.165*	0.136	0.086	.223**	.192*
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Correlation Matrix (Continued)

Correlations						
	Cost (Satisfactory)	Cost (Other Cost)	Language	Webpage/application	Service Quality (Feature)	Service Quality (Less mental effort)
Time (Quick)	0.146	.502**	.225**	.244**	.226**	0.120
Time (Anytime)	0.056	.226**	.238**	.174*	0.106	0.101
Convenience (Better service then bank office)	0.149	.319**	0.143	.167*	0.107	0.016
Convenience (Flexible)	0.112	.262**	.280**	.185*	0.157	0.100
Compatibility (Easier)	.204*	.341**	.213**	0.146	.185*	.183*
Compatibility (Enhance)	.173*	.225**	0.001	0.038	-0.045	-0.072
Cost (Satisfactory)	1	.591**	.199*	.219**	.181*	0.086
Cost (Other Cost)	.591**	1	.328**	.349**	.239**	.195*
Language	.199*	.328**	1	.685**	.449**	.291**
Webpage/application	.219**	.349**	.685**	1	.480**	.425**
Service Quality (Feature)	.181*	.239**	.449**	.480**	1	.474**
Service Quality (Less mental effort)	0.086	.195*	.291**	.425**	.474**	1
Internet	0.012	0.001	-0.070	0.008	0.062	0.095
Understandability	0.075	.189*	.191*	0.152	0.119	0.098
Privacy	.267**	.239**	.245**	.283**	0.097	.160*
Trust	.254**	.254**	0.145	0.073	0.058	0.080
Security	0.113	0.112	.173*	.191*	0.102	0.103
Risk	.274**	.242**	.216**	.240**	.212**	.246**
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Correlation Matrix (Continued)

Correlations						
	Internet	Understandability	Privacy	Trust	Security	Risk
Time (Quick)	-0.028	.238**	0.076	.174*	0.156	0.107
Time (Anytime)	0.001	0.146	0.052	0.143	0.080	.165*
Convenience (Better service then bank office)	0.066	0.017	0.088	.165*	0.075	0.136
Convenience (Flexible)	-0.043	0.099	0.136	0.136	.210**	0.086
Compatibility (Easier)	0.073	0.125	0.035	.167*	0.109	.223**
Compatibility (Enhance)	-0.009	-0.008	0.095	0.137	0.140	.192*
Cost (Satisfactory)	0.012	0.075	.267**	.254**	0.113	.274**
Cost (Other Cost)	0.001	.189*	.239**	.254**	0.112	.242**
Language	-0.070	.191*	.245**	0.145	.173*	.216**
Webpage/application	0.008	0.152	.283**	0.073	.191*	.240**
Service Quality (Feature)	0.062	0.119	0.097	0.058	0.102	.212**
Service Quality (Less mental effort)	0.095	0.098	.160*	0.080	0.103	.246**
Internet	1	0.065	-0.076	0.146	0.014	0.066
Understandability	0.065	1	0.073	0.011	0.005	0.027
Privacy	-0.076	0.073	1	.532**	.536**	.407**
Trust	0.146	0.011	.532**	1	.574**	.489**
Security	0.014	0.005	.536**	.574**	1	.396**
Risk	0.066	0.027	.407**	.489**	.396**	1
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 4:3 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.725
Bartlett's Test of Sphericity	Approx. Chi-Square	857.614
	Df	153
	Sig.	0.000

Table 4:4 Factor Extractions

Total Variance Explained						
Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.368	24.268	24.268	2.514	13.966	13.966
2	1.966	10.920	35.188	2.512	13.955	27.921
3	1.915	10.637	45.825	2.343	13.018	40.939
4	1.400	7.777	53.602	1.870	10.388	51.326
5	1.158	6.433	60.035	1.560	8.669	59.995
6	1.142	6.345	66.380	1.149	6.385	66.380
7	0.917	5.097	71.477			
8	0.777	4.315	75.792			
9	0.665	3.697	79.489			
10	0.572	3.176	82.665			
11	0.561	3.117	85.781			
12	0.537	2.981	88.762			
13	0.483	2.685	91.446			
14	0.397	2.207	93.654			
15	0.353	1.964	95.617			
16	0.347	1.928	97.545			
17	0.241	1.341	98.885			
18	0.201	1.115	100.000			
Extraction Method: Principal Component Analysis.						

Table 4:5 VARIMAX Rotated Component Matrix

Rotated Component Matrix[a]						
	Component					
	1	2	3	4	5	6
Time (Quick)				0.858		
Time (Anytime)				0.847		
Convenience (Better service then bank office)			0.750			
Convenience (Flexible)			0.724			
Compatibility (Easier)			0.736			
Compatibility (Enhance)			0.736			
Cost (Satisfactory)					0.877	
Cost (Other Cost)					0.737	
Language		0.728				
Webpage/application		0.792				
Service Quality (Feature)		0.766				
Service Quality (Less mental effort)		0.709				
Internet						0.889
Understandability						
Privacy	0.769					
Trust	0.823					
Security	0.821					
Risk	0.647					
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 6 iterations.						

Table 4:7 Model Summary

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.681[a]	0.464	0.431	0.086
a. Predictors: (Constant), Internet, Cost, Time, Convenience and compatibility, Webpage/application and service quality , Credibility, income, Education, age				
b. Dependent Variable: Mobile Banking use by costumer				

Table 4:8 ANOVAa

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.916	9	0.102	13.853	.000[b]
	Residual	1.058	144	0.007		
	Total	1.974	153			
a. Dependent Variable: Mobile Banking use by costumer						
b. Predictors: (Constant), Internet, Cost, Time, Convenience and compatibility, Webpage/application and service quality , Credibility, income, Education, age						

Table 4:9 Linear Regression Results for Influencing Factors and Demographic Characteristics on Mobile Banking Adoption.

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.012	0.043		23.437	0.000		
Age	-0.027	0.010	-0.175	-2.739	0.007	0.916	1.091
Education	0.013	0.010	0.082	1.301	0.195	0.947	1.056
Income	0.002	0.005	0.025	0.395	0.694	0.961	1.040
Credibility	0.037	0.007	0.321	5.196	0.000	0.973	1.028
Webpage/application and service quality	0.027	0.007	0.242	3.927	0.000	0.981	1.020
Convenience and compatibility	0.033	0.007	0.291	4.735	0.000	0.986	1.015
Time	0.033	0.007	0.294	4.819	0.000	1.000	1.000
Cost	0.024	0.007	0.210	3.327	0.001	0.936	1.069
Internet	-0.017	0.007	-0.146	-2.344	0.020	0.965	1.036
a. Dependent Variable: Mobile Banking use by costumer							

Table 4:14 Paired Samples Statistics of consumer perception while adoption and after use of mobile banking.

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Satisfaction on time	4.47	154	0.659	0.053
	Perception of time	4.2955	154	0.66572	0.05365
Pair 2	Satisfaction on convenience and compatibility	4.3312	154	0.57797	0.04657
	Perception of convenience and compatibility	4.1494	154	0.54347	0.04379
Pair 3	Satisfaction on Cost	4.23	154	0.691	0.056
	Perception of Cost	3.9383	154	0.73058	0.05887
Pair 4	Satisfaction on webpage/application and service quality	4.0857	154	0.54730	0.04410
	Perception of webpage/application and service quality	3.9805	154	0.56630	0.04563
Pair 5	Satisfaction on Internet	3.8571	154	0.78739	0.06345
	Perception of Internet	3.68	154	1.078	0.087
Pair 6	Satisfaction on Credibility	4.1266	154	0.49938	0.04024
	Perception of credibility	4.2094	154	0.63816	0.05142

4:15 Paired Samples Test of consumer perception on factor while adoption and after adoption.

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	SD	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Satisfaction on time - Perception of time	0.179	0.857	0.069	0.042	0.315	2.586	153	0.011
Pair 2	Satisfaction on convenience and compatibility - Perception of convenience and compatibility	0.182	0.704	0.057	0.070	0.294	3.206	153	0.002
Pair 3	Satisfaction on Cost - Perception of Cost	0.289	0.944	0.076	0.139	0.439	3.798	153	0.000
Pair 4	Satisfaction on webpage/application and service quality - Perception of webpage/application and service quality	0.105	0.637	0.051	0.004	0.207	2.049	153	0.042
Pair 5	Satisfaction on Internet - Perception of Internet	0.182	1.108	0.089	0.005	0.358	2.036	153	0.043
Pair 6	Satisfaction on Credibility - Perception of credibility	-0.083	0.477	0.038	-0.159	-0.007	-2.152	153	0.033

Table 4:16 Paired Samples Correlations of factor while adopting and after adopting.

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Satisfaction on time & Perception of time	154	0.163	0.044
Pair 2	Satisfaction on convenience and compatibility & Perception of convenience and compatibility	154	0.213	0.008
Pair 3	Satisfaction on Cost & Perception of Cost	154	0.119	0.143
Pair 4	Satisfaction on webpage and service quality & Perception of webpage and service quality	154	0.346	0.000
Pair 5	Satisfaction on Internet & Perception of Internet	154	0.326	0.000
Pair 6	Satisfaction on Credibility & Perception of credibility	154	0.673	0.000

Appendix 1:

Questionnaire

Being an ongoing graduate of Master of Business management (MBM) program in Central Department of Management, as a part of course requirement for MBM program of Tribhuvan University, I am conducting a survey entitled **"Online Banking Service: An Analysis on Consumer Adoption and Satisfaction on Nepalese Banking Services."**

Questionnaire is divided into two sections; section A collects the basic information of respondents and section B deals with the perception of consumer about before and after use of service.

I would like to request you to fill this questionnaire. I want to assure you that the information provided will be treated with high confidentiality and be used for academic purpose only.

Section A: Online Banking Habits and personal information of Costumers.

1. Age

- ☐ Below 16
- ☐ 16-25
- ☐ 26-35
- ☐ 36-45
- ☐ Above 45

2. Education

- ☐ SLC/SEE
- ☐ Intermediate (**10+2**)
- ☐ Bachelor
- ☐ Master
- ☐ Above Masters

3. Monthly Income

- ☐ Below 20000
- ☐ 20000-400000
- ☐ 40001-60000
- ☐ 60001-80000
- ☐ Above 80000

4. Which of the following online banking service do you use?

(You can select two or more options)

- ☐ Internet Banking
- ☐ Mobile Banking
- ☐ ATMs
- ☐ Branchless banking
- ☐ Cash and Cheque Deposit Kiosks

5. How many times do you use online banking service per month?

- ☐ 1 time
- ☐ 2 to 3 times
- ☐ 4 to 5 times
- ☐ 5 to 10 times
- ☐ Over 10 times

Section B: Consumer Prospective on Mobile Banking Service.

Part 1:

Please tick (✓) the appropriate respond for your ***expectation before you use*** *Online banking service on a 1 to 5 point scale.*

S. No	Consumer's Perception Parameters	Strongly Agree (5)	Agree (4)	Natural (3)	Disagree (2)	Strongly Disagree (1)
6.	I can quickly finish my bank transitions.					
7.	I can finish my transaction anytime.					
8.	By using online banking I will get better service than from bank office.					
9.	Online banking services will be flexible to interact with.					
10.	Online banking services will make it easier to do my financial work.					
11.	Online banking services can enhance my financial work.					
12.	Charges for online banking services are satisfactory.					
13.	Online banking will save my other costs.					
14.	Language in site /application should be understandable.					
15.	Online banking service site/application must be easy to use.					
16.	Online banking includes all features for making banking transactions.					

S. No	Consumer's Perception Parameters	Strongly Agree (5)	Agree (4)	Natural (3)	Disagree (2)	Strongly Disagree (1)
17.	Interaction with services should be free of mental effort.					
18.	Internet speed may cause problem to use service.					
19.	My interaction with the services is clear & understandable.					
20.	The bank will not disclose my personal information.					
21.	I trust online banking for making transactions.					
22.	Online banking is secured.					
23.	Online service provides accurate services.					

Part 2:

*Please rate your Online banking experience (**satisfaction) after using service** on a 1 to 5 point scale.*

S. No	Consumer's Perception Parameters	Strongly Agree (5)	Agree (4)	Natural (3)	Disagree (2)	Strongly Disagree (1)
24.	I am able to finish financial transactions on time.					
25.	By using service I am able to make transactions in easy way.					
26.	Online banking services enhance my financial activities.					
27.	I am able to save other costs.					

S. No	Consumer's Perception Parameters	Strongly Agree (5)	Agree (4)	Natural (3)	Disagree (2)	Strongly Disagree (1)
28.	Language in site /application is understandable.					
29.	Online banking service site/application has a user friendly interface.					
30.	I find that service site/application has easy steps to make transactions.					
31.	Online banking delivers the service exactly as promised.					
32.	Online banking site takes quick action against problem.					
33.	No error in transaction due to internet speed.					
34.	Less time is required to connect to the webpage/application/application.					
35.	Bank maintains privacy of my personal and transactional information.					
36.	Online banking is trustworthy.					
37.	Safe transaction with feedback on each transaction.					
38.	No transaction error in services.					

Thank you very much for your time.