

THE FACTORS AFFECTING THE USAGE OF MOBILE BANKING:

A Case of Customers of Citizens Bank International Ltd.

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RECOMMENDATION

This is to certify that the thesis:

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**The Factors Affecting Usage of Mobile Banking: A Case of Customers of Citizens
Bank International Ltd.**

has been prepared as approved by the department in the prescribed format of the Faculty
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DECLARATIONS

I, the undersigned, declare that this thesis entitled "**The Factors Affecting Usage of Mobile Banking: A Case of Customers of Citizens Bank International Ltd.**" submitted to office of the Dean, faculty of Management, Tribhuvan University is my original work done for the partial fulfillment of requirement of the Degree of Masters of Business Studies (MBS), which is prepared under the Supervision of Prof. Dr. Arhan Sthapit, Tribhuvan University, Nepal.

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ABBREVIATIONS

%	:	Percent
&	:	And
ANOVA	:	Analysis of Variance
Bn	:	Billion
B.S.	:	Bikram Sambat
CA	:	Customer Awareness
CEO	:	Chief Executive Officer
CBIL	:	Citizens Bank International Limited
INT.	:	International
MBU	:	Mobile Banking Usage
Mn	:	Million
No.	:	Number
NPR	:	Nepalese Rupees
NRB	:	Nepal Rastra Bank
PE	:	Perceived Ease of Use
PR	:	Perceived Risk
SPSS	:	Statistical Package for the Social Sciences
TC	:	Transaction Cost
REG.	:	Registration
T.U.	:	Tribhuvan University
WWW	:	World Wide Web

CHAPTER 1

INTRODUCTION

1.1 Background

The immense growth of technology has encouraged many businesses to adopt new method for interacting with the customer to provide the better service, to lower the cost and to maintain the competitive advantages. The banking sector is continuously searching for ways to use technology for these purposes, and to create more convenient methods of banking for the customer. Banking has changed significantly with the emergence of electronic banking. With electronic banking a business can offer customers access to banking services via multiple electronic channels. Electronic banking is seen as one of the most successful areas of electronic commerce

Previously, electronic banking has been recognized through the introduction of Automated Teller Machines (ATMs), telephone banking, and the introduction of ‘home banking’, or Internet banking. Now there is the introduction of mobile banking. There have been many research works on user attitudes to ATMs, telephone banking, Internet banking. As per the different research internet banking was the major successful service which significantly changed the face of the retail banking sector. Now research has started on issues surrounding mobile banking. The success of Internet banking is due to its convenience and compatibility with the modern lifestyle, time saving attributes and low cost and also because it gives customers control. Internet Banking has been adopted easily by the customer because it was easy to use. The main driver and rewards for banks from Internet banking, and electronic banking in general, is cost savings.

Apparently, with the introduction of the advance 4G network, increased memory and speed in the handheld devices has moved customer interest from desktop internet banking to mobile banking or M banking. Mobile banking is a term used for performing banking transactions or acquiring bank account information via mobile devices it allows customers to carry out banking transactions such as balance inquiry, ordering Cheque books, funds transfers and paying bills, using a mobile device.

Mobile Banking

Internet banking has been one of the successful electronic commerce applications in financial institution. it is almost impossible to ignore the essence of internet banking for any financial institution and survive commercially. The Potential of Mobile banking use is even more than what has been achieved by internet banking. It allows anytime anywhere banking, the introduction of the smart phones with wireless connectivity has introduced the use of mobile web for banking transaction. mobile technology has the ability to extend the reach of financial services. Mobile phones offer governments, businesses, educators, banks and health care providers a new channel for interaction with each other. All the services that are provided by mobile banking have make customers' live easier because they can conduct the financial transactions anywhere for example, customers can make the transaction by using the mobile phone without visiting the branches. Customer can even provide their feedback to the banks anytime anywhere therefore this service can improve the relationship between banks and client. Besides, mobile banking also allows customers to check the latest products or services that have been provided by banks.

Moreover, many people also feel that using mobile banking is not secure because the safety problem of mobile banking is not yet completely resolved. Customer will worry that hacker will steal their information and hack their accounts. Besides Some bank customers consider that using mobile banking to make bill payment is more difficult and time consuming.

According to above information about the mobile banking the need of the study tries to shed various factor that affect the adoption of mobile banking.

Banking System in Nepal

With the development of new technology in the country, the banking sector with its services has been completely changed. Today the banking sector is more systematic, modernized and managed than 2 decades ago. Different banking facilities such as Banking software, ATM, Internet Banking, Mobile Banking, Debit Card, Credit Card, Prepaid Card etc. services are available in Nepalese bank these days. There are various types of banks working in current banking system of Nepal. They are central,

development, commercial, financial, cooperative and Micro Credit (Grameen) banks. Presently there are 1 central, 28 commercials, 57 developments, 36 financial companies and 48 micro finance development banks. Nepal Bank Limited also the first commercial bank of Nepal has the largest network in banking sector. Comparing modern banking system of Nepal with the traditional banking system, the modern banking system has started to establish many branches all over the country. With the established branches, Nepalese life in sense of financial activities has become easier than before. Presently, many commercial banks that fall in class 'A' have started mobile banking services. Even though the commercial banks have started the mobile banking services to advance the banking system of Nepal but still the popularity towards mobile banking is slowly progressing in the country.

Mobile Banking Development in Nepal

Before proceeding towards mobile banking status, it will be a good idea to look towards the status of mobile phone users in Nepal. Like in other developed countries, there has been huge increment of mobile phone users in Nepal. According to recent data from NTA (Nepal Telecommunication Authority 2014), the telephone penetration has passed to 84.77Percentage. Out of the total telephone penetration rate, 74.97Percentage (Nepal Telecommunication Authority 2014) belongs to the penetration rate of mobile phones. The use of mobile banking in developed countries came into practice a longtime ago. The developing countries like Nepal started its mobile banking lately in 2012. The first mobile banking in Nepal was launched by Laxmi Bank Limited, one of the leading commercial bank in Nepal, with its initial product called Mobile Khata. Mobile khata operated in third party platform called Hello Paisa which was in interconnection with all the telecoms in Nepal, namely Nepal Telecom, Ncell (similar to Sonera in Finland), UTL and SmartTel. Besides these telecoms, the service was also interoperable with various financial institutions in Nepal. After the initiation of mobile banking in the country by Laxmi Bank Limited with the platform Hello Paisa, other financial institution such as Siddhartha bank, Bank of Kathmandu, Citizens Bank and International Leasing and Finance Organization also started mobile payment system under the same platform. Such type of platform for payment services that is interoperable with various financial

institutions and telecoms was considered as first of its kind in the world. Several banks in Nepal have started this type of services in order to make payment for utilities and to perform banking activities. The major platform in terms of mobile payment was started by the services like Hello Paisa and FonePay in Nepal. It was these services which made it possible to do inter banking activities in Nepal and the contribution made by those services for starting new payment system in the country created a platform for other banking sector to initiate mobile banking in Nepal. According to Umesh Singh Bhandari, assistant general manager of Machhapuchhre Bank, the multinational companies still relies on e-banking while other companies are attracted towards mobile banking due to its portable and easily handled features.

Introduction of Citizens Bank International Ltd

This project will be carried out as a research on Citizens Bank International Limited. Mobile banking service. Citizens Bank International Limited is a fully-fledged commercial Bank offering savings and lending services to individuals, entrepreneurs and companies of all sizes. It has the largest branch network in Nepal. It is a publicly quoted company with its shares trading at the Nepal Stock Exchange (NEPSE)

On June 21, 2007 Citizens Bank International Limited was set up and initiated its business operation from 20th April 2007. The head office of the bank is situated at Narayanhiti- 01, Durbarmarg. It is an “A” level monetary foundation as authorized by the Nepal Rastra Bank (NRB) as well as those companies monitored and regulated by government bodies. It is directed skilled and experienced professionals. With the slogan of “YOUR PARTNER FOR PROGRESS” Citizens Bank International Limited has been able to create a landmark in the banking industry within the short period of time. Today’s “Citizens bank international Ltd.”, assumes an essential part for the monetary improvement of the nation and helps in raising the country to the maximum height of economic development (Citizens Bank)

The Bank has a network of 81 branches and 75 automated teller machines across the country. The Bank also introduced a mobile banking facility for its customers in 2013 A.D. The product commonly known as Citizens Bank International Limited mobile

banking. It is a mobile telephone Bank that has changed the lives and financial lifestyle of mobile subscribers in Nepal. The mobile Banking service provides full Banking services on the mobile telephone handset at the touch of a button, including enquiries, Banking instructions, funds transfers and utility bill payments. Working with mobile telecommunications service provider, the Bank has put in place the necessary infrastructure to enable customers to transfer funds from one citizens account to another, from Citizens to the revolutionary and trendsetting wallet service and vice versa and from any Citizens Bank International Limited account to any phone account of the customer's choice

One can easily access his/her accounts through the mobile banking service by submitting the mobile banking form. Citizens Bank International Limited Mobile Banking Service include checking account balance, sending money to Esewa wallet, transfer funds to other Citizens accounts, get mini statements, Service request i.e. Cheque book request, Full statement request, and paying bills.

1.3 Statement of the Problem

This research explores and examines the important elements that will affect the customers to use the mobile banking. It is because bankers should understand the needs of the customers so that they can improve the inadequate and insufficient of the services. This also can increase the customers' usage intention of mobile banking services. By using mobile banking, some of the problem might occur. Some customers will think that mobile banking is difficult to utilize and its use is complicated. Mobile banking services might make the customers difficult to use because it is a new technology service. Rogers (2003) determine that the innovation services are perceived as difficult to understand and use.

In addition, some customers also will think that the mobile banking is not secure and they will meet risk. They will worry that hacker will forgery their information and takes out their money without notify the customers. They will also doubt that their money is still in their account or not. Sometimes, customers will feel helpless when they are using mobile banking services because there will might occur some errors during the transaction.

According to Mitchell (1999), risk is a subjective-determined expectation of loss; the greater the expected probability of loss, the higher the risk perceived. This will lower the customers' motivation to adopt the mobile banking.

Furthermore, there is also lack of communication it is because mobile banking does not have assistance can explain or help them to do the transaction. Mobile banking only simply gives the step and do not explain. Murkherjee and Nath (2003) also found that communication has played a significant positive role on trust and trust can influence more customers to use mobile banking services. Besides, Laforet and Li (2005) also determine that customers are lack of awareness of the services that offered by bank so that they do not use the mobile banking services. So, this research helps to know the customers' perception toward mobile banking. Banks also can solve the problem and shortcoming of the mobile banking and improve the customers' satisfaction.

1.4 Objectives of the Study

The study aims to examine the factors affecting the usage of mobile banking service of Citizens Bank International Limited

1.5 Statement of the Hypothesis

To study the factors affecting the usage of mobile banking the following working hypotheses are developed:

Hypothesis 1

H1: There is significant positive relationship between usage of Mobile Banking and Customer Awareness

Hypothesis 2

H2: There is significant positive relationship between usage of Mobile Banking and Perceived Ease of use

Hypothesis 3

H3: There is negative relationship between usage of Mobile Banking and Perceived Risk

Hypothesis 4

H4: There is negative relationship between usage of Mobile Banking and Transaction Cost

1.6 Significance of the Study

This research assists in better understanding of mobile banking service provided by Citizens Bank to the customer. Mobile banking has been the most convenient service for making

payment any where anytime without visiting the bank but still, many people are not familiar with the mobile banking service therefore this research is important to determine the customer's perception towards the mobile banking from the questionnaire, customers will know better about the feature and the characteristics of mobile banking service In addition, this research will also determine the factors- Perceived Risk, Ease of use, Awareness and Transaction cost that can affect the customer's perception towards the mobile banking. Furthermore, the study can also identify the weakness of mobile banking service so that Citizens bank can able to solve the problem and improve the current service to satisfy the customers' needs. This also can increase the customer's usage intention on the mobile banking. This thesis will provide information on the impact made by mobile banking among the Customer of Citizens Bank.

CHAPTER 2

REVIEW OF LITERATURE

With the development of new payment system called mobile banking, the customer's life involving in financial activities has become much easier than before. It is not only secure but at the same time it is easily accessible from anywhere in the world where the technology is advanced and developed. Mobile banking is a system of payment where the people involving in financial institution can make various financial transactions offered by respective financial institution. The mobile banking service can be access from browser enabled mobile phones or from easily handled mobile banking application which can be found from various mobile application stores. The first mobile banking was started in 1999 by the European company called PayBox which was supported by Deutsche Bank. As a mobile banking service, it was SMS 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 mobile banking. Until 2010, majority of mobile banking used to be perform by sms or mobile web. With the success of Apple's product such as iPhone and other operating system such as Android based phone, mobile banking these days can be accessed with its special client application or apps which has taken mobile banking into new path. With the development in web technologies such as HTML5, CSS3 and JavaScript, more banks have started to offer mobile banking web services to supplement native applications According to leading analyst, Juniper research [Hampshire, UK 8th July 2014], it is expected that the mobile banking users will exceed to 1.75 billion by 2019, where it represents 32Percentage of the global adult population.

With such rapid leverage of technology in the telecommunications industry, it was expected that a good number of people would use banking services. However, this is not the case as it has been observed that a significant number of people still cannot access banking services. This study sought to establish factors that influence their use of mobile banking services.

Different Studies have been done by researchers of different countries in the mobile banking service offered by banking industries. A re-examine of their work is presented in this project based on previous study; the needed conceptual framework to take on the present study is designed.

2.1 Theoretical Literature Review

The Technology Acceptance Model (TAM) focuses on explaining attitude of intention to use a specific technology or service. There are a number of m-banking adoption models that explain the factors that influence the adoption and use of m-banking technologies. Among these models are The Theory of Diffusion of Innovations, Theory of Reasoned Action (TRA) and Theory of planned behavior (TPB), (Decomposed TPB) and TAM model. The theory of Diffusion of innovations as proposed by Everett Rodgers explains how technology innovations are accepted and adopted by users

Rogers (1995) explains how an innovation is communicated through certain channels over time by a process known as diffusion. This goes through several stages: understanding, persuasion, decision, implementation; and confirmation. These stages are depicted by an S shaped adoption curves that are divided into five parts which are: early adopters, early majority, late majority and laggards. Another theory is TRA which was developed by Fishbein and Ajzen in 1975. It explains the relationship between attitude and behavior in human actions.

Fishbein & Ajzen (1975) defined attitude as the individual's evaluation of an object, belief as a link between an object and some attribute, whereas behavior was looked at as being a result or intention. The theory states that, attitudes are affective and based upon a set of beliefs about the object of behavior. The theory introduces another factor in predicting user behavior that of a person's subjective norm. This is explained as being what potential users perceive that their community will think of their behavior. Developments were made on the TRA as theorized by Fishbien and Ajzen in 1975. He proposed TPB which developed on the relationship between attitude and behavior in human actions by introducing a new factor: perceived behavioral control which can be used to predict behavior. Perceived behavioral control is explained as the behavior that

influences intention. It is a factor that is present in the theory of planned behaviour and not in the theory of reasoned action; this is the point of contrast for the two theories

The model has been used by several studies focusing on adoption of mobile services (Micheni, Lule & Muketha, 2013) and has been established as a robust and powerful model for predicting user acceptance. TAM, which deals with perceptions as opposed to real usage, suggests that when users are presented with a new technology, two important factors influence their decision on how and when they will use it, namely, Perceived usefulness (PU) and Perceived Ease-of-Use (EU). PU is the degree to which a person believes that using a particular system will enhance his or her job performance and EU is the degree to which the person believes that using the system will be free from effort (Davis, 1989).

According to the model, the user's perceptions of the system's usefulness and ease of use result in a behavioral intention to use (or not to use) the system. TAM strongly suggests that the two variables influence users' decision on how and when they will use the technology once introduced. The model suggests factors that influence usage of mobile banking services, which is a relatively new technology introduced by banks. The model has further been extended on various constructs due to its usefulness (for example, Mbamba & Chale, 2014). Also literature also indicates that the cost may prevent many people from choosing to use mobile money (Micheni 2013), which is the essence of the transaction cost theory. The concept of transaction cost has been explored in many adoption theories. The theory predicts that if the cost of a service is acceptable, then the service will be adopted and used easily.

2.2 Empirical Literature Review

Suoranta (2003) studied adoption of mobile banking in Finland, focusing on consumer behavior. The study observed that advantages in terms of compatibility, communication and being able to try it out drive usage or explain consumer behavior. A study by Wu and Wang (2005) on mobile commerce acceptance concentrating on the middle class showed that perceived cost had much less significance than other variables such as perceived risk, compatibility and perceived usefulness. A further qualitative investigation on the same

study was conducted, which revealed that perceived cost is normally a major concern when a technology is introduced. Corroborating the findings, Karnani (2009) argues that cost plays an important role in choosing mobile banking.

Nysveen, Pedersen and Thorbjornsen (2005) challenge reliance on TAM only while studying mobile banking services. One of the identified limitations is its design, which was to be used in an organizational context rather than in everyday life. In the organizational context, the model predicts users' acceptance of information technology and usage on the job. The core of the model lies on the hypothesis that intention to use a system is determined by two variables, namely, perceived usefulness and perceived ease of use. However, other pieces of empirical research works identified not only other variables but also some came up with contradictory findings (Wu and Wang, 2005; Karnani, 2009).

Yu (2009), using 250 university students in New Zealand, studied factors that influence on customers' decision to use a specific form of mobile banking and focused on evaluating SMS based mobile banking. The results revealed that context-specific factors, such as service quality and service awareness, influence users' perceptions on usefulness of SMS mobile banking, which, in turn, affects intention to use and adopt. That study focused on a very specific form of mobile banking (SMS-based mobile banking). Gaffer (2009) studied bank customers' perspective on adoption or introduction of mobile banking in Ghana. A sample of 100 students (customers) was randomly selected. It was established that customers' perceptions were overwhelmingly positive. The most appreciated feature was ubiquity of the service [(the notion of it being present everywhere) *ibid.*]. Others were connectivity and secure communication platform as well as encrypted messaging system. These were found to be factors that would enhance mobile banking implementation in Ghana. Furthermore, factors like technical and security standards, regulatory and supervisory issues and business and legal issues were found to hinder mobile banking implementation in Ghana. Rapid reaction to market developments, which is often cited as one of the most attractive features of mobile banking, was not found to be much appreciated.

Masinge (2010) studied factors influencing adoption of mobile banking services at the bottom of the pyramid (BOP) in South Africa. The research focused on trust, perceived cost and perceived risk [(performance risk, security/privacy risk, time risk, social risk and financial risk)]

Lusaya & Kalumba (2018) conducted a research in Zambia, which was aimed at investigating the challenges of adopting the use of e-banking by customers. The results of the study found that e-banking usage dependent on the availability of e-banking information. This means that there is increased publicity on e-banking, it is expected that if many customers would use the service. The results also showed that education levels also have a statistically significant influence on e-banking usage. This means that the higher the level of education, the more the usage of e-banking services. This is in line with the technological acceptance model. The study found that at 5% level of significant, concern for personal security was not related to usage of e-banking services.

Mattila (2010) identified that the most important attribute in encouraging the use of mobile banking was related to the costs of conducting banking (mean 4.38, standard deviation 2.15). Wish of faster data transmission accounted to the secondly highest importance mean (mean 3.74, standard deviation 2.49). Surprisingly, the third attribute mentioned to boost to mobile banking adoption was authentication with mobile phone to Internet bank (mean 3.67, standard deviation 2.60). Admittedly, the response pattern along different attributes was pretty homogenous. The distinctly most important reason for the trial of mobile banking was the possibility to conduct banking truly regardless of time and place (mean 5.09, standard deviation 1.62).

Cheah (2011) argue that Factors such as perceived usefulness (PU), perceived ease of use (PEOU), relative advantages (RA) and personal innovativeness (PI) were found positively related with the intention to adopt mobile banking services. However, social norms (SN) were the only factor found insignificant.

Achieng & Ingari (2015) used 103 customers of only one Kenya Commercial Bank (KCB) branch to study factors influencing adoption of mobile banking in Kenya. Through a descriptive analysis, they established among others that perceived risk and

cost have a negative impact on adoption of mobile banking. Rumanyika (2015) adopted the diffusion innovation theory while conducting a study based on literature review. The study identified four factors that are main obstacles to adopting mobile banking in Tanzania; poor network coverage, lack of knowledge of m-banking, lack of enough mobile money agents, ATM breakdown and theft. This study is very useful because it reviewed a lot of literature on the subject. However, out of the 14 papers reviewed, 9 focused on use of mobile money payments and not mobile banking, in particular. The rest of the reviewed studies, apart from Rumanyika's, indicate that context matters in relation to inhibiting factors, which is the reason there were contradictory results. The most contradictory variable was transaction cost. This study adopted TAM because it has been established as a robust and powerful model for predicting user acceptance.

Richard & Mandari (2017) study the factors influencing the adaptation of mobile banking in Kenya. The study assessed key factors that influence the usage of mobile banking services in Tanzania using TAM and transaction theory. A sample of 120 mobile phone users collected through a structured questionnaire was used. Descriptive, Pearson correlation and multiple regressions were employed for analysis. The study found that customers' awareness and perceived ease of use have a significant positive influence while perceived risk and transaction cost have a significant negative influence on the usage of mobile banking services. Customers' awareness and perceived ease of use have relatively greater influence on the usage of mobile banking services than perceived risk and transaction costs.

Soneka & Phiri (2019) The objective of the study was to assess the factors that influence the level of e-tax systems adoption in Zambia based on TAM Model. The focus of the study was Tax Online system used by domestic taxes division in rural Zambia. The sample size of 100 respondents was purposively selected from various taxpayers who were coming through Zambia Revenue Authority Internet bureau. The data collected from semi structured survey questionnaires was analyzed using descriptive statistics. The findings were that, the E-tax system is useful, easy to use and secure.

Daka & Phiri (2019) conducted a study on the factors driving the adoption of ebanking services in Zambia based on the Unified Theory of Acceptance and Use of Technology(UTAUT). A baseline study involving 313 respondents was undertaken with the sample consisting of clients from five top commercial banks. The main data collection tool was a question that was administered to the respondents who were chosen using purposive sampling. Data collected was then analyzed using SPSS descriptive analysis. The findings were that factors in the model such as effort expectancy, facilitating conditions, behavior intention, and performance expectancy have a significant impact on adoption of e-banking services. Social influence was found to be non significant to user’s intention to adopt.

Building on the above literature review, only empirical and theory-based mobile banking studies were summarized in Table 2.2.1. It indicates that were frequently employed to investigate what influences mobile banking adoption, while small number of studies utilized other theories such as mean-end theory [Laukkanen 2007], Rasch measurement model and item response theory [Yang 2009], and analytical hierarchy process [Natarajan et al. 2010] to derive core determinants to explain the adoption of mobile banking.

Table 2.2.1 Empirical and Theory-Based Empirical Research in Mobile Banking Adoption

Authors	Sampling & Countries	Main Findings
Brown et al. [2003]	162 questionnaires collected from convenience and online sampling in South Africa	Relative advantage, trialability, number of banking services, and risk significantly influence mobile banking adoption.
Suoranta and Mattila [2003]	1253 samples drawn from one major Finnish bank by the postal survey in Finland	Information sources (i.e., interpersonal word-of-mouth), age, and household income significantly influence mobile banking adoption.
Laforet and Li [2005]	300 respondents randomly interviewed in the streets of six major cities in China	Awareness, confidential and security, past experience with computer and new technology are salient factors influencing mobile banking adoption
Luarn and Lin [2005]	180 respondents surveyed at an e-commerce exposition and symposium in Taiwan	Perceived self-efficacy, financial costs, credibility, easy-of-use, and usefulness had remarked influence on

		intention to adopt mobile banking
Laukkanen [2007]	20 qualitative in-depth interviews conducted with a large Scandinavian bank customers in Finland	Perceived benefits (i.e, location free and efficiency) are main factors encouraging people to adopt mobile banking
Amin et al. [2008]	156 respondents obtained via convenience sampling in Malaysia	Perceived usefulness, easy-of-use, credibility, amount of information, and normative pressure significantly influence the adoption of mobile banking
Laukkanen and Pasanen [2008]	2675 questionnaires completed via the log-out page of a bank in Finland	Demographics such as education, occupation, household income, and size of the household do not influence mobile banking adoption, while age and gender are main differentiating variables.
Yang [2009]	178 students selected from a university in South Taiwan	Adoption factors are location-free conveniences, cost effective, and fulfill personal banking needs, while resist factors are concerns on security and basic fees for connecting to mobile banking.
Cruz et al. [2010]	3585 respondents collected through an online survey in Brazil	The cost barrier and perceived risk are highest rejection motives, following are unsuitable device, complexity, and lack of information.
Raquel and Rios [2010]	681 samples drawn from the population of Singapore	Usefulness, social norms, risk influences the intention to adopt mobile banking
Puschel et al. [2010]	666 respondents surveyed on a online questionnaire in Brazil	Relative advantages, visibility, compatibility, and perceived easy-of-use significantly affects attitude, and attitudes, subjective norm, and perceived behavioral control significantly affects intention.
Natarjan et al. [2010]	40 data obtained from a bank in India	Purpose, perceived risk, benefits, and requirements are main criteria to influence people to choose banking channels.
Koenig-Lewis et al. [2010]	155 consumers aged 18-35 collected via online survey in Germany	perceived usefulness, compatibility, and risk are significant factors, while perceived costs, easy-of-use,

		credibility, and trust are not salient factors
Sripalawat et al. [2011]	195 questionnaires collected via online survey in Thailand	Subjective norm is the most influential factor, the following is perceived usefulness and self-efficacy.
Dasgupta et al. [2011]	325 usable questionnaires gathered from MBA students in India	Perceived usefulness, easy-of-use, image, value, self-efficacy, and credibility significantly affect intentions toward mobile banking usage.
Makanyeza, C. (2017)	232 bank customers was conducted in Chinhoyi, Zimbabwe, using a structured questionnaire with Likert-type questions	Perceived usefulness, perceived self-efficacy, social influence, relative advantage and perceived compatibility all have a positive effect, whilst perceived risk has a negative effect on behavioral intention to adopt mobile banking services in Zimbabwe.
Sakala, L. and Phiri, J. (2019)	384 respondent who held retail savings and current accounts that were eligible for mobile banking services in three commercial banks	There is a significant positive relationship between perceived ease of use, perceived usefulness, user attitude, external variables, user intention and system use.

Much research has been conducted in the mobile service industry, ranging from product design (Andersson & Hedman, 2007), business models (Lyytinen & Damsgaard, 2001), user analysis (Constantiou, 2008), technical analysis (Li & Tao, 2009). Studies cover both supply and demand. There have been discussions on hindrances to the utilization and spreading of mobile banking services, with claims that it is because of the low data transfer 23 speed (Kumar, 2006). Some researchers claim that it is the lack of quality services (McMahon & Steketee, 2006) and some state business models are antiquated (Coursaris, 2006; Saugstrup & Henten, 2006). Yet this author would challenge some of the reasons mentioned above. By 2010, some of the above challenges had been dramatically improved. The mobile industry had advanced owing to hardware developments in mobile device and telecommunication infrastructure.

The emergence of high speed smartphones with revolutionary processing power, as well as the development and maturity of 3G network allow mobile service providers to give users a much smoother experience. Previous research has put much weight on how potential businesses can be conducted in this newly emerging yet promising field, and how to design the technical details for such businesses. However, little attention has been paid on how users feel about the current mobile services and how to improve them, especially in Chinese market.

A number of studies suggest that the consumer side has also shown great interest in the services provided (Dewan & Chen, 2005; Kreyer, 2003). Among the most popular mobile services: peer-to-peer payments, instant message, electronic receipts, purchases on web site, and e-tickets, routine bank service have been typical applications. Mobile financial services take up a majority of the existing applications. Mobile financial service can be roughly defined as transactions that involve payments conducted on a mobile phone. However, though studies show that there is a potential popularity and need, the progress in its adoption has been slower than expected. This has been attributed to the complexity of its transactions, lack of user-friendly mobile portals, and slow connectivity (Frolick & Chen, 2004).

A survey of 1,553 respondents between ages 9 – 34 years in Finland concluded that categories of users differ significantly in their use of mobile services. Instead of the general idea that mobile services are adapted by individuals, it was found that mobile services are better adapted in groups whose charges are paid by employers or other parties. This indicates that price is a significant factor when adopting mobile services (Aarnio, 2002). Different interest-holders have different standpoints in mobile services business. Service providers focus on developing quality value-added services in order to increase revenue (Funk, 2007). While researchers intend to study initial adoption process to find out user adoption criteria and then suggest market strategy and development (Lu, 2005; Hong & Tam, 2006).

Research has been carried out in the area of adoption and utilization of mobile banking; it is clear that there are gaps that are in regards to the context. Research has been carried out in the western world there have been increasing attempts to modify, expand or enhance the

existing information systems theories with what is sometimes contradicting and conflicting constructs at different levels of analysis and end-user perspectives. Fundamental to these studies is the definition of adoption as a static event and the excessive attention given to the prediction of consumer's intention to adopt through the use of TAM, TPB, IDT, UTAUT and their derivatives (Cheong & Park, 2005; Kwon & Chidambaram, 2000; Nysveen, Pedersen, & Thorbjørnsen, 2005a).

While these existing literature contribute to the understanding of why consumers accept a certain mobile data service, gaps remain in the understanding of the process by which consumers decide whether to continue to utilize and finally adopt the service (Bhattacharjee, Perols, & Sanford, 2008).

In addition, other researchers lay emphasis on the impact of the technology post adoption through the meanings that the individual ascribes to it from the perspectives of domestication approach (Haddon, 2006). Thus, scholarly IS literature tends to produce a gap between technology acceptance and the social implications of utilization. This could be partly attributed to the interchangeable use of technology acceptance and technology adoption in Information Systems (IS) literature (Hynes & Richardson, 2009; Renaud & Van Biljon, 2008) position that when an end-user embraces a technology, then he or she expects to replace the item if it breaks and find innovative uses for it.

The distinction between technology acceptance and adoption is crucial in understanding the adoption process over time. From a theoretical perspective, knowing the different antecedents of each stage of the adoption process is vital in explaining the formation of the initial intentions of a particular mobile service. Specifically, the study investigates the factors that influence the end-user decisions at the various utilization stages. 25 Globally, numerous initiatives use the mobile phone to provide financial services, not only to those without access to traditional banks, but also to the banked population. Yet relatively little scholarly research explores the use of these mobile banking (Donner and Tellez, 2008).

Although there have been a number of valuable studies in the area of mobile banking since years back in different countries. Some from African countries such as Kenya, New

Zealand, Nigeria and Zimbabwe. However, the study of mobile banking has been given little attention in the literature in Nepal.

2.3 Study Framework and Variables

This study has examined the impact of perceived risk, perceived ease of use, customer awareness and Transaction cost in context of Nepalese banking industry. This study adopted TAM because it has been established as a robust and powerful model for predicting user acceptance. Figure 1 provides the model that guided this study.

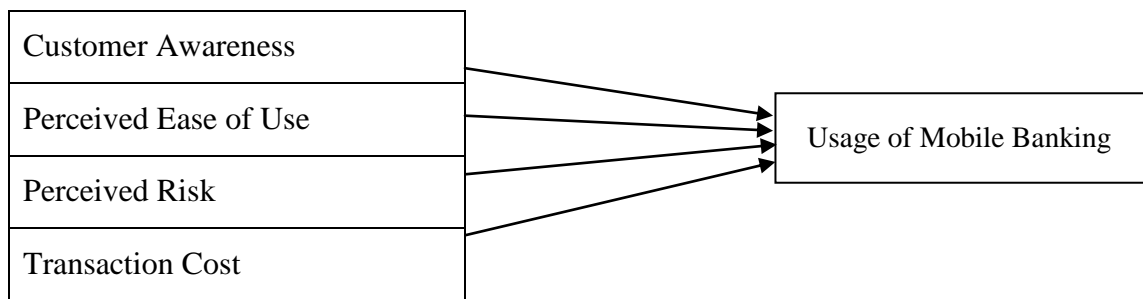


Figure 1 *Study Framework*

The dependent variable ‘usage of mobile banking’ is influenced by four independent variables, the first being customer awareness [the amount of information consumers have about mobile banking]. Pikkarainen Pikkarainen, Karjaluoto & Pahnla (2004) reported that the amount of information a consumer has about mobile banking and its benefits may have a critical impact on usage of mobile banking services. The study hypothesize that customer awareness positively influences on usage of mobile banking services. The second is perceived ease of use [the degree to which a person believes that using a particular system would be free of effort]. The study hypothesize that perceived ease of use positively influences on usage of mobile banking services. The third is perceived risk [the user’s subjective expectation of suffering a loss in pursuit of a desired outcome (Pavlou, 2001)]. Frambach (1995) contends that the speed of adoption is negatively related to level of perceived risk. Therefore, it is hypothesized that perceived risk negatively influences on usage of mobile banking services. The fourth is transaction cost [the extent to which a person believes that using mobile banking will

cost money (Luarn and Lin, 2005)]. The study hypothesize that transaction cost negatively influences on usage of mobile banking.

Dependent Variable

A dependent variable is the variable being tested in the study. As the experimenter changes the independent variable, the change in the dependent variable is observed and recorded. When data is taken in study the dependent variable is the one being measured. In this study Mobile banking usage (MBU) is Dependent Variable

- **Usage of Mobile Banking (MBU)**

Intention to use is defined as a measure of the likelihood that a person will adopt the application, where as the TAM uses actual usage to represent a self-report measure of time or frequency of adopting the application (Davis et al., 1989). However, in practical point of view, it is not easy to obtain an objective measurement of an individual's intention to participate in a behavior. Several researches have shown that both theoretical and empirical support exists for the powerful correlation between intention to participate in a behavior and actual behavior (Dabholkar & Bagozzi, 2002; Lucas & Spittler, 1999; Vijayasarathy, 2004).

Independent Variable

An independent variable is defined as the variable that is changed or controlled in a study Independent variables are the variables that the experimenter changes to test their dependent variable. A change in the independent variable directly causes a change in the dependent variable. Independent variables in this study were accessed with items adapted from existing literatures. All the variables are shown in figure 1. There are four independent variables used in this study, specifically, CA, PE, PR and TC. Each of these variables measured between three to six questions which tailored with the mobile banking context.

- **Customer Awareness (CA)**

The amount of information consumers has about mobile banking. Pikkarainen Karjaluoto and Pahnla (2004) reported that the amount of information a consumer has about mobile

banking and its benefits may have a critical impact on usage of mobile banking services. This research hypothesized that customer awareness positively influences on usage of mobile banking services.

- **Perceived Ease of Use (PE)**

The original TAM model that use to predict user's technology acceptance consists of and perceived ease of use (PE). "the degree to which a person believes that using a particular system would be free of effort" Studies by Chung and Kwon demonstrated that the constructs of perceived usefulness and perceived ease of use were positively related to behavioral intention to adopt mobile banking. Similarly, Lee et al. reported that PE were found to be significantly affecting consumers' intention to use mobile banking. The findings further asserted that PEOU has greater impact. This can be explained through the features of spontaneous system which results the construct of ease of use to be a strong determinant in mobile banking adoption.

- **Perceived Risk (PR)**

Perceived risk is the "uncertainty about the outcome of the use of the innovation" In fact, perception of risk among individuals has been proved in technology adoption literature as an important element in acquiring new technology or services with the considerations of security issues, Riquelme and Rios further supported that risk factor is a vital element in investigating mobile technology adoption. As mobile banking is revolutionized from internet banking, therefore mobile banking tends to have similar risks as internet banking. Despite of the risks, the issues of lose and theft of daily transactions via mobile phones lead to the greatest risk as compared to internet banking. This implies that the greater the potential of loss of theft resulting higher perceptions towards security risk. Subsequently, this discourages users to adopt new technology. Recent studies conducted by Luo et al. found that user's perception of risk is a crucial driver to determine innovative technology acceptance. The findings show that perceived risk has negative significant relationship towards usage intention on mobile banking adoption.

- **Transaction Cost (TC)**

Transaction Cost is defined as “the extent to which a person believes that using mobile banking will cost certain amount of money”. Based on a research carried out by (Kleijnen, Wetzels, & Ruyter, 2004; Luarn & Lin, 2005; Wang et al., 2006). Empirical evidence has also revealed that mobile banking adoption is highly encouraged by economic factors such as advantageous transaction service fees or discouraged by economic considerations such as concerns on basic fees for connecting mobile banking (Yang, 2009). This was supported with research conducted by Cruz, Neto, Munnoz-Gallego, and Laukkanen (2010) and Yao, and Zhong (2011). Besides that, according to Sadi, Imran Azad, and Noorudin (2010) noted that high cost was crucial factor for adopting mobile banking.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology of the study. It discusses research design, location of the study, study population, sample size and sampling techniques, data collection and analysis method, validity and reliability of research instruments.

3.2 Research Design

A Descriptive cross sectional study design was used in this research. The study aimed at collecting information from the respondent in relation to their access to Mobile banking services in Citizens Bank International Limited mobile banking services. The research was conducted using a purely quantitative method. Data was gathered through structured questionnaires.

3.3 Population and Sample

The target population includes account holders of Citizens Bank International Limited branches that are located within the Kathmandu valley and which offers mobile banking services. The study included all the account holders operating under Citizens Bank International Limited's M-Banking service platform in different branches. Respondents included business people, personal account holders, and corporate customers. This study was carried out in and around Thapathali area where one of the branches of Citizens Bank International ltd is located. Purposive sampling was used to select the location

3.4 Research Instruments

A structured questionnaire was used to collect data. A random selection of mobile phone users participated in the study through filling in the questionnaire. The researchers administered all the questionnaires by taking the respondents through it. The questionnaire was used to get information from the customers on their age, level of education, cost of transaction, perceived usefulness of the mobile banking and the perceived ease of use of the mobile phone.

3.5 Data Collection Procedures

Data was collected from the sampled Citizens Bank International Limited customers. The researcher with the help of the customer care attendant administered questionnaires to the respondents as they come to seek their bank account inquiries. The customer care attendant explained to the respondents the importance of the study and then administered the questionnaires to them. After the questionnaires were fully filled the customer care attendant picked them.

3.6 Pilot Study

A pilot study was carried out to test the reliability and validity of the questionnaires. The aim of the pilot survey was to test whether the design of questions was logical and if questions set will be clear and will be easy to understand. It also assisted to find out whether the responses given could be easily analyzed. The pilot study was undertaken on a sample of 13 respondents. Any questions found to be interpreted differently during the piloting phase were rephrased so that they could have the same meaning to all respondents. The piloting phase thus assisted in assessing the reliability of the research instrument which is an important step in improving the quality of the questionnaire.

3.7 Methods of Data Analysis

This involved a careful analysis of the completed questionnaires in order to ensure that there were no gaps and that collected data was accurate and consistent with other information gathered. Quantitative data was coded by the researcher for efficiency in order to reduce the replies given by the respondents to a small number of classes. After the coding was complete, the data was further classified on the basis of common characteristics and attributes. The raw data was assembled and tabulated in form of statistical tables to facilitate further analysis. Following are the analysis method used in this study:

- **Descriptive Statistics**

Descriptive statistics is the analysis of data that helps describe, show or summarize data in a meaningful way. It is useful to summarize group of data using a combination of tabulated description (i.e., tables), graphical description (i.e., graphs and charts) and

statistical commentary (i.e., a discussion of the results). Hence, it enables researchers to have an overview of the demographic statistics. Further, descriptive are used to analyze the data. Descriptive statistics like mean, standard deviation, a simple percentage was used to describe the customers experience about the mobile banking in Citizens Bank international limited

- **Inferential Analysis**

Inferential statistics are techniques that allow us to use these samples to make generalizations about the populations from which the samples were drawn. It is, therefore, important that the sample accurately represents the population. The process of achieving this is called sampling. It is used to make judgments of the probability that an observed difference between groups is a dependable on or one that might have happened by chance in the study Inferential analysis has also been used to establish the existent and extent of the influence of Customer Awareness, Perceived Ease of Use, Perceived Risk, and Transaction cost on the usage of Mobile Banking. A five point Likert - scale was used to captures the extent of the influence of the independent variables to the uptake of mobile banking. The Likert scale has been used in designing of questionnaires as it is an acceptable technique for the purposes of carrying out parametric analysis.

- **Correlation Analysis**

While descriptive statistics are used to analyze the type of relationship (if any) between the variables, correlation analysis is used to examine the strength of association between the variables. As such inferential analysis was done on the collected data by use of correlation analysis technique to test extent of association between the independent variables and the dependent variable.

A five point likert scale was mainly used in the questionnaire. A likert scale presents an interval level of measurements which makes it easier to perform parametric analysis. Data collected by use of questionnaire was analysed using SPSS with the aim of getting Pearson's Product Moment Correlation Coefficient (r). 33 The results were counterchecked by use of scientific calculator in computation of Pearson's Product Moment Correlation Coefficient (r). Interpretation of correlation has been done in the

usual way, that is positive correlation between X and Y implies a possibility of a proportional increase or decrease in the value of X for an increase or decrease respectively in the value of Y and vice versa. Similarly, Negative correlation will imply a possibility of proportional decrease or increase in the value of X for an increase or decrease respectively in the value of Y and vice versa. Coefficient of correlation may be between -1 and +1. Nearer the correlation to +1 or -1 the possibility in the above statements are very high while it is low when correlation coefficient is nearer to zero. A likert scale represents a sum of likert type items and as such it ends up being a reasonable estimation.

The focus of the study was to determine the relationships between the variables of interest; therefore, in addressing these study objectives, the Pearson's Product Moment Correlation Coefficient (r) has been used. The Pearson's Product Moment Correlation Coefficient (r) is a correlation analysis technique that is used to show the extent of association between variables of interest.

- **Reliability**

Reliability is the degree to which an assessment tool produces stable and consistent results. It indicates the precision of measurement scores. Reliability refers to the repeatability of findings. If the study were to be done a second time, would it yield the same results? If so, the data are reliable. If more than one person is observing behavior or some event, all observers should agree on what is being recorded in order to claim that the data are reliable. In this study, internal reliability will be considered. This study uses Cronbach's Alpha Method to test the reliability.

Cronbach's (alpha) is used as a (lower bound) estimate of the reliability of a psychometric test. It has been proposed that can be viewed as the expected correlation of two tests that measure the same construct. Cronbach's alpha is the most common measure of internal consistency ("reliability"). It is most commonly used when you have multiple Likert questions in a survey/questionnaire that form a scale and you wish to determine if the scale is reliable

3.8 Limitations of Study

The research exists few limitations as well. They are listed below:

- i. Respondents chosen using non probability sampling technique
- ii. Respondent might simply answer the questionnaire because they have limited knowledge about mobile banking.
- iii. During the questionnaire survey mood of the customer also defines the quality of response they provide. So, it is difficult to know whether the responses provided by the respondents are appropriate or not.
- iv. Limitation of Time. The study was conducted within a limited time period therefore; it may have lapses due to the time shortage.
- v. Limited Analytical tools were used in analyzing the data
- vi. Resource constraints such as cost are the another major limitation occurred while having research conducted.

3.9 Ethical Issues

The respondents were informed of the confidentiality of the information they were to give as client confidentiality on clients account information is a legal obligation. Confidentiality was ensured by advising clients not to write their names or their bank account numbers on the questionnaires. This was to prevent exposure of such confidential account information to unauthorized party. The researcher ensured that the filling of questionnaires was voluntary. The study endeavored to educate clients on filling of questionnaires for ease of undertaking collection of data from the field. This was meant to make the respondents feel at ease and comfortable while filling in the questionnaire. The respondents were informed of the objectives and significance of the research in order to convince them to participate voluntarily in the filling of questionnaire. A high level of the respondent's confidentiality was maintained throughout the study which guaranteed privacy of bank clients account information

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

4.1 Introduction

This chapter presents the Data analysis, presentation and interpretation of findings on the data collected from customers of Citizens Bank, Thapathali Branch Nepal based on factors affecting the usage of Mobile Banking. The study sampled 185 Customers from the target population of slightly over 3,500 clients. The data was interpreted as per the research questions. The analysis and presentation of data was done through descriptive statistics. Correlation analysis was done to examine the strength of association between independent variables and the dependent variables. The findings were presented in form of frequency tables and percentages. This chapter focuses on the questionnaire return rate, demographic information of the Respondents, data presentation, interpretation and discussion of findings. The presentation was done based on the research questions.

4.2 Questionnaire Return Rate

During the study 185 questionnaires were given to the respondents out of which 173 were returned. The collection of data was in respect to factors affecting usage of mobile banking at Citizens Bank, Thapathali Branch, Nepal. The respondents were introduced to the study and socialized about its purpose. They were further sensitized on voluntariness of participation. Those who were willing to participate were given the questionnaire to fill after which they delivered the same to the researcher. Table 4.1 shows the distribution of responses.

Table 4.2.1 Response Rate

Respondents	Frequency	Percentage (%)
Responses	173	93.51
Non response	12	6.49
Total	185	100

Table 4.2 shows a questionnaire response rate of 93.51% and a non-response rate of 6.49%. Mugenda and Mugenda (2003) points out that for generalizations, a response rate

of 50% is adequate for analysis, 60% is good while a response rate of 70% and above in social sciences is considered sufficiently high and appropriate for data analysis. It can thus be deemed that the questionnaire response rate of 93.51% is sufficiently high and appropriate for data analysis.

4.3 Test of Reliability

For analysis of the reliability of each questionnaire Cronbach's alpha was used which has been shown in following table:

Table 4.3.1 Analysis of Internal Reliability of Questions

Dimensions	Cronbach's Alpha
Customer Awareness	0.658
Perceived Ease of Use	0.605
Perceived Risk	0.744
Transaction cost	0.658
Mobile Banking Usage	0.907

Note: From Researcher's Survey, 2019

Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. Cronbach's alpha can be viewed as (α) and can be used for the expected Correlation of two tests that measure the same construct. When Cronbach's alpha (α) is greater than 0.6 it has good internal reliability and when 0.7 it shows the questionnaire has a relative high internal reliability. As per above table 4.5.1, it shows that Cronbach's alpha (α) is higher than 0.6; hence it indicates that the reliability of the questionnaire has high internal reliability and can be allowed for further analysis.

4.4 Demographic Information of Respondents

This section deals with the general profile of the respondent. The general respondents include variables such as gender, age, education level, occupation. On the basis of the information provide by respondent from questionnaire survey, demographic information of the respondents has been presented below

Table 4.4.1 Demographics of Respondents

Respondent Profile (n=173)		Frequency	Percent
Education level	SLC and below	3	1.7
	Intermediate/plus 2	32	18.5
	Bachelors	94	54.3
	Masters and above	44	25.4
Gender	Male	101	58.4
	Female	72	41.6
Age of Responder	16-22	32	18.5
	23-32	84	48.6
	33-42	42	24.3
	43-52	15	8.7
Occupation	Salaried	55	31.8
	Service	22	12.7
	self Employed	11	6.4
	Housewife	31	17.9
	Student	32	18.5
	Others	22	12.7

Note: From Researcher's Survey, 2019

The study sought to establish the level of education of the respondents with the aim of Establishing whether respondents across all the levels of education participated in the study and to establish the relationship between education level and the use of mobile banking. The results are as in Table 4.3. It shows that majority of people using banking services have education level of Bachelor. They are followed by those with Master level education. The results also show people SLC and below education use banking services. The study also sought to establish the gender of the respondents with the aim of establishing whether all people regardless of the gender participated in the study.

In this study out of 173 respondents, 101 respondents (58.4 percent) were male and 72 respondents (41.6 percent) were female. Here, male respondents are slightly more than female respondents. In general inference, it can be drawn that there is more male customer respondent than female. In the study, the respondents are selected from the Citizens Bank that offers banking services to its customer. The respondents were therefore asked to indicate their age. The results are as presented in Table 4.3

According to the data collected through survey the highest percentage of the participants belongs to the age 23-32 with 48.6% having frequency of 84 respondents, followed by 33-42(24.3%) and 16-22(18.5%) having frequency of 42 and 32 respectively. Similarly, the frequency distribution also shows that the lowest frequency of respondent age 43 -52 years old. The study also sought to establish the Occupation of the respondents with the aim of establishing whether all people regardless of the different occupation have participated in the study. The results are as in

According to the data collected through the survey it has seen the highest percentage of the participant's Occupation is Salaried i.e. 31.8% followed by Student at 18.5% i.e. out of 173 Participant 32 were Students and 31 of them were Housewife. Only 11 of them were self employed and 22 were at service sectors.

4.5 Descriptive Study of Respondent

Descriptive analysis has been used in this study which consists of measurement of various variables. This analysis basically measures the frequency and percentage of respondent related to Citizens Bank Int Ltd as follows:

4.5.1 Intention to Use Mobile Banking Service of Citizens Bank

To determine the intention of respondent to use Mobile banking service of Citizens Bank the respondents were asked to indicate the purpose of using Mobile Banking

Four categories of answer options were available for the respondent to choose the applicable answer. The four options included, firstly 'Check balance', secondly 'Check Statement' thirdly 'Transfer funds/Make payment' and lastly 'all of the above'. The result are as in below table

Table 4.5.1 Intention to use Mobile Banking Service

	Frequency	Percent
Check balance	9	5.2
Check Statement	19	11
Transfer funds/Make Payment	20	11.6
All of the Above	125	72.3
Total	173	100

Note: From Researcher's Survey, 2019

As per the survey out of 173 participant 125 number of participant has found that they use mobile for checking balance, checking statement , transfer fund and make payment. Significant percent of 72 use full service provided by Citizens Bank. Whereas, only 5.2 percent participant use mobile banking service just to check the balance. Further almost similar percent participant use mobile banking service of Citizens Bank for just Checking the statement and Transferring fund and Make payment.

4.5.2 Ranking of Factors Affecting Usage of Mobile Banking

This section deals with the identification and Prioritization of factors that influence the Mobile Banking Usage. Using a 5 point likert scale, respondents were asked to indicate their level of agreement and disagreement to different statements relating to customer awareness, perceived ease of use, perceived risk and transaction cost where 1 denotes strongly disagree and 5 denotes strongly agree. Table 4.4.2 present the standard deviation and mean value based ranking of the factors influencing the usage of Mobile banking in Citizens Bank Int Ltd.

Table 4.5.2 Ranking of Factors Affecting Usage of Mobile Banking

S.N	Factors Affecting usage of Mobile Banking	Mean	Std. Deviation	Rank
1	Customer Awareness	3.91	0.64	1
2	Perceived Risk	3.54	0.69	2
3	Perceived ease of use	3.51	0.71	3
4	Transaction cost	2.21	0.73	4

Note: From Researcher's Survey, 2019

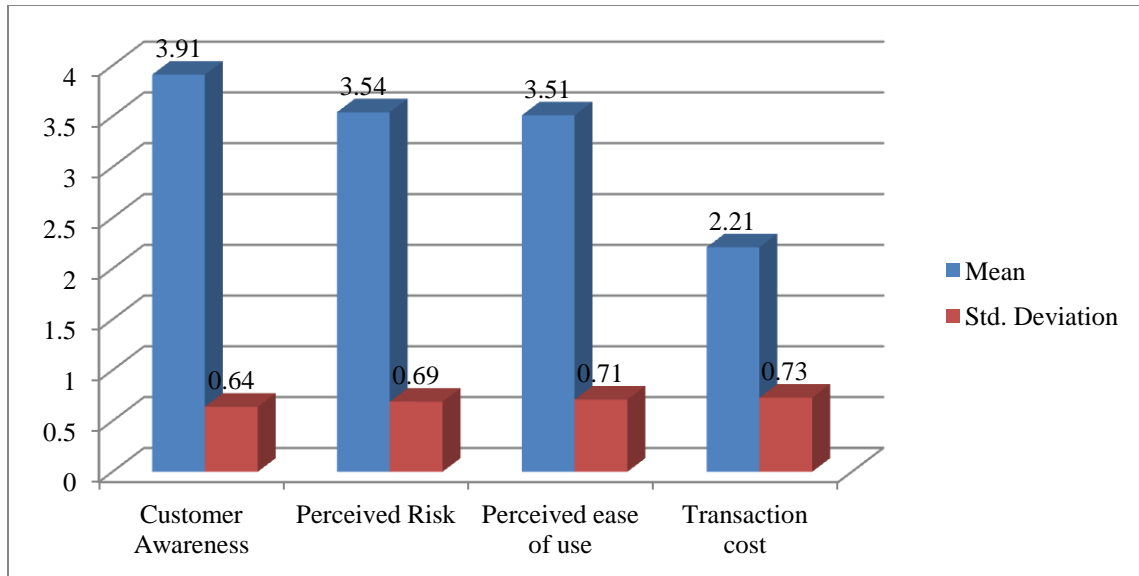


Figure 2 Rank of Factors Affecting Usage of Mobile Banking

The result reveals that most influencing factors on usage of Mobile banking in Citizens Bank Int Ltd in order of the importance with their mean and standard deviation. This implies that there is a main effect for Customer Awareness for the adoption of mobile banking with the highest mean value 3.91 and standard deviation of 0.64 among all other remaining three factors. This means most of the respondent agrees that if they get the proper knowledge of the mobile banking service and perceived its usefulness they will use the service. It is the most powerful factor in affecting people intention to use mobile banking from this analysis Citizens Bank is advised to promote mobile banking service, by starting awareness camping through different media. In particularly the strength and popularity of social media are significant powerful among interpersonal interactions. In other words, banks are suggested to emphasize interpersonal word-of mouth and put more awareness related advertising on emerging social media to increase the penetration of mobile banking.

Given that Perceived Risk is the second most important factor in affecting people intention to use mobile banking system Perceived Risk has a mean value of 3.54 and standard deviation of 0.69 which implies that most of the respondent agrees that if they feel the risk of exposing personal information, the possible loss of money due to transaction errors or the possibility of getting any compensation from the bank occurs

then they may not use the mobile banking service, for this, Bank should enhance customer confidence about using mobile banking is safe and protected. This study also indicates that, in the current e-life context, people are more experienced using technology products/services than they were in several years ago. Therefore, security and trustworthiness of usage of service was mentioned to be the most important factor within every target segments when deciding on banking service delivery channel. Survey participants responded also positively to the argument "using mobile phone in banking is trustworthy".

Accordingly, the third factor that influences the usage of Mobile banking is Perceived ease of use. As it is seen that this factor ranked third based on its mean value 3.51 and standard deviation of 0.71 that implies that importance of perceived usefulness has been widely recognized in the field of mobile banking services. According to the TAM, perceived usefulness is the degree to which a person believes that using a particular system would enhance his or her job performance (Davis, 1989). Perceived usefulness is defined as the extent to which an individual believes that he or she would benefit from using mobile banking. Previous research has consistently argued that there is a positive relationship between perceived usefulness of mobile banking, intention and attitude toward mobile banking and mobile banking usage. For example, Chau and Lai's (2003) examined the contributing factors towards the consumer's adoption of internet banking and determined that perceived usefulness was found as an important factor in fostering a positive attitude towards accepting the internet banking services. Also, within mobile banking literature, a significant positive relationship between perceived usefulness of mobile banking and the usage of mobile banking is found. People evaluate the consequences of their behavior in terms of perceived usefulness and their behavioral choices are based on the attractiveness of the perceived usefulness.

The least influencing factors among the all independent variable in this study is Transaction cost as it has lowest mean value i.e. 2.21 and standard deviation of 0.73 that means it is least influencing factor in affecting people intention to use mobile banking, the study performed a drill-down analysis and found that the cost for using services was perceived as one of the factor in hindering people to use mobile banking, Though it is

the least factor among all other factors if banks efficiently reduce the transaction cost for consumer the usage of mobile banking may increase somehow.

Hence, overall results of Table 4.6.1 shows Customer Awareness have the highest Mean, and Transaction cost have the lowest mean, this shows that respondents rate customer awareness is most important factor affecting the usage of Mobile banking and Transaction cost is important as per the likert scale which indicates that respondents ranked it as an important factor affecting utilization of mobile banking in citizens Bank int ltd.

4.6 Correlation Analysis

To measure the extent of relationship between independent and dependent variable, Pearson correlation has been used The variables of the study are Customer Awareness (CA), Perceived Ease of Use (PE), Perceived Risk (PR), Transaction Cost (TC), and Usage of Mobile banking (MBU). Being Usage of Mobile banking the dependent variable and Customer Awareness, Perceived Ease of Use, Perceived Risk, Transaction Cost, the independent variable.

The Pearson correlation is +1 in the case of a perfect direct (increasing) linear relationship (correlation), -1 in the case of a perfect decreasing (inverse) linear relationship (anti correlation), and some value between -1 and 1 in all other cases, indicating the degree of linear dependence between the variables. As it approaches zero there is less of a relationship (closer to uncorrelated). The closer the coefficient is to either -1 or 1, the stronger the correlation between the variables. If the variables are independent, Pearson's correlation coefficient is 0, but the converse is not true because the correlation coefficient detects only linear dependencies Table 4.6.1 table shows the correlation between depended variable and Independent Variable,

Table 4.6.1 Analysis of Correlations Between the Study Variables of the Bank

	CA	PE	PR	TC	MBU
Customer Awareness (CA)	1 (0.000)				
Perceived Ease of Use (PE)	0.693** (0.000)	1 (0.000)			
Perceived Risk (PR)	-0.822 (0.000)	-0.875 (0.000)	1 (0.000)		
Transaction Cost (TC)	-0.227 (0.000)	-0.771 (0.000)	0.473** (0.000)	1 (0.000)	
Usage of Mobile banking (MBU)	0.804** (0.000)	0.841** (0.000)	-0.949 (0.000)	-0.556 (0.000)	1 (0.000)

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

(Figures within parenthesis indicate significance values.)

Note: From Researcher's Survey, 2019

Influence of Customer Awareness on Usage of Mobile Banking

The study sought to establish the influence of Customer awareness of mobile banking on the usage of mobile banking. The respondents were asked questions on the following attributes of Knowledge, Advertising, Timeliness and Accuracy. The respondents were asked to indicate the if they were aware of the service provided by the bank. Strongly agree and agree were combined into one score to represent all the favorable responses while strongly disagree and agree were combined to represent unfavorable responses. The non-responses were taken to also represent uncertain responses. Overall, majority of respondents were satisfied with positive influence of Customer Awareness. Correlation analysis between Customer Awareness and usage of Mobile Banking was done and results presented in Table 4.6.1. Results from Table 4.6.1 show that there exists a strong positive correlation between Customer Awareness and usage of Mobile Banking ($r=0.804$) The result shows that there is positive and significant correlation coefficient at 0.01 level between Customer awareness (independent) and Usage of Mobile Banking

(dependent). This indicates that higher the awareness higher the customers tend use the Mobile Banking Service.

Influence of Ease of Use on Usage of Mobile Banking

Complexity of mobile banking makes it difficult for bank clients to register and use a banks mobile banking service. The study investigated how product design, convenience and ease of registration influence the uptake of mobile banking. Improvement in the design of mobile banking platform, perceived ease of registration and perceived convenience increase the usage of mobile banking. On the contrary, Inconvenience, difficult registration process and unfriendly user interface leads to reduced rates of uptake of mobile banking. The respondents were asked to show their levels of satisfaction or dissatisfaction with the banks fulfillment of clients' needs in terms of product design, convenience and ease of registration. The respondents were asked to indicate their level of their satisfaction with the design and performance of the mobile banking platform. Results for correlation analysis between the Complexity of Mobile Banking and the Uptake of Mobile Banking indicates the existence of a strong Postive correlation between Perceived ease of use Mobile Banking and the Usage of Mobile Banking ($r=0.841$). that implies that if customer perceived the mobile banking as easy and convient to use then the usage will increase accordingly

Influence of Perceived Risk on the Usage of Mobile Banking

The study sought to find out whether clients were satisfied with pin security, security of funds and maintenance of privacy in their usage of Citizens Mobile Banking Service. Improved security of pin and funds and maintenance of privacy lowers the perceived risk of registering and using mobile banking service. It also sought to establish whether respondents feared losing their mobile phones while doing mobile banking transactions. For this analysis Strongly agree and agree were combined into one score to represent all the favorable responses while strongly disagree and agree were combined to represent unfavorable responses. The non-responses were taken to represent uncertain responses. Generally, majority of respondents felt that they were satisfied by measures taken by the bank to ensure the security of their pin, security of their funds, security of their mobile

phones and ultimately maintenance of their privacy. On the strength of association between Perceived Risk of mobile banking and the usage of mobile banking, the results presented in Table 4.6.1 for correlation analysis indicate that there exists a strong negative correlation between Perceived Risk of Mobile Banking and the usage of Mobile Banking ($r'=-0.949$). This implies that bank should take measures to reduce the perceived risk by clients in order to increase uptake levels of mobile banking.

Influence of Transaction Cost on the Usage of Mobile Banking

The respondents were asked to indicate whether they perceived the cost of the mobile banking transactions as cheaper relative to over the counter and ATM transactions. Strongly agree and agree were combined into one score to represent all the favorable responses while strongly disagree and disagree were combined to represent unfavorable responses. The non responses were taken to also represent uncertain responses. Analyzed results shows that respondents were satisfied by affordability of mobile banking transactions relative to transactions done over the counter and at the ATM. Majority of the respondents indicated that they would transact more if mobile banking transaction costs are reduced. Further, respondents were satisfied with pricing of the Mobile Banking Service. Therefore, the study revealed that Transaction cost is one of the key factors that influence the usage of mobile banking. The study sought to establish whether there are benefits that accrue from use of mobile banking in Citizens Bank Thapathali Branch. Past research has found that cost advantage of an innovation is positively related to the rate of mobile banking usage. It is inferred that, when customers know and understand distinct advantages offered by mobile banking, they are more likely to adopt it. It can therefore be inferred that cost effectiveness, enhanced social status and time saving aspects of mobile banking which may have a positive effect on the uptake of mobile banking. The degree of relative advantage is often described in form of economic profitability, social prestige, savings in time and effort and immediacy of reward or as a decrease in comfort (Rodgers, 1995). Luarn & Lin (2005) also argue that the cost of mobile banking is of great concern to acceptance of mobile banking. The study shows that Transaction Cost have negative and significant correlation with Usage of Mobile Banking at 0.556. This implies that

there is high chance of not using mobile banking service by customer if they face high transaction cost.

Here, in the table 4.6.1 it shows there is significant correlation between dependent and independent variables. The result shows that there is positive and significant correlation coefficient at 0.01 level of 0.804 between Customer awareness (independent) and Usage of Mobile Banking (dependent). This indicates that higher the awareness higher the customers tend use the Mobile Banking Service. Likewise, Perceived Ease of Use has also positive and significant correlated with Usage of Mobile Banking with 0.841.

Similarly, Perceived Risk and Transaction Cost have negative and significant correlation with Usage of Mobile Banking at 0.949 and 0.556. This implies that there is high chance of not using mobile banking service by customer if they face high risk and high transaction cost i.e. the high Perceived risk and Transaction cost the low usage of Mobile Banking.

4.7 Testing of Hypotheses and Propositions

In order to study the significance of relationship between study variables, the hypotheses testing has been used. The testing of the hypotheses was done both by the correlations analysis via test of significance for the study variables.

Table 4.7.1 Summary of Hypotheses Testing

S. No	Hypotheses	Decisions
1	There is significant positive relationship between usage of Mobile Banking and Customer Awareness	Accepted
2	There is significant positive relationship between usage of Mobile Banking and Perceived Ease of use	Accepted
3	There is negative relationship between usage of Mobile Banking and Perceived Risk	Accepted
4	There is negative relationship between usage of Mobile Banking and Transaction Cost	Accepted

From the Table 4.7.2, it is shown that all hypotheses that were underlined proved to be accepted.

H1: Usage of Mobile banking is directly related to the Customer Awareness

Since the dependent and four independent variables have the positive and significant correlation coefficient at 0.01 level of significance; the hypothesis comes to be true that higher the awareness to the customer higher will be usage of Mobile Banking.

H2: Usage of Mobile banking is directly related to the Perceived ease of use

Since the dependent and four independent variables has the positive and significant correlation coefficient at 0.01 level of significance; the hypothesis come to be true that higher the customer feel the ease of using the service higher will be usage of Mobile Banking.

H3: Usage of Mobile banking is directly related to the Perceived risk

Since the dependent and four independent variables has the negative and significant correlation coefficient at -0.01 level of significance; the hypothesis come to be true that higher the customer feel risk on using the mobile banking service lower will be the usage of Mobile Banking.

H3: Usage of Mobile banking is directly related to the Transaction cost

Since the dependent and four independent variables has the negative and significant correlation coefficient at -0.01 level of significance; the hypothesis come to be true that higher the transaction cost lower will be the usage of Mobile Banking.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The final chapter presents the discussion, conclusions and recommendation based on the findings of the study. This part has been presented into the summary of findings, discussion of study, limitation and future implication provided by the researcher. This chapter focuses on the conclusions and recommendations based on the analysis and basic findings on factor affecting usage of Mobile banking with four dimensions namely Customer Awareness, Perceived Ease of Use, Perceived Risk, and Transaction Cost. This research has used other combined stated dimensions and had come up with conclusion and recommendation explained in this chapter.

5.2 Summary of Findings

The purpose of this study was to establish the factors that affect the mobile banking usage in Citizens Bank Int Ltd. Thus, the study focused on studying key factors that influence on usage of mobile banking services in Citizens Bank. The study found that customer awareness, perceived ease of use, perceived risk and transaction costs significantly influence on usage of mobile banking. The first two variables (customer awareness, perceived ease of use) positively influence on usage of mobile banking, while the last two variables (perceived risk and transaction cost) have a negative influence. Customer awareness has the greatest influence on usage of mobile banking followed by perceived ease of use. Some of our findings match those of Rumanyika (2015), which show that lack of understanding of how mobile banking and mobile-related transactions operate as well as perceived risk are obstacles to adopting mobile banking services in Citizens Bank Int Ltd. Furthermore, they match with Achieng and Ingira (2015) who observed that cost is a key factor stopping people from using mobile banking. Our findings also suggest that transaction cost can negatively impact the usage of Mobile Banking.

The literature review focused on the factors that affect the mobile banking such, Customer awareness, perceived ease of use, perceived risk. The study embraced a descriptive survey design and was conducted using a purely quantitative method. The

main tool for data collection was a questionnaire. The target population included all the 11 lakh 70 thousand customers of Citizens Bank Int Ltd the sample size was 173 respondents. The majority of the respondents who use mobile banking services of Citizens Bank Int Ltd were males i.e 58 % aged between 23- 32 This was expected because it is the working group. The study findings also suggest that people with high education are more likely to use mobile banking service. The finding shows that most of the customers of citizens' bank are likely to use mobile banking not only to check balance but also to perform transactions along with checking statement. The study found consumer awareness of mobile banking services is essential in promoting usage of mobile banking. Furthermore, people use mobile banking services when they are perceived to be easy to use. This was also confirmed in other studies, such as by Masinge (2010) and Yu (2009). The results also showed that people will adopt mobile banking services when they perceive them to be less risky. Lastly, the results showed that the more customers feel that usage of mobile banking services is costly, the lesser they use the same. This was also found out in the study by Achieng and Ingara (2015).

5.3 Conclusions

Studies have shown that the E-banking technologies have been rapidly growing in recent years, and the availability of a wide range of products has led to increasing adoption among consumers. However, in Nepal despite a significant number of people having mobile phone gadget, a few of them are using mobile banking facilities. Analysis have shown that customer awareness regarding mobile banking, perceived ease of use, perceived risk, transaction cost affects the adaptation of mobile banking facility in Nepal especially the customers of Citizens bank Int Ltd.

It was established that customers' awareness and perceived ease of use have a significant positive influence, while perceived risk and transaction cost have a significant negative influence on the usage of mobile banking services.

Further, research has shown that among all the four variable Customer Awareness is the major factor to affect the usage of Mobile Banking and has ranked first among other variable. While Perceived Risk is the second most influencing variable for Mobile Banking Usage and Perceived Ease of Use and Transaction Cost are ranked third and forth variable to affect the usage of mobile banking of Citizens Bank customer

Results from this study lead to conclude that consumer awareness as well as devising user-friendly (easy to use), less risky and less costly services could have overwhelming results in terms of increasing usage of the financial services offered, particularly mobile banking.

5.4 Recommendations

The following are the recommendations of the study

- The Customers of Citizens Bank Int. Ltd need to be sensitized on the need to use mobile banking. This would help the customers use the facility and decongest the long queues experienced as people carry out banking transactions especially the end of the month. This will help by making people save time and be engaged on other matters of national development
- The study also recommends that, there is need for banks to market the mobile banking services to the client with the aim of increasing the number of people using mobile banking.
- The bank should also lower the charges of the services sought through mobile banking facility. This will act as an incentive for wooing many people into using the facility
- The bank management should allocate more resources for advertisement to reach out to more of the unregistered clients. The extra resources allocated to advertising should enable the bank advertise more on preferred advertisement channels of newspapers and/or television. Further, it calls for the banks staff to engage more clients to be able to register them for mobile banking service. This will increase uptake levels of mobile banking.
- The bank management should continuously invest in the upgrade of the mobile banking platform to secure it since clients consider security of their pins and funds as very important, there is need to continually invest in upgrades of mobile banking platform and sensitization, so that clients can feel more secure. This will ensure higher rates of the uptake of mobile banking.

- The other recommendation is that the people who are registered with mobile banking facility should mostly use it and desist from travelling to the bank to seek services that they can seek through mobile banking
- The community around Citizens Bank Int Ltd should embrace education. This will ensure that the illiteracy rates are low and people can be able to embrace technology like the use of the mobile banking for economic development

5.5 Implications for Further Studies

In order to supplement the findings of this study, the researcher suggest that other studies ought to be carried on;

- The effect of use on mobile banking on economic empowerment of the County
- Factors affecting the use mobile banking in Citizens Bank this should be carried in all the banks in order to compare the challenges facing mobile banking in the whole country.

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ANNEXURE

Questionnaire

**SURVEY QUESTIONNAIRES FOR
THE FACTOR AFFECTING THE USAGE OF MOBILE BANKING A CASE OF
CUSTOMERS OF CITIZENS BANK INTERNATIONAL LTD**

You are kindly requested to complete the questionnaire as honestly and objectively as possible giving as much details as possible where necessary.

Section A:

Instruction: Please tick (☐) as appropriate

1. Name (optional)

2. Age

16-22 23-32 33-42 43-52 53 and Above

3. Gender

Male Female Others

4. Occupation

Salaried Service self Employed Housewife Student
 others

5. Education

SLC and below
 Intermediate/plus 2
 Bachelors
 Masters and above

6. What do you use mobile banking for?

Check balance
 Check Statement
 Transfer funds
 All of the Above

Section B:

Instructions: For each statement, please check whether you Strongly Agree, Agree, Disagree or Strongly Disagree

Customer Awareness

S N	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I know the all the services of Mobile Banking of Citizens Bank					
2	Citizens Bank have informed me how to use the Mobile Banking service					
3	Citizens Bank informs the new update of Mobile Banking on time					
4	I know where and who to complain if transactions get failed in Mobile Baking					

Perceived Ease of Use

S N	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Interaction with Mobile Banking of Citizens Bank does not require a lot of mental effort					
2	It is easy to use Mobile Banking of Citizens Bank to accomplish my banking tasks					
3	Mobile Banking of Citizens Bank helps to accomplish the tasks more quickly					
4	Mobile Banking of Citizens Bank offers faster speed of service delivery compared to the other banking channels					

Perceived Risk

S N	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	When transaction errors occur, I worry that I cannot get compensation from Citizens Bank					
2	I would not feel totally safe providing personal privacy information over Mobile Banking of Citizens Bank					
3	I'm worried to use Mobile Banking because other people may be able to access my account					
4	I trust the ability of Citizens Bank to protect my privacy					

Transaction Cost

S N	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I think the transaction fee (bank charges) of Citizens Bank 's Mobile Banking is expensive to use					
2	I think the expensive mobile phone support Mobile Banking service					
3	Instead of wasting money for transaction cost I will go to Citizens Bank to perform the transaction					

Mobile Banking Usage

S N	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Since I'm aware of Citizens Bank Mobile Banking I keep on using Citizens Bank's Mobile Banking Service					
2	Since Citizens Bank Mobile Banking performs well by offering good services I keep using the Citizens Bank's Mobile Banking					
3	There's less risk in Citizens Mobile Banking so I use Citizens Mobile banking					
4	There's less transaction cost in Citizens Mobile Banking so I use Citizens Mobile banking					