



## **ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES**

**Factors affecting E-Banking Services Adoption in NIB  
International Bank S.C: Customers Perspectives**

A Thesis to be submitted to the school of graduate studies of  
St.Mary's University in partial fulfillment of the requirements  
for the Master of Business Administration (MBA) degree

By:

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June, 2021

Addis Ababa, Ethiopia

Factors affecting E-Banking Services Adoption in the case of  
NIB International Bank S.C: Analysis of banks' Customers  
Perspectives

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# St.Mary's University

## School of Graduate Studies

This is to certify that the thesis prepared by Mesfin Sisay, entitled: Factors affecting E- banking Services Adoption in the case of NIB International Bank S.C: Analysis of banks' Customers Perspectives, submitted in partial fulfillment of the requirements for the Degree of Master of Business Administration complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Graduate Program coordinator

# Declaration

I, the undersigned, declare that this study entitled “Factors affecting E-Banking Services Adoption in the case of NIB International Bank S.C: Analysis of banks’ Customers Perspectives” is my own work. I have undertaken the research work independently with the guidance and support of the research advisor. This study has not been submitted for any degree or diploma program in this or any other institutions and that all sources of materials used for the thesis have been duly acknowledged.

## **Declared**

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May God bless you!

## **Acronyms/Abbreviations**

*ATM -Automated Teller Machine*

*BOD- Board Of Directors*

*EFT -Electronic Fund Transfer*

*ICT- Information Communication Technology*

*NIB- Nib International Bank*

*PIN -Personal Identification Number*

*POS -Point Of Sales*

*SPSS -Statistical Package for Social Security*

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## *Abstract:*

*Electronic banking services in Ethiopia have not been widely used by most bank customer due to a variety of reasons. The most of bank customers are obliged to conduct more of their banking transactions using traditional method of banking services. Therefore, the main objective of this study is to identify factors that affect customers' usage of electronic or online banking services. The type of research applied in this study is descriptive in nature. A total of 413 actual users of traditional banking services users were used as a sample. A well-structured questionnaire was used to collect the relevant information. The data analyzed using Structural Equation Modeling revealed that perceived usefulness, perceived cost of internet, perceived ease of use, attitude towards e-banking, perceived trust, awareness as well as the availability of internet/network connection have a significant positive impact on users of e-banking usage practice. These findings suggest that nib international bank s.c should create awareness to its customers with regard to the usage and benefits of e-banking service delivery channels as well.*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Internet technologies have essentially changed the way in which banks provide their services and customers conduct their banking needs in recent commercial phenomenon. Among these technologies which have increasingly become a favored distribution channel by service providers and customers is electronic banking (e-banking) services (Daraz et al. 2009). E-Banking as a banking channel allows customers to conduct all traditional banking services, such as making online bill payments, balance enquiry and fund transfer to other accounts without visiting their bank branch (Damanpouret al. 2003). Internet banking is considered as the cheapest distribution channel for standardized bank operations (Polasik and Wisniewski 2009). Electronic banking allows customers easier access to financial services and time saving in managing their finance (Almazari and Siam 2008; Ayirga 2011; Tan and Teo 2000).

The emergence of electronic banking has prompted many banks to develop marketing and information technology strategies in order to stay competitive. (Venkateshet al. 2003) noted that the successful implementation of information systems is dependent on the extent to which such a system is used and eventually adapted by the potential users. Information system implementation is in doubt if users are unmotivated to use such type of technology and thus it will not bring full benefits to the organization. In order to bring full benefits, the organization should motivate customers regarding information system implementation. Similar to this, the bank should motivate the customers to use electronic banking services. Besides, banks must make key improvements that address the customers' worry. Therefore, it is necessary to identify the key factors influencing the adoption of electronic banking among the banking customers.

Different past researches show that, banks which do not offer internet banking services are expected to lose more than 10% of their customers over the next five years due to their competitive advantages in banking service delivery will eroded (Tower Group 2005). By providing internet banking services as an alternative delivery channel, banks seek to lower operating costs by reducing their branch networks and downsizing the number of service staff, improve their banking services and customer satisfaction and retain their existing customers (Al-hajery et al. 2006; Almogbil 2005). Banks cannot

achieve the benefits of internet banking unless customers accept and fully utilize its associated capabilities. (Al-Gahtani and King 1999) state there will be little return from technological developments if customers fail to adopt and fully utilize its capabilities.

Technology acceptance, especially internet banking has become a vital issue in the business world today. Besides, understanding customers' requirements and meeting their demands and expectations regarding internet banking has become a challenge for banks. (Courtier and Gilpatrick 1999) recommend that banks must survey customers' requirements on a regular basis in order to identify the factors that influence their intention to accept and fully utilize internet banking services.

The primary objective of this study was to determine factors that affect e-banking service adoption in the case of nib International bank s.c from the customer's perspective. The researcher used descriptive type of the study. The study also used a triangulation of both quantitative and qualitative research approach. The researcher also used primary source of data which was collected via questionnaire. Judgmental sampling was also being used to select 413 sample respondents with 5% non-response rate. Accordingly, 413 questionnaires were distributed to respondents of this, 392 was returned which is 95% response rate. The finding of the study revealed that cost, trust, privacy and security are significant factors of e-banking service adoption in nib International bank s.c. The findings of this study would help the banking sectors and its customers to better understand their e-banking market segment, their perception and behaviors in relation to using e-banking services.

## **1.2 Background of Organization**

Nib International Bank (NIB) was established **on 26 May 1999** under license no. LBB/007/99 in accordance with the Commercial Code of Ethiopia and the Proclamation for Licensing and Supervision of Banking Business Proclamation no. 84/1994 with the paid up Capital of birr 27.6 million and authorized capital of Birr 150 million by 717 Shareholders. The Bank commenced its operation in **28 October 1999 by 27** employees. It joined the banking industry as the sixth private bank licensed in the country.

The development of the 3<sup>rd</sup> strategic plan is now at implementation phase and putting a new structure formulating policy manuals and cascading the various targets of the strategic plan to the implementing units.

The Billion Birr construction projects of NIB's Headquarter and Hawassa buildings are enhanced as per the schedule and the construction of Head Quarter, Arat-Killo and Hosahna buildings would be fully completed in 2020/21 budget year.

Among others, the Bank has registered a steady growth and achievement in all aspects of its operations since its establishment. At the end of December 31,2019, its total deposits and loans and advances stood at about Birr 30.1 billion and Birr 19.5 billion respectively. Total assets also grew to about Birr **37.1 billion** and paid up capital to Birr **2.5 billion**. The level of net profit before tax reached Birr 589.78 million in Deember 31, 2019. The Bank's shareholders are close to 4,585 and the total number of customers exceeds 1,056,729. The Bank's employees reached more than 4,797 as at December 31, 2019.

### **1.3 Statement of the Problems**

As different studies agreed on the importance of customer acceptance and fully utilizing internet banking services, the success of internet banking is determined not only by banks or government support, but also by customers' acceptance of it(Hosein2009). They also highlighted the crucial role of the comprehensive understanding of the factors that influence customers in adopting and using internet banking (Guriting and Ndubisi2006; Mols 1999). (Sarigiannidis et al. 2013) found perceived usefulness, security risk and performance risk, perceived ease of use and quality of the internet connection seemed to have an indirect effect on internet banking adoption in Greece. ( Almohaimmed2012) revealed that perceived usefulness and service visibility directly influence Saudi customers' intention to use internet banking in china.

Moreover, perceived, trust, system reliability and accessibility significantly influence perceived ease of use of internet banking. (Musiime and Ramadhan2011) reported as accessing account, usage, advantages accruing from the usage and use account were significant factors influencing customers adoption of e banking services in Uganda. (Gikonyo2014) revealed that gender difference, awareness, website features and security are the factors that influence the adoption of e-banking services Kenya.

In Ethiopia, although the e-banking service is infant compared to most neighboring countries, Bultum (2014) was reported as the security risk, lack of trust, lack of legal and regulatory frame

work, Lack of ICT infrastructure and absence of competition between local and foreign banks are the challenges to adopt e-banking services. Besides, previous studies in Ethiopia are limited to perceived benefits and challenges of e-banking adoption of private commercial banks and targeting only bank officials and bank employees as a study population which excluded customers' domain. Thus, this study examines the crucial factors such as trust, cost, security and privacy as the factor influencing customers' adoption of e-banking services among commercial banks in Ethiopia. Therefore, the findings of this study aimed to provide a greater understanding on the crucial factors influencing customers' e-banking service adoption and contribute to the current body of literature on e-banking services.

## **1.4 Research Questions**

To achieve this objective, the researcher answers the following questions:

1. What is the customer's perception towards the importance of adoption of e-banking services?
2. Does a security have significant effect on users in adopting of e-banking services?
3. What is the role of privacy issues in adopting b-banking services?
4. How can trusts significantly effect users' adoption of e-banking services?
5. What is the effect of cost on users' adoption of e-banking services?

## **1.5 Objective**

### **1.5.1 General Objective**

- To examine the factors that affect e-banking service adoption in the case of NIB International Bank S.C

### **1.5.2 Specific Objectives**

- To identify the influence of trust on the adoption of e-banking services on customers perspective.
- To assess the overview of e-banking adoption from customers side.
- To identify the influence of Cost on the adoption of e-banking services on the banks

customers or users.

- To find out the influence of privacy on the adoption of e-banking services
- To examine the influence of security on the adoption of e-banking services.

## **1.6 Significance of the Study**

The finding of this study which details with the factors that influence the adoption of e- banking of Nib International bank is beneficial for different stakeholders such as Banking industry (commercial Banks and National bank of Ethiopia), researchers and for other researchers as follows. For National bank of Ethiopia, since such investigation has policy implication, the finding of this study might be used as a directive input in developing regulatory standards regarding e-banking services of Nib International bank s.c. In addition, this study will initiate the commercial Banks management to give due emphasis on the management of these identified variables and provides them with understanding of activities that will enhance their e-banking services. This is due to the fact that knowing the factors that influence the adoption of E-banking will help the bank managers to concentrate on the quality of e-banking services rather than its quantity. Thus, this study will make the management body to visualize the determinants or factors of e-banking services.

## **1.7 Scope of the Study**

The scope of a study explained the extent to which the research area was explored in the work and specified the parameters within the study being operating. Accordingly, this study was constrained by a number of boundaries.

- The study focused only on NIB International Bank S.C. It would not be generalized to other Commercial Banks in Ethiopia.
- The study also focused on factors that could potentially affect E-banking services adoption in the bank specifically cost, security, trust and privacy issues.
- Subject wise, the research would be concerned in explaining factors that affects adoption of E-Banking service in NIB International S.C customer's perspective for selected branches found in Addis Ababa city only.

## **1.8 Organization of the research report**

The research was structured into five chapters including this introductory chapter dealing with the

background of the study, background of the organization, statement of the problem, research questions, objectives, significance, scope of the study and Organization of the paper.

Chapter two of the thesis dealt with the review of related literature. A review of both theoretical and empirical literatures on the subject of E-banking services has been included under the theoretical review and empirical review sections of the chapter respectively. The theoretical review consists of definitional aspects, components and challenges of the E-banking services process.

There search design and methodology followed to answer their search questions framed previously is covered under chapter three. Also covered under this chapter are the types of data to be collected and used, data collection instruments, population and sampling techniques and methods of data analysis.

The fourth chapter of the research was devoted to the data analysis and Interpretations. The data collected from the different data sources was presented under the first section of the chapter and discussed under the second one.

The last chapter of the study deals with the summary of findings, conclusions and recommendations.



## **Chapter Two**

### **Related Literature Review**

The intent of this literature review is to present a framework for this study on E-banking services adoption in nib international bank s.c. It is not to reach consensus on definitional aspects, rather to enlighten the reader as to the research and literature that currently exists regarding E-banking services adoption. Their view begins with an overview of E-banking services adoption process and then goes on and deals with components of the services per customer's perspective.

#### **2.1 Theoretical review**

Under this section, theoretical literatures on the subject of E-banking services adoption and related terms are explored.

#### **2.2 Definition and Concepts of E-Banking**

The use of electronic communications in payments systems has steadily increased over time. Now virtually all large payments between banks and corporations are done electronically. Financial services industry has removed the boundaries between different financial institutions, enabling new financial products and services to appear and making the existing ones available in different packages (Turban, 2002).

The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). Turban (2002) describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. Electronic banking can also be defined as a variety of platforms such as internet banking (or online banking), telephone banking, TV-based banking, PC based banking (or offline banking) and mobile phonebanking.

Electronic banking refers to the use of the Internet as a remote delivery channel for providing services, such as opening a deposit account, transferring funds among different accounts and electronic bill presentment and payment, according to Zairi A (2003). This can be offered in two main ways. First, an existing bank with physical offices can establish a website and offer these services to its customers in addition to its traditional delivery channels. Second, is to establish a virtual bank, where the computer server is housed in an office that serves as the legal address of such a bank. Virtual banks offer their customers the ability to make deposits and withdraw funds via ATMs (Automated Teller Machines) or

other remote delivery channels owned by other institutions, for which a service fee is incurred (Zairi A, 2003). At the Basel committee, E-banking is defined as the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money (Basel Committee on banking supervision, 1998 and 2003).

E-banking includes systems that enable financial institutions, customers, individuals and businesses, to access accounts, transact business, or obtain information on financial products and services through public or private networks, including the internet. Customers access e-banking services using an intelligent electronic device, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM). Private networks "closed" restrict access to participant (financial institutions, customers, merchants, and third party service providers) bound by agreement on the terms of membership. Public networks "open" have no such membership requirements. (Husni and Noor, 2011). The Federal Financial Institutions Examination Council (N.D) as cited in Turban (2002) provided an exhaustive definition which incorporates the concepts of all definitions mentioned above. In this regard FFIEC defined electronic banking as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels.

### **2.3 E-Banking Services**

Online banking offers many benefits to banks, as well as to customers. However, when comparing globally, the percentage of online users is not as high in the USA as in other regions of the world. There can be several reasons for this, such as customers need to have access to the internet in order to utilize the service; new online users need first to learn how to use the service, non-users often complain that online banking has no social dimension; i.e. they are not served in the same way as in a face-to-face situation in a branch; and there are issues of security and privacy.

E-banking is certainly attractive for most customers due its low costs and convenience (Cerenand Simon 2007). This implies as users are able to access banking services at virtually any time and any place with low costs. However, bank charges and internet connection expenses are known to be among the obstacles for online banking. Many studies have conducted on adoption of e-banking and factors determine the adoption of e-banking.

The cost factor associated with use of internet and service charges is found to be significantly associated

with e-banking adoption, according to study by (Robert 2009). The study reported that most of the users were aware of the fee charges and found it acceptable.

Most of the customers prefer that they will continue to use e-banking as the overall cost is negligible. On the contrary, another study (Sohail and Shanmugham 2003) reported that cost of internet and computers does not significantly influence e-banking adoption. (Gao and Owolabi 2008) in Nigeria include as the level of awareness or attention, the accessibility to computers and the Internet, convenience, privacy, costs, and the availability of knowledge and are significant influence of e-banking services. According to the study made by (Al-Somali et al. 2008) adoption of internet banking services is facilitated by the bank's reputation in terms of size, awareness and trust awareness of Service and its benefits in form of the amount of information a customer has about Internet banking and its benefit may have a critical impact on the adoption of Internet banking. On the other hand Al-Somali et al. 2008) noted that low awareness of Internet banking is a critical factor in causing customers not to adopt internet banking.

The other descriptive case study analysis conducted by (Khalfan et al. 2006) on 'Factors influencing the adoption of internet banking aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. Accordingly, security and data confidentiality issues have been found as significant barrier to adopt e banking services. This implies banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses which are beyond their control.

Study conducted by (Daghfous and Toufaily 2007) on the success and critical factors in adoption of E-banking by Lebanese banks. The results of their study shows that the organizational variables (bank size, functional divisions, technical staff, technical infrastructure, perceived risks, decision makers' international experience and mastery of innovation) are variables which exert significant impact on the adoption of e-banking. Among the structural characteristics, the result revealed that internal technological environment of the bank (security) is a very important factor in determining the adoption of e-banking.

(Gerrard et al. 2006) in their study in Singapore identify risk to be an important factor for Internet Banking adoption. The finding revealed as security and privacy in Internet Banking hinder the customers' adoption. This implies that bank customers felt as all their financial information could be in jeopardy.

An empirical investigation conducted by (Sathye 1999) on the adoption of Internet Banking by Australian consumers also identified, security concerns as key factor in internet banking adoption. The result finds security concerns of internet banking are keeping customers away from adopting Internet Banking.

The study of (Kerem2003) on the adoption of electronic banking: underlying consumer behavior and critical success factors conducted in Estonia, addressed six different issues influencing the adoption of Internet banking (Better prices, Recommendations, Better service, Marketing efforts, Better access and higher privacy). The findings point out as better services (convenience), better prices (cost) and higher privacy enable the customers to start internet banking. (Al-Amadi and Ibn2012) using Multiple regression analysis found as uncertainty avoidance has a positive and significant impact on customers' attitude, which in turn influences customers' intention to use electronic banking services in Saudi Arabia.

The study done by (Nath et al.2013) in Malaysia found as security, cost, trust and privacy are a significant factor of e banking service adoption. This implies that since trustworthiness assumes high significance towards user's willingness to adopt e-banking banks, concentration on factors that are found to influence customer's trust such as improving their security and privacy policies and creating more reliable web sites expected from the bank managers.

(Bultum2014) indicated that the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory framework, Lack of ICT infrastructure and absence of competition between local and foreign banks. The study suggests a series of measures which could be taken by the banking industry and by government to address various challenges identified. These point out that measures like Establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.

Similarly, (Takele and Sira 2013) by integrating six variables from theory of planned behavior, technology acceptance model and previous studies, revealed as attitude, subjective norm, perceived behavioral control, perceived usefulness and perceived ease of use and perceived risk were significant in affecting users' intention to use e-banking services in Bahir Dar, Ethiopia.

The studies reviewed in this chapter have heavily used study samples consisting of bank officials and bank workers. Again, the finding of their study shows that, the main obstacles and barriers to adopt E-banking services are the concerns of lack of suitable legal and regulatory frameworks for E-commerce and E-payments, customers trust in the initiatives and technology investment cost. Also the literature indicates that there are different factors that influencing the adoption of E-banking from customers perspective such as, perceived advantages and other factors related to the services itself & how to be accepted and used by

the customers, which differ from country to country, reflecting the economic and technological development in each country.

This is because internet banking is a new industry here, and so consumer acceptance and use of internet banking is still limited. To date very little research has been conducted into factors which influence consumer adoption of internet banking, and so therefore there is a need for a study on the subject. In this study the researchers identified critical success factors such as, trust, cost, security and privacy that determines adoption of E-banking in Ethiopian banking industries by using survey conducted with Customers' of commercial banks in Ethiopia.

## **2.4 Types of Electronic Banking Products**

There are a number of electronic banking products. The following are some of the major types of services coming under e-banking.

### **2.4.1 Automated Teller Machine (ATM)**

ATM is a device that allows customers who have an ATM Card to perform routine banking transactions without interacting with the human teller. The ATM card holder can do most of the banking transactions like withdrawals, deposits of cash, balance enquiry, etc. With the use of ATMs, the banks are providing 'Any Where and Any Time Banking' to their customers. That is the customer can have access to ATMs at anywhere within the country or throughout the world at any time. It also reduces the transactions time. The banks can use these ATMs as media for publicity by displaying products on the screen. And the cost of setting up ATMs is much lesser than the branch (Devamohan, 2002).

### **2.4.2 Point of Sale (POS)**

A Point-of-Sale service is an electronic payment type that allows credit/debit cardholders make payments at sales/purchase outlets. It allows customers to perform the following services: Retail Payments, Cashless Payments, Cash Back Balance Inquiry, Airtime Transaction, Printing mini statement etc. (Kumaga, 2010).

### **2.4.3 Mobile Banking**

This is a product that offers customers of a bank to access services as you go. Customers can make their transactions anywhere such as account balance, transaction enquiries, stop checks, and other customer's

service instructions, balance inquiry, account verification, bill payment, electronic fund transfer, account balances, updates and history, customer service via mobile, transfer between accounts etc.

#### **2.4.4 Electronic Fund Transfer (EFT)**

EFT system permits transfer of funds from any account at any branch of any member bank in any city to any other account at any branch of any member bank in any other city. This system utilizes the Service Branches of the member banks. It facilitates the transfer of funds from one place to another place within the country quickly and safely. Banks collect service charges from the customers (Devamohan, 2002).

#### **2.4.5 Credit Card**

Credit Card can be called as an equivalent of a loan sanctioned by the bank to its customers. Credit card facilitates and makes it possible to “Use First and Pay Later” the specified amount of credit as per the agreed terms of sanction. Before issuing the card, the bank would like to know and be sure the identification, age, level and source of income and repaying capacity. This card facilitates the cardholder to purchase goods and services from the merchant establishments and shops. The credit that is granted is either settled in full by the end of a specified period, generally a month, or can be settled in part, with the remaining balance extended as credit. Interest will be charged by the bank on monthly basis for the credit provided through the card. And service charges also will be collected from the cardholder for the transaction and processing (Asokan, et. al., 2000).

#### **2.4.6 Debit Card**

A Debit Card provides for online electronic payment like Credit Card but from savings or current accounts of the cardholder for purchases. This card is a deposit access product where cardholder uses his own money in his bank account through the debit card on the principle of “Pay First and Use Later”. Debit card can be used to make purchase at retail shops and merchant establishments in the same way as the credit card is used. But to use the debit card, the cardholder must have sufficient balance in his account.

#### **2.4.7 Smart Card**

The smart card is an amazing piece of technology. It is the size of a regular ATM card but is capable of storing over a 1000 times more data. The data can be encrypted and hence the card is completely temper-

proof. The card can also be personalized to the holder by printing personal and other details on the card face. Smart card is issued to the customers to provide adequate and timely credit support for their cultivation needs including all purchases. Customers can use this card wherever they needs. The loan amount sanctioned to the customer will be recorded in the card. The merchants can sell the goods to the customer based on the card and they can collect the amount from the local branch of the issued bank or any other bank (Vassiliou, 2004).

#### **2.4.8 Telephone and PC Banking**

This is a facility that enables customers, via telephone calls, find out about their position, with their bankers merely dialing the telephone numbers given to them by the banks. In addition, the computers on the phone would require special codes given to the customers as a means of identification of authentic users before they can receive any information they requested for. This is a service introduced into the banking balance as a result of computer telephone technology being made available. The technology banking has a universe of possible application limited only by the imagination. These areas include: Account balance enquiry; Account statement printing; intra-Banks Account to Account Transfer; inter-banks Account to Account Transfer; Download Account Transaction, etc (Devamohan, 2002).

Telephone and PC banking brings the bank to the door step of the customer, it does not require the customer to have his premises; interactive Voice Response becomes a regular feature of operations; Text-to-speech capability becomes reality; A uniformed messaging capability become permanent feature of the bank (Vassiliou, 2004).

### **2.5 Benefits of Electronic Banking**

Now days, electronic banking services are becoming the preferred way of making transactions in the developed world due to the fact that they understand the benefits very well through long years of using them in their economy (Dawd, 2004). The benefits of having electronic banking system can be seen from different perspectives as follows.

#### **2.5.1 Benefits to Customers**

E-Banking offers substantial advantage to customers in the form of convenience, time saving and easy access to the banking services. The customers can transact in their account at any time and any where

throughout the country or outside the country. There is no time and place restriction. The customers need not visit a branch for each and every transaction and no need to wait in the long queue. By this they can save the time. The customers can avail 24 hours a day and 7 days a week access to banking services at anywhere. With the help of e-banking, the easy access to the banks will be another advantage to the customers. Thus the e-banking provides sophisticated services to the customers (Devamohan, 2002).

Cardholders can be benefited from the safe and convenient nature of using cards for payment,(Dawd 2004). Moreover, payment cards can make life easy for people who want to travel abroad as it minimizes the volume of cash one needs to carry and the associated risk of theft. From merchants' point of view, those merchants who accept cards enable to increase their sales as card holders prefer merchants who can accept their card for payment. Moreover, by reducing the amount of cash on hand, merchants can manage to reduce risks as well as costs related to cash management.

### **2.5.2 Benefits to Banks**

The first benefits for the banks offering electronic banking services is better branding and better responsiveness to the market. In this competitive world, E-banking helps the banks to attract more number of customers and tackle the competition from other banks. According to Olga (2003), those banks that would offer such services would be perceived as leaders in technology implementation. Therefore, those banks that provide the service can enhance the customer satisfaction through sophisticated services.

By providing secured e-Banking services, the banks can also avoid fraudulent activities. With the help of e-banking, banks can save time and hence they can increase the number of transactions and business (Devamohan, 2002). The other benefits of e-banking are possible to measure in monetary terms. The main goal of every company is to maximize profits for its owners and banks are not an exception. In this regard, automated e-banking services offer a perfect opportunity for maximizing profits (Olga, 2003).

### **2.5.3 Benefits to the Economy**

As e-banking provide opportunity to banking sector to enlarge their customer base, it has a consequence to increase the volume of credit creation which in turn results in better economic condition. The positive impacts of electronic banking are immense for economic development of a nation. Some of the economic benefits of e-banking as identified by Dawd (2009) are asfollow:



### **I. Reduction of the cost for printing cash notes and its related distribution**

In a cash based economy, governments are required to invest a great deal of fund on printing of cash notes and distributing same to the public. Due to manual transfer of currency between individuals, the life of cash notes is very minimal. As a result of this frequent wear and tear, the magnitude and frequency of the investment on cash note printing as well as its related distribution is significant. In the case of electronic payment systems the transaction values are transferred from one account to another using electronic means, reducing the need for cash note distribution. Thus, by encouraging acceptance of payment cards, governments can achieve huge cost saving for their economy in terms of reducing cash note printing and related expenditure (Dawd, 2009).

### **II. Enhancement of Aggregate Deposit**

When people start to increase the proportion of their saving compared to their daily consumption, the saved money can be utilized for investment purposes that in turn will create employment opportunities. This is a great benefit for the economy as a whole. However, individual savings could not bring this kind of impact. The benefit can only be obtained when savings are made in a banking system whereby the saved fund can be deployed to the economy in the form of loan to encourage the required investment (Dawd, 2009).

In an electronic payment card infrastructure people do not need to carry cash notes for their day to day expenditures as well as contingencies. They rather are encouraged to deposit their fund in the banking system and obtain a single plastic to access this fund at any time of the day when the need arises. This implies that unused funds are always in the banking system that helps to facilitate economic growth (Ibid,2004).

### **III. Banking the un-banked**

While the electronic payment card infrastructure is diversified, payroll for employees can be handled through this system. Besides creating ease and convenience, both for the employer as well as the employee, it enables individuals to enter into the banking system which they may not be interested otherwise (Dawd, 2009). Such impact of banking the un-banked population also has a benefit in increasing aggregate deposits as indicated above.

### **IV. Increasing the potential for hard currency generation**

Especially in developing economies, earning of hard currency is very essential to manage a country's

balance of payment. The payment card system can bring a good potential of enabling economies to earn more foreign currency. This can be realized by attracting tourists and by encouraging them to spend more. In today's world, availability of payment card infrastructure is one of the criteria that tourists set while they decide which country to visit. As a result countries that maintain a developed electronic payment card system has a better potential of being visited by tourists than those which do not establish the infrastructure. Hence, more tourists and increased hard currency as a result of diversifying payment card business (Dawd, 2009).

Furthermore, due to the fact that travelers can access their account at home easily while staying in another country, where the payment card infrastructure is established, their chance of spending more is great. Travelers, being outside of their home country, feel more unsafe and uncomfortable to carry bulk amount of cash while on travel. Thus, they can be forced to spend only to the extent of the limited cash on hand during a certain period of stay in another country. On the other hand, if they can use their card for payment, they can spend more since they have the right to access their account back home safely and conveniently (Ibid, 2004).

In recent commercial phenomenon, internet technologies have essentially changed the way in which banks provide their services and customers conduct their banking needs. One of these technologies which have increasingly become a favored distribution channel by service providers and customers is electronic banking (e-banking) services (Daraz et al. 2009). E-Banking as a banking channel allows customers to conduct all traditional banking services, such as making online bill payments, balance enquiry and fund transfer to other accounts without visiting their bank branch (Damanpouret al. 2003). Internet banking is considered as the cheapest distribution channel for standardized bank operations (Polasik and Wisniewski 2009). Electronic banking allows customers easier access to financial services and time saving in managing their finance (Almazari and Siam 2008; Ayriga 2011; Tan and Teo 2000).

Indeed, the emergence of electronic banking has prompted many banks to develop marketing and information technology strategies in order to stay competitive. (Venkatesh et al.2003) noted that the successful implementation of information systems is dependent on the extent to which such a system is used and eventually adapted by the potential users. Information system implementation is in doubt if users are unmotivated to use such type of technology and thus it will not bring full benefits to the organization. In order to bring full benefits, the organization should motivate customers regarding information system implementation. Similar to this, the bank should motivate the customers to use

electronic banking services. Besides, banks must make key improvements that address the customers' worry. Therefore, it is necessary to identify the key factors influencing the adoption of electronic banking among the banking customers.

## **2.6 Challenges of Electronic Banking**

Some might think that all the difficulties will disappear with the application of electronic banking, such as the administrative and technical problems. However, the reality on the ground points to a rather different picture, namely that the application of electronic banking will require a continuous scrutiny and sustained surveillance to ensure the continuous provision of services in the best shape possible in order to maximize the use of time, money and effort. Furthermore, it must be considered that the existence of alternative plans or contingency plans in the event of default electronic banking remains paramount. The difficulty of providing an appropriate infrastructure for electronic banks, as well as the obstacles in updating the data to enable the customers to see the latest offers, are just two of the many challenges faced by internet banking.

Heavy reliance on credit cards in the field of payment is a major obstacle for the customers. As a matter of fact, studies have shown that 60% of web users do not trust the conduit through which the payment is made (Mosawe, 2002).

Moreover, the spread of commercial fraud and poor communications security across the internet has proved to be seriously detrimental to a successful application of internet banking. The emergence of online fraud and theft from credit card accounts are two serious drawbacks in internet banking. Not confirming the identity of the client leads to a large number of complaints from the customers denying the completion of the deals and transactions. Thus, it results in losses for the banks. Besides, the other impacts of internet banking appear to cause a fear of dealing with electronic banking because of the distrust and the threat to the security and protection of customers' information, or as a result of the lack of cultural awareness (Kolthom, 2008). There are many complex transactions which cannot be sorted out unless there is a face to face discussion with the manager which is not possible through internet banking. As a matter of fact, solving specific issues and complaints require a physical visit to the bank and cannot be achieved through the internet. Moreover, online communication is neither clear nor pin pointed to help to resolve many complex service issues. In fact, certain services such as the notarization and bank signature guarantee cannot be accomplished online (Rushdy, 2007).

Security is the biggest pitfall of the internet banking scheme which needs to be guarded against by the common customer. Despite the host of sophisticated encryption software is designed to protect one's account, there is always a scope of hacking by the smart elements in the cyber world. Hacker attacks, malware and other unauthorized activity are not uncommon on the net. Identity theft is yet another area of grave concern for those who rely exclusively on internet banking. Most banks have made it mandatory to display scanned copies of cleared checks online to prevent the identity theft. It is essential to check bank's security policies and protections while opening an account and commencing the usage of online banking facilities (Kolthom, 2008).

Online banking is definitely a significant move in the right direction as far as the convenience for the customer as well as the banker is concerned. However, it must be applied with adequate precaution to avoid falling prey to unscrupulous elements poaching the internet (Kolthom, 2008).

Electronic banking despite its numerous benefits, there are challenges in the implementation of e-banking applications. Some of the identified challenges as revealed by previous research works include security, infrastructure, regulatory and legal issues and Socio-Cultural challenges.

### **2.6.1 Security**

One of the biggest challenges and the basic requirements of e-banking is ensuring its security. Securing the process in e-banking involves authenticating data of the customer and banker and protecting the information to be transmitted from interception. This authentication can be done using user ID and passwords. In addition a means must be provided that prevent repudiation both by the merchant and customer once the payment process has taken place (Barnes and Hunt,2001).

According to Worku (2010), e-banking systems must also take into account the need of multilateral security keys i.e. security needs of all participating parties in the e-banking system. An e-payment system that is not secured may not get trust from its users. Trust is one of the crucial factors to ensure the acceptance of e-banking system by users. Martina (2005) also indicated that e-banking applications represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm customers. It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications. Software failures can also be considered as security challenges as it destroy entire portions of a network and bring huge losses. According to Tadesse and Kidan (2005).

**some of the major security challenges include the following.**

### *I. Disclosure of private information*

In e-payment there are many ways in which private information may be accessed by attackers. For instance hackers may intercept network traffic to get confidential data. It is also possible to access private data stored on a computer connected to the internet. This data could be used to make fraudulent transactions that could lead to a loss of money.

### *II. Counterfeiting*

Counterfeiting is the creation of new data or duplication of existing data, which are technically valid but not legally admissible. Cloning of e-money for double spending and creation of fake accounts are example of counterfeiting. One popular form counterfeiting attacks is duplication of electronic data from a payment cards (e.g. ATM card) is creating duplicate cards and withdraw money from the accounts.

### *III. Illegal alteration of payment data*

Illegal modification of payment information may result in loss of money. This may again results in the loss of customer confidence. Alterations could be made to the transaction account numbers resulting in misdirected payments, to the payment amounts or to electronic balances on electronic. Another challenge in e-payment includes usage of a fraudulent web site by an attacker to collect credit card number and other personal and/or financial information.

According to Taddesse and Kidan (2005), the most common method of securing e-banking services is using cryptographic based technologies such as encryption and digital signatures. However, applying these technologies will reduce its efficiency by making it slower and as a result some sort of compromising has to be made between security and efficiency.

## **2.6.2 Infrastructure**

The most common communication infrastructure for e-banking is computer network such as Internet. Most e-banking systems use internet to communicate with their customers. The other communication infrastructure available for e-banking users is the mobile network used for mobile phone. Automating the banking activities is another prerequisite for e- banking system. Closed financial network that links banks and other financial institutions is necessary. This network is usually used between banks or other financial institution for clearing and payment confirmation.

According to Kumaga (2010), low level of internet penetration and poorly developed telecommunication

infrastructure impede smooth development and improvements in e-commerce in developing countries. In this regard, a study made by Microfinance Nigeria (2010) indicated that efforts made by the Nigerian government and other financial and ICT stakeholders to move Nigeria's payment system from a cash-dependent platform to the globally acceptable electronic-driven alternative way is impeded by shortage of well developed telecommunication infrastructure. Another major problem that relates to this is frequent electric power disruption. This will create lot of problems in e-banking activities which are basically depending on power supply. It will force the banks to depend on generators results in high operational cost. These problems are considered as obstacles for the expansion of e-banking services.

### **2.6.3 Regulatory and Legal Issues**

National, regional or international set of laws, rules, and other regulations are important prerequisites for successful implementation of e-banking services. Some of the main elements include rules on money laundering, supervision of commercial banks and e-money institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation and competition issues (European Central Bank, 2002).

According to Mishra (2009), the virtual and global nature of e-payment also raises legal questions such as which jurisdiction will be competent and about applicable laws in disputed cases, validity of electronic data, electronic contracts, and electronic signature. Moreover, a legal and regulatory framework that builds trust and confidence supporting technical efforts to meet the same is another important issue that needs to be addressed. In this regard legislative support is essential for protecting the interests of customers and banks in various areas relating to e-banking and payment systems. Some of the main issues like liability for loss in case of fraud, allocation of loss in case of insolvency, cheque truncation, evidence and burden of proof, preservation of records, prevention of fraud, etc. are to be cleared in the legislation (ECB, 2002). This can be done by adopting model laws at global level such as UNCITRAL Model law on E-commerce (1996), UNCITRAL Model law on E-signatures (2001) and at regional level such as the SADC Model law on Electronic Transaction and Data protection (Mishra,2009).

### **2.6.4 Socio-Cultural Challenges**

Cultural and historical differences in attitudes and the use of different forms of money (e.g. use of credit card in North America and use of debit cards in Europe) complicate the task of developing an electronic

payment system that is applicable at international level. Difference in the degree of the required security and efficiency among peoples of different cultures and level of development aggravates the problem (Tadesse and Kidan,2005).

According to Kumaga (2010) consumer's confidence and trust in the traditional payment system has made customers less likely to adopt new technologies. New technologies will not dominate the market until customers are confident that their privacy will be protected and adequate assurance of security is guaranteed. New technology also requires the test of time in order to earn the confidence of the people, even if it is easier to use and cheaper than older methods.

### **2.6.5 Other Challenges**

There are some other challenges which can be considered as hindrances in the implementation of e-banking services. One of these issues is the standardization of software which is necessary to offer e-banking services. Proven high quality software is a must for high-tech banking services. For sophisticated types of services, the standardization of operating systems, systems software and application software throughout the banking industry is a necessary condition, which may have to be pursued (Muvva and Sisay,2011).

According to Husni and Noor (2011), the provision of e banking services require heavy investment costs. In this regard banks have to invest huge amount of money in order to provide e-banking services. They have to buy and install the required systems and facilities which lead increased establishment expense. They have to incur heavy maintenance costs also. This may not be the problem for well established banks. But in case of new and small banks, they have to face financial problems at the initial stage. Banks in developed countries have already deployed huge amount of investments for e-banking services. For banks in developing and underdeveloped countries, this may create financial crisis (Ibid, 2011).

## **2.7 History of Banking in Ethiopia**

### **2.7.1 The Early Banking Era in Ethiopia**

The history of banking in Ethiopia dates back to the beginning of 20<sup>th</sup> century. The agreement that was reached in 1905 between emperor Menilik II and Mr. McGillivray, representative of the British owned National Bank of Egypt marked the introduction of modern banking in Ethiopia (Charles, ND).

Following this agreement, the first bank called “*Bank of Abyssinia*” inaugurated on February 16, 1906 by the emperor. Bank of Abyssinia was totally a foreign owned private bank whose share was sold in Addis Ababa, New York, Berlin, Paris, Rome, London, Cairo and Vienna to raise the agreed capital of £500,000 Pound sterling. Within the first 15 years of operation Bank of Abyssinia opened a branch in different parts of the country, in this regard; Harar branch was opened at the same time with inauguration of the Bank at Addis Ababa. Two years later another branch at Dire-Dawa, Gore, Dessie and transition office in Djibouti in 1920 was opened (Megersa, 2010).

The governor was McGillivray and latter succeeded by H. Guldie, Miles and C.S. Collier were in charge from 1919 until the liquidation of the Bank in 1931. Since societies at that time were new for banking services, the journey of Bank of Abyssinia was costly and profit was recorded only in 1914, 1919, 1920 and from 1924 onwards.

### **2.7.2 The Imperial Regime**

Emperor Hailesilassie, the new Emperor in 1930 continued the Menilik’s policy aiming at independence, modernization and progress of the country. Haileselassie being the board of directors of the Bank of Abyssinia, strongly gave priority to the reform of the Ethiopian monetary and banking system due to the fact that, the only issuing bank operating in the country was owned and controlled by foreigners (Megersa, 2010). The Imperial ruling issued on August 29, 1931 and chartered the new bank as *Bank of Ethiopia* and also represented the first banking law ever passed in the country. Following this, the *Bank of Ethiopia* started operation in November 1931 with the same governor (C.S.Collier) premises of the ceased Bank of Abyssinia.

Bank of Ethiopia was purely Ethiopian institution and was the first indigenous Bank in Africa. Bank of Ethiopia with branch in Harar, Dire-Dawa, Gore, Dessie, Debre Tabor and agency offices in Gambella, Gimbi and transit office in Djibouti continued successfully until the Italian invasion in 1935. During the invasion, the Italians established the branch of their main Banks, such as Banca d’Italia, Banco Di Roma, Banco Di Napoli, and Banca Nazionale Del Lavorno and started operation in the main towns of Ethiopia. But they ceased operation immediately when Italian abolished except Banco di Roma and Banco Di Napoli which remained in Asmera. Another foreign Bank, Barclay Bank, came to Ethiopia with the British troops and organized Banking services in Addis Ababa until its withdrawal in 1943 (Megersa, 2010).



By April 15, 1943 the *State Bank of Ethiopia* commenced operation after eight months preparation. It acted as central and commercial bank, until the law of 1963 that came into force, separating the function of central and commercial bank which led to the creation of National Bank of Ethiopia and Commercial Bank of Ethiopia. This Law also permitted foreign bank operation domestically limiting their share holding only to 49%. Both National Bank of Ethiopia and Commercial Bank of Ethiopia started operation in January 1964. The first private bank, *Addis Ababa Bank S.C* was established on Ethiopian initiative and started operation in 1964. There was also financial institution operating in the country like, the *Imperial Saving and Home Ownership Public Association (ISHOPA)* which was a Mortgage Bank (Muvva and Sisay, 2011). There was also a *Saving and Mortgage Corporation of Ethiopia*, whose aim and duties was to accept saving and trust deposit and provide agricultural loan which was replaced by *Investment Bank of Ethiopia*, and then changed to Investment Corporation Share Company, then industrial and finally by 1970 established the *Agricultural and Development Share Company*.

### **2.7.3 The Dergue Regime**

Following the declaration of socialism in 1974, the government extended its control over the whole economy and nationalized all corporations. The three Private Banks, Addis Ababa Bank S.C, Roma and Napoli merged after nationalization in 1976 to form the second largest Bank called Addis Bank. By August 2, 1980 Addis Bank and Commercial Bank of Ethiopia merged to form the sole commercial bank in the country, Commercial Bank of Ethiopia (CBE). The Saving and Mortgage Corporation S.C and Imperial Savings and Home Ownership Public Association also merged to form the *Housing and Saving Bank* with a working capital of Birr 6 million. By 1979, Agricultural and Industrial Bank under the umbrella of National Bank of Ethiopia named as *Agricultural and Industrial Development Bank (AIDB)* was established (Megersa, 2010). In the country National Bank of Ethiopia (NBE), Commercial Bank of Ethiopia (CBE) and Agricultural and Industrial Development Bank (AIDB) were the only financial institutions enjoying monopoly in their respective areas of operation.

### **2.7.4 The EPRDF Regime**

Following the economic policy change in 1991, financial sector reform has also taken place. The Monetary and Banking proclamation No. 83/1994 and the licensing and supervision of banking business No. 84/1994 laid down the legal basis for investment in the banking sector. Consequently, after the proclamation, Awash International Bank the first private bank was established in 1994, then Dashen

Bank, Bank of Abyssinia, Wegagen Bank, United Bank and Nib International Bank were established from 1994 to 1999 which forms a group of six private banks as the first batch of private banks establishment period (Charles, ND).

As a second batch, another eight private banks were also established from 2005 to 2011 six years after of the first batch establishment which encompass Cooperative Bank of Oromia, Lion International Bank, Zemen Bank, Oromia International Bank, Buna International Bank, Berhan International Bank, Abay Bank and Addis International Bank ,according to their respective order of establishment period. Currently, there are two state owned banks (*Commercial Bank of Ethiopia and Development Bank of Ethiopia*) and sixteen (16) private commercial banks operating in the country.

## **2.8 Overview of Operating Practices of Banks in Ethiopia**

Despite a rapid increase in the number of financial institutions since financial liberalization, the banking system is still underdeveloped compared to the rest of the world. Cash is still the most dominant medium of exchange. The use of checks is mostly limited to government institutions, NGOs and some private businesses (Worku,2010).

Commercial banks in Ethiopia provide the same services with the same operational style that they used to offer before decades. The common banking functions provided by public and private banks in Ethiopia are deposit mobilization, credit allocation, money transfer and safe custody. Banks in Ethiopia are unable to improve customer service, design flexible and customized products, and differentiate themselves in a market where product features are easily cloned. Ethiopian banking is unable to come from long way of being sleepy to a high proactive and dynamic entity (Ibid,2010).

According to Worku (2010), customers of Ethiopian commercial banks have missed to enjoy with the technological advancement in banking sector which has been entertained elsewhere in Africa and the rest of the world. The modern e-banking methods like ATMs, Debit cards, Credit cards, Tele banking, Internet banking, Mobile banking and others are new to the Ethiopian banking sector. E-banking which refers to the use of modern technology that allows customers to access banking services electronically whether it is to withdraw cash, transfer funds, to pay bills, or to obtain commercial information and advices are not well known in Ethiopia.

In Ethiopia it is impossible to withdraw money without presenting the pass book and money transfer as commercial banking service is allowed only in between branches of the same bank. However, from the

public and the economy there is a strong need for strengthening linkages among banks in order to allow healthy flow of financial resources among financial institutions and optimize the contributions of the entire financial system to the development processes as whole (Worku,2010).

All banks in Ethiopia are too late to move with technological advancement and they should clearly chart out the time schedule for their integration and technological advancement. Some of the banks even today do not have information websites which can help them to provide at least the information on financial services offered by them.

Every bank customer is highly dissatisfied by the disappointing status of financial development in Ethiopia. Even the time wasted in traveling for search of bank branches and the long waiting time to access the account is really disappointing. This is particularly because of the non-integration of branches of the same bank, i.e. even within individual banks their branches are not linked to each other and it is a must to physically visit the branch in which an account has been opened (Worku,2010).

## **2.9 Electronic Banking in Ethiopia**

Certainly the banking industry in Ethiopia is underdeveloped and therefore there is an all immediate need to embark on capacity building arrangements and modernize the banking system by employing the state of the art technology being used anywhere in the world. With a growing number of import-export businesses, and increased international trades and international relations, the current banking system is short of providing efficient and dependable services and therefore all banks operating in Ethiopia should recognize the need for introducing electronic banking system to satisfy their customers and meet the requirements of rapidly expanding domestic and international trades, and increasing international banking services (Worku,2010).

Undeniably the largest state-owned bank, Commercial Bank of Ethiopia, introduced ATM service for local users in 2001 with its fleet of eight ATMs located in Addis Ababa. Moreover, CBE has had Visa membership since November 14, 2005. However, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite, being the pioneer in introducing ATM based payment system and acquired Visa membership, CBE lagged behind Dashen Bank, which worked aggressively to maintain its lead in electronic payment systems.

Dashen bank, a forerunner in introducing e-banking in Ethiopia, has installed ATMs at convenient locations for its own cardholders. The Dashen Bank ATM is available 24 hours a day, seven days a

week and 365 days a year providing service to Dashen Debit Cardholders and International Visa Cardholders coming to the country. At the end of June 2013, Dashen Bank has installed 105 ATMs and more than 783 Point of Sales (POS) terminals in its area branches, university compounds, shopping malls, supermarkets, restaurants and hotels.

Expanding its leadership, Dashen Bank has begun accepting MasterCard in addition to Visa credit cards. Dashen won the membership license from MasterCard in 2008. Harnessing its leadership with advanced banking technology, Dashen Bank signed an agreement with iVery, a South African electronic payment technology company, for the introduction of mobile commerce in April, 2009. According to the agreement, iVeri Payment Technologies has licensed its Gateway and MiCard e-payment processing solution to Dashen Bank. Dashen's *Modbirr* users can transfer upto Birr 500 of funds to other *Modbirr* users in 24 hours a day. This would make Dashen Bank the first bank in Ethiopia to acquire e-commerce and mobile merchant transactions (Worku,2010).

Although Dashen's new technology is one step ahead in that it allows transfer of funds from one's account to others, United Bank was the first to introduce telephone and Internet banking systems - including text messages (SMS) - by the end of 2008. Thereafter, Wegagen Bank has signed an agreement with Technology Associates (TA), a Kenyan based IT firm, for the development of the solutions for the payment system and installation of a network of ATMs on December 30, 2008. Currently, Wegagen Bank is providing electronic banking services through '*Agar Visa Card*' in selected branches of the Bank. Zemen Bank, which follows a single branching strategy, has also providing electronic payment services through ATMs located in various locations of the country. Some of the available services on Zemen Bank ATMs are: Cash withdrawal, Balance Inquiry, Mini- statement, Fund transfer between accounts attached to a single card and PIN (Personal Identification Number) change. Currently, the bank gives debit service only for Visa cards ([www.zemenbank.com](http://www.zemenbank.com)).

The memorandum of understanding signed by three private commercial banks to launch an Automated Teller Machine (ATM) and Point of Sale terminal (POS) network, in February 2009 is welcoming strategy to improve electronic card payment system in Ethiopia. Three private commercial banks - Awash International Bank S.C., Nib International Bank S.C and United Bank S.C. – have established a joint company called Premiere Switch Solutions (PSS). During its first year of operation, PSS installed over 60 ATM machines and over 300 POSs across Ethiopia. If everything goes as planned, there will be one ATM at every branch of the consortium banks, all domestic airports serviced by commercial service, shopping complexes and merchants. The agreement is the first significant cooperation between

competing banks in Ethiopia, which others should be encouraged to follow as there is no single bank in Ethiopia that can afford to provide extensive geographical coverage and access (Tamene,2009).

Nib International Bank, one of the founding member banks of PSS, is providing the service starting from July 2012. Available services on Nib International Bank ATMs are: Cash withdrawal, Balance Inquiry, Mini statement, Fund transfer between accounts attached to a single card and Personal Identification Number (PIN) change. NIB's clients can withdraw up to Birr 10,000 in cash per day. Currently, the bank gives debit card service only for NIB Card holders. In addition, it has got the principal membership license from Visa International and MasterCard to accept international payment cards.

## **2.10 Empirical Review**

Different previous research show that, banks which do not offer internet banking services are expected to lose more than 10% of their customers over the next five years due to their competitive advantages in banking service delivery will eroded (Tower Group 2005). By providing internet banking services as an alternative delivery channel, banks seek to lower operating costs by reducing their branch networks and downsizing the number of service staff, improve their banking services and customer satisfaction and retain their existing customers (Al-hajery et al. 2006; Almogbil 2005).

Banks cannot achieve the benefits of internet banking unless customers accept and fully utilize its associated capabilities. (Al-Gahtaniand King 1999) state there will be little return from technological developments if customers fail to adopt and fully utilize its capabilities. Technology acceptance, especially internet banking has become a vital issue in the business world today. Besides, understanding customers' requirements and meeting their demands and expectations regarding internet banking has become a challenge for banks.

Courtier and Gilpatrick1999, recommend that banks must survey customers' requirements on a regular basis in order to identify the factors that influence their intention to accept and fully utilize internet banking services. Internet Banking has been widely used in developed countries and is rapidly expanding in developing countries. Even though, Ethiopian were started to use Internet banking services lately, cash is still the most dominant medium of exchange. Besides, Internet banking systems adoption and utilizations are at its infant stage due to different factors. In the face of rapid expansion of Internet banking systems throughout the developed and the developing world, Ethiopia's financial sector cannot remain an exception in expanding the adoption and use of e-banking system. Based on the above facts

the researcher is highly motivated to see the determinants of E-banking service adoption in Ethiopian banking industry. Therefore, the aim of this study is to assess the determinants of E-banking service adoption among commercial banks in Ethiopia especially in the case of NIB International Bank S.C.

## **2.11 Conceptual framework of the Study**

A conceptual model shows how the researcher theorizes the relationships among several factors identified as being important to the research questions. With this in purview, a conceptual model has been developed based on the reviews of previous knowledge to discuss the interrelationships among the variables deemed integral parts of the E-banking adoption process.

Based on the conceptual framework, the researcher identified four independent variables that are hypothesized to affect the dependent variable (Internet banking adoption. Adoption of Internet banking would be affected by these variables either positively or negatively based. These independent variables are perceived security, perceived usefulness, perceived privacy, perceived cost and perceived trust.

### **2.11.1 Perceived Usefulness**

According to (Davis, 1986), perceived usefulness can be defined as “the degree to which an individual believes subjectively that using a particular IT would enhance his or her job performance”. In other words, the individual believes that the use of the IT would yield positive benefits for task performance associated with his/her job. Perceived usefulness suggests a user believes that using a particular IT will be beneficial. For the user to hold such a belief several conditions must be met. First, the user must have prior experience with the particular problem suggesting at least some understanding of the nature of the problem, even if the problem is not yet understood sufficiently to derive a solution. Generally, the user must also have experience with information technologies. This experience gives the user a basis for evaluating the capabilities of information technologies and how and in what circumstances they may be useful. In the formation of initial opinions, the user will not have much hands-on experience, but may know of the capabilities of information technologies through the media like television and newspaper) or other communication channels like friends (Jihyune, 2003).

### **2.11.2 Perceived Security**

One of the biggest challenges and the basic requirements of e-banking are ensuring its security. Securing the process in e-banking involves authenticating data of the customer and banker and protecting the information to be transmitted from interception. This authentication can be done using user ID and

passwords. In addition a means must be provided that prevent repudiation both by the merchant and customer once the payment process has taken place (Barnes and Hunt, 2001).

According to Worku (2010), e-banking systems must also take into account the need of multilateral security keys i.e. security needs of all participating parties in the e-banking system. An e-payment system that is not secured may not get trust from its users. Trust is one of the crucial factors to ensure the acceptance of e-banking system by users. Martina (2005) also indicated that e-banking applications represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm customers. It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications. Software failures can also be considered as security challenges as it destroy entire portions of a network and bring huge losses.

### **2.11.3 Perceived Privacy**

**Perceived Security:** internet banking security concerns are user's concerns about security measures that ensure confidentiality, authorization, authentication, availability, non-repudiation and fraud detection (Chen, 2008). The first issues that need to be taken into consideration in online environment transactions are security concerns because it is considered as a critical element for trust to exist (Hernandez-Ortega, 2011). Consumers conducting transactions on internet banking must feel secured with respect to their personal information, credit card details and so on. So, security can be considered as one of the main requirements for trust (Alam and Yasin, 2010). Given the importance of perceived security impact on user's trust to accept internet banking services.

### **2.11.4 Perceived Trust**

According to Selvanathan (2015), trust has long been considered as dominant factor in buyer and seller interactions. In general, trust is defined as the relative feeling of secure in an unknown or risk situation. From the economic perspective, trust is seen as a way that can reduces the transaction cost (Chiou & Shen, 2012). It decreased customers' perception of risk and enhances their likelihood to engage in an exchange, resulting in efficient transactions. As revealed by Dauda, Santhapparaj, Asirvatham, and Raman (2007), Malaysians' tend to adopt online banking based on their banking needs, trust towards the bank, as well as their trust related to their prior internet experience. McKnight and Chervany (2002) further revealed the trust typology in e-commerce. They described that the trust of the consumers towards e-commerce or e-vendor came from one's trusting belief (i.e., one's perception or belief that it is beneficial for them related to their personality traits) and trusting intentions (i.e., one's willingness to depend on others to do something on behalf such as paying through credit card online), which can be

explained in the three trust concepts – interpersonal trust (e.g., trust the e-vendor), institutional trust (e.g., trust the website), and dispositional trust (e.g., trust other people). Due to the higher degree of uncertainty in the online environment, trust is emphasized even more (Chen & Barnes, 2007). Thus, trust is a key factor for bank to improve its services because it can be the key determinants for customers to use online banking services.

#### **2.11.5 Perceived Cost**

Tasmin (2012) reported that customers would accept new technologies only if the price is reasonable. According to Campbell and Frei (2010), implementation of new technologies may lower cost of service which in turn lower the service fees. They found that low cost of interactions appears to have unintended consequence of increasing service consumption. This is also one of the major factors that lead to one's online adoption behaviors, where Sohrabi, Yee, and Nathan (2013) also revealed that the customers usually adopt online banking as the cost involved is lower. Similar to the study carried out by Aliyu and Tasmin (2012) which showed the association between cost factor (linked with the use of internet and service charges) and adoption of online banking. They suggested that customers who adopt online banking are aware of the fee charges and found it acceptable. In brief, people may choose to support or against online banking system based on their perception of the cost.



The conceptual or theoretical framework of the study could be summarized as follows:

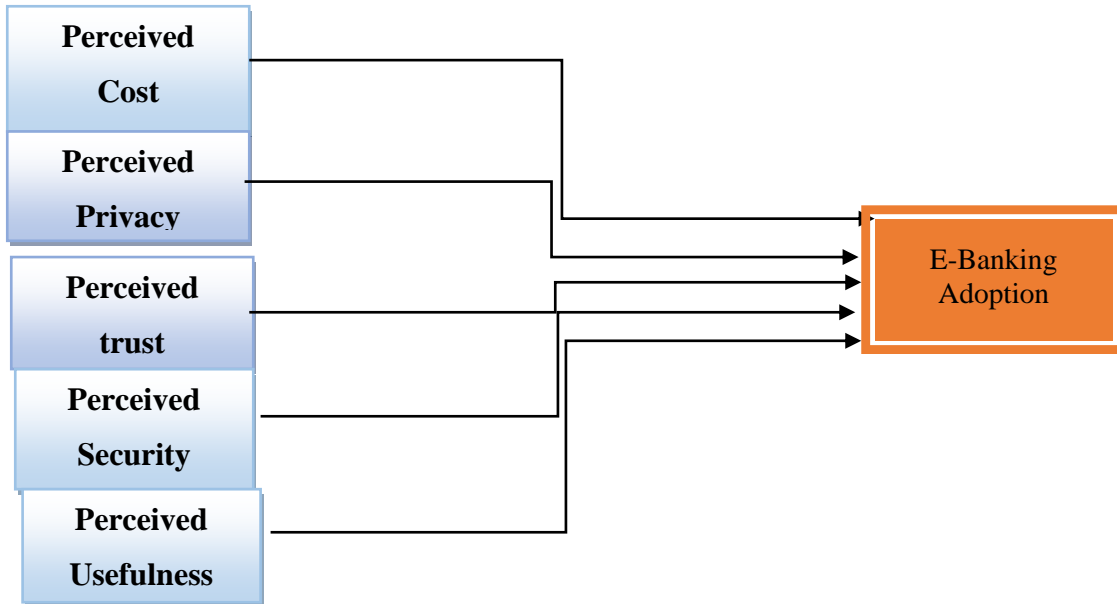


Figure 1: Modified conceptual frame work by the researcher

Source: Davis, F. D. (1986). Perceived usefulness, Perceived ease of use, and User Acceptance of Information technology. MIS Quarterly. 13(3)

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

This chapter described the approach to organizing the research and the methods for gathering and analyzing data to answer the research questions proposed in the introductory chapter.

#### **3.1 Research Design and Approaches**

The primary purpose of this study was to describe factors that affect e-banking services adoption practices of Nib international in light of the theoretical framework and hence it can be said that it has a descriptive nature. The major purpose of descriptive research is to describe characteristics of a certain phenomenon. This research also aims to describe the E-banking services adoption process in NIB International bank s.c. customers perspective. Descriptive research design describes the characteristics of objects, people, or organizations (Zikmund,Babin,Carr&Griffin,2012:15). Descriptive research paints a picture of the specific details of a situation, social setting, or relationship. By giving answers to who, what, when, where, and how questions. For Kohtari (2006), descriptive research aims at describing a situation in terms of its characteristics.

Descriptive research design is chosen for this research as it is suitable to accurately portray components of a given process, e-banking adoption in this case. Punch(2006) argues that descriptive research design basically gives answer to the question of‘ what is the case or situation here?’ So does this research as far the E-banking adoption in Nib international bank s.c is concerned. Descriptive research is opted for since it helps in drawing a clear picture of a phenomenon and acquisition of a lot of information. Descriptive research’s purpose of describing how reality is perfectly aligns with the general objective of this research which is describing the E-banking adoption in NIB international bank s.c.

#### **3.2 Population, Sample Size and Sampling Techniques**

##### **3.2.1 Research Population**

Population refers to the full set of cases from which a sample is taken (Saunders, 2009:21). It refers to the larger group from which individuals are selected to participate in a study. In the case at hand, the population constitutes all customers of selected branches in nib international bank s.c found in Addis Ababa city only. Target Population refers to the set of all elements belonging to a certain defined group to be studied or to which research results are going to be generalized to.

Currently, nib bank has 271 branches both city and outlying branches. Outlying branches have been excluded from the study due to shortage of time, cost, resource required to conduct the research

etc., 109 branches are found in Addis Ababa. 14 branches found around merkato areas were not selected for the study as the usage of E-banking service is very slow. 45 branches were also recently opened branches with less than one year banking service in which number of customers are also very low. 50 branches with greater than 1 year service period have been selected for the study.

### **3.2.2 Sample Size**

The sample size is a subset of the entire population (Saunders, 2009:21). For target population in the case at hand comprises 413 customers of the bank. This constitutes the randomly selected customers of the bank. It is not found necessary to include the remaining segment of the population or customers.

### **3.2.3 Sampling Techniques**

Sampling techniques is applied when the size of the research population under investigation are large (Saunders, 2009:21). Accordingly, the researcher used Convenience sampling techniques to select 50 branches out of 109 branches found in Addis Ababa for the study as the number of bank branches is large to select sample size of 413 respondents and to distribute the questionnaires.

## **3.3 Sources of Data**

In this study both primary and secondary data was collected. Primary data are those which are collected as a fresh and for the first time, and happen to be original in character (Kohtati, 2004:95). Secondary sources are those which are made available or have been collected for other research purposes. It refers to data that are already available i.e. data which have already been collected and analyzed by someone else (Kohtari, 2004). As sources of primary data, questionnaires were distributed as appropriate.

## **3.4 Data Collection Methods**

As far as the mode of inquiry is concerned, this research followed a mixed approach. Mixed methods approach is a procedure for collecting, analyzing and mixing both quantitative and qualitative data (Creswell, 2009). Mixed research design is opted for since it allows gaining a fuller understanding of the factors that affect e-banking services adoption in NIB international bank s.c. customers perspective. Neither qualitative nor quantitative research methods are sufficient to have a full understanding of the situation. The quantitative and qualitative data, when used in tandem, complement each other and allow more complete analysis (Creswell, 2009). Quantitative data can reveal generalizable information for the larger portion of the sample. Qualitative data that was collected from the respondents via questionnaire was used to provide an in-depth understanding on the subject matter.

### **3.5 Data Analysis Methods**

Data analysis is the application of reasoning to understand the data that will be gathered by determining consistent patterns and summarizing the relevant details in the investigation (Zikmund & et.al). It is done with the aim of making sense out of data collected using various methodologies. Accordingly, from all questionnaires distributed to the respondents, 392 questionnaires returned. The collected questionnaires were kept in one place. The completeness and accuracy of the paper was checked. All invalid questionnaires were excluded. Finally, the result of all valid questionnaires were encoded into SPSS (Statistical Package for Social Sciences).

## CHAPTER FOUR

### Data Analysis and Interpretation

Many researchers across the world have studied the factors that influence of customer's adoption of e-banking services of banking sectors.

However, this study was conducted to examine and to provide empirical evidences for the factors that influence adoption e-banking services in the case of nib international bank s.c context to contribute its own effort for the empirical evidence.

#### 4.1 Descriptive Statistics

**Table 1 General Information of the Respondents**

Variables		Frequency	Percent
Gender	Female	122	31%
	Male	270	69%
Age	<25	75	19%
	26-32	145	37%
	33-40	70	18%
	41-50	62	16%
	>50	40	10%
Education	High school Completed	68	17%
	Diploma	174	44%
	BSc/BA degree	123	31%
	Postgraduate and above	27	8%
Occupation	Home duty	84	21%
	Student	47	12%
	Self-Employed	190	48%
	Government	52	14%
	Other	19	5%
Salary/Income(ETB)	<2,000	8	2%
	2,001-4,000	18	5%
	4,001-6,000	27	7% %
	6,001-8,000	45	11%
	8,001-10,000	24	6%

	>10,000	270	69%
Banking r/ship	<1 year	18	5%
	1-2 year	34	9%
	3-4 year	67	17%
	5-6 year	55	14%
	7-8 year	124	32%
	> year	94	23%
Use of e-banking	Yes	232	59%
Service in General	No	160	41%

ETB- Ethiopian Birr

**The above table 1 shows the General Information of the Respondents.**

It shows that 122(31%) of the respondents in the study were females and the rest 170(69%) were males. It also shows that 75(19%) of the total respondents are less than 25 years, 145(37%) are from 26-32 years old, 70(18%) are from 33-40 years old, 62(16%) are from 41-50 years old while 40(10%) of them are more than 50 years old.

The above table also shows that 68(17%) of the respondents are High school completed, 174(44%) are Diploma holders, 123(31%) first Degree holders, and the rest 27(8%) have Master's Degree and above holders.

With regard to banking relationship with NIB international bank S.C, the table shows that 18(5%) have less than one year's banking relationship with the bank, 34(9%) from 1-2 years' relationship, 67(17%) from 3-4 relationship, 55(14%) from 5-6 relationship, 124(32%) from 7-8 and the rest 94(23%) have more than 9 years banking relationship with NIB International Bank S.C.

The table also shows that the respondent's occupation is interpreted as follows:

84(21%) are home duty or workless, 47(12%) are students, 190(48%) are self-employed or private business owners, 52(14%) are government organizations employed, and the rest 19(5%) other organizations employed customers of the bank.

The level of the respondent's monthly income in Ethiopian birr shows that, 8(2%) of respondents have less than birr 2,000 monthly income, 18(5%) have from birr 2,001-4,000, 27(7%) have from 4,001-6,000 monthly income, 45(11%) have from birr 6,001-8,000 monthly income, 24(6%) have from birr 8,001-10,000 monthly income and the rest 270(69%) have more than 10,000 monthly incomes. This shows that the majority of NIB International Bank's S.C customers in Ethiopia have a monthly income of more than birr 10,000.00.

Similarly, the above table1 shows that 374(95%) are e-banking service users while the remaining 18(5%) are not e-banking service users. This indicates that, the majority of the NIB International bank customers are e-banking service users.

**Table 2. Distribution of E- banking users in term of service type**

Electronic Banking Service	Service Usage	Frequency of Customers	Percent
ATM Services	Use the Services	352	90%
	Do not use the services	40	10%
Mobile Banking Services	Use the Services	274	70%
	Do not use the services	118	30%
Internet Banking Services	Use the Services	57	15%
	Do not use the services	335	85%
Point -of- Sales Services	Use the Services	289	74%
	Do not use the services	103	26%

**The above table 2 presents the distribution of Electronic banking users in term of service type.** Accordingly, ATM services, Mobile banking services, Internet banking services and Point of Sale Terminal (POS) services are type of electronic banking services currently being offered by NIB International bank S.C. Thus, the above table indicates that 352(90%) of customers or respondents are ATM users while 40(10%) are non-users. It also shows that 274(70%) of customers or respondents are Mobile banking users while 118(30%) are non-users. 57(15%) of customers or respondents are Internet banking users while 335(85%) are non-users. 289(74%) of customers or respondents are point-of-sales services users while 103(26%) are non-users.

Finally, it indicates that Internet banking users of the bank are very weak and those of ATM users are high as per the above table distribution of E-Banking users.

## 4.2 Respondents opinion on E-banking Service Adoption

**Table 3: Importance of E-banking Service Adoption**

Descriptions			Percentage (%)				
	Mean	SD	SA	A	N	D	SD
E-Banking adoption is important	1.47	0.700	256(65)	89(23)	47(13)		
E-Banking services adoption is significantly important	1.44	0.536	228(58)	156(40)	8(2)		
E-Banking services adoption is not that much important for me	2.67	0.934	52(13)	102(26)	163(42)	75(19)	
E-Banking adoption simplifies the banking services rendered	1.29	0.498	286(73)	98(25)	8(2)		
Overall, E-Banking adoption has high importance	1.69	0.805	195(49)	132(34)	55(14)	10(3)	

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

Source: Survey 2020/21 via SPSS 25

**The above table 3 indicates the importance of e-banking Service Adoption.**

As the table indicated above, 75(19%) of the respondents are strongly disagreed, 163(42%) of the respondents are disagreed, with a mean of 2.67 and standard deviation of 0.934 to the importance of E-Banking adoption. This indicates that users of the e-banking services are not properly aware to the importance of the product. So, the bank should fill the gap in creating awareness to its customers via different means of communication.

## 4.3 Respondents opinion on Security of E-Banking service adoption

**Table 4: Influence of security on Electronic banking Service Adoption**

Descriptions	Percentage (%)						
	Mean	SD	SA	A	N	D	SD
Security of Electronic banking is important for me	1.24	0.607	323(82)	54(14)	15(4)		
The authorized username and password are important	1.36	0.585	274(70)	96(24)	22(6)		
I do not save my login ID and password on the computer	1.45	0.622	241(61)	124(32)	27(7)		
I do not leave my computer unattended, while connected to the e-banking services	1.53	0.584	201(51)	173(44)	18(5)		



Online banks have ability of correcting erroneous transactions	2.22	1.034	119(30)	122(31)	95(25)	56(14)	
Online monetary transaction is safer than carrying money	1.99	1.102	175(44)	112(29)	40(10)	65(17)	
Overall online banking is highly secured	2.40	1.085	114(29)	76(19)	133(34)	69(18)	

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

Source: Survey 2020/21 via SPSS 25

**The above table 4 indicates the influence security on e-banking Service Adoption.**

As the table indicated, with a mean of 2.22 and standard deviation of 1.034, 56(14%) respondents are strongly disagreed, 95(25) of the respondents are disagreed to the ability of correcting erroneous transactions made through online banking. Also, with a mean of 1.99 and standard deviation of 1.102,65(17%) of the respondents are strongly disagreed, and 40(10%) of the respondents are disagreed that the monetary transactions are safer than carrying money. These imply that the bank should focus on strongest of the security of e-banking services as it can influence users negatively.

**4.4 Respondents opinion on Privacy of E-Banking service adoption**

**Table 5 Influence of Privacy on E-Banking Service Adoption**

Descriptions	Percentage (%)						
	Mean	SD	SA	A	N	D	SD
Confidential information is delivered safely from banks to customers	1.32	0.588	292(75)	75(19)	25(6)		
The bank keeps customers information Private and Confidential	1.23	0.450	307(79)	79(20)	6(1)		
The information found in the website is credible	2.51	1.379	129(33)	88(22)	63(16)	71 (19)	41(10)
I find the website information trustworthy	2.60	1.289	101(26)	93(24)	99(25)	60(15)	39(10)
I can safely make an online transactions	1.71	0.941	219(56)	92(23)	55(14)	26(7)	
Privacy in e-banking is important to me	1.41	0.665	269(69)	84(21)	39(10)		
Overall, online banking privacy is high	2.17	1.044	125(32)	134(34)	73(19)	59(15)	

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

Source: Survey 2020/21 via SPSS 25

**The above table 5 indicates the influence of Privacy on e-banking Service Adoption.**

As the table indicated, with a mean of 2.51 and standard deviation of 1.379, 41(10%) of the respondents are strongly disagreed and 71(19%) are disagreed that the information found on the bank’s website is credible.

Also from the table above, with a mean of 2.60 and standard deviation of 1.289, 39(10%) of the respondents are strongly disagreed and 60(15%) are disagreed that the information found on the bank’s website is trustworthy.

The bank also should work on the credibility and trustworthiness of the information found on the bank’s website to persuade its customers as it has a potential impact on customers towards the use of the e-banking services

#### **4.5 Respondents opinion on Trust of E-Banking service adoption**

**Table 6 Influence of trust on E-Banking Service Adoption**

Descriptions	Percentage (%)						
	Mean	S D	SA	A	N	D	SD
I trust in internet banking services.	1.36	0.612	278(71)	86(22)	28(7)		
I trust in the safety of online money transfer.	1.32	0.579	290(74)	79(20)	23(6)		
I trust the bank to handle my personal information in confidentiality.	1.75	0.889	203(52)	95(24)	82(21)	12(3)	
I trust the information presented on e-banking websites	2.00	1.040	165(42)	110(28)	70(19)	47(11)	
Internet banking system can be attacked.	1.38	0.734	301(77)	32(8)	59(15)		
Overall, I trust online banking.	1.73	1.033	231(58)	81(21)	35(10)	45(11)	

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

Source: Survey 2020/21 via SPSS 25

**The above table 6 indicates the influence of trust on e-banking Service Adoption.**

As the table indicated, 12(3%) of the total respondents are disagreed that the bank handle their information confidentially with a mean of 1.75 and standard deviation of 0.889. Also as per the table above indicated, 47(11%) of the total respondents are disagreed that the information on e-banking websites are trusted with a mean of 2.00 and standard deviation of 0.734. Majority of the users of the E-banking services are agreed to the confidentiality of the information that could be accessed from the

bank's website.

#### 4.6 Respondents opinion on Cost of E-Banking service adoption

**Table 7 Influence of cost on E-Banking Service Adoption**

Descriptions	Percentage (%)						
	Mean	S D	SA	A	N	D	SD
Fee of internet connection is affordable and fair.	1.35	0.634	289(73)	69 (18)	34(9)		
I can save my time and money by using internet banking.	1.40	0.627	266(68)	96(24)	30(8)		
Transaction done at internet banking is less costly than bank branches.	1.77	0.917	193(49)	121(31)	52(13)	14(4)	12(3)
Overall, the fees and Charges are fair and affordable.	1.93	1.065	187(48)	94(24)	62(16)	49(12)	

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

Source: Survey 2020/21 via SPSS 25

**The above table 7 indicates the influence of cost on e-banking Service Adoption.**

As the table indicated, 12(3%) s of the respondent are strongly disagreed, 14(4%) are disagreed the transaction done through online banking is less cost than ordinary or conventional banking services. Also, 49(12%) of the respondents are disagreed to the fairness of the cost of E-Banking services or products.

#### 4.7 Analysis of the variables

Based on previous studies and the finding of this study, this section discussed the general result obtained via regression analysis as shown in the above table. Referring the literature, the result of each explanatory variable including their effect on E-banking adoption of NIB International bank was discussed. Thus, result of the finding was discussed in relation to the previous empirical and theoretical evidences as follows:

#### **Security**

The main risks associated with e-Banking are strategic, operational, legal and reputational. Security is considered the central operational risk of e-Banking. According to Sokolov (2007) some of the specific problems cut across risk categories.

The result of this study shows that security has a significant influence on customers of NIB International Bank's s.c in adoption of e-banking services. This is consistent with the study that was conducted by (Sathye 1999; Katri 2003; Shah et al. 2005; Khalfan et al. Gerrard et al. 2006; Woldie *et al.* . 2008) in Vietnam, Ghana and Romania, Chong *et al.* 2010 and Moga *et al.* 2010) respectively. However, this study contradicts a study conducted by (Hole *et al.* 2006).

## **Privacy**

While taking into consideration on safety and privacy issues of e-banking services, problem are interwoven in this context which relates to the facts as we can see technology is growing in every corner of the world so the people be protected from the misusers. The bank is dealing with many challenges and many possibilities are reachable with it. Privacy components can be considered in thought at all stages of banking services, to guard themselves against a number of sorts of extortion and assaults. Web-banking raises numerous complex issues for the bank and controller alike, and for this reason bounty work is required at nationwide and worldwide levels. Besides, e-banking will also be a framework where clients are able to connect with their banks "worry free". But nevertheless, there is a need to have greater innovative options so that the troubles associated to safety and privacy troubles can be solved so that the opportunities can be availed efficiently.

Similarly, the result of this study shows Privacy has a significant influence on customers in adoption of e-banking. This is similar to study conducted in Lebanon by (Daghfous and Toufaily 2007) and study in Singapore by (Gerrard *et al.* 2006). This is because electronic banking services are in inherently risky environment due to the absence of personal contact, physical product evaluation, warranties and contracts. This implies that customers might be concerned about the length of time involved in waiting for transaction or learning how to operate it.

## **Cost**

Together with the long term usage of the particular bank services, cost may not occur as an important factor that influences adoption of internet banking. Healy (1999) revealed that long-term customers are less sensitive of the price changes.

Finding from our study revealed that cost has significant influence on adoption of e-banking. This is consistent with the study by Cerem, Simon and Robert 2009), and study in Nigeria by (Gao and Owolabi 2008). However, this study is inconsistent with study conducted by (Sadiq Sohail and Shanmugham 2003) who reported as service cost does not significantly influence e-banking adoption.

## Trust

The results of this study revealed as Security has positive significant influence on e- banking service adoption. This result confirms the finding of (Al-Somali et al. 2008 and Bultum2014). This implies establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.

### 4.8 Validity and reliability of the data

Validity explains how well the collected data covers the actual area of investigation (Ghauri and Gronhaug, 2005). Validity basically means “measure what is intended to be measured” (Field, 2005).

Reliability concerns the extent to which a measurement of a phenomenon provides stable and consist result (Carmines and Zeller, 1979). Reliability is also concerned with repeatability. For example, a scale or test is said to be reliable if repeat measurement made by it under constant conditions will give the same result (Moser and Kalton, 1989). Testing for reliability is important as it refers to the consistency across the parts of a measuring instrument (Huck, 2007).

According to the facts, the following table proves the validity and reliability of the data taken for the study.

**Table 8 Reliability Statics**

<b>Cronbach’s Alpha</b>	<b>Number of Items</b>
0.989	40

The above validity and reliability test data implies that the data valid and reliable to conduct the study based on the data collected and intended respondents.

## **CHAPTER FIVE**

### **FINDINGS, CONCLUSION AND RECOMMENDATION**

This chapter provides the findings, conclusion and recommendation of the researcher based on the result of the study conducted.

#### **5.1 Findings**

The study was intended to examine factors affecting the E-banking services adoption in nib international bank s.c based on the questionnaire consisting of 413 randomly selected customers of the bank.

#### **5.2 Conclusion**

The result or findings of his study gives an insight into the factors that determine the adoption of internet banking in NIB International bank S.C. The study has been able to identify the factors that determines the adoption of internet banking and has been able to provide empirical implications both for management of nib international bank s.c and the government help to improve the adoption of internet banking in Ethiopia. Based on descriptive statistics, it is possible to conclude that the majority of Nib International bank's customers are males and also majority of the customers are first degree holders. Besides, the majority of the customers are Private business holders followed by home duty. From the table, the researchers concluded as the whole variables (cost, trust, privacy and security) has a significantly determine the adoption of e- banking services in NIB International bank s.c.

In summary, the findings showed that privacy, and security are the major factors influencing adoption of internet banking in NIB International S.C while cost and trust were found to be insignificant in this study. Results in this study provide important information for bank providers in designing a mass-oriented or user-friendly internet banking that would attract people to adopt online banking services even in the country.

#### **5.3 Recommendation**

Based upon the findings of this study, we recommend the following points:

- ❖ The researcher recommends that he bank should have improve their security and privacy functions in e-banking that will safeguard customers' personal information and prevent fake web sites at the lowest costs for customers, while increasing clients' trust to achieving greater profitability in the long term. However, even though security and privacy features such as firewalls, authentication, encryption, etc care the norm of e-banking sites; most customers do

not have the ability to fully comprehend the functions that are already implemented.

- ❖ The researcher also recommends that the bank should focus on increasing the number of E-banking services users by implementing and designing suitable environment which could be easily accessible by customers.
- ❖ The researcher also recommends that the network infrastructure of the bank should also be given an attention to increase the trustworthiness of the customers as well confidentiality of the information found the bank's website should be kept safe.
- ❖ The researcher also recommends that the bank should also work on increasing the awareness creation of its customers towards the importance and significance of the E-banking services that could also increase profitability and competitiveness of the bank.
- ❖ The researcher recommends that the bank should equip customers with this e-banking knowledge through more awareness creation messages and training approaches to its employees as well.
- ❖ The researcher recommends that through different means of communications like, Advertisement, magazines, newspaper and the like, the bank should work on it aggressively in order to increase its market share and competitiveness.
- ❖ Finally, bank need to focus on technological innovation competition rather than traditional bases of retail bank competition.



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St. Mary's University, Ethiopia

**ዉድ የጥናቱ ተሳታፊ**

ስሜ መስፍን ሲሳይ ይባላል። በቅድስት ማርያም ዩኒቨርሲቲ የማስትሬት ዲግሪ ተመራቂ ተማሪ ስሆን በአሁኑ ወቅት የመመረቂያ ጾሁሬን በማዘጋጀት ላይ እገኛለሁ። ጥናቱ የሚያተኩረው በንብ ኢንተርናሽናል ባንክ አ.ማ የኢንተርኔት ባንኪንግ ትግበራ የደንበኞች ምልክታ ላይ ነው። ይህ መጠይቅ አምስት ክፍሎች ያሉት ሲሆን የመጀመሪያው ክፍል ስለ እርሶ አጠቃላይ መረጃ ለመሰብሰብ የሚጠቅም ሲሆን ቀጣይ ክፍሎች ደግሞ ስለሚጠወሙበት ባንክ የኢንተርኔት ባንኪንግ ትግበራ በደንበኞች ዕይታ ያለውን አጠቃላይ ግንዛቤ ለማወቅ ይረዳል። ይህንን መጠይቅ በሙሉ ታማኝነት እንዲሞሉልኝ እየጠየኩኝ የሚሰጡኝ መረጃ ከዚህ ጥናት ውጭ ለሌላ ለምንም አገልግሎት እንደማይውል አረጋግጣለሁ። የእርሶ አስተያየት ለዚህ ጥናት መሳካት ከፍተኛ አስተዋፆ እንደሚያደርግ እየገለፅኩ ለሚያደርጉልኝ ትብብር ከልብ አመሰግናለሁ። ለሚኖሮት ማንኛውም ጥያቄ ወይም አስተያየት በሞባይል ቁጥሩ 0911 63 68 91 ሊያገኙኝ ይችላሉ።

**ማስታወሻ:** ከእርስዎ ጋር በሚስማማው ሳጥን ውስጥ (✓) ይህን ምልክት ያስገቡ/ይጠቀሙ።

**I. የግል መረጃዎች**

1. ፆታ

ወንድ  ሴት

2. ዕድሜ

ከ25 ዓመት በታች  ከ26-32  ከ33-40  ከ41-50

ከ51 በላይ

3. የትምህርት ደረጃ

2ኛ ደረጃ የጨረሱ  ዲፕሎማ  ድግሪ  ማስተርስ  ፒ.ኤች.ዲ.

4. የተጠያቂዎች የገቢ ሁኔታ

ከ 2,000 ብር በታች  ከ2,001-4,000  ከ4,001-6,000  ከ6,001-8,000

ከ8,001-10,000  ከ10,000 በላይ



5. በባንኩ ውስጥ በደንበኝነት የቆዩበት ዓመት

ከ 1 ዓመት በታች  ከ1-2  ከ3-4  ከ5-6  ከ7-8

ከ9 ዓመት በላይ

**II. የኤሌክትሮኒክስ ባንኪንግ አገልግሎት ትግበራ ጠቀሜታ**

ተ.ቁ	መግለጫ	በጣም እስማማለሁ	አስማማለሁ	ሀሳብ ያለኝም	አልስማማም	በጣም አልስማማም
1	ልክትሮኒክስ ባንኪንግ አገልግሎት መተግበር አስፈላጊ ነው።					
2	ልክትሮኒክስ ባንኪንግ አገልግሎት ጠቀሜታ የጎላ ነው።					
3	ልክትሮኒክስ ባንኪንግ አገልግሎት ጠቀሜታ እምብዛም ነው።					
4	ልክትሮኒክስ ባንኪንግ አገልግሎት መተግበር የባንክ አገልግሎት አሰጣጥን ቀላል ያደርገዋል።					
5	በአጠቃላይ የኤሌክትሮኒክስ ባንኪንግ አገልግሎት መተግበር ከፍተኛ ጥቅም አለው።					

**III. በባንኩ የኢንተርኔት ትግበራን በተመለከተ ያለው የደህንነት ጥንቃቄ በእርስዎ እይታ**

ተ.ቁ	መግለጫ	በጣም እስማማለሁ	እስማማለሁ	ሀሳብ ያለኝም	አልስማማም	በጣም አልስማማም
1	ኢንተርኔት ባንኪንግ የደህንነት ወይም የይለፍ ጭልፍ ጥንቃቄ መኖር አስፈላጊ ነው።					
2	ፀደቀ የይለፍ ቃል አስፈላጊ ነው።					
	ይለፍ ቃሌን በኮምፒዩተር ላይ መዝግቤ አልተወጠም።					
3	ኢንተርኔት ባንኪንግ አገልግሎት የምጠቀምበት ኮምፒዩተር ከኢንተርኔት ጋር የተገናኘ በመሆኑ ሌላ ሰው እንዲጠቀምበት አልፈቅድም።					
4	ባንኩ በኦንላይን የባንክ አገልግሎት ጊዜ የሚፈፀሙ ስህተቶችን የማረም ወይም የማስተካከል አቅም አለው።					
5	ኢንተርኔት ባንኪንግ አገልግሎት ገንዘብ ከመያዝ አንጻር የተሻለ አገልግሎት ነው።					
6	አጠቃላይ የኦንላይን ባንኪንግ አገልግሎት አስተማማኝነቱ ከፍተኛ ነው።					

**IV. በኢንተርኔት ባንኪንግ ትግበራ ላይ ያለው የሚስጢራዊነት ደህንነት**

ተ.ቁ	መግለጫ	በጣም እስማማለሁ	አስማማለሁ	ሀሳብ ያለኝም	አልስማማም	በጣም አልስማማም
1	ኢንተርኔት ባንኪንግ መጠቀሚያ መረጃዎች ከባንኩ ወደ ተጠቃሚዎች በሚተላለፉበት ጊዜ ሚስጢራዊነቱ የተጠበቀ ነው።					
2	ባንኩ የደንበኞችን የኢንተርኔት ባንኪንግ መጠቀሚያ መረጃዎች በሚስጢር ይይዛል።					
	ባንኩ የመረጃ መረብ ላይ የሚገኙ መረጃዎች እውነትነት አላቸው።					
3	ባንኩ የመረጃ መረብ ላይ የሚገኙ የኢንተርኔት ባንኪንግ መረጃዎች አምናቸዋለሁ።					
4	አንላይን የባንክ አገልግሎት ያለስጋት አከናውናሉ።					
5	ኢንተርኔት ባንኪንግ አገልግሎት በግል መጠቀም አስፈላጊ ነው።					
6	አጠቃላይ የአንላይን ባንኪንግ አገልግሎት ሚስጢራዊነቱ አስተማማኝነቱ ነው።					

**V. በኤልክትሮኒክስ ባንኪንግ ተዳማኒነት**

ጥ.ቁ	መግለጫ	በጣም እስማማለሁ	እስማማለሁ	ሀሳብ ያለኝም	አልስማማም	በጣም አልስማማም
1	ኤልክትሮኒክስ ባንኪንግ አገልግሎትን አምነዋለሁ።					
2	አንላይን የገንዘብ ዝውውር ደህንነት አምነቃለሁ።					
	ባንኩን የግል መረጃ አያያዝ ምስጢራዊነትን አምነዋለሁ።					
3	ባንኩ የመረጃ መረብ ላይ ስለሚገኙ መረጃዎች እምነቴ ከፍተኛ ነዉ።					
4	ኢንተርኔት ባንኪንግ አገልግሎት መጠቀሚያ መረብ ወይም ሲስተም ሊጠቃ ይችላል።					
5	አጠቃላይ የአንላይን ባንኪንግ አገልግሎትን አምነዋለሁ።					

**VI. የኤልክትሮኒክስ ባንኪንግ አገልግሎት የኢንተርኔት ክፍያን በተመለከተ**

ተ.ቁ	መግለጫ	በጣም እስማማ ለሁ	አስማማለሁ	ሀሳብ ያለኝም	አስማማም	በጣም አስማማም
1	ኤልክትሮኒክስ ባንኪንግ የኢንተርኔት ክፍያ ሚዛናዊ ነዉ።					
2	ኤልክትሮኒክስ ባንኪንግ የኢንተርኔት ክፍያ ሚዛናዊ ነዉ።					
	ኢንተርኔት ባንኪንግ አገልግሎት ተጠቃሚ በመሆኔ ጊዜንና ገንዘቤን መቆጣጠር ችያለሁ።					
3	ኢንተርኔት የሚከናወኑ አገልግሎቶች በመደበኛ የባንክ አገልግሎት ከሚከናወኑ ክፍያዉ ወይም ወጪዉ ያነሰ ነዉ።					
4	አጠቃላይ የአንላይን ባንኪንግ አገልግሎት ክፍያና ወጪ አነስተኛ ነዉ።					



ቅድስት ማርያም ዩኒቨርሲቲ  
St. Mary's University, Ethiopia

## Questionnaire on "Factors affecting E-banking adoption services in Nib international bank S.C: customers' perspective

**Dear Respondent,**

My Name is Mesfin Sisay Abebe. I am a prospective graduate of St.Mary's University in the field of Masters of Business Administration. The questionnaire is designed to seek information on factors affecting e-banking adoption in nib international bank s.c: customers perspective, in Partial Fulfillment for the award of Master of Business administration in Management. The overall objective of this questionnaire is to gather first-hand information on the aforementioned issue. The information gathered will be accessed only by the student researcher and will be kept strictly confidential and please don't write your name. Your contribution to this research is very greatly appreciated. Thank you in advance for your cooperation.

**Note: kindly put a (√) mark with the option that reflects your level of agreement with the given statement.**

### **I. Respondent's Profile**

1. Gender: Male  Female

2. Age : <25 Years  25-32 Years  33-40 Years  41-50 Years  >50 Years

3. Educational Background

High School completed  Diploma  Degree  Masters  PHD and Above

4. Banking relationship

< 1Year  1-2 Year  3-4 Years  5-6 Years  7-8 Years  > 9 years

## II. Importance of E-banking Service Adoption

Description	SA	A	N	D	SD
E-Banking adoption is important					
E-Banking services adoption is significantly important					
E-Banking services adoption is not that much important for me					
E-Banking adoption simplifies the banking services rendered					
Overall, E-Banking adoption has high importance					

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

## III. Influence of security on Electronic banking Service Adoption

Descriptions	SA	A	N	D	SD
Security of Electronic banking is important for me					
The authorized username and password are important					
I do not save my login ID and password on the computer					
I do not leave my computer unattended, while connected to the e-banking services					
Online banks have ability of correcting erroneous transactions					
Online monetary transaction is safer than carrying money					
Overall online banking is highly secured					

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

#### IV. Influence of Privacy on E-Banking Service Adoption

Descriptions	SA	A	N	D	SD
	Confidential information is delivered safely from banks to customers				
The bank keeps customers information Private and Confidential					
The information found in the website is credible					
I find the website information trustworthy					
I can safely make an online transactions					
Privacy in e-banking is important to me					
Overall, online banking privacy is high					

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

#### V. Influence of trust on E-Banking Service Adoption

Descriptions	SA	A	N	D	SD
	I trust in internet banking services.				
I trust in the safety of online money transfer.					
I trust the bank to handle my personal information in confidentiality.					
I trust the information presented on e-banking websites					
Internet banking system can be attacked.					
Overall, I trust online banking.					

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree



**VI. Influence of cost on E-Banking Service Adoption**

Descriptions	Percentage (%)						
	Mean	S D	SA	A	N	D	SD
Fee of internet connection is affordable and fair.							
I can save my time and money by using internet banking.							
Transaction done at internet banking is less costly than bank branches.							
Overall, the fees and Charges are fair and affordable.							

Where, SA- strongly agree, A-Agree N- Neutral, D - Disagree and SA- Strongly agree

## REFERENCE

- Al-Somali SA, Gholami R, Clegg B (2008) Internet Banking Acceptance in the Context of Developing Countries: An Extension of the Technology Acceptance Model.
- Almazari AAK and Siam AZ (2008) E-Banking: An Empirical Study on the Jordanian Commercial Banks. *Journal of King Abdul-Aziz University* 22(2), 3-26.
- Andrew Musiime and MalingaRamadhan(2011) Internet banking, consumer adoption and customer satisfaction *African Journal of Marketing Management* Vol. 3(10), pp. 261-269,
- Ayana GemechuBultum (2014) Factors Affecting Adoption of Electronic Banking System in Ethiopian Banking Industry; *Journal of Management Information System and E-commerce*
- Ayrge A (2011).Is Mauritius Ready to E-Bank? From a Customer and Banking Perspective. *Journal of Internet Banking and Commerce*, 16(1).
- Bader M,Almohaimmeed (2012) CustomerBehavior towards Internet Banking: A Study of the Dormant Users of Saudi Arabia ;A thesis submitted to The University of Irmingham For the degree of DOCTOR OF PHILOSOPHY.
- CARMINES, E. G. & ZELLER, R. A. 1979. *Reliability and Validity Assessment*, Newbury Park, CA, SAGE
- Ceren S, and Simon W (2007) Internetbanking market performance: Turkey versus the UK, *International Journal of Bank Marketing*,
- Chong AY, Ooi K, Lin B, and Tan B (2010) Online banking adoption: An empirical analysis. *International Journal of Bank Marketing*, 28(4): pp.267-287
- DaghfousN and Toufaily E (2007) The adoption of E-banking by Lebanese banks: success and critical factors. research paper, Universte du Quebec a Montreal Retrieved from:Dashen bank 2011, Annual Report, available at: <http://www.dashenbank.com>

- Dimitrios Maditinos, Dimitrios Chatzoules and Lazaros Sarigiannidis (2013) An examination of the critical factors affecting consumer acceptance of online banking, A focus on the dimensions of risk, *Journal of Systems and Information Technology*, Vol. 15 No. 1, 2013
- Mohammad O. Al-Smadi And Al-Imam Muhammad Ibn (2012) Factors Affecting Adoption of Electronic Banking: An Analysis of the Perspectives of Banks' Customers; *International Journal of Business and Social Science* Vol. 3 No. 17;
- Gao P, Owolabi O (2008) Consumer adoption of internet banking in Nigeria
- Gerrard P, Cunningham J and Devlin J (2006) Why consumers are not using Internet Banking: a qualitative study. *Journal of Services Marketing*, 20(3):160–168.
- GHAURI, P. & GRONHAUG, K. 2005. *Research Methods in Business Studies*, Harlow, FT/Prentice Hall.
- Healy, T. J. (1999). Why you should retain your customers. *America Community Banker*, 8(9), 22-26.
- Hole KJ, Hole KJ, Moen V, and Tjostheim T (2006) Case study: Online banking security. *IEEE Security & Privacy Magazine*, 4(2): pp.14-20.
- Kariuki John and Gikonyo (2014) Factors Influencing the Adoption of Internet Banking In Kenya.
- Katri K (2003). Adoption of electronic banking: underlying consumer behavior and critical success factors. Case of Estonia.
- Kerem K (2003) Adoption of electronic banking: underlying consumer behavior and critical success factors' Case study of Estonia', paper presented at the 2003 conference of the technology and everyday life network, London, U.K.
- Khalfan A, Alrefaei S and Al-Hajery M (2006) Factors influencing the adoption of internet banking in Oman: a descriptive case study analysis,' *international journal of financial*

services management, 1(2/3):155-172

Michal P and Tomasz PW (2009) Empirical analysis of internet banking adoption III Poland ",  
International Journal of Bank Marketing, Vol. 27 No.1, pp. 32-

Moga LM, Md NK, Neculita M, and KhaniN(2012) Trust and Security in E-banking Adoption in  
Romania:pp.1-10

MOSER, C. A. & KALTON, G. 1989. Survey methods in social investigation, Aldershot,  
Gower.

Nasim Z, Hosein(2009) Internet Banking: An Empirical Study Of Adoption Rates Among  
Midwest Community Banks Shantou University, Shantou, China, Journal of Business  
& Economics Research Vol 7, No 11

Perkins, Ed-Zilla Daniel, Annan, Jonathan (2012) Factors affecting the Adoption of Online  
Banking in Ghana: Implications for Bank Managers

Tower Group (2005)Online banking consumers adoption in the US (2002-2006). Available at:  
[www.towergroup.com/research](http://www.towergroup.com/research).

Venkatesh V, Morris MG, Davis GB, and Davis FD (2003) User acceptance of information  
technology: Toward a unified view. *MIS quarterly*, 425-478.

Yousafzai S (2005) Customer behavior towards internet banking.UnpublishedPh.D.Thesis  
Robert JN (2009) Electronic Commerce Adoption in the Arab Countries.AnEmpirical  
Study",

International Arab Journal of e- Technology, Vol. 1 No.1.

SadiqSohail M and ShanmughamB (2003) E-banking and customer preferences III Malaysia:  
An empirical investigation. *Information Sciences* 150(3):207-217.

Shah M, Branhganza A, Khan S and Xu M(2005) A survey of critical success factors in E-  
banking, research Paper, European and Mediterranean Conference on information  
systems UK.

Woldie A, Hinson R, Iddrisu H, and BoatengR(2008) Internet Banking: Initial look at Ghanaian  
Bank consumer Perception. *IOSR Journal of Business and Management (IOSR-JBM)*

e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 16, Issue 9. Vol. No.1;

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