ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

CHALLENGES AND OPPORTUNITIES OF ELECTRONIC BANKING: A CASE DASHEN BANK AND NIB INTERNATIONAL BANK

By

MICHAEL ADBIB

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A THESIS SUBITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF ARTS DEGREE IN BUSINESS ADMINISTARTION

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ACRONYMS

AIDB	-	Agricultural and Industrial Development Bank
ATM	-	Automated Teller Machines
CBE	-	Commercial Bank of Ethiopia
ECB	-	European Central Bank
EFT	-	Electronic Fund Transfer
FFIEC	-	Federal Financial Institutions Examination
ICT	-	Information Communication Technology
ISHOPA	-	Imperial Saving and Home Ownership Public Association
NBE	-	National Bank of Ethiopia
NIB	-	Nib International Bank (S.C)
PDA	-	Personal Digital Assistant
POS	-	Point of Sale
PSS	-	Premiere Switch Solutions (S.C)
SADC	-	Southern African Development Community
SMS	-	Short Message Service
UNCITRAL	-	United Nations Commission on International Trade Law

ABSTRACT

This study is conducted with the purpose of examining the challenges and opportunities of electronic banking in Ethiopia in the case of Dashen and Nib International Banks. The study was conducted based on data collected from staff and customers of the two banks through questionnaires and interviews.

The response of interviews and the survey show that there are certain issues that become a challenge for the development of electronic banking in Ethiopia. In this regard, the result of the study indicated that the major challenges for the development of electronic banking in Dashen and Nib International Banks are lack of information, security risk, lack of trust, lack of legal and regulatory framework, lack of infrastructure, shortage of skilled professionals and lack of awareness. The study also identified perceived ease of use and perceived usefulness as benefits for the development of E-banking in Ethiopia.

The study suggests a series of measures which could be taken by the two private commercial banks and to address various challenges identified in the study. These measures include: enhancing the awareness level of individuals on E-banking, implementing powerful security programs, establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on telecommunication infrastructure and hiring well trained and experienced IT professionals to handle the E-banking business competently with adequate knowledge.

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

Nowadays modern technology is being introduced in all fields and it is changing the world with full of innovations. In this regard, information technology is considered as the key driver for the changes to take place around the world. For this reason, the traditional banking services are getting modernized by the use of electronic banking. These changes are made mainly due to the developments in information and communication technology. Due to this growth in information and communication technology, the banking industry is entering into new phenomena of unprecedented form of competition supported by modern information and communication infrastructure especially through the use of internet (Shittu, 2010).

The concepts of e-banking become popular when the banking activities and information technology are merged. When the internet facilities enter into the banking sector, the inter-bank activities are linked through internet, the concept of "Electronic Banking or Net Banking" is also introduced. Electronic banking enables a customer to do banking transactions through the bank's website in the internet. It is more or less like bringing the bank to customer's computer, at the place and time of customer's choice. (Devamohan, 2002). The application of this electronic banking service has become a subject of fundamental importance and concerns to banks and indeed a prerequisite for local and global competitiveness in the banking industry. This in turn motivates banks to spend more on information technology so as to achieve maximum returns and to attract large number of clients (Husni and Noor 2011).

The rapidly growing information and communication technology is knocking the front door of every bank in the world, where Ethiopian banks would never be exceptional. Electronic Banking has been widely used in developed countries and is rapidly expanding in developing countries. In Ethiopia, however, cash is still the most dominant medium of exchange, and electronic payment systems are at an evolving stage. In the face of rapid expansion of electronic payment systems throughout the developed and the developing world, Ethiopia's financial sector cannot remain an exception in expanding the use of the electronic banking system. In this context, the study will attempt to trace the present status of e-banking

in Dashen and Nib International Bank, visualize the opportunities and looks at the challenges faced in providing the service.

1.1.1. Background History of Dashen Bank

Dashen Bank was established as per the intent of the new policy and the Ethiopian investment code. It came into existence on September 20, 1995 according to the Commercial Code of Ethiopia and the Licensing and Supervision of Banking Business Proclamation No. 84/1994 with a paid up capital of Birr 14.9 million and authorized capital of Birr 50 million. The first founding members were 11 businessmen and professionals that agreed to combine their financial resources and expertise to form this new private bank.

Since then the Bank has been growing and has now (June 2013) reached to own 106 branches, 105 ATMs (Automatic Teller Machine) and 783 POS (Point of Sale) Terminals all over the country. At the end of June 2013, the authorized and Paid-up capital of the Bank reached Birr 737.2 million and Birr 1 billion respectively. The number of staff also increased and reached 3,811. For the last 18 consecutive years, Dashen Bank has been the leader in Ethiopia than any private commercial banks in all aspects of banking industry such as, gross profit, branch expansion, introduction of modern banking service, reduction of unemployment, paying high income tax, exerting effort for social responsibility and contributing to the development of the country.

1.1.2. Background History of Nib International Bank

Nib International Bank S.C. was established on 26th 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 No. 84/1994 with a paid up capital of Birr 27.6 million and authorized capital of Birr 150 million by 717 shareholders and commenced its operation on 28th October 1999. At the end of June 2013, the authorized and Paid-up capital of the Bank reached Birr 2 billion and Birr 999.9 million respectively. Shareholders' and employees number also increased and reached to 3,877 and 2,278 respectively. NIB has network of 71 branches and 60 ATM machines that are installed and working in the different parts of the country.

1.2. Statement of the Problem

Electronic banking is a driving force that is changing the banking industry towards a more competitive and efficient situation. Electronic banking presents both an opportunity and a challenge in terms of being able to provide the convenience, efficiency, and effectiveness of electronic banking to its customers. The main driver behind electronic banking is convenience. It is available around the clock, is extremely time-saving, and is accessible from anywhere around the world. Electronic banking is very efficient, and has helped cut down a lot of costs, and in the case of virtual banks it has cut down almost all costs (Alam, 2010). But the influences of electronic banking go far beyond this.

With all these benefits and opportunities that electronic banking offers to the Ethiopian banking industry, there are a number of challenges which commercial banks operating in the country are facing in the provision of electronic banking services. One of the major hindrances is lack of appropriate technological infrastructure to support the service. The financial institutions also argue with internet challenges including its congested connection, security and quality of service (Megersa, 2010). There is also lack of specialists with the adequate technological skills to build that infrastructure. It might also be a challenge to convince customers, especially those who are not familiar with using the internet, and who might find it hard to try to deal with a service that they consider confusing and frustrating.

The Ethiopian financial sector has not been studied to any great extent, from the perspective of provision of electronic banking service. The electronic banking service is introduced in Ethiopia in the late 2005. Though the service has been in operation for the last eight years, a very limited research has been conducted on the challenges and opportunities of electronic banking in Ethiopia in general and Dashen and Nib International banks in particular. Thus, this study attempts to fill this gap and contributes to the literature on the electronic banking service in Ethiopia. Therefore, the main purpose of this study is investigating the challenges and opportunities in the implementation of electronic banking in Dashen and Nib International Banks.

1.3. Significance of the Study

The findings of the study will be significant as it is expected to enhance the awareness level of stakeholders with regard to the challenges and opportunities of implementing and using electronic banking in Ethiopia. In this regard, the study will have a great importance in filling the knowledge gap that exist among stakeholders. The stakeholders involved include the National Bank of Ethiopia (NBE), commercial banks, insurances, microfinance institutions, other concerned individuals and organizations. The research will also identify the technical and operational challenges of electronic banking in Ethiopia and suggests ways by which they could be tackled.

Furthermore, the outcome of the study is expected to assist other researchers for further studies in the area of electronic banking.

1.4. Objectives of the Study

The main objective of the study is to examine the challenges and opportunities of electronic banking in Dashen and Nib International Banks.

On the basis of this, the specific objectives of the study are:

- Investigating the challenges in the implementation of electronic banking in Dashen and Nib International Banks and seek solutions;
- Assessing the opportunities of e-banking on the operations of Dashen and Nib International Banks and forward relevant recommendations.

1.5. Scope of the Study

In pursuance of the objective of the study, the research paper focuses on examining the challenges and opportunities of electronic banking in Dashen and Nib International Banks. In order to conduct an empirical investigation in the implementation of electronic banking, the study examined the nature of electronic banking services in Dashen and Nib International Banks.

1.6. Limitation of the Study

While conducting the study, the sample is taken only from two private commercial banks; and doesn't include the remaining commercial banks that are operating in the country. Hence the generalizations may not be applicable to them. It is also faced that respondents were not properly responded to the whole content of the questionnaire due to misunderstandings, lack of knowledge, or commitment to the subject matter. However, to minimize these problems, the researcher used interceptive interviewing technique and some of the questionnaire which are distributed to the Bank's employee are selectively distributed for those individuals the researcher believe that they have the potential, ability and capacity to respond the questioner properly.

1.7. Organization of the Thesis

This study consists of five chapters. The first chapter is an introductory part where background of the study, statement of the research problem, objectives of the study, significance of the study, scope and limitations of the study are dealt with. Chapter two deal with reviews of literatures. The research methodology is examined in chapter three. In the fourth chapter, the results of the study are presented and discussed in detail. Finally, the paper ends up by drawing conclusions and providing recommendations to promote e-banking services in Dashen and Nib International Banks.

CHAPTER 2
REVIEW OF LITERATURES

2.1. Concept and Definition of Electronic Banking

The use of electronic communication in finance goes back much further than the 1970s. As long ago as 1918, the payments between banks used to be settled electronically over the telegraph. This 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 phone banking.

According to Zairi A (2003), 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. 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 devise, 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.

2.2. 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.

2.2.1. 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).

2.2.2. 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).

2.2.3. 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.

2.2.4. 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).

2.2.5. 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).

2.2.6. 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.

2.2.7. 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).

2.2.8. 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).

2.3. Benefits of Electronic Banking

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.

2.3.1. 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).

Dawd (2004) also argued that cardholders can be benefited from the safe and convenient nature of using cards for payment. 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.

2.3.2. 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).

2.3.3. 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 as follow:

A. 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).

B. 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).

C. 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.

D. 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).

2.4. Challenges of Electronic Banking

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.

2.4.1. 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.

A. 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.

B. 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.

C. 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.

2.4.2. Infrastructure

The other challenge for e-payment is proper infrastructure. For the effective deployment of e-banking, it is necessary to have a reliable and cost effective infrastructure that can be accessible to the majority of the population.

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.

2.4.3. 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).

2.4.4 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.

2.4.5. 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).

2.5. History of Banking in Ethiopia

2.5.1. The Early Banking Era in Ethiopia

The history of banking in Ethiopia dates back to the beginning of 20th 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.

2.5.2. 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 Nationale 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 lead 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 hanged to Investment Corporation Share Company, then industrial and finally by 1970 established the *Agricultural and Development Share Company***.**

2.5.3. 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.

2.5.4. 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 three state owned banks (*Commercial Bank of Ethiopia, Development Bank of Ethiopia and Construction and Business Bank*) and sixteen (16) private commercial banks operating in the country.

2.6. 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).

2.7. 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).

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.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Research Design

Ghauri & Gronhaug, 2005) distinguished the basic differences between three main classes of research designs; exploratory, descriptive and explanatory. The research can be exploratory when it deals with unknown problem, Descriptive when there is an awareness of the problem and Explanatory, when the problem is clearly defined. The purpose of this thesis is to conduct an exploratory and descriptive research in order to gather as much information as possible concerning the challenges and prospects of E-banking. According to Yin (1994) exploratory research is designed to allow a researcher to just look around with respect to some phenomenon, with the aim to develop suggestive ideas. Exploratory research is often used when a problem is not well known, or the available knowledge is not absolute. The technique that is best suited for information gathering when performing an exploratory research is interview (Yin, 1994). In this study researcher aimed to explore the challenges and opportunities of E-banking in Dashen and Nib International Banks. To do that, an exploratory type of the study was selected. Because, it gives valuable insight of the problem and provides suggestive ideas through reviewing information from problem area.

On the other hand, this research focuses on describing the current situation of the problem and examining the main challenges and opportunities of E-banking in Ethiopia. Moreover, this research aims to explain the phenomenon and assess the current situation of E-banking. Therefore, Descriptive research is being used to fulfill the objective.

3.2. Sampling

Sampling involves any procedure that draws conclusions based on measurements of a portion of the population. In other words, a sample is a subset from a larger population (Zikmund, et al., 2010). Respondents selected for the study are taken from service providers and users of electronic banking service in Dashen and Nib International Bank. The sample for this study includes two of the commercial banks operating in Ethiopia and some selected users of electronic payment services. As indicated in the literature review part, there are three (3) government owned banks and sixteen (16) private commercial banks operating in Ethiopia. Of the total of these nineteen banks, seven of them are providing electronic banking services in the country. In this regard, those banks which provide electronic banking services in Ethiopia are Commercial Bank of Ethiopia (CBE), Dashen Bank, Wegagen Bank, Zemen Bank, Awash International Bank, Nib International Bank and United Bank[1]. Among these seven banks; while CBE, Dashen, Wegagen and Zemen are grouped under the category of pioneer and well established banks; Awash International Bank, Nib International Bank and United Bank are categorized under those banks that are new comers to the electronic banking industry. Again among these two broad categories, Nib International Bank and Dashen Bank are selected as a sample for this research. These two banks are purposely selected for the reason that the researcher has got willing and cooperative individuals who can assist in providing the relevant information on electronic banking services. Moreover, the researcher selected Nib International Bank for the reason that he is conducting his job in NIB; where he has enough experience, information obtained from personal observation and where he assumes to have easy access to get the required information.

Currently, about eight hundred fifty (850) Point of Sale devices are in use and more than two hundred fifty thousand (250,000) electronic payment cards are distributed across the country. Of these, the sample users identified include shops, supermarkets, hotels, gas stations and other institutions using point of sale devices as well as individuals using electronic cards for transactions.

[1] Currently, those three banks namely: Awash International Bank, Nib International Bank and United Banks have banks jointly formed a company called Premiere Switch Solutions (PSS) to provide electronic banking services in Ethiopia.

3.3. Sample Size and Design

The population for this study is grouped and categorized based on the type of users and service providers. Based on this, the study has three level strata which include:

- Commercial Banks (Service providers)
- Shops, Supermarkets, hotels, gas stations (User firms)
- Individual users

These categories are chosen because members of each category significantly contribute to the use and provision of electronic banking services. Grouping them in this way improves the precision of the estimates. The Commercial banks are further stratified by size and by whether they are well established banks or new comers to the e-banking business. In this regard, while Dashen is selected among the well established banks; Nib International Bank is sampled from those new comer banks in the E-banking industry. The other categories *i.e*. merchants/shops and individual customers are selected using simple random sampling and some level of convenient sampling techniques. So as to minimize the sampling error and non response bias, 5% of the total merchants/shops who provide electronic banking services are taken as sample respondents. In this regard a total of one hundred eighty (180) which include sixty (60) bank employees, forty (40) merchants/shops and eighty (80) individual card holders are included in the sample as respondents for the questionnaire.

3.4. Data Source and Data Collection

For the purpose of this research, and in order to achieve the objectives of the study both primary and secondary sources of data are employed. Secondary data are collected from different websites, annual reports of banks, case studies, journal articles, magazines and different books that are reviewed in the area of e-banking.

Primary data are collected from bank employees, owners/operators of business entities, individual users, National Bank of Ethiopia and Ministry of Finance and Economic Development. The researcher collected the primary data in two ways- that is through personally administered questionnaire and interview methods.

3.4.1. Questionnaire Method

Cohen (1989) as quoted in Sillignakis (2002) defined a questionnaire as a self-report instrument used for gathering information about variables of interest to an investigation. For this study closed-ended questions are designed in order to call for responses, which narrow down the field of enquiry, since the respondents chooses among fixed responses. They also help the researcher to analyze easier the data since the responses can be directly compared and easily aggravated (Patton, 1990 cited in Sillignakis, 2002). Questionnaire surveys are versatile, can be employed among people of all ages and they are replicated from one subject to another and many questions can be answered in a short time (Aaker & Day, 1990).

With the purpose of achieving the objectives of the study, great effort is made to carefully design the questionnaire so as to get all relevant information that are necessary for the study. The questionnaires vary depending on whether it is a bank staff, merchant or individual cardholders. In this regard, the questionnaire consists of three parts.

The first part is designed to gather information from bank's staff. The survey questionnaire to the bank staff is structured and focuses on the types of electronic banking service in use, awareness level of customers about e-banking, perception of customers about the security, privacy and the usefulness of e-banking. The questionnaire also assesses the ability of banks to monitor electronic transactions as well as challenges that the banks face in handling electronic transactions. Furthermore, questions regarding the number of cards issued and percentage share of customers that use electronic payment instruments are asked to enable the researcher evaluate the level of usage of electronic banking services.

The second part is designed to assess the experience of merchants/shops with regard to the challenges that they experienced pertaining to electronic payments. Apart from the challenge they face, some other questions that are asked which include: the name of the merchant, the type of shop such as supermarket, boutique, gas station, hotel, etc and types of electronic payments accepted by the shop. The electronic payments are categorized into local cards and international cards. The shops are made to tick or indicate cards that they accept.

The shops are also asked to provide estimated percentages of payment amounts for the two main card categories *i.e. local and international cards as compared with the amount of cash payments.* The objective of this section is to have a broad overview of the types of e-payments accepted by the shops.

The last and third part is designed to individual card holders who are accustomed to use electronic banking products. The questionnaire to individual customers includes most of the questions categorized under similar areas indicated above. Some other questions that they are captured include their profession, age group, educational level and types of electronic payments used by that individual. The individuals are made to specify their profession, tick the age range and educational level. Moreover, in this section, they are asked about challenges that the individuals faced in using electronic banking products and services. The objective of this question is to obtain the challenges from the perspective of the individuals.

3.4.2. Interview Method

In order to gather the necessary data and also provide deep insight into the topic of electronic banking, the researcher considers interview to be the most suitable way to gather valid and reliable data that are relevant to the research question (Denscombe, 2000 cited in G&R Consultancy, nd). The technique of personal interviewing is undertaken in order to reach the objectives since it is the most versatile and productive method of communication which enables spontaneity and provide with "The skill of guiding the discussion back to the topic outlined when discussions are unfruitful while it has the disadvantages of being very costly, time consuming and can introduce bias through desires of the respondent to please the interviewer" (Aaker & Day, 1990).

Interview is conducted in person using face to face method, as this helps the interviewer to ask as many questions which were not in the interview guide depending on the respondents answers (Denscombe, 2000 cited in G & R Consultancy, nd). Moreover, it helps to obtain new insights, yield rich data, explore the topic in depth, enables flexibility to the interviewer in administering interview to a particular individual and helps in clarifying questions and cognitive aspects of the response (Kumaga, 2010).

For the purpose of this research, senior officials and managers who are working in the area of electronic banking are interviewed from the sample banks. Moreover, with the intention of getting specific details about the opportunities and challenges of e banking, interview is also conducted with some individual users. To collect data from the interviewees, the researcher used structured and open ended interviews. Some of the questions that are asked include:

- *What are the reasons for and objectives of providing electronic banking services?* This is to obtain the reason why banks get involved in such type of business and the benefits that they get by introducing the service.
- *What are the major initiatives that are put in place to increase the use of electronic banking?* This is to assess the extent of work and the level of usage.
- *What are the major challenges faced in providing electronic banking services?* In the literature review the challenges cover five major areas *i.e.* Security, Infrastructure, Legal & Regulatory Framework and Socio-Cultural issues. This question which is the main focus is to obtain other challenges from the implementers and electronic banking service providers.
- *What opportunities do you expect in the future that will help to provide the service in a more effective and efficient way?* The focus of this question is to obtain what opportunities are expected to come in the future relating to electronic banking services.

3.5. Data Analysis

For the purpose of achieving the objectives of the study, the collected data are processed and analyzed with descriptive statistics using Statistical Package for Social Scientists (SPSS). Throughout the analyzing process, percentages, ratios and other statistical methods are employed. Moreover, tables and graphs are used to present the findings of the study.

CHAPTER FOUR
RESULTS & DISCUSSION

This chapter presents and analyses the data collected through the different data collection techniques. “Questionnaire” is used as a primary data collection method to gather the required information. In addition, in order to validate the results obtained from the questionnaires, interviews are made with the Bank officials.

4.1. Results Obtained from Questionnaires

Questionnaire is very important to gathered information and it is very useful when there are a large number of respondents. For this research which requires individual’s response about the usage of electronic banking, the researcher used this data source as a primary source and has got in-depth information by using this technique. In this regard, customers and employees are found to feel confident to conveying their ideas.

Three different questionnaires were designed for (1) bank employees, (2) Individual card holder customers and (3) Merchants. There was a need to segregate the questionnaire into three factors that affect electronic banking either internally or externally.

Questionnaire 1 given in Appendix A is designed for bank employees and the bank employees are individuals who directly work in the bank and manage the day to day activity of banking operations. It includes everyone in the management hierarchy from top-level management to bottom-line workers. Under this category 60 questionnaires were distributed and 56 questionnaires (93.3%) are returned.

Questionnaire 2 given in appendix B is designed for individual card holder customers. The questionnaire is made for bank’s direct customers who are directly involved in electronic based services provided by banks. Under this category 80 questionnaires were distributed and 67 questionnaires (83.8%) are returned.

Questionnaire 3 given in Appendix C is named as Merchants/Business Persons. Merchants are the individuals who are not direct bank employees but they work as service provider or operator of the bank devices that are made available on different outlets for convenience of people. These include Supermarkets, Restaurants, Gas stations, Gymnasiums and other business entities. Under this category 40 questionnaires were distributed and only 24 questionnaires (60%) are returned.

All in all, a total of 180 questionnaires were distributed to bank employees, individual card holder customers and merchants/business persons. Out of the total 180 questionnaires, 147 questionnaires were returned (81.7% response rate).

All in all, a total of 180 questionnaires were distributed to bank employees, individual card holder customers and merchants/business persons. Out of the total 180 questionnaires, 147 usable questionnaires were obtained (81.7% response rate).

Table 4.1. Distribution of questionnaire and categories of respondents

	No. of Questionnaire Distributed	**Usable Questionnaire Obtained**	**Response Rate**
Bank Employees	60	56	93.3%
Cardholder Customers	80	67	83.8%
Merchants/Shops	40	24	60.0%
Total	**180**	**147**	**81.7%**

4.1.1. Factors of Questionnaire

In order to obtain the required information, the questionnaires format is prepared based on the factors as given in table 4.1.1 These are the essential factors to evaluate the current electronic banking situation in the two selected banks. Based on this, an attempt is made to categorize each heading into different factors regarding electronic banking. The following table shows the factors of information and corresponding question number in the questionnaire.

Table 4.1.1 - Factors for Questionnaires

	Factors	**Question Number**
i)	Background Information	-
ii)	Information on Electronic Banking	1
iii)	Security & Privacy	2,3
iv)	Perceived Usefulness	4,5
v)	Perceived Ease of Use	6,7,8
vi)	Trust	9
vii)	Awareness	10,11
viii)	Government Policies	12
ix)	Infrastructure	13,14,15
x)	Technology	16,17

4.1.2. Background Information of Respondents

4.1.2.1. Background Information of Bank Employees

Based on the information from the survey, it can be seen that most of the bank employees working in the sample banks are male and the female are less in number. In this regard, the percentage for male is 62.5% and the female is 35.7%. The male employees are almost double in number as compared to female employees. In the case of classification of respondents by age the highest percentage of participants are young between the ages of 18-35 who form 73.2% of total respondents. Regarding the educational level of the participants, the highest percentage of them have bachelor degree and above that form 78.6% of total bank employee participants. With regard to work experience of employees, about 76.8% of them have a work experience of two years and above in their respective company and no one has a working experience of above 15 years. The largest percentages

of bank employee respondents were from Nib International Bank that forms 51.8% of total respondents and the remaining were from Dashen Bank.

Table 4.1.2.1. Demographic Profile of Respondent Bank Employees

Variable	Classification of Variables	Frequency	Percentage
Gender	Male	35	62.5%
	Female	20	35.7%
	Missing	1	1.8%
Age	18-25	15	26.8%
	26-35	26	46.4%
	36-45	8	14.3%
	46-55	4	7.1%
	56-65	1	1.8%
	Above 65	-	-
	Missing	2	3.6%
Education Level	12 Complete	2	3.6%
	Diploma	9	16.1%
	Bachelors Degree	39	69.6%
	Masters Degree	5	8.9%
	PhD Degree	-	-
	Missing	1	1.8%
Work Experience	0-2 Yrs	13	23.2%
	2-5 Yrs	27	48.2%
	5-8 Yrs	11	19.6%
	8-15 Yrs	5	8.9%
	15-20 Yrs	-	-
	Above 20 Yrs	-	-
	Missing	-	-
Employer	Dashen Bank	27	48.2%
	Nib International Bank	29	51.8%
	Missing	-	-

Source : Survey Result

4.1.2.2. Background Information of Cardholder Customers

As it is shown on the table below, the highest percentage of individual cardholder customers participated in this study were males who form 59.7% of respondents. In the case of classification of respondents by age, the highest percentages of participants are youngsters having less than 35 years of age and they form 53.7% of total respondents from individual card holder customers. Regarding the educational level of the study participants, the highest percentage of them has bachelor degree that form 58.2% of total respondents. The results indicated that all respondents had some level of education and knowhow about banking services.

Table 4.1.2.2. Demographic Profile of Individual Cardholder Customers

Variable	Classification of Variables	Frequency	Percentage
Gender	Male	40	59.7%
	Female	25	37.3%
	Missing	2	3.0%
Age	18-25	15	22.4%
	26-35	21	31.3%
	36-45	26	38.8%
	46-55	2	3.0%
	56-65	1	1.5%
	Above 65	-	-
	Missing	2	3.0%
Education Level	12 Complete	6	9.0%
	Diploma	17	25.4%
	Bachelors Degree	39	58.2%
	Masters Degree	1	1.5%
	PhD Degree	-	-
	Missing	4	6.0%

Source : Survey Result

4.1.2.3. Background Information of Merchants/Business Persons

Out of the total 40 questionnaires distributed to merchants/shops, twenty four (24) of them answered the questionnaires. These include 9 Super Markets, 6 Hotels, 4 Café & Restaurants, 2 electronics shops, 1 Gymnasium, 1 Boutique and 1 Jewelry shop. Out of these, 19 accept both local and international cards while the remaining 5 accept only local cards issued by member banks of Premiere Switch Solutions (PSS)[2].

Table 4.1.2.3. Background Information of Respondents (Merchants/Business Persons)

Variable	Classification of Variables	Frequency	Percentage
Type of Business	Supermarket	9	37.5%
	Boutique	1	4.2%
	Hotel	6	25.0%
	Café & Restaurant	4	16.7%
	Gas/Fuel Station	-	-
	Gymnasium	1	4.2%
	Drug Store	-	-
	Jewelry Shop	1	4.2%
	Electronics Shop	2	8.3%
	Other	-	-
Type of Payment Card Accepted	Local Cards	5	20.8%
	International Cards	-	-
	Both Local & International Cards	19	79.2%

Source : Survey Result

The following section discusses the challenges and opportunities of E-banking in Ethiopia. These challenges and opportunities are identified based on basic frameworks which include Information on Electronic Banking, Security & Privacy, Perceived Usefulness, Perceived Ease of Use, Trust, Awareness, Infrastructure /Quality of Internet/, Government Policies, Infrastructure and Technology.

[2]Premiere Switch Solutions (PSS) is a company jointly formed by Nib International Bank, Awash International Bank and United Banks to provide electronic banking services in Ethiopia. 'NIB Card', 'AWASH Card' and 'HIBIR Card' are names of the local cards issued by Nib International Bank, Awash International Bank and United Banks respectively.

4.1.3. Information on Electronic Banking

Q1 : Customers are fully aware & have enough information about electronic banking services.

As can be seen in table 4.1.3 below, the majority of respondents (76.5%) do not have enough information about electronic banking services. The result further indicates that only 3.4% of the respondents are fully aware of electronic banking services; while majority of the respondents are only aware of the conventional and traditional banking service. It means that people are lacking important information that is necessary to use electronic banking services.

Table 4.1.3. Response of respondents on information on electronic banking.

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	37	66.1%	28	41.8%	14	58.3%	**79**	**53.7%**
Disagree	12	21.4%	15	22.4%	8	33.3%	**35**	**23.8%**
Moderate/Neutral	4	7.1%	22	32.8%	2	8.3%	**28**	**19.0%**
Agree	3	5.4%	2	3.0%	-	0.0%	**5**	**3.4%**
Strongly Agree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.1.4. Security & Privacy

Q2 : Customers are concerned about their private information & security policy.

Q3 : There is a user privacy policy mentioned on the website to strengthen trust of customers.

The results of the survey presented in table 4.1.4 shows that all the respondents are highly concerned about their private information. They want to keep their information secret so that other cannot misuse it. Their private information includes their address, phone numbers, account number and more importantly their Personal Identification Number (PIN). The high ratio of security policy shows the sampled respondents are very concerned about the security policy and want their information to keep confidential. In addition, the result shows that all the respondents don't have information regarding user privacy policy which can strengthen the trust of the customer. This indicates that some important information is missing on the website and people are not aware of such important information.

Table 4.1.4. Response of respondents on security & privacy

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
Disagree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
Moderate/Neutral	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
Agree	14	25.0%	18	26.9%	3	12.5%	**35**	**23.8%**
Strongly Agree	42	75.0%	49	73.1%	21	87.5%	**112**	**76.2%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.1.5. Perceived Usefulness

Q4 : Customers are aware of the usefulness of electronic banking services.

Q5 : Customers think that using electronic banking facility saves their time and money.

Table 4.1.5a. Response of respondents for Q#4 on perceived usefulness

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
Disagree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
Moderate/Neutral	1	1.8%	9	13.4%	-	0.0%	**10**	**6.8%**
Agree	23	41.1%	21	31.3%	16	66.7%	**60**	**40.8%**
Strongly Agree	32	57.1%	37	55.2%	8	33.3%	**77**	**52.4%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

Regarding perceived usefulness of electronic banking, respondents were asked whether they 'Strongly Agree, Agree, Neutral, Disagree or Strongly Disagree'. Based on the three questions shown above table 4.1.5a, the result for all statements of the field indicated that the sampled respondents agreed with the idea that perceived usefulness of electronic banking is important in terms of using more banking services, time saving and cost minimization.

As can be shown in table 4.1.5a, about 93.2% of the respondents agreed on the usefulness of electronic banking as it help them get more banking services than the conventional type of banking services. In addition, as can be seen the results of the survey presented in table 4.1.5b, it can be witnessed that 99.3% of the respondents positively agree that using electronic banking services help users to save their time and minimize their cost. This

implies that using electronic banking enable users to perform banking activities within a short period of time and at a lower cost.

Table 4.1.5b. Response of respondents for Q#5 on perceived usefulness

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	-	0.0%	-	0.0%	-	0.0%	-	**0.0%**
Disagree	-	0.0%	-	0.0%	-	0.0%	-	**0.0%**
Moderate/Neutral	-	0.0%	1	1.5%		0.0%	**1**	**0.7%**
Agree	14	25.0%	15	22.4%	9	37.5%	**38**	**25.9%**
Strongly Agree	42	75.0%	51	76.1%	15	62.5%	**108**	**73.5%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

According to Dawd (2009), E-banking services like ATM, internet banking, mobile banking and others help banks save a lot of costs. In the long run a bank can save money by not paying for tellers or for managing branches. This way of cutting transaction cost results in higher profit margin for the banks. Dawd (2009) also noted that, the combination of higher technology and higher skills have posted a higher turnover for banks as they have been able to provide better customer support and have managed their assets well. Second, customers can get banking service at lower costs compared with traditional banking service, because, it is cheaper to make transaction over Electronic fund transfer. Similarly, the study of, Devamohan (2002), noted that, online banking fees have reduced over the years and less expensive when compared with traditional system. This finding is consistent with the previous studies of Dawd (2009) in which majority of the respondents found time saving and cost minimization as an important factors of the benefits of electronic banking.

4.1.6. Perceived Ease of Use

Q6 : E-banking service is more accessible to users than visiting a bank branch.

Q7 : Learning and using electronic banking is easy to use

Q8: The services are adapted to disable and elder people who are lacking computer experience.

One of the basic benefits related with the use of E-banking system is the perceived ease of use. Devamohan (2002) suggests that electronic banking services reduce the workload over the banking staff and it is easy to have more satisfied customers. On the other hand Olga (2003) indicated that electronic banking provides convenience not only to banks but also to customers. The result obtained from the survey also confirms the finding of Olga (2003) and Devamohan (2002) and the result were shown in table 4.1.6a as follows.

Table 4.1.6a: Response of respondents for Q#6 on perceived ease of use

	Bank Employees		**Cardholder Customers**		**Merchants / Shops**		**TOTAL**	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	-	0.0%	-	0.0%	-	0.0%	-	**0.0%**
Disagree	-	0.0%	-	0.0%	-	0.0%	-	**0.0%**
Moderate/Neutral	-	0.0%	-	0.0%	-	0.0%	-	**0.0%**
Agree	11	19.6%	13	19.4%	7	29.2%	**31**	**21.1%**
Strongly Agree	45	80.4%	54	80.6%	17	70.8%	**116**	**78.9%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

As shown in table 4.1.6a above, all sampled respondents agreed that electronic banking service is more accessible to users than visiting a bank branch. In this regard, as per the results of the survey, electronic banking is more accessible and convenient than travelling more distances to reach to a bank branch. By being using electronic banking users can simply check their balance and transfer funds 24 hours a day and 7 days a week without the need to go to a bank branch. In line with this finding Dawd (2009) suggests that, one of the implications of E-banking is that it should reduce the need to visit bank branches to get services.

Table 4.1.6b: Response of respondents for Q#7 on perceived ease of use

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	-	0.0%	3	4.5%	1	4.2%	**4**	**2.7%**
Disagree	5	8.9%	8	11.9%	2	8.3%	**15**	**10.2%**
Moderate/Neutral	10	17.9%	12	17.9%	5	20.8%	**27**	**18.4%**
Agree	25	44.6%	32	47.8%	7	29.2%	**64**	**43.5%**
Strongly Agree	16	28.6%	12	17.9%	9	37.5%	**37**	**25.2%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

The results of the survey presented in table 4.1.6b shows that majority of the respondents (68.7%) thought that learning and using electronic banking is easy to use. This implies that using electronic banking is as easy as checking account balance and transfer of funds with just a click of mouse and touch of a button especially for the youngsters and those who have well educational background. From this survey it can be understood that customer thinks that it is a good way to use payment cards for making transactions through electronic devises. However, the result that is shown in table 4.1.6c reveals that the majority of the respondents (74.2%) replied that the electronic banking services are not adapted to disable and elder people who either need support or who are lacking computer experience.

Table 4.1.6c: Response of respondents for Q#8 on perceived ease of use

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	13	23.2%	19	28.4%	10	41.7%	**42**	**28.6%**
Disagree	23	41.1%	32	47.8%	12	50.0%	**67**	**45.6%**
Moderate/Neutral	12	21.4%	9	13.4%	2	8.3%	**23**	**15.6%**
Agree	8	14.3%	7	10.4%	-	0.0%	**15**	**10.2%**
Strongly Agree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.1.7. Trust

Q9 : Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.

As can be seen in table 4.1.7 below, the majority of respondents (63.2%) do not have full confidence and trust on the electronic banking services provided by banks. The result further indicates that only 19.7% of the respondents have trust and full confidence on electronic banking services; while majority of the respondents have high fear of risks associated with using E-banking services. It means that people have doubt and great suspicion to use E-banking services especially because of fear of hackers from accessing their account, making fraudulent transactions and loss of their money. The result obtained from the survey also confirms the finding of Tadesse and Kidan (2005).

Table 4.1.7. Response of respondents on trust on electronic banking services provided by banks

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	12	21.4%	17	25.4%	5	20.8%	**34**	**23.1%**
Disagree	23	41.1%	24	35.8%	12	50.0%	**59**	**40.1%**
Moderate/Neutral	12	21.4%	11	16.4%	2	8.3%	**25**	**17.0%**
Agree	8	14.3%	8	11.9%	4	16.7%	**20**	**13.6%**
Strongly Agree	1	1.8%	7	10.4%	1	4.2%	**9**	**6.1%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.1.8. Awareness

Q10 : The Bank provides help (demo) on its website to use electronic banking for a new user.

Q11 : The Bank provides training to enhance awareness of customers to use electronic banking.

As can be seen from the results of the survey presented in table 4.1.8a, majority of the sampled respondents (85.1%) replied that a demo tour is not provided on the website. Having such a negative response, a new user cannot get help on the website if he or she wants to use electronic banking. Due to this, a novice user will get difficulty to use electronic banking services for lacking proper help from the banks.

Electronic banking Demo provides the instruction to use the site and other electronic banking services. However, this survey shows that most of the respondents don't know about the guidelines provided on the website of the sampled banks. For this reason, people find it difficult to get the relevant information on the website regarding electronic banking facility.

Table 4.1.8a. Response of respondents on the provision of help (demo) provided by banks (Q#10)

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	31	55.4%	44	65.7%	13	54.2%	**88**	**59.9%**
Disagree	19	33.9%	11	16.4%	7	29.2%	**37**	**25.2%**
Moderate/Neutral	6	10.7%	12	17.9%	4	16.7%	**22**	**15.0%**
Agree	-	0.0%	-	0.0%	-	0.0%	**0**	**0.0%**
Strongly Agree	-	0.0%	-	0.0%	-	0.0%	**0**	**0.0%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

In addition, from the survey result presented in table 4.1.8b, it can be seen that 64% of the respondents replied that the banks are not providing any training to enhance the awareness level of customers. From this result, it can be understood that banks are only concerned with the provision of electronic banking service and they give less emphasis on encouraging customers to use electronic banking services. From this, it can also be understood that they are not considering the complaints of the customers which bring negative feeling for the customers.

Table 4.1.8b. Response of respondents on awareness creation trainings provided by banks (Q#11)

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	21	37.5%	35	52.2%	2	8.3%	**58**	**39.5%**
Disagree	14	25.0%	19	28.4%	3	12.5%	**36**	**24.5%**
Moderate/Neutral	11	19.6%	9	13.4%	3	12.5%	**23**	**15.6%**
Agree	9	16.1%	4	6.0%	10	41.7%	**23**	**15.6%**
Strongly Agree	1	1.8%	-	0.0%	6	25.0%	**7**	**4.8%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.1.9. Government Policies

Q12: Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions.

Table 4.1.9. Response of respondents on government policies

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	7	12.5%	3	4.5%	6	25.0%	**16**	**10.9%**
Disagree	10	17.9%	13	19.4%	2	8.3%	**25**	**17.0%**
Moderate/Neutral	26	46.4%	31	46.3%	12	50.0%	**69**	**46.9%**
Agree	8	14.3%	8	11.9%	3	12.5%	**19**	**12.9%**
Strongly Agree	5	8.9%	12	17.9%	1	4.2%	**18**	**12.2%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

Government policies play an important role in developing regulatory frameworks for the successful implementation of electronic banking services. As it is shown in table 4.1.9, majority of the respondents (46.9%) are neutral about policies issued by the government. This implies that people do not have the required information or they may not be concerned about government regulations regarding electronic banking. However, the result also indicates that only 25.1% of the respondents agree with government policies related to electronic banking like money laundering. This indicates that they are not satisfied by the government policies issued for the protection of consumers regarding electronic payment.

4.1.10. Infrastructure

Q13: Customers encounter problems related with internet while using electronic banking services.

Q14: Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom.

Q15: The Bank provides an alternative way to use electronic banking services when there is slow internet connection.

Table 4.1.10a. Response of respondents on whether problem is encountered in using e-banking services.

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	-	0.0%	1	1.5%	-	0.0%	**1**	**0.7%**
Disagree	4	7.1%	3	4.5%	-	0.0%	**7**	**4.8%**
Moderate/Neutral	9	16.1%	12	17.9%	5	20.8%	**26**	**17.7%**
Agree	25	44.6%	37	55.2%	8	33.3%	**70**	**47.6%**
Strongly Agree	18	32.1%	14	20.9%	11	45.8%	**43**	**29.3%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

As can be seen in table 4.1.10a, majority of the sampled respondents (76.9%) replied that they have encountered problems while using electronic banking services. In this regard, they agreed that the internet connection which they used for electronic banking was very poor to perform electronic transactions. Moreover, the result of the survey presented in table 4.10b reveals that 93.9% of the respondents are unhappy with the slow internet connection provided by Ethio Telecom. From this, it can be understood that using electronic banking is getting difficult due to low speed of connection and low internet access in the country.

Table 4.1.10b. Response of respondents on speed of internet & infrastructure provided by Ethio Telecom

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	29	51.8%	30	44.8%	17	70.8%	**76**	**51.7%**
Disagree	23	41.1%	32	47.8%	7	29.2%	**62**	**42.2%**
Moderate/Neutral	4	7.1%	5	7.5%	-	0.0%	**9**	**6.1%**
Agree	-	0.0%	-	0.0%	-	0.0%	**0**	**0.0%**
Strongly Agree	-	0.0%	-	0.0%	-	0.0%	**0**	**0.0%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

In addition, the sampled respondents were asked whether the banks provide alternative ways of using electronic banking services when there is slow internet connection. In this regard, as can be shown in table 4.1.10c, majority of the respondents (41.5%) negatively replied that they are not getting other options of using E-banking services when they encounter with a slow internet connection. For this reason, they are unable transact and use the needed service in an efficient way. On the other hand, the results of the survey shows that about 69.7% of the bank employees mentioned that their banks are availing alternative ways of connectivity in cases when the internet connection is slow. In the survey, it is further indicated that more than one fifth (21.8%) of the respondents don't have clear information regarding the type of alternative ways of internet connection used for using electronic banking services.

Table 4.1.10c. Response of respondents on provision of alternatives when there is slow connection.

	Bank Employees		**Cardholder Customers**		**Merchants / Shops**		**TOTAL**	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	29	51.8%	30	44.8%	17	70.8%	**76**	**51.7%**
Disagree	23	41.1%	32	47.8%	7	29.2%	**62**	**42.2%**
Moderate/Neutral	4	7.1%	5	7.5%	-	0.0%	**9**	**6.1%**
Agree	-	0.0%	-	0.0%	-	0.0%	**0**	**0.0%**
Strongly Agree	-	0.0%	-	0.0%	-	0.0%	**0**	**0.0%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.1.11. Technology

Q16: Customer has the access to personal computer and internet

Q17: Banks have experienced and skilled IT professionals to administer latest technologies.

As can be seen from the results of the survey presented in table 4.1.11a, 92.5% of the sampled respondents replied that customers don't have their personal computers and access to internet. This seems that due to financial constraint customers can't afford to buy personal computers and this in turn implies that they might find it difficult to use electronic banking services as they may lack the knowledge to use the internet.

Table 4.1.11a. Response of respondents on access to personal computer & internet

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	27	48.2%	41	61.2%	14	58.3%	**82**	**55.8%**
Disagree	21	37.5%	24	35.8%	9	37.5%	**54**	**36.7%**
Moderate/Neutral	6	10.7%	2	3.0%	1	4.2%	**9**	**6.1%**
Agree	2	3.6%	-	0.0%	-	0.0%	**2**	**1.4%**
Strongly Agree	-	0.0%	-	0.0%	-	0.0%	**-**	**0.0%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

According to Kumaga (2010), technology know-how is very important in e-banking industry; otherwise the technology by its own is useless without having the required professional skill. Based on this, the sampled respondents were asked whether or not banks have experienced and skilled IT professionals to administer latest banking technologies. In this regard, the majority of the respondents (42.3%) negatively replied that they have doubt in the skill and experience of IT professionals who are working in commercial banks. This implies that, customers don't have full confidence on IT professionals in resolving problems encountered while using electronic banking services.

Table 4.1.11b. Response of respondents on having experienced & skilled IT professionals

	Bank Employees		Cardholder Customers		Merchants / Shops		TOTAL	
	No.	**%age**	**No.**	**%age**	**No.**	**%age**	**No.**	**%age**
Strongly Disagree	8	14.3%	15	22.4%	5	20.8%	**28**	**19.0%**
Disagree	18	32.1%	19	28.4%	12	50.0%	**49**	**33.3%**
Moderate/Neutral	9	16.1%	6	9.0%	-	0.0%	**15**	**10.2%**
Agree	17	30.4%	20	29.9%	5	20.8%	**42**	**28.6%**
Strongly Agree	4	7.1%	7	10.4%	2	8.3%	**13**	**8.8%**
TOTAL	**56**	**100.0%**	**67**	**100.0%**	**24**	**100.0%**	**147**	**100.0%**

Source : Survey Result

4.2. Results Obtained from Interviews

For the purpose of accomplishing the objective of the study, two interviews were made with senior banks officials including one Division Head and one Department Manager from Dashen and Nib International Banks respectively.

The first interview was conducted by a telephonic interview conversation through detailed questionnaire with a senior official (Respondent–A) who is working as a Division Head in Dashen Bank. He has been working in Dashen for more than eight years. The second interview was also conducted with a senior official (Respondent-B) who is working as a Department Manager in Nib International Bank. He has been working in NIB for more than thirteen years in different supervisory positions.

From the interview of the two respondents, a detailed description of the current scenario with respect to the subject matter is obtained. The respondents gave detailed information on the challenges and opportunities of electronic banking. The respondents discussed factors like security & privacy, perceived usefulness & perceived ease of use, trust, awareness, government policies, infrastructure and technology.

4.2.1. Information on Electronic Banking

Regarding information on electronic banking, respondent A mentioned that information is the most important element for electronic banking. He mentioned that the customer who wants to use electronic banking must know all the basic information regarding the electronic banking. When information is provided to customers then it will motivate customers to use electronic banking services and in this way they can save their time. He also mentioned that many bank websites are not providing clear information to customers; and when customers use banks' website, customers do not able to trust on the information that has been provided on the banks' web site.

Respondent A unfortunately stated that when customers visit a bank branch, most of the time they only come to open an account, re-issue a cheque book, check their balance or deposit money in their accounts. They never ask about the information regarding electronic banking. The customer is not interested to ask information about the electronic banking.

Almost all the customers only come for some reason but no one is interested in electronic banking. He added that bank employees are very busy in their own work so they don't give much time to the customers.

From the above responses, it can be understood that no information regarding electronic banking is provided to customers by bank clerks who are helping customers in completing the form; and no brochure is given to customers that will help customers to use internet banking after reading such kind of supportive document.

4.2.2. Security and Privacy

Regarding the issue of Security and Privacy of electronic banking the respondent A mentioned that the security of the transactions is very necessary in electronic banking. He mentioned that completion of transaction is very important from start till end. When the transaction was successful it will create the trust of customer and customer can use this electronic banking service again and again; but for this to happen, the transaction must be 100% percent secure and on time. As far as he is concerned, customers are very much sensitive to security and privacy issues especially in maintaining their user ID and Personal Identification Numbers (PIN) so much confidential.

4.2.3. Perceived Usefulness and Ease of Use

According to respondent A perceived usefulness and perceived ease of use both are very important factors that can be seen as opportunities for the development of electronic banking. He mentioned that by giving different options to customers like ATM, POS, Mobile Banking and SMS banking can attract customer to use the electronic banking facilities. He thinks that extra features can provide customers a chance to use the electronic banking. According to him, such E-banking services offer substantial advantage to customers in the form of convenience, time saving and easy access to the banking services. Moreover, it makes life easy for people by providing 24*7 access to banking without the need to carry voluminous amount of physical cash. Respondent B also stated that electronic banking can abolish the problems of processing cash notes, cheques and waiting in the queues for hours. In addition, it provide banks the opportunity to broaden their customer base and mobilize a substantial amount of deposits and hard currency.

4.2.4. Trust

Respondent A mentioned that both trust and security have an important relationship between them to strengthen customer relationship with a bank so that he or she can use the electronic banking services. Trust can be defined as the person perception about something and it can be based on the personal experience. When there is a change in technology, this change brought new benefits and new risks to its customers; and without using the new service the customer cannot have trust on this new service. According to him, for customers the main risks are security and privacy and if customer has experienced successful transactions before then the customer will develop some trust on electronic banking services. Respondent B mentioned that customers have some level of trust on bank employees mainly due to their attachment and social relationships but he added that customers have lots of hesitations on the technology and don't trust the technology provided by banks. Respondent B also stated that that bank has assured and given guarantee that customer's important personal information will not be given to a third party who can use this information.

4.2.5. Awareness

According to respondent A, for the achievement of electronic banking to be successful it is very important that customer should be aware of what electronic banking is and what kind of benefits one can take from using electronic banking. According to him, all the important information is provided on the bank's website for customers to enhance the customer awareness, but customers are not much aware about the usage of electronic banking services that the bank is providing. In spite of this, he admitted that they haven't provided any technical assistance online that can help customers. As far as the researcher is concerned, this can be regarded as a very negative aspect that discourages customers from visiting the bank's website.

Respondent B stated that most banks are providing information regarding the traditional banking products like deposit, loan and money transfers services; but they don't provide the basic information about how to use the e-banking services. He also admitted that, except the provision of introductory training to merchants, the bank is not providing continuous trainings to enhance the awareness level of customers.

4.2.6. Government Policies

According to respondent B, government polices plays a vital role in successful implementation of electronic banking and to use latest information and communication technologies. However, according to him there is no proper policy for deployment of electronic banking services from the government of Ethiopia. In this regard, National Bank of Ethiopia (NBE) which is operating under government policies is responsible to develop regulatory frameworks for the successful implementation of e-banking and awareness.

Respondent B also stated that National Bank of Ethiopia (NBE) is not providing legal framework to protect customer from fraudulent risks that might arise from using electronic banking transactions. He also stated that failure of laws and regulations can result in easy access of person's private and public information.

4.2.7. Infrastructure

According to respondent A, proper infrastructure is very necessary to provide a quality service within the electronic banking system. He said that proper infrastructure can attract customers to perform online transactions and use electronic banking services. He mentioned that electronic based banking services needs to be reliable and secure so that people can used it without any hesitation. As far as respondent A is concerned, most of the time customers of the bank encounter frequent problems related with interruptions of internet connectivity.

According to him, if a given customer wants to make transaction using mediums of electronic banking, the login time to connect to his account requires the customer to wait longer times due to slow connectivity. This might also happened when he tried to logout from his account. For this reason, customers are very unhappy and reluctant to use electronic banking because they think as they are wasting their time mainly due to the slow internet connection. In order to resolve such kinds of problems most banks use alternative ways of connectivity in order to provide the service to their customers which oblige banks to incur additional expenses.

According to respondent B, the infrastructure of internet service is very poor which is becoming the major hindrance against the development of electronic banking in Ethiopia. He mentioned that, most commercial banks that are operating in the country are connected through WAN connections provided by Ethio Telecom. In this regard, fiber internet with a bandwidth of 4 Mbps and a wireless internet with a bandwidth of 512 Kbps are used by respondent B's bank. The second connection is only used as an alternative especially in cases when the faster connection fails. He also added that, even if the infrastructure is available at satisfactorily level, it is not reliable so that's why people don't want to use electronic banking and the cost of being associated with internet is very high. So customers are not willing to carry out business over mediums of electronic banking that requires internet connection.

4.2.8. Technology

Currently commercial banks operating in the country are using a wide range of technologies. Information technology is also becoming the most vibrant sector. People want to stick into the latest technology and they enjoy it when there is something new in the latest technology and it can run the E-banking business very smoothly.

According to respondent A, having the latest technology is one of the most important elements in the provision of electronic banking. Technology know-how is also important for the management of E-banking businesses. According to him, having experienced staff with technology know-how is very important for a bank. Technology is useless without having professional skills in the respective field. IT professionals are those who are working in Banks positions like Database Administrator and System Administrator and Network Administrator. But he mentioned that, whenever a serious problem is encountered, it is other staffs who will be assigned to handle the problems encountered who are not real professionals in IT; so that they are not able to resolve the problem and this is causing delays in the daily routine of electronic banking service.

According to respondent B, there is another challenge for the development of electronic banking which is economical problem of individuals to buy personal computer which in turn requires a very high price. Due to financial constraints customers can't afford to buy

personal computers or other devises that enable to use electronic based banking. In addition, an ordinary customer cannot afford the cost of broadband connections. According to respondent B customers can have the option of using a Dialup Connection which is much cheaper and affordable but the quality is very poor and it is unreliable for data communication.

Chapter Five

5. Summary, Conclusions and Recommendations

The primary purpose of this study is to assess the challenges and opportunities of electronic banking in Ethiopia in case of Dashen & Nib International Banks. This chapter, based on the findings of the study, presents the summary, conclusions and recommendations of the study.

5.1. Summary and Conclusions

Based on the findings of the study the following conclusions are made.

- The study revealed that people who want to get E-banking service lacks the required information that is necessary to use electronic banking services. In this regard, bank officials who are expected to help customers focus on their routine jobs and don't give much time to customers. Moreover, bank's websites are not providing essential information to customers regarding electronic banking. In general there is information gap between the service users and service providers of electronic banking.

- Security and privacy are the most important issues in electronic banking business. The findings of the study also reveal that customers are very much sensitive and highly concerned about the security of their account and privacy of their private information. However, they don't have enough knowledge about security features and user privacy policies. For this reason, they may not have full confidence to use electronic banking services.

- The finding of the study reveals that customers do not trust the technology that is being used for conducting electronic banking business. For this reason, they do not have full confidence and trust on the electronic banking services provided by banks mainly for security related issues.

- Findings reveal that banks' websites are not providing demos about the electronic banking services provided by them; rather the information provided on the website is only to promote the conventional banking products like deposits and loans which are already available in the market. On top of this, customers (especially new users) are facing lots of difficulties due to lack of trainings on how to use the electronic banking services.

- Government polices plays a very important role for successful implementation of electronic banking and to use latest information and communication technologies. However, the study reveled that there is no proper policy and legal framework issued for deployment of electronic banking services from the government of Ethiopia.

- The study also revealed that the infrastructure required for successful implementation of electronic banking is under developed. In this regard, especially the telecommunication infrastructure found to be poor to perform electronic based transactions and this becomes a serious challenge for the development of E-banking in the country. Regarding this, the study indicated that there is a very slow internet connection and low distribution of internet network in the country.

- Apart from possessing the latest technology, having the technology know-how is very important in e-banking industry. In this regard, the study revealed that there is shortage of experienced and well trained IT professionals who have the capacity and the skill to resolve problems that may be encountered while using electronic banking services.

- On the other hand, the study reveals that the benefits of technological innovation are well known to the banks and act as a driving force for the adoption of the system. In general perceived ease of use is one of the basic benefits for E-banking, in which it enables banks and customers to perform banking activities in a simple way. The other driving force for the adoption of the system is perceived usefulness, in which, it is used for time saving and cost reduction. These benefits which are identified in the study were considered as a very great potential for banks to improve their public image.

5.2. Recommendations

Based on the abovementioned conclusions, the researcher recommends the following points:

- In order to exploit the benefits that can be achieved from the provision of E-banking services, banks operating in the country needs to establish a strong link with customers by providing the required information that will enable them to use electronic banking services in the future. In this regard, it is recommendable to make website information clear and precise so that customers can easily understand about the service. Furthermore, since it is the duty of the concerned staff to provide all the information to its customers, they should provide all the materials to customers that demonstrate how to use electronic banking.

- The findings reveal that security & privacy are the most important issues for customers to use electronic banking. In this regard, the two commercial banks should provide security measures to their customers that demonstrates full authentication, privacy, completion of transaction from start to end and its confirmation. Moreover, these two banks should acquire latest computer programs that enable banks to have a powerful technique for security related issues.

- In order to strengthen the trust of customers on the technology, the two commercial banks should take some security measures regarding policy for protection of customer's account, bio data and personal records. In addition, these banks should ensure to their customers that they are delivering accurate transactions within the required time so that customers can rely on it; which in turn motivate them to make electronic based transactions without any hesitation. In general, both Dashen and Nib International Banks need to provide more sophisticated security measures to win the confidence of their customers.

- Proper awareness can produce more results by enhancing awareness level of people to use the electronic banking facility. In this regard, Dashen and Nib International Banks should promote the electronic banking products in different media including their websites. Websites of banks play an important role to attract customers especially if the information provided is understandable and brief. Provision of demo also helps customers to use the electronic banking. Furthermore, the two banks need to arrange successive training programs for enhancing the awareness level of individuals. These actions might aid to attract new customers to use electronic banking which can result in considerable amount of profits at low transaction costs.

- In order to successfully facilitate E-banking services in Ethiopia, National Bank of Ethiopia (NBE) needs to establish a clear set of legal framework to protect customers from fraudulent risks that might arise from using electronic banking transactions.

- For the successful implementation of E-banking system telecommunication infrastructure, is a major prerequisite. Therefore, the government should support the electronic banking sector by investing on telecommunication infrastructure development. In this regard, ethio-telecom need to provide these banks to have a better and quality network having a higher bandwidth. By doing so, the existing quality of internet connection should also be improved until such time that successful implementation is achieved.

- Without technology it is impossible for banks to compete and provide quality services. It is also very important that the existing IT employees of the two banks should learn new skills. It is also recommendable for the two commercial banks to hire well trained and experienced IT professionals to handle the business competently and who are capable of solving the problems with adequate knowledge.

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APPENDICES

Appendix - A

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Bank Employees

Research Topic: Challenges and Opportunities of Electronic Banking in Ethiopa in the case of Nib International Bank and Dashen Bank.

Researcher : Michael Adbib

Dear Respondent, I would like to express my sincere appreciation for your time, honest and prompt responses.

Objective

This questionnaire is designed to collect data for examining the challenges and opportunities of electronic banking in Ethiopia. The information that you offer me with this questionnaire will be used as a primary data in which I am conducting as a partial requirement of Masters of Business Administration. Hence, this research is believed to be evaluated in terms of its contribution towards investigating the challenges and opportunities of e-banking along with its contribution to improvements in the banking industry of Ethiopia.

General Instructions

- *There is no need of writing your name.*
- *In all cases, where answers to options are available, please tick (✓) in the appropriate box.*
- *For questions that demand your opinion, please try to honestly describe your responses on the space provided.*

Confidentiality

I want to assure you that this research is only for academic purpose authorized by St. Mary's University. In this regard, no other person shall access the data collected. In any sort of report that I might publish, I will not include any information that will make it possible to identify any respondent.

Background Information

Name of the Bank you are working : _____

Gender : Male [ ] Female [ ]

Age : 18-25 [ ] 26-35 [ ] 36-45 [ ] 46-55 [ ] 56-65 [ ] 66 or above [ ]

Work Experience : 0-2 Yrs [ ] 2-5 Yrs [ ] 5-8 Yrs [ ] 8-15 Yrs [ ] 15-20 Yrs [ ] Above 20 Yrs [ ]

Education Level : 12 Complete [ ] Diploma [ ] BA / BSc [ ] MA / Msc [ ] PhD [ ]

Which types of electronic banking products / services are provided by your Bank *(It is possible to tick more than once)*

- ❒ Internet Banking
- ❒ Offline Banking
- ❒ POS Banking
- ❒ Mobile Banking
- ❒ SMS Banking
- ❒ ATM Banking
- ❒ Debit Card
- ❒ Credit Card
- ❒ Electronic Fund Transfer

Other :_____

	Strongly Disagree	Disagree	Moderate / NEUTRAL	Agree	Strongly Agree
Information on electronic Banking					
Customers are fully aware & have enough information about electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Security and Privacy					
Customers are concerned about their private information & security policy.	[ ]	[ ]	[ ]	[ ]	[ ]
There is a user privacy policy mentioned on the website to strengthen trust of customers.	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Usefulness					
Customers are aware of the usefulness of electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Customers think that using electronic banking facility saves their time and money.	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Ease of Use					
E-banking service is more accessible to users than visiting a bank branch.	[ ]	[ ]	[ ]	[ ]	[ ]
Learning and using electronic banking is easy to use	[ ]	[ ]	[ ]	[ ]	[ ]
The services are adapted to disable and elder people who are lacking computer experience.	[ ]	[ ]	[ ]	[ ]	[ ]
Trust					
Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.	[ ]	[ ]	[ ]	[ ]	[ ]
Awareness					
The Bank provides help (demo) on its website to use electronic banking for a new user.	[ ]	[ ]	[ ]	[ ]	[ ]
The Bank provides training to enhance awareness of customers to use electronic banking.	[ ]	[ ]	[ ]	[ ]	[ ]

	Strongly Disagree	Disagree	Moderate/NEUTRAL	Agree	Strongly Agree
Government Policies					
Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions.	[ ]	[ ]	[ ]	[ ]	[ ]
INFRASTRUCTURE / Quality of Internet					
Customers encounter problems related with internet while using electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom.	[ ]	[ ]	[ ]	[ ]	[ ]
The Bank provides an alternative way to use electronic banking services when there is slow internet connection.	[ ]	[ ]	[ ]	[ ]	[ ]
Technology					
Customer has the access to personal computer and internet	[ ]	[ ]	[ ]	[ ]	[ ]
Banks have experienced and skilled IT professionals to administer latest technologies.	[ ]	[ ]	[ ]	[ ]	[ ]

Any Suggestion that you would like to give?

_____

_____

_____

_____

Appendix - B

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Bank Customers

Research Topic: Challenges and Opportunities of Electronic Banking in Ethiopa in the case of Nib International Bank and Dashen Bank.

Researcher : Michael Adbib

Dear Respondent, I would like to express my sincere appreciation for your time, honest and prompt responses.

Objective

This questionnaire is designed to collect data for examining the challenges and opportunities of electronic banking in Ethiopia. The information that you offer me with this questionnaire will be used as a primary data in which I am conducting as a partial requirement of Masters of Business Administration. Hence, this research is believed to be evaluated in terms of its contribution towards investigating the challenges and opportunities of e-banking along with its contribution to improvements in the banking industry of Ethiopia.

General Instructions

- *There is no need of writing your name.*
- *In all cases, where answers to options are available, please tick (✓) in the appropriate box.*
- *For questions that demand your opinion, please try to honestly describe your responses on the space provided.*

Confidentiality

I want to assure you that this research is only for academic purpose authorized by St. Mary's University. In this regard, no other person shall access the data collected. In any sort of report that I might publish, I will not include any information that will make it possible to identify any respondent.

Thank You once again!!

biographic Information

Gender : Male [ ] Female [ ]

Age : 18-25 [ ] 26-35 [ ] 36-45 [ ] 46-55 [ ] 56-65 [ ] 66 or above [ ]

Education Level : 12 Complete [ ] Diploma [ ] BA / BSc [ ] MA / Msc [ ] PhD [ ]

	Strongly Disagree	Disagree	Moderate / NEUTRAL	Agree	Strongly Agree
Information on electronic Banking					
Customers are fully aware & have enough information about electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Security and Privacy					
Customers are concerned about their private information & security policy.	[ ]	[ ]	[ ]	[ ]	[ ]
There is a user privacy policy mentioned on the website to strengthen trust of customers.	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Usefulness					
Customers are aware of the usefulness of electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Customers think that using electronic banking facility saves their time and money.	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Ease of Use					
E-banking service is more accessible to users than visiting a bank branch.	[ ]	[ ]	[ ]	[ ]	[ ]
Learning and using electronic banking is easy to use	[ ]	[ ]	[ ]	[ ]	[ ]
The services are adapted to disable and elder people who are lacking computer experience.	[ ]	[ ]	[ ]	[ ]	[ ]
Trust					
Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.	[ ]	[ ]	[ ]	[ ]	[ ]
Awareness					
The Bank provides help (demo) on its website to use electronic banking for a new user.	[ ]	[ ]	[ ]	[ ]	[ ]
The Bank provides training to enhance awareness of customers to use electronic banking.	[ ]	[ ]	[ ]	[ ]	[ ]
Government Policies					
Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions.	[ ]	[ ]	[ ]	[ ]	[ ]

	Strongly Disagree	Disagree	Moderate/NEUTRAL	Agree	Strongly Agree
INFRASTRUCTURE / Quality of Internet					
Customers encounter problems related with internet while using electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom.	[ ]	[ ]	[ ]	[ ]	[ ]
The Bank provides an alternative way to use electronic banking services when there is slow internet connection.	[ ]	[ ]	[ ]	[ ]	[ ]
Technology					
Customer has the access to personal computer and internet	[ ]	[ ]	[ ]	[ ]	[ ]
Banks have experienced and skilled IT professionals to administer latest technologies.	[ ]	[ ]	[ ]	[ ]	[ ]

Any Suggestion that you would like to give?

Appendix - C

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Merchants/Shops

Research Topic: Challenges and Opportunities of Electronic Banking in Ethiopa in the case of Nib International Bank and Dashen Bank.

Researcher : Michael Adbib

Dear Respondent, I would like to express my sincere appreciation for your time, honest and prompt responses.

Objective

This questionnaire is designed to collect data for examining the challenges and opportunities of electronic banking in Ethiopia. The information that you offer me with this questionnaire will be used as a primary data in which I am conducting as a partial requirement of Masters of Business Administration. Hence, this research is believed to be evaluated in terms of its contribution towards investigating the challenges and opportunities of e-banking along with its contribution to improvements in the banking industry of Ethiopia.

General Instructions

- *There is no need of writing your name.*
- *In all cases, where answers to options are available, please tick (✓) in the appropriate box.*
- *For questions that demand your opinion, please try to honestly describe your responses on the space provided.*

Confidentiality

I want to assure you that this research is only for academic purpose authorized by St. Mary's University. In this regard, no other person shall access the data collected. In any sort of report that I might publish, I will not include any information that will make it possible to identify any respondent.

Background Information

In which type of business activity are you involved in?

- ❒ Supermarket
- ❒ Boutique
- ❒ Hotel
- ❒ Café & Restaurant
- ❒ Gas/Fuel Station
- ❒ Gymnasium
- ❒ Drug Store
- ❒ Jewellery Shop
- ❒ Electronics Shop

Other :_____

Which type of electronic payment card do your company accept?

❒ Local Cards ❒ International Cards ❒ Both Local & International

	Strongly Disagree	Disagree	Moderate/NEUTRAL	Agree	Strongly Agree
Information on electronic Banking					
Customers are fully aware & have enough information about electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Security and Privacy					
Customers are concerned about their private information & security policy.	[ ]	[ ]	[ ]	[ ]	[ ]
There is a user privacy policy mentioned on the website to strengthen trust of customers.	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Usefulness					
Customers are aware of the usefulness of electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Customers think that using electronic banking facility saves their time and money.	[ ]	[ ]	[ ]	[ ]	[ ]
Perceived Ease of Use					
E-banking service is more accessible to users than visiting a bank branch.	[ ]	[ ]	[ ]	[ ]	[ ]
Learning and using electronic banking is easy to use	[ ]	[ ]	[ ]	[ ]	[ ]
The services are adapted to disable and elder people who are lacking computer experience.	[ ]	[ ]	[ ]	[ ]	[ ]
Trust					
Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank.	[ ]	[ ]	[ ]	[ ]	[ ]
Awareness					
The Bank provides help (demo) on its website to use electronic banking for a new user.	[ ]	[ ]	[ ]	[ ]	[ ]
The Bank provides training to enhance awareness of customers to use electronic banking.	[ ]	[ ]	[ ]	[ ]	[ ]
Government Policies					
Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions.	[ ]	[ ]	[ ]	[ ]	[ ]

	Strongly Disagree	Disagree	Moderate/NEUTRAL	Agree	Strongly Agree
INFRASTRUCTURE / Quality of Internet					
Customers encounter problems related with internet while using electronic banking services.	[ ]	[ ]	[ ]	[ ]	[ ]
Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom.	[ ]	[ ]	[ ]	[ ]	[ ]
The Bank provides an alternative way to use electronic banking services when there is slow internet connection.	[ ]	[ ]	[ ]	[ ]	[ ]
Technology					
Customer has the access to personal computer and internet	[ ]	[ ]	[ ]	[ ]	[ ]
Banks have experienced and skilled IT professionals to administer latest technologies.	[ ]	[ ]	[ ]	[ ]	[ ]

Any Suggestion that you would like to give?

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Mulugeta Abebe (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

_____ _____

Name Signature & Date

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate Studies for examination with my approval as a university advisor.

_____ _____

Advisor Signature & Date