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Assessment on the Challenges and Prospects of E- Banking: In the case of Awash Bank

By: Bezawit Kassaye

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APPROVED BY BOARD OF EXAMINERS

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Declaration

I Bezawit Kassaye, I.D. Number SGS/0035/2008B, do hereby declare that this Thesis is my original work and that it has not been submitted partially; or in full, by any other person for an award of any other Degree or other similar titles of any other university or institution and all sources of materials used for the study have been duly acknowledged.

Name of the Participant: Bezawit Kassaye

Signature……

Date……..

Endorsement

This Thesis has been submitted for examination with my approval as a supervisor.

Name of the Advisor……

Signature…….....

Date……..

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Acknowledgment

To my Parents: All I am, and all I am going to be; I owe it to them.

Acronyms

AIB-	Awash International Bank
ATM-	Automated Teller Machine
AVR -	Automated voice response
CSF -	Success factors
DOI	Diffusion of Innovation
E-Banking	Electronic Banking
EC-	Electronic commerce
ICT-	Information communication technology
IT-	Information technology
PC-	Personal computer
PEOU-	perceived ease of use
PIN -	Personal identification number
POS-	Point of sell
PU -	Perceived usefulness
SMS-	Short message sending
TAM-	Technology acceptance model
TOE-	Technology-organization-Environment

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Abstract

Banking is a rapidly growing industry in Ethiopia. Electronic Banking has been widely used in developed countries and is rapidly expanding in developing countries. 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 system. Thus, this study was conducted with a general objective of assessing the Challenges and Prospects of E-Banking at Awash Bank. The specific aims of the study involved identification of the driving forces and barriers towards the adoption of E-Banking and assessing the benefits of adopting E-Banking from the View point of the bank and customer. The current practice and extent of E-Banking service application was also investigated. To achieve the objective, descriptive research design was employed while using both qualitative and quantitative techniques. Data was collected from primary sources that involve questionnaire and interview, while secondary data included journals articles and the like. By using the sampling technique by Yamane (1967), sample size of 190 was selected from the target population of 11,298. The collected data was analyzed with the use of Descriptive Statistics. The result indicated that ease of performing transactions, reduction of load at branches, ease of account access and a better management of financial transactions were revealed to be prospects. The study also revealed that security concern is a huge challenge that requires fast action. In addition decreased readiness of customers, infrastructural problems, language obstacles and inadequate skill of bank staffs were revealed as challenges. Thus, key recommendations like implementation of Cybersecurity, increased emphasis on employee skill and dedication were given. In addition increased language options, and giving incentive to customers that use E-Banking were also stated as recommendations. .

Key Words; E-Banking, Banking Industry, Challenges, Prospects.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The increasingly competitive environment in the financial service market has resulted in pressure to develop and utilize alternative delivery channels. The most recent delivery channel introduced is online or electronic banking also known as E-Banking (Daniel & Storey, 1997). The term electronic banking refers to "the provision of information or services by a bank to its customers, via a computer or television"(Allen, 2001). A more developed service is one that provides customers with the opportunity to gain access to their accounts and execute transactions or to buy product online via the internet (Daniel, 1999). Most new channels of distribution to be used in the financial services organizations are electronic banking; this method was established in the mid-1990s, thereafter steadily becoming more important.

Banks all over the world are reorienting their business strategies towards new opportunities by offering E-Banking. E-Banking has enabled banks to scale borders, change strategic behavior and thus bring about new possibilities. In developed countries, E-Banking is now giving way to a modern and sophisticated payment system where the currency and notes are converted to data, which are in turn transmitted through the telephone lines and satellite transponders. These banking activities may include but not limited to: retrieving an account balance, money transfers between a user's accounts, from a user's account to someone else's account, retrieving an account history. This is as a result of rapid technological progress and development in the financial market.

The existence of faster delivery of information from the customer and service provider is differentiating internet enabled electronic banking system from the traditional banking operation. E-Banking implies provision of banking products and services through electronic delivery channels. Electronic banking has been around for quite some time in the form of automatic teller machines (ATMs) and telephone transactions. In more recent times, it has been transformed by the internet a new delivery channel that has facilitated banking transactions for both customers and banks. For customers, the internet offers faster access, is more convenient and available around the clock irrespective of the customer‘s location.

It is evident that banks and other financial institutions in developed and developing countries are embracing E-Banking. As technology evolves, different kinds of electronic banking systems emerge, each bringing a new dimension to the interaction between user and bank. The different kind of E-Banking systems include Automated Teller Machine (ATM), Mobile and Internet (online) banking, Electronic funds transfer, Direct bill payments and credit Card (Gikandi and Bloor, 2010;).

In Ethiopia, Online banking at in its infant stage. The appearance of E-Banking in Ethiopia goes back to late 2001 when Dashen Bank emerged as a pioneer to E-Banking by the introduction of ATM. The emergence went up another step when the largest state owned, commercial bank of Ethiopia (CBE) introduced automatic teller machine to deliver service to the local users. Electronic banking facilities provided by most Ethiopian Banks are very basic. Even though, the concept of online banking implemented in Ethiopia with a single service of mobile banking that involves mainly text message during late 2008, it does not show improvement that is expected in the past 7-8 years.

Now a days some banks are adopting state - of- the art E-Banking system. In addition, many banks are making huge investments in technology to maintain and upgrade their infrastructure, in order not only to provide new electronic information based services, but also to manage their risk positions and pricing.

The economy of most developing countries is cash driven; meaning that monetary transactions are basically made through the exchange of bank notes and coins for goods and services. According to Jensen (2003), most countries in Africa, except South Africa, have Internet infrastructure only in their major cities. Lack of suitable legal and regulatory framework for E-commerce and E-payment is another impediment for the adoption of new technology in banking industry. Low literacy rate is also considers as a serious impediment for the adoption of E-Banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-Banking, they should not only know how to read and write but also possess basic ICT literacy (Gardachew 2010).

In order to encourage further E-Banking adoption in developing countries like Ethiopia, a better understanding of the prospects and challenges of E-Banking is critical. By gaining an in-depth understanding of the factors and conditions that influence developing country's ability to fully adopt and realize its benefits, strategic implications can be generated for the researchers and practitioners regarding how to promote the growth of E-Banking in the developing countries.

However, despite the importance of these adoptions, limited studies are currently available in developing countries, especially in Ethiopia. Therefore, more studies are still required to understand the relevance of E-Banking in the country and to identify areas in which the country lags behind that inhibit their E-Banking adoption and diffusion. Therefore, to address the current gap, this study is designed to identify the E-Banking service situation in Ethiopia by assessing the challenges and prospects E-Banking.

1.2 Statement of the Problem

In a relatively short period of time, the internet has moved from an occasional tool to one of the principal ways people communicate, entertain, and work. All the time spent online has to come at the expense of something else. One main advancement technology has brought to us is the introduction of E-Banking.

Banks play a key role in improving economic efficiency by channeling funds from resource surplus unit to those with better productive investment opportunities. E-Banking plays a crucial role in the banking industry by creating value for banks and Customers. E-Banking has enabled banking institutions to compete more effectively in the global environment by extending their services beyond the restriction of time and Space (Turban, 2008). In less monetized countries, like Ethiopia, financial sector is dominated by banking industry, effective and efficient functioning of the economy has significant role in accelerating economic growth. To enhance the role of banks in an economy, competition is an important driving force. In other words, insufficient competition may result in substantial social losses on account of higher price, higher transaction cost, lower credit supply, lack of innovation and poor service quality. Competition leads to innovation of new technology especially E-Banking in recent years in Ethiopia.

Contrary to what is commonly stated, Africa's banking industry is as competitive as those in Latin America & Caribbean and not very different from the competitive environment existing in high-income countries. Also banks in Africa are well supervised as well as those in other developing countries with competition and entry regulations on par with those in other regions. In addition, Africa's banking system seems to be growing and Ethiopia is on top of that list. Ethiopia is stated to be one of the countries with an increasingly growing Banking Industry.

To be more competitive with other banks, there is a need for more diversified services, more speculative to reach the varying requirements of the economy, specially being adoption of new technology. When talking about new technology, it can be viewed from different angles that are internal banking systems such as more complicated software, well-educated employees and the like. On the other hand there are E-Banking systems such as mobile banking, alert, point of sale, automatic teller machine and internet banking.

In order to encourage further E-banking adoption in developing countries, a better understanding of the challenges and drivers impacting E-banking adoption is critical (Zhao *et al*. 2008). By gaining an in-depth understanding of the factors and conditions that influence developing country's ability to fully adopt and realize its benefits, strategic implications can be generated for the researchers and practitioners regarding how to promote the growth of E-banking in the developing countries. Much documentation on online banking services has been carried out elsewhere. However, in Ethiopia, there is little or no information concerning online banking usage. Even those banks to which start using online banking are connected with only few of their own branches. Cross bank transaction using online banking is also a new idea for Ethiopian banks. However, despite the importance of these adoptions, limited studies in number and in scope are currently available in developing countries, especially in Ethiopia. Therefore, more studies are still required to understand the relevance of E-banking. Therefore, to address the current gap in the literature, the following slits have been identified while evaluating other researchers.

From the limited researches that have been done, Assefa (2013) conducted a study on the impact of E-Banking on customer satisfaction in two branches of private banks in Gondar City. The researcher used qualitative approach in analyzing this study and it was limited to customers of two branches only.

In addition to this, only ATM was considered as E-Banking because there was no any other form of E-Banking in the study area. Bultum (2014) also studied factors that affect adoption of E-Banking in the Ethiopian banking industry. Still this study was entirely focused on factors that affect adoption of E-Banking. Satisfaction of customers towards E-Banking was not investigated. A study by Ayana (2014) stated that more studies are still required to understand the relevance of E-banking in Ethiopia to identify areas in which the country lags behind that inhibit their E-banking adoption and diffusion. A further study by Alayu (2015) studied the challenges and prospects of E-Banking on the Commercial Bank of Ethiopia, but the research has limitations regarding the depth of the paper since it focused on ATM only.

Therefore, this study has tried to bridge the gap created by building E-banking platforms that incudes ATM, POS, Mobile Banking and internet banking. In addition the paper has also assessed changes that have come regarding the knowledge of customers and ease of technology that time has brought. Consequently this study has tried to identify the E-Banking situation in Ethiopia by mainly focusing on the investigation of challenges and prospects that effect of E-Banking systems.

Even though the customers have benefited from internet banking, high number of Awash customers still use the traditional banking systems that includes carrying costly printed physical cash and making lines in the branches to access their account information and their utilization of electronic payment is at early stage.

This study has assessed the challenges and prospects of E-Banking in the case of Awash Bank. Findings of this research are useful for the banking sector in formulating appropriate strategies to build customer satisfaction, to know customer attitude about E-Banking, and a guide to create cashless society in Ethiopia.

1.3. Research Question

1.3.1 Main Question

The main question of this study was; what are the challenges and prospects of E-Banking in the case of Awash International Bank.

1.3.2 Sub Questions

In this study the following sub questions were addressed:

1. What are the driving forces towards adoption of E-Banking?

2. What are the barriers to E-Banking adoption in Ethiopia?

3. What are the benefits of E-Banking service from the viewpoint of the bank?

4. What are the benefits of E-Banking service from the viewpoint of the customers?

5. What is the current practice and extent of E-Banking application?

1.4. Objective of the Study

1.4.1 General Objective

The main objective of this study was to assess the challenges and prospects of Electronic Banking at Awash International Bank.

1.4.2 Specific Objective

From the General Objective stated above, specific objectives are derived. The specific aims of the study were:

1. To identify the driving forces towards adoption of E-Banking?

2. To investigate the barriers of E-Banking adoption in Ethiopia?

3. To assess the benefits of adopting E-Banking service from the viewpoint of the bank?

4. To assess the benefits of adopting E-Banking service from the viewpoint of the customers?

5. To investigate the current practice and extent of E-Banking service application?

1.5 Scope and Delimitation of the study

This study has focused on the challenges and prospects of E-Banking which includes mobile banking, internet banking, and point of sale (POS), automatic teller machine and alert (SMS) in the case of Awash International Bank.

The study has been conducted at six selected Awash Bank branches in Addis Ababa. These branches are Head Office branch (around Senga Tera), 4-Kilo Branch (around Berhan ena Selam), Bole Medhanialem Branch(In front of Edna Mall), Gotera Branch (Kasma Building), Olympia Branch(Around Dembel) and Sheger Branch (Arada Building Piazza).These branches have been selected because of the extensive use of E-Banking facilities and their close proximity to the researcher. The study involved staffs from the Information Technology (IT) Department, Alternative Channel Department and Marketing Department. Also other bank workers such as branch managers, accounts officers and customers who use the E-Banking facilities were involved.

Much documentation on E-Banking services has been carried out elsewhere. However, in developing countries like Ethiopia, there is little evidence concerning E-Banking. As far as E-Banking is concerned, a lot of researches on internet banking, mobile banking and modern service delivery channels have been done in different countries in the world. As per the knowledge of the researcher only a very limited number of researches have been done on E-Banking in Ethiopian Banking like that of (Ayana, 2012), (Sintayehu, 2015), (Mohammed 2014) and (Wondwossen and Tsegai, 2005). Therefore this study depends on mainly the above researches and other related studies.

The research scope was limited to the study of assessing the challenges and prospects of E-Banking, specifically in Awash International Bank. The selections of this branch office were based on convenience for the researcher and extent of E-Banking usage in the branch. The study only focused on 6 branches.

1.6 Significance of the study

This assessment would enable Awash International Bank to render better online banking service to their customer, adopt new strategies to cope with challenges and meet customer needs in the use of these online banking facilities.

The importance of the study is also in pointing out challenges in the application and implementations of electronic banking and to look at prospects in order to generate supportive recommendation. The research output can be used by Awash International Bank for E-Banking procedure guideline. In addition the bank can positively configure towards enhanced operational activities of new banking activities such as mobile internet, alert, ATM and POS. The research can also be used as a stepping stone and input for further study by individual or organizations. In Awash International Bank no sufficient study was conducted on E-Banking especially more recent lunched technology.

The implications of this study will:

- Facilitate beginner researchers who are interested to conduct their paper in this area
- Helps bankers, bank managers and any relevant decision maker to be aware of prospects and challenges of electronic banking facilities
- Serve as a reference material to studies that are conducted regarding E-Banking technology in Ethiopia

1.7. Ethical Considerations

Before proceeding to any action, the researcher consulted with Awash International Bank Branch Managers to carry out the study and did not proceed until permission was granted. In order to ensure transparency and to avoid any fear from respondents, any personal information indicators was eliminated from the questionnaire. Also. Besides this, to avoid biases in filling the questionnaire and give freedom of expression, the researcher avoided any interference or contact with respondents.

1.8. Definition of terms

- **E-Banking** can be defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) whereby customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS), kiosk, or touch tone telephone (Malak,2007)
- **Automated Teller Machines (ATM) -** It is an electronic terminal which gives consumers the opportunity to get banking service at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number (PIN).
- **Point-of-Sale Transfer Terminals (POS) -** The system allows consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference. The money for the purchase is transferred immediately from account of debit card holder to the store's account (Malak 2007).
- **Internet banking-** It is an electronic home banking system using web technology in which Bank customers are able to conduct their business transactions with the bank through personal computers or mobiles.
- **Agency Banking** - is a delivery channel for providing financial services beyond the traditional branch network of the bank. This requires partnering with agents to reach out to the remotest locations of the country.(www.awashbank.et)
- **Mobile banking** - Mobile banking is a service that enables customers to conduct some banking services such as account inquiry, exchange rate inquiry and funds transfer and cash withdraws using any mobile devices without any internet connection but availability of a mobile network is required (www.awashbank.et).
- **Alert (SMS) -**is a text messaging service component of phone, Web, or mobile communication systems. SMS Alert is those that a bank sends out to a customer's mobile phone.

1.9. Organization of the Study

The study was organized into five chapters. The first chapter included the introduction and general background of the study. The second chapter discussed related literature review regarding the study. The third chapter of the study presented the research methodology that was used. The fourth chapter involved presentation, analysis and discussion of gathered primary and secondary data. The final chapter dealt with summary of findings, conclusions and recommendations.

CHAPTER TWO

RELATED LITERATURE REVIEW

The purpose of this chapter is to review the literature on challenges and prospects of E-banking adoption , two basic frame works used to guide the study, evolution of E-banking system, review of challenges of E-banking and Benefit of adopting E-banking system. In addition, it also includes empirical review of the study from different researchers in different countries.

2.1 Theoretical Review

2.1.1 Definition of Banking

Banking is one of the oldest professions in human history, it also flourished with civilizations. Since humans started using money bank services were in use throughout history. Modern banking established as we know it today was established in Italy and Greece in the 15th century. Today, banks are one of the most important institutions to for a modern economy to work in any country. From different historical sources the first foundations of the banking service in the world were put by goldsmiths and silversmiths. They have a safe box to put & they were the most trusted they used to receive gold, silver and various jewelries to put with them. Therefore an individual or merchant puts his wealth under their custody, for their service they charge a small amount of money and give the customer a receipt to guarantee their acceptance.

However as time goes by , the goldsmiths and silversmiths observed that their customers wouldn‘t take their jewelry soon, and those clients ,whenever they face they shortage of money they started lending to this people and started to get profit from their service. They encouraged depositing and lending and rather than making the customers to pay a charge for depositing, they started to pay them interest and introduced the public to work with money. For further development of the bank there is the need for technological transformation in banking industry which is electronics banking.

2.1.2 Definition of Electronic Banking

The concept of electronic banking has been defined in many ways. Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television.

Pikkarainen (2004) define e- banking as an "internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments". With the exception of cash withdrawals, internet banking gives customers access to almost any type of banking transaction at the click of mouse. Indeed the use of the internet as a new alternative channel for the distribution of financial services has become a competitive necessity instead of just a way to achieve competitive advantage with the advent of globalization and fiercer competition.

Wise and Ali (2009) argued that many banks want to invest in ATMs to reduce branch cost since customers prefer to use them instead of a branch to transact business. The financial impact of ATMs is a marginal increase in fee income substantially offset by the cost of significant increases in the number of customer transactions. The value proposition however, is a significant increase in the intangible item "customer satisfaction". The increase translates into improved customer loyalty that in result in higher customer retention and growing organization value. Internet banking is a lower-cost delivery channel and a way to increase sales. Internet banking services has become one of the most important factors in the business economy today.

Banks which have a formal risk identification process and mechanisms in place to identify and assess the wide range of risks that impact their E-Banking business are well placed to react quickly and put measures in place to reduce potential losses. Risk identification depends on the experience and knowledge of the analysts, and it is prudent to assign this exercise to competent people with the necessary qualifications, experience and credentials. Further research on the risks associated with the E-Banking technologies and services could be helpful on resolving these risks. This could be done with research undertaken on the enhancement of IT security levels and authenticity of the banks _networks, with firewalls or other software authentication. As far as the strategic risks are concerned, banks also need to conduct surveys, consult experts from various fields, establish

achievable goals and monitor their performance. E-banking is an innovative product that banking institutions offer all over the world with superior benefits for the customers. In other words, an E-Banking is *an idea, practice, or object that is perceived as new by an individual or other unit of adoption*_(for more information see Rogers, 2003). E-banking is an umbrella term for the process by which customers can conduct various banking transactions 24 hours a day, 7 days a week electronically without the need to visit a brick and mortar _institution (physical branch).

E-banking consists of Internet banking, telephone banking, PC Banking, mobile banking, TV based banking and ATMs. All the above distribution channels which involve the use of the internet or technology have enabled banks to offer to their customers access to their accounts as well as the ability to perform any banking activity, such as paying utility bills, transferring amounts between accounts, applying for credit or debit cards as well as applying for loans or even mortgages. In the Business to Consumer (B2C) segment, the Internet banking services that are being offered to customers include transfers of funds, viewing of account balances, payments of credit cards and bills, set ups of direct debits and standing orders, applications for loans and cheque books as well as requests for new personal identity numbers (PINs).

Supervisory and regulatory authorities are further required to develop methods for identifying new risks, assessing risks, managing risks and controlling risk exposure (Kondabagil, 2007). In the last decades, banking over the internet has attracted increased attention from bankers and bank customers. This popularity can be attributed to all the advantages that Internet banking is offering to both banks and customers. For instance, customers can have access to their accounts around the clock, from all over the world. In addition, they have access to up to date information on their accounts

2.1.3 E-Banking in Global Perspective

The advent of Internet has initiated an electronic revolution in the global banking sector. The dynamic and flexible nature of this communication channel as well as its everywhere reach has helped in leveraging a variety of banking activities.

E-banking technologies have proliferated in recent years, and the availability of a wide range of products has led to increasing adoption among customers. These technologies include direct deposit, computer banking stored value card, and debit cards (Servon and Kaestner, 2008). Growth of Electronic banking in a country depends on many factors, such as success of internet access, new online banking features, household growth of internet usage, legal and regulatory framework. E-banking can offer speedier, quicker and dependable services to the customers for which they may be relatively satisfied than that of manual system of banking. E-banking system not only generates latest viable return, it can get its better dealings with customers. New banking intermediaries offering entirely new types of banking services have emerged as a result of innovative e-business models.

The Internet has emerged as one of the major distribution channels of banking products and services, for the banks in US and in the European countries. Initially, banks promoted their core capabilities i.e., products, services and advice through Internet. Then, they entered the ecommerce market as providers/distributors of their own products and services.

More recently, due to advances in Internet security and the advent of relevant protocols, banks have discovered that they can play their primary role as financial intermediate‘s and facilitators of complete commercial transactions via electronic networks especially through the Internet. Some banks have chosen a route of establishing a direct web presence while others have opted for either being an owner of financial services centric electronic marketplace or being participants of a non-financial services centric electronic marketplace.

The trend towards electronic delivery of banking products and services is occurring partly as a result of consumer demand and partly because of the increasing competitive environment in the global banking industry. The Internet has changed the customers' behaviors who are demanding more customized products/services at a lower price.

Moreover, new competition from pure online banks has put the profitability of even established brick and mortar banks under pressure. However, very few banks have been successful in developing effective strategies for fully exploiting the opportunities offered by the Internet.

For traditional banks to define what niche markets to serve and decide what products/services to offer there is a need for a clear and concise Internet commerce strategy. Banks use online banking as it is one of the cheapest delivery channels for banking products. Such service also saves the time and money of the bank with an added benefit of minimizing the likelihood of committing errors by bank tellers (Jayawardhena & Foley, 2000). Banking is no longer bound to time and geography. Customers over the world have relatively easy access to their accounts, 24 hours per day, and seven days a week'. The author further argued that, with internet banking services, the customers who felt that branch banking took too much time and effort are now able to make transactions at the click of their fingers.

2.1.4. E-banking Practice in Ethiopian Banks

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.

Amongst the few banks that provide a full-service bank in Ethiopia, Awash International bank holds the lion share. Awash International Bank is one of the biggest and the first private commercial bank in Ethiopia banking history. It is one of the most competitive banks in Ethiopia with its network of 217 branches in 2017 stretched across the country (www.awashbank.et). This truly makes it national as well as the largest bank at present next to commercial bank of Ethiopia.

Despite, being the pioneer in introducing various system Awash 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 2009, Dashen bank has installed more than 40 ATMs in its area branches, university compounds, shopping malls, restaurants and hotels. Available services on Dashen Bank ATMs are, cash withdrawal, balance Inquiry, mini-statement, fund transfer between accounts attached to a single card and PIN (Personal Identification Number) change (Binyam, 2009). Currently, the bank gives debit service only for Visa cards. Dashen bank clients can withdraw up to 3,000 birr in cash and can buy goods and services of up to 5,000 birr a day. As of June 30, 2009, Dashen Visa card holders have reached 54,624**.**

Expanding its leadership, Dashen Bank has begun accepting MasterCard in addition to Visa credit cards it began serving over two years ago. Dashen won the membership license from MasterCard in 2008. Moreover, harnessing its leadership with advanced banking technology, Dashen Bank signed an agreement with iVeri, a South African electronic payment technology company, for the introduction of mobile commerce in April 21, 2009. According to the agreement, iVeri Payment Technologies has licensed its Gateway and MI Card e-payment processing solution to Dashen Bank. This would make Dashen Bank the first bank in Ethiopia to acquire e-commerce and mobile merchant transactions. The younger United Bank is the first to introduce telE-Banking - including text messages (SMS) - by the end of 2008.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(Binyam, 2009).

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 agreed in principle to establish an ATM network called Fettan ATM network. If everything goes as planned, Fettan ATM will install over 140 ATM machines and over 340 POSs across Ethiopia. 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 (Binyam , 2009).

The first ever electronic banking gateway was signed between Ethiopian Commodity Exchange (ECX) and Dashen Bank and CBE. The electronic banking system being developed with both banks is designed to give a secure electronic data sharing gateway between clients, banks and ECX, facilitating a smooth transaction **(**Abiy Demilew, 2008).

As the CBE continues to move at a snail's pace in its turnkey solution for Card Based Payment System, Dashen Bank remains so far the sole player in the field of electronic banking since 2006. The agreements signed by other private banks to introduce E-Banking are welcoming and further steps towards realizing those agreements should be taken.

Now in Ethiopia electronic banking is highly growing from which **mobile banking** service provider banks in Ethiopia are Wegagen, Commercial Bank of Ethiopia, United international bank, Dashin, Abay and Cooperative bank of Oromia. **Internet banking** service provider includes united international, Wegagen, Dashin, Abay, Nib international and Commercial Bank of Ethiopia. **Agent bank** service provider includes united international, Dashin, Abay, Anbesa and cooperative bank of Ethiopia. In the year 2014/2015 National bank of Ethiopia give ATM(automatic teller machine) license permission to Abay international bank, Anbesa international bank, Nib international bank and Cooperative banks of Oromia (National bank of Ethiopia, 2015).

2.1.5 Theories E-Banking

2.1.5.1 Innovation Diffusion Theory

This theory developed by Roger in 1983 explains individuals'intention to adopt a technology as a modality to perform a traditional activity. The critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, trial ability and observability. It is concerned with the manner in which a new technological idea, artifact or technique, or a new use of an old one, migrates from creation to use. According to (IDT) theory, technological innovation is communicated through particular channels, over time, among the members of a social system. The stages through which a technological innovation passes are: knowledge (exposure to its existence, and understanding of its functions); persuasion (the forming of a favorable attitude to it); decision (commitment to its adoption); implementation (putting it to use); and confirmation (reinforcement based on positive outcomes from it).

Early users generally are more highly educated, have higher social status, and are more open to both mass media and interpersonal channels of communication, and have more contact with change agents. Mass media channels are relatively more important at the knowledge stage, whereas interpersonal channels are relatively more important at the persuasion stage. Innovation decisions may be optional (where the person or organization has a real opportunity to adopt or reject the idea), collective (where a decision is reached by consensus among the members of a system), or authority-based (where a decision is imposed by another person or organization which possesses requisite power, status or technical expertise).

2.1.5.2. Technology Acceptance Model (TAM):

TAM, introduced by Davis (1986), is an adaptation of TRA specifically tailored for modeling user acceptance of information systems. The goal of TAM is to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified(Davis, 1986). TAM posits that two particular beliefs, perceived usefulness and perceived ease of use, are of primary relevance for computer acceptance behaviors. Perceived usefulness is defined as the prospective user's subjective probability that using a specific application system will increase his or her job performance (Davis, 1985).

2.2 Conceptual Review

Researchers have used different frameworks in the study of adopting new technological innovation. Among frameworks that have been developed in different studies includes,). Technology-Organization-Environment (TOE) framework, Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB),Innovation Diffusion Theory (IDT) and Theory of Reasoned Action (TRA).

2.2.1 Technology- Organization- Environment (TOE) Framework.

TOE framework was developed by Tornatzky and Fleischer; it is designed for studying the likelihood of adoption success of technology innovations. This framework is a comprehensive and well received framework in the context of innovation adoption by organizations and has been used

in many studies (Salwani, 2009, Ellis, 2009). According to Tornatzky and Fleischer (1990), technology adoption within an organization is influenced by factors pertaining to the technological context, the organizational context, and the external environment.

2.2.2 Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was introduced by Davis (1986) quoted in Davis et al., (1989). Technology acceptance model is an adaptation of Theory of Reasoned Action (TRA), developed to specifically deal with modeling user acceptance of information systems. As compared to TRA, Technology Acceptance Model is significantly less general. The model was developed to particularly explain the computer usage behavior. But since, TAM includes findings collected from over a decade of Information System (IS) research, so it is particularly well-suited for modeling computer acceptance.

According to Technology Acceptance Model (TAM), perceived usefulness (PU) and perceived ease of use (PEOU) are two key beliefs that are mainly relevant for computer acceptance behavior. Theory of Reasoned Action (TRA) is used by TAM as a theoretical basis to specify causal association between these two key beliefs i.e. PU and PEOU.

2.2.3 Theory of Planned Behavior (TPB)

TPB is developed originally based on the theory of reasoned action (TRA) which explains almost any human behavior. In predicting and explaining human behavior across various application contexts, it has been proven successful. According to TRA, a person's behavioral intention guides his actual behavior of performing some certain action and where subjective norm and attitude toward the behavior determine the behavioral intention (Liao, 2007).

Attitude as defined by Fishbein and Ajzen (1975) quoted in Liao et al., (2007, p. 2809), is "the degree of one's favorable or unfavorable evaluation of the behavior in question". The attitudes are developed reasonably from one's beliefs about object of the attitude. Subjective Norm refers to "the perceived social pressure to perform or not to perform the behavior"(Ajzen, 1991 quoted in Liao et al., 2007, p. 2809). It can be said that it is related to the normative beliefs about other people's expectations on either to perform or not to perform the behavior.

2.2.4 Innovation Diffusion Theory (IDT)

According to Rogers (1995 p. 11), innovation is defined “an idea, practice, or object that is perceived as new by an individual or other unit of adoption”, whereas diffusion is defined as “the process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers, 1995, p. 5). Therefore, Innovation Diffusion Theory (IDT) states how new ideas, concepts or technologies spread or become common in a society and adopted by users.

2.2.5 Theory of Reasoned Action (TRA)

The theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975 quoted in Belleau (2007) is based on the assumption “that individuals are rational and make systematic use of information available to them”.

According to theory of reasoned action, behavioral intention (BI) of an individual is a measure of the strength of one's intention to perform a specified behavior. BI is determined by two factors: 1) Attitude towards the behavior (AB), which is a function of beliefs (bi) that performing the behavior possesses certain attributes and the evaluation of those beliefs (EI) 2) Subjective Norm (SN), which is the perception of social groups i.e. what specific individuals or groups think that a person should or should not perform Belleau (2007).

Apart from the above mentioned factors, Ajzen and Fishbein (1980) quoted in Belleau et al., (2007) mentioned that some external variables might also have influence on behavioral intention, for instance, demographics, traditional attributes towards targets and personality traits. Some researchers have proposed additional external variables, which could be included in the model for predicting the behavior. Those variables are: past behavior, past experience or involvement (Bagozzi, Wong, Abe, & Bergami, 2000).

According to Fishbein and Ajzen (1975) quoted in Sheppard (1988) “a behavioral intention measure will predict the performance of any voluntary act, unless intent changes prior to performance or unless the intention measure does not correspond to the behavioral criterion in terms of action, target, context, time-frame and/or specificity”.

In this study, Technology-organization-environment framework was used to have a more precise forecast on the challenges of adopting and developing E-banking technology in Ethiopian banking industry.

2.3 Types of E-banking

2.3.1 Internet banking:

Internet Banking lets you handle many banking transactions via your personal Computer. For instance, you may use your computer to view your account balance, request transfers between accounts, and pay bills electronically. Internet banking system and method in which a personal computer is connected by a network service provider directly to a host computer system of a bank such that customer service requests can be processed automatically without need for intervention by customer service representatives. The system is capable of distinguishing between those customer service requests which are capable of automated fulfillment and those requests which require handling by a customer service representative.

2.3.2 Automated Teller Machine (ATM)

An automated teller machine or automatic teller machine (ATM) is an electronic computerized telecommunications device that allows a financial institution's customers to directly use a secure method of communication to access their bank accounts, order or make cash withdrawals (or cash advances using a credit card) and check their account balances without the need for a human bank teller. Many ATMs also allow people to deposit cash or cheques, transfer money between their bank accounts, top up their mobile phones' pre-paid accounts or even buy postage stamps. On most modern ATMs, the customer identifies him or herself by inserting a plastic card with a magnetic stripe or a plastic smartcard with a chip that contains his or her account number. The customer then verifies their identity by entering a pass code, often referred to as a PIN (Personal Identification Number) of four or more digits. Upon successful entry of the PIN, the customer may perform a transaction. The growth of ATM‘s has rapidly grown in the public places around the globe.

2.3.3 Tele Banking

Undertaking a host of banking related services including financial transactions from the convenience of customers chosen place anywhere across the GLOBE and anytime of date and night has now been made possible by introducing on-line Tele banking services. By dialing the given Tele banking number through a landline or a mobile from anywhere, the customer gets the following facilities

- Automatic balance voice out for the default account.
- Balance inquiry and transaction inquiry in all
- Inquiry of all term deposit account
- Statement of account by Fax, e-mail or ordinary mail.
- Cheque book request
- Stop payment which is on-line and instantaneous
- Transfer of funds with CBS which is automatic and instantaneous
- Utility Bill Payments
- Renewal of term deposit which is automatic and instantaneous Ø Voice out of last five transactions.

2.3.4 Smart Card

A smart card usually contains an embedded 8-bit microprocessor (a kind of computer chip). The microprocessor is under a contact pad on one side of the card. Think of the microprocessor as replacing the usual magnetic stripe present on a credit card or debit card. The microprocessor on the smart card is there for security. The host computer and card reader actually ―talks" to the microprocessor. The microprocessor enforces access to the data on the card.

The chips in these cards are capable of many kinds of transactions. For example, a person could make purchases from their credit account, debit account or from a stored account value that's reload able. The enhanced memory and processing capacity of the smart card is many times that of traditional magnetic-stripe cards and can accommodate several different applications on a single card. It can also hold identification information, which means no more shuffling through cards in the wallet to find the right one.

2.3.5 Debit Card

Debit cards are also known as check cards. Debit cards look like credit cards or ATM (automated teller machine) cards, but operate like cash or a personal check. Debit cards are different from credit cards. While a credit card is a way to "pay later," a debit card is a way to "pay now." When you use a debit card, your money is quickly deducted from your checking or savings account.Debit cards are accepted at many locations, including grocery stores, retail stores, gasoline stations, and restaurants.

2.3.6 E-Cheque

E-Cheque is the electronic version or representation of paper cheque. The Information and Legal Framework on the E-Cheque is the same as those of the paper cheques. It can now be used in place of paper cheques to do any and all remote transactions. An E-cheque work the same way a cheque does, the cheque writer "writes. The e-Cheque using one of many types of electronic devices and "gives" the e-Cheque to the payee electronically.

2.4. Benefits of Electronic Banking

Banks just like other businesses are tuning to information technology to improve business efficiency, service quality and attract new customers. The most important factors encouraging consumers to use online banking are lower fees followed by reducing paper work and human error. Subsequently electronic channels can lead to lower transaction costs which are very competitive (Claessens and Kliengbiel, 2000). Conducting business outside the normal branch working hours has also been a factor that has been considered convenient for bankers. According to Jayawardhena and Foley (2000) each ATM has the capacity to carry out the same, essentially routine, transactions as do human tellers in branch offices but at half the cost and with a four to one advantage in productivity. Thus banks can provide customers convenient, inexpensive access to the bank 24 hours a day and seven days a week.

Increased availability and accessibility of more self-service distribution channels help bank administration in reducing the expensive branch network and associated staff overheads. A reduction in the percentage of customers visiting the banks with an increase in alternative channels

of distribution will also minimize the queues in branches (Thornton and White, 2001). According to Thornton and White (2001) this ultimately leads to improved customer satisfaction. Jayawardhena and Foley (2000) observe that electronic banking increases competition within the banking system and also from non-bank financial institutions. Electronic banking also increases the power of the customer to make price comparisons across suppliers quickly and easily and as a consequence this pushes prices and margins downward.

2.4.1. Benefits from the Bank Point of View

The first benefits for the banks offering Internet banking services is better branding and better responsiveness to the market. Those banks that would offer such services would be perceived as leaders in technology implementation. Therefore, they would enjoy a better brand image. The other benefits are possible to measure in monetary terms. The main goal of every company is to maximize profits for its owners and banks are not any exception. Automated E-Banking services offer a perfect opportunity for maximizing profits.

2.4.2. Benefits from the Customers' Point of View

The main benefit from the bank customers' point of view is significant saving of time by the automation of banking services processing and introduction of an easy maintenance tools for managing customer's money. The main advantages of E-Banking for corporate customers are as follows (Bank Away! 2001; Gurău, 2002):

- **Reduced costs** in accessing and using the banking services.
- **Increased comfort and timesaving** transactions can be made 24 hours a day, without requiring the physical interaction with the bank.
- **Quick and continuous access to information**. Corporations will have easier access to information as, they can check on multiple accounts at the click of a button.
- **Better cash management**. E-banking facilities speed up cash cycle and increases efficiency of business processes as large variety of cash management instruments are available on Internet sites of Estonian banks. For example, it is possible to manage company's short-term cash via Internet banks in Estonia (investments in over-night, short- and long term deposits, in commercial papers, in bonds and equities, in money market funds).

Private customers seek slightly different kind of benefits from E-Banking. In the study on online banking has found that providing faster, easier and more reliable services to customers were amongst the top drivers of e- banking development. The main benefits from E-Banking for private customers are as follows (Bank Away! 2001)

- **Reduced costs**. This is in terms of the cost of availing and using the various banking products and services.
- **Convenience**. All the banking transactions can be performed from the comfort of the home or office or from the place a customer wants to.
- Speed. The response of the medium is very fast; therefore customers can actually wait till the last minute before concluding a fund transfer.
- **Funds management**. Customers can download their history of different accounts and do

2.5. Challenges of E-banking

The ability to adopt global technology to local requirements: An adequate level of infrastructure and human capacity building are required before developing countries can adopt the global technology for their local requirements. The ability to strengthen public support for e-finance: Historically, most e-finance initiatives in developing countries have been the result of cooperative efforts between the private and public sectors. For example, Singapore‘s successful Trade Net system was a government-sponsored project. If the public sector does not have the necessary means to implement the projects it is essential that cooperative efforts between public and private sectors, along with the multilateral agencies like the World Bank, be developed to facilitate public support for e- finance related initiatives.

Confidentiality Integration and authentication are very important sectors that were very successfully managed the world over in pre-internet times. Communication across an open and thus insecure channel such as the internet might not be the best base for bank-client relations as trust might partially be lost.

Banking had created many new challenges for bank management and regulatory and supervisory authorities. They originate not just from increased potential for cross border transactions but also for domestic transactions based on technology applications which raise many security related issues.

It is a common argument that low transaction costs potentially make it much easier to conduct cross-border banking electronically. For many banks, cross- border operations offer an opportunity to reap economies of scale. But cross-border finance also needs a higher degree of cross-border supervision. Such cooperation may need to extend to similar supervisory rules and disclosure requirements (for efficiency and to avoid regulatory arbitrage) and some harmonizing of legal, accounting and taxation arrangements.

Banking may exacerbate, some of the same risks—particularly governance, legal, operational, and reputational—inherent in traditional banking. In addition, it poses new challenges. In response, many national regulators have already modified their regulations to achieve their main objectives: ensuring the safety and soundness of the domestic banking system, promoting market discipline, and protecting customer rights and the public trust in the banking system.

New service providers will require legal definition, recognition, and permission. For example, it will be essential to define an electronic signature and give it the same legal status as the handwritten signature. Existing legal definitions and permissions—such as the legal definition of a bank and the concept of a national border—will also need to be rethought.

2.6. E-banking Challenge in Ethiopia

Banking in Ethiopia faces numerous challenges to fully adopt and adapt E-Banking applications and seize the opportunities presented by ICT applications in general. According to Garedew worku Key Challenges for E-Banking applications are:

Low level of internet penetration and poorly developed telecommunication infrastructure: Lack of infrastructure for telecommunications, Internet and online payments impede smooth development and improvements in E-Banking in Ethiopia.

Lack of suitable legal and regulatory framework for e-commerce and e-payment: Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals with e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies.

Political instabilities in neighboring countries: Political and economic instabilities in Somalia, Southern Sudan, and Eritrea are threatening traits that do not provide a very conducive environment for E-Banking in Ethiopia. Political instabilities inevitably disturb smooth operations of business and free flow of goods and services.

High rates of illiteracy: Low literacy rate is a serious impediment for the adoption of E-Banking in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-Banking, they should not only know how to read and write but also possess basic ICT literacy.

High cost of Internet: The cost of Internet access relative to per capita income is a critical factor. Compared to the developed countries, there are higher costs of entry into the e-commerce market in Ethiopia. These include high start-up investment costs, high costs of computers and telecommunication and licensing requirements.

Absence of financial networks that link different banks (Banks are not yet automated): Most of the banking-transactions currently taking place use credit and debit cards supplied by Visa and MasterCard. For conducting E-Banking, the use of credit or debit cards is mandatory thus requiring the need for specialized systems which are not currently available.

2.7. Empirical Studies

A lot of related studies were conducted by different researchers in different countries. Nevertheless, there are limited numbers of studies were conducted in Ethiopia on the adoption and development of the technological innovation particularly on E-banking services. Specifically, Gardachew (2010) conducted research on the opportunities and challenges of E-banking in Ethiopia. The aim of his study was focused on analyzing the status of E-banking in Ethiopia and investigates the main challenges and opportunities of implementing E-banking system.

The author conducted a survey on the existing operating style of banks and identifies some challenges of using E-banking system, such as, lack of suitable legal and regulatory frame works for E-commerce and E- payments, political instability in neighboring countries, high rates of illiteracy and absence of financial networks that links different banks.

According to Gardachew (2010), Opportunities offered by ICT through e-learning programs and Commitment of the governments on development of ICT infrastructures is considered as drivers of using E-commerce and E-payment systems. Ayana, (2012) also conducted research on factors affecting adoption of E-banking System in Ethiopian Banking industry. The study was conducted based on the data gathered from four banks in Ethiopia. The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of Electronic banking are: security risk, lack of trust, lack of legal and regulatory framework, Lack of ICT infrastructure and absence of competition between local and foreign banks. The study also identified perceived ease of use and perceived usefulness as a driver of adopting E-banking system.

Wondwossen and Tsegai (2005) also studied on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employs interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, Unavailability of payment laws and regulations particularly for E-payment, Lack of skilled manpower and Frequent power disruption. According to Wondwossen and Tsegai (2005), an adequate legal structure and security framework could foster the use of E-payments, which is contradicting with the finding of the previous study.

On the other hand the study conducted by Daghfous and Toufaily (2007) on the success and critical factors in adoption of E-banking by Lebanese banks. The research was conducted on the factors that can lead to success the adoption of E-banking and the other factors that can constitute as barrier to its adoption, it focus on the organizational, structural and strategic factors which can accelerate or, on the contrary, slow the adoption of this electronic mode of distribution and communication by the banks, through analyzing the case of the Lebanese market.

In order to test the validity of the theoretical framework, structured survey was used, interview questionnaire that was given to E-banking managers or to information technology managers of all the banks on the official list of institutions operating on the Lebanese market, with a total of 57 banks, 31 of them operate internationally and 26 are strictly local were used to gather data. The results of their study shows that the organizational variables (bank size, functional divisions, technical staff, technical infrastructure, perceived risks, decision makers` international experience and mastery of innovation) are variables which exert significant impact on the adoption of E-banking, among the structural characteristics, the result revealed that internal technological environment of the bank is a very important factor in determining the adoption of E-banking, also the result shows that banks which are developing in the international scale are more likely to adopt E-banking innovations.

Study conducted by Khalfan et al., (2006) on 'Factors influencing the adoption of internet banking in Oman. Data, used in their study were collected using semi structured interviews and survey questionnaire as well as reviewing some bank documents. The results of their study provide a Pragmatic picture about the adoption of E-Commerce applications in the core financial sector domain of Oman. One of the main findings is that security and data confidentiality issues have been a major challenge. The banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control. Lack of top management support is the other inhibiting factor in the adoption of electronic commerce applications as per their finding.

Njuguna et al., (2009) conducted a study on internet banking adoption in Nairobi County, Kenya between 2010 and 2011. The purpose of the study was to establish the factors that influence adoption of internet banking among the individuals who have accounts with commercial banks in Nairobi County; Kenya. Only 24.82% of the respondents use Internet banking services. This is despite the high rate of internet access recorded. They concluded that internet banking is still at its nascent stages as demonstrated by the length of usage response. The results also revealed that perceived usefulness, perceived ease of use, self-efficacy, relative advantage, compatibility, and result demonstrability have a significant association with intention to use internet banking, while risk, visibility and trialability are not significant.

Additional study conducted by Gikandi and Bloor (2010) on adoption and effectiveness of electronic banking in Kenya. The results showed that there was a drastic shift in the importance attached to some E-banking drivers between years 2005 and 2009. In the 2005 survey, the number of other retail banks adopting E-banking was considered as a driver of medium importance by 70% of the banks, however, in the 2009 survey it was ranked among the extremely important drivers by a 100% of the banks. Similar observations were made in the case of competitive forces. Internet security was identified as the most important future challenge in E-banking while customer trust, privacy and awareness were recognized as challenges of great importance. The study concluded that cost reduction and customer related factors have emerged as the main drivers of E-banking adoption in Kenya. Mobile banking growth is expected to continue. It would be good to find out if there has been any change with the increase in competition among commercial banks in Kenya and changes in the regulatory environment.

E-banking challenges and opportunities in Greece were researched by Angelakopoulos and Mihiotis (2011). The main findings demonstrate that banks expand to E-banking services in order to remain competitive, to keep track with technological developments and to benefit from the lower cost of E-banking transactions. The major problems they face are the low response rate from customers and the implementation of security and data protection mechanisms. The relatively low Internet usage, the non-familiarity with technologically advanced devices and problems regarding security and privacy are the main factors that have a negative influence on the adoption of E-banking services by customers in Greece.

Rasoulian and Safari (2011) carried out research concerning reasons as to why there was a lack of E-banking achievement; the result of the first chapter of their study showed the importance of Internet use, frameworks and encouraging policies to impress beneficiaries to use electronic banking. The second part introduced cultural elements as the most important challenge followed on by financial elements (the cost of the Internet and commissions) as the second influencing factor. The significance of technical elements is fading away according to their study due to improvements in the banking system. In addition their study highlighted other parameters such as management obstacles as also playing an important role in electronic banking in Iran.

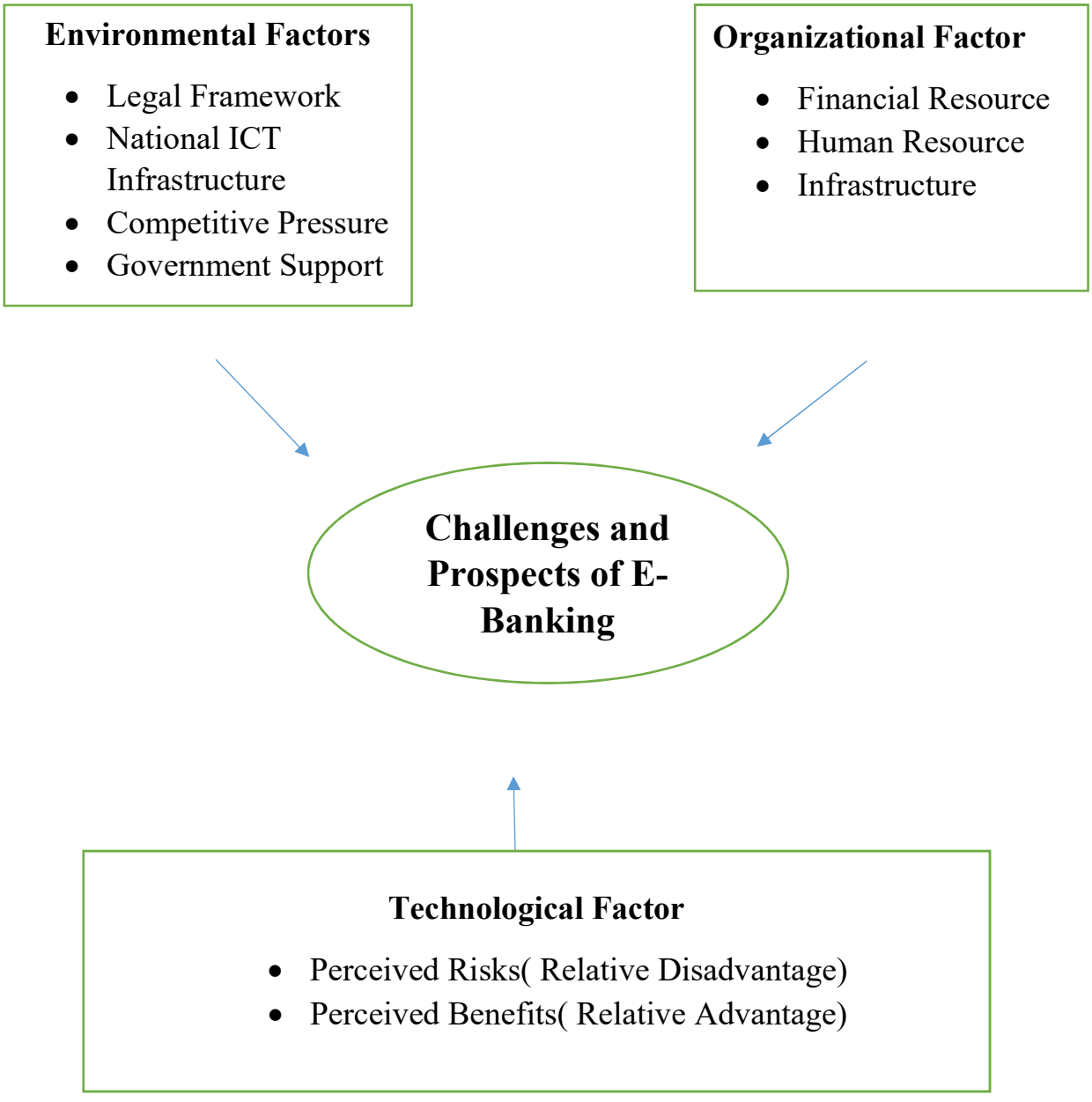
Sumra, et al., (2011) carried out a study on the impact of E-banking on the profitability of Pakistani banks. The study was qualitative in nature assessing the qualitative factors in determining the impact of E-banking. It also discussed the effect of customers' literacy on provision of services from banks' perspective. The study was conducted in 12 Pakistani banks from three cities. The results showed that E-banking has increased the profitability of banks; it has enabled the banks to meet their costs and earn profits even in the short span of time. The illiteracy of customers is not regarded as a major impediment in provision of their products and services. For banks, the main motive to adopt E-Banking is to increase their clientage and to retain their customers. The profitability of banks has augmented in transitioning to E-banking medium. It would be important to carry out a similar qualitative research in Kenya to determine whether similar results would be obtained.

Simeon and Bamidele (2012)"Cashless Banking in Nigeria: Challenges, Benefits and Policy implications", have studied the challenges, benefits and policy implications towards the creations of cashless society in Nigeria and have found that the shift towards a cashless Nigeria seems to be beneficial though it comes with high level of concerns over security and management of cost savings resulting from its implementation. Its objective is to examine the implication of cashless banking with a view to exposing the possible challenges and prospects it poses to the Nigerian economy whilst employing aggregated approach. Vis-à-vis the rising doubts with regard to the effectiveness of various economic policies in achieving developmental goals of Nigeria, the study presented significant recommendations: availability of sufficient and well-functioning infrastructural facilities (notably electricity), harmonization of fiscal and monetary policy, regular assessment of the performance of cashless banking channels (individually and collectively), consideration of the present state and structure of the economy, redesign of monetary policy framework and greater efforts towards economic growth whilst managing inflation.

In general, review of empirical studies show that understanding the practice of E-Banking in Awash International Bank, Ethiopia, and Africa and on the other world. The study mostly deals about the opportunity and challenges of E-Banking practices. Some studies also deals about the critical success factors in E-Banking is important for banking industry because it would potentially help to improve their strategic planning process.

The main obstacles and barriers that oppose E-Banking practice are the concern of security, privacy of information and technology investment cost. The literature also indicates that according to the customers there are different factors related to the service itself and how to be accepted and used by the customers, which differs from country to country.

2.8 Conceptual Framework



Source; Tornatzky & Fleischer (1990)

Many researchers have been using different frameworks in the study of adopting new technological innovation. Among frameworks that have been developed based on the past studies include, the Technology-organization-Environment framework (TOE) (Tornatzky & Fleischer 1990), which identifies three basic factors for the adoption of technological innovation, i.e, technological factors, organizational and environmental factors. TOE framework was proposed by Tornatzky and Fleischer; it is designed for studying the likelihood of adoption success of technology innovations. This framework is a comprehensive and well received framework in the context of innovation adoption by organizations and has been used in many studies (Salwani, 2006, & Ellis 2009; Chang *et al.,* 2007; Zhu & Kraemer, 2006). According to Tornatzky and Fleischer (1990), technology adoption within an organization is influenced by factors pertaining to the technological context, the organizational context, and the external environment. Based on this, the researcher adopts the TOE framework to summarize possible key factors that show the challenges and prospects of E-Banking.

a. Technological factors

Technological context both the internal and external technologies are relevant to the firm. This includes current practices equipment as well as the set of external to the firm.

Typical characteristics of technology considered in technology adoption studies are based on Roger's diffusion of innovation theory Rodgers (2003) which include relative advantages (perceived benefits), and relative disadvantages (perceived risks).

Technological factors should consider both perceived and perceived risks as shown below:

- **Perceived benefits**: - Perceived benefits of E-banking cover both direct and indirect for the banking industry as well as for the consumers. Direct benefits include the saving on operational cost, improved organizational functionality, productivity gain, improved efficiency and increased profitability, indirect benefits include the opportunity or intangible benefits such as improved customer's satisfaction through improved services, improved banking experience and fulfillment of their changing needs and lifestyle Rodgers (2003).

- **Perceived risks**:- One of the important risks faced by banking institutions in offering

E-banking services is the consumers' resistance to use the services which significantly hinder the growth of E-banking according to Zhao (2008. Issues related to security have always been a concern when dealing with technologies related to online transaction such as E-banking Chang (2007). Therefore, the perception of the risks regarding E-banking is expected to influence the adoption and further growth.

b. **Organizational factors**

Organizations are different in their preference to adopt innovation technology Iacovou(1995) and Graver(1993) influenced a number of factors, like firm size, top management support and financial and human resources. In the frame work for this study, the two basic organizational factors are discussed below.

- **Firm size**:-firm size has been widely recognized as an important factor determining on organization's ability to adopt a new innovation as well as capitalizing on its benefits Salwani (2009). Typically, large organizations have the resources and skills to adopt new technologies and have enough business volume to justify the environment. Therefore, it is also expected to affect the adoption of E-banking by banking institutions.
- **Financial and human resources:** - financial and human resources are an important factor in facilitating innovation adoption for any organization and they are often correlated with the firm size . Therefore, it is expected that the availability of financial resources within the adopting firms is important for E-banking adoption. These resources enable banking institutions to obtain human related resources including the required skills and expertise to develop and support provision of E-banking services.

c. Environmental factors

- **Competitive pressure: -** competitive pressure can strongly influence any bank to develop and adopt E-banking initiatives and it may affect the bank's perception towards E-banking service.

- **Legal frameworks:-**The existence and maturity of E-commerce legal frameworks within a country influence the diffusion of online transaction including E-banking.
- **The national IT infrastructure: -** National IT infrastructure is a major factor that support the adoption of E-banking as the case for other E-commerce initiatives. Without an adequate development level and quality of a nation's IT infrastructure-banking adoption and use control do well .

The ***technological factor*** refers to adopter's perception of E-banking attributes. Typical characteristics of technology considered in technology adoption studies are based on the assumption of Roger's diffusion of innovation (Rodgers 2003), Which include relative advantages (perceived benefits), and relative disadvantages (perceived risks).While the ***organizational factor*** refers to the organization's characteristics that influence its ability to adopt and use of E-banking system. The ***environmental factor*** refers to the external environment in which an organization operates and its condition for supporting the development of E-banking services. For each context, various factors have been identified from the literature but only those that are considered relevant for E-banking adoption are included in the framework.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

In the previous chapter, related literature review which shows the challenges and prospects of E-Banking system and review of issues related to E-Banking have been presented. The following chapter presents the research methodology in detail, showing the logical step that discusses research design, data source and data types, population and sampling procedure, data collection instrument and finally data analysis method (research method adopted).

3.1 Research Design

Research design is usually a plan or blue print which specifies how data relating to a given problem should be collected and analyzed. It provides the procedural outlines for the conduct of any investigation, the researcher adopted a qualitative study approach because it provided in- depth information to address the objectives.

The research method that was used in this study is descriptive survey type. *Descriptive research* includes surveys and fact-finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. This method is chosen because it is a sound to identify and explain investigations of challenges and prospects of implementing electronic banking in commercial bank of Ethiopia.

The researcher has designed an iterative process of designing of structural questionnaires for respondents in their respective areas. Therefore, research design to the respective parties help for the success of the subject study on clarify, completeness, and relevance of questions in relation to the issues and concepts which were addressed on the statement of the problem.According to Nathan, descriptive research “is designed to provide a picture of a situation as it naturally happens”. It may be used to justify current practice and make judgment and also to develop theories. Descriptive research primarily aims on gathering knowledge about description and explanation of the objectives of the study.

Descriptive research method helps to describe the research setting as it is and also allows the use of both quantitative and qualitative approach. Descriptive research presents a picture of the specific details of a situation, social setting or relationship, it focuses on "how?" and "who?" questions: "How did it happen?" "Who are involved?" descriptive researchers use most data gathering techniques including surveys, field research, content analysis and historical-comparative research (Nathan, 2007).

3.2. Data Sources and Data Types

In order to carry out any research activity information clear and relevant information that is gathered from proper sources is necessary. In order to achieve its objective, the study has used both primary and secondary data.

Primary data is recognized as data is gathered for a specific research in response to a particular problem through interviews and questionnaires. The main source of data was primary data that was collected through questioner from both staff and customers with addition to interviews that were presented only to the staff of Awash Bank. This is because the study depended mainly on the opinion of customer and staff to assess the challenges and prospects of E-Banking which makes primary data sources to be more important than secondary sources. Additional data was obtained by examining various documents including, banks annual reports, journals, articles, newspapers and research reports related with issues of E-Banking.

3.3.1 Target Population

The total population of this study involved account holder customers, branch manager, senior customer service officer, customer service officer, junior officer, and other commercial staff members.

Branches at Addis Ababa city are categorized into four districts: North, East, South and West. In addition they are classified into four grades based on the number of customers they serve and amount of transaction they handle. All of the branches in Addis Ababa are classified from grade two to grade four.

For the purpose of the study, branches from all the three grade levels of the four districts were selected. The total population of the study involved active account holding customers and branch employees and management. Only branches in Addis Ababa were selected, because branches in Addis Ababa reflect the characteristics of all branches in nationwide and are convenient for the researcher.

In each district there are a number of branches, all branches have their own grade that ranges for 1 to 4. This grading is based on factors like volume of transaction, the availability of all types of the bank's service, location, and number of staffs contained in the branch. Accordingly, one branch from each grade and each district totally 6 branches selected by considering the time and resource limitation to contact all branches as well as to deal with various customers served with in the branches who will give a different idea in perspectives to the issues raised on the benefits and challenges of internet banking.

In order to know the total population from each branch, the researcher took the average from each grade because the number of customers visiting each branch is different and it also vary from day to day. The number of visitors in the branches is recorded on the queue machine in some branches and on the computers in other branches.

By using information from the computers the average daily population for grade four, grade three and grade two branches are 910, 798 and 542 respectively which will add up to 2,250. Since the study will take a survey of 5 days in each branch the total target population will add up to 11,250 (2,250*5) Therefore, based on the above results the total target population for this study is 11,250.

The sum of average daily served customer from each grade taken as the total population with the confidence level of 92% and then sample size was determined using the formula given on (Yamane, 1967).

Another target population must be considered for the staff of Awash Bank. An average of 26 employees work in each branch. Out of these 26 employees, the researcher has decided to distribute the questionnaire to 6 employees. The 8 employees include 4 customer service officers, two department officers and two branch accounts manager.

Therefore there was a total target population of 48 employees from the 6 selected branches (8*6=48). The sampling procedure will continue below with a confidence level of 92%.

3.3.2 Sampling Procedure

Sampling is the process of choosing, from a much larger population, a group about which the researcher wishes to make generalized statements so that the selected part represents the total group (Slovin, 2006).

3.3.2.1 Sampling procedure for customers

Based on the above calculation, the researcher has got a total population of 11,250 customers. The sum of average daily served customer from each grade taken as the total population with the confidence level of 92% and then sample size was determined using the formula given on (Yamane,1967).

In order to determine sample size; the researcher will use formula for calculating the required sample size in six selected banks. The formula was developed by Yamane (1967).

To take a population sample, we must use a formula to figure out what sample size we need to take. Since the target population is known, the researcher can use the following formla inorder to get a relevant sample size.

Sample size (n) = N / (1 + N e2), Where n = Number of samples, N = Total population and e = Margin of Error tolerance Based on the above formula:

$$n = N / (1 + N e2),$$

$$n=11,250 / (1+11,250(0.08)^2)$$

$$n =11,250/ (1+72)$$

$$n =11,250/73$$

$$n=154$$

3.3.2.2 Sampling procedure for Employees

Based on the above calculation, the researcher has got a total population of 48 employees. An average of 6 employees per branch is taken as the total population with the confidence level of 92% and then sample size was determined using the formula given on (Slovin 2006). In order to determine sample size; the researcher will use formula for calculating the required sample size in six selected banks. The formula was developed by (Yamane, 1967).

To take a population sample, we must use a formula to figure out what sample size we need to take. Since the target population is known, the researcher can use the following formula in order to get a relevant sample size.

Sample size (n) = N / (1 + N e2),

Where n = Number of samples, N = Total population and e = Margin of Error tolerance Based on the above formula:

$$n = N / (1 + N e2),$$

$$n=48/ (1+48(0.08)^2)$$

$$n =48/ (1+0.3072)$$

$$n =48/1.3072$$

$$n=36$$

3.4 Data Collection Instruments

The instruments of data collection included questionnaires, interview questions and other reading materials. The researcher essentially ensured that the instrument chosen is valid and reliable. The validity and reliability of any research project depends to a large extent on the appropriateness of the instruments. The appropriateness of questionnaires is due to easiness, simply collect basic information based on the interest of the respondents. For these study questionnaires are the most important instrument to gather basic information. Questionnaires were distributed to the customers

of Awash Bank in Addis Ababa city branches and the structured interview was conducted with branch staffs, different department staffs and other staffs of the bank. The secondary data source is annual reports, brochures, internet, local and international newspapers related with issues of E-Banking system, and journal articles.

3.5 Method of Data Analysis

In order to meet the stated research objectives, the collected data was analyzed based on the nature of the objective. Accordingly, the data collected via questionnaires was analyzed with descriptive statistics. Descriptive statistics by percentages, figures and tables were generated from the software to establish relationship among variables.

The relevant information was obtained in a standard form using tables, frequencies and percentages to analyze and interpret the information. The results were finally presented in tables. These were used to ensure easy understanding of the analyses.

3.7. Ethical Considerations

Before proceeding to any action, the researcher consulted with Awash International Bank Branch Managers to carry out the study and did not proceed until permission is granted. In order to ensure transparency and to avoid any fear from respondents, any personal information indicators were eliminated from the questionnaire. Besides this, to avoid biases in filling the questionnaire and give freedom of expression, the researcher avoided any interference or contact with respondents.

CHAPTER FOUR
RESULT AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter examines the findings gathered. The analysis was conducted in order to gain a better understanding of challenges and prospects of E-banking. Data was collected through questionnaires, observation and informal interviews. The findings have been presented in two parts; one representing data gathered from staffs of Awash Bank and the other part depicting responses from customers Awash Bank.

In all one hundred and ninety (190) questionnaires were administered to the respondents. One hundred and fifty four questionnaires were administered to customers of Awash Bank while thirty questionnaires were administered to directors, managers and officers from marketing, IT and alternate channel departments, branch managers, assistance managers, branch accounts and customer service officers in selected branches. The researcher received one hundred fifty six (156) out of one hundred eighty four (194) questionnaires distributed. The technique used for the presentation of the findings was statistical description of the respondents.

4.1.1 Response Rate of Respondents

Table 4.1.1 Response Rate of Respondents

Target Population	Distributed	Returned	Return Rate (Percentage)
Employee	36	30	83%
Customer	154	126	81%
Total	**190**	**156**	**82%**

The above table shows the response rate of the respondents. Out of 36 questionnaires distributed to the employees of awash bank, 30 questionnaires were returned which implies response rate of 83%.On the other hand out of the 154 questionnaires distributed, 126 were returned which also implies a return rate of 81%. Looking at the general mass, out of 190 questionnaires distributed to both employees and customers 156 were returned which represents a total return rate of 82%.

4.2 Personal Background of Respondents

The study participants on survey questionnaire have different personal information; besides these differences they introduce different responses towards challenges and prospects of E-banking adoption. The demographic profile and general information of respondents towards the aim of the study was shown this section.

Gender			Age			Educational Background		
	Freq	**Perc**		**Freq**	**Perc**		**Freq**	**Perc**
Male	88	56	**<20**	8	5	**No Formal Ed**	9	6
Female	68	44	**21-30**	80	51	**High School**	18	12
			31-40	45	29	**Diploma**	28	18
			41-50	12	8	**Bachelors**	83	53
			51-60	8	5	**Masters**	18	11
			>60	3	2			
Total	**156**	**100**		**156**	**100**		**156**	**100**

(Source: Survey result, 2017)

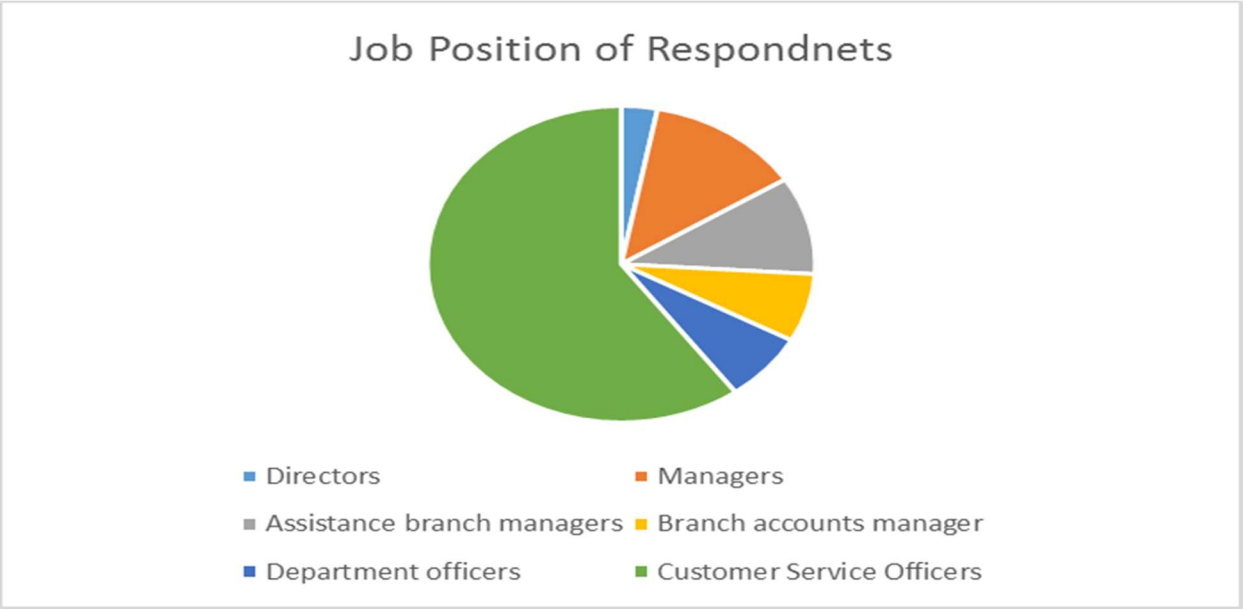
The frequency distribution of the gender profile of the respondents is given in table above. The table shows that eighty eight (88) of the respondents, representing (56%) are male and sixty eight (68) respondents representing (44%) are female. This indicated that males were in the majority of the population studied and females were in the minority.

The frequency distribution of the age profile of respondents is also shown above. The table shows that eighty (80) of the respondents, representing (51%) are between the ages of 21 – 30 years, forty five (45) of the respondents, representing (29%) are between the ages of 31 – 40 years, twelve (12) of the respondents, representing (8%) are between the ages of 41 – 50 years and eleven (11) employees representing (7%) were 51 years and above. This is an indication that the population is young , which implies majority of respondents who are related to E-banking are youths. In the adoption process Awash Bank is taking the advantage to use the potential of young generation.

This section also gave the educational attainments of the respondents within the studied population. From the table below eighty three (83) of the respondents, representing (53%) have Bachelor's Degrees, eighteen (18) of the respondents, representing (11%) have post Graduate Degree (Master's Degree); twenty eight (28) of respondents, representing eighteen (18 %) have Diploma. The researcher has not encountered any PhD holders from the samples. The data shows that, the largest part of the respondent is B.A degree holders; there is small number on the less educated and more educated staffs.

4.2.4 Job Position of the Staffs

From the chart below one (1) respondents, representing (3%) of the sampled population are director. Four (4) respondents, representing (13%) of the staff are managers (Branch or department). Three (3) respondents, representing (10%) of the staff are assistance branch managers, two (2) respondents, representing (7%) are branch accountants. On the other hand two (2) respondents, representing (7 %) are department officers and Eighteen (18) from the total sample, representing (60%) are customer service officers, which indicates the large number of staff is customer service officer from the total sampled population.



2.5 Years of Service at Awash Bank

As shown in the table below five (5) of the respondents, representing (17%) have worked at Awash Bank less than a year, nine (9) respondents, representing (30%) have worked at Awash Bank between 1 – 2 years, seven (7) respondents, representing (23%)of the sampled population who have work experience at Awash Bank lies between 3 – 5years and nine (9) respondents ,representing (30%) of the sampled population have above 5 years' experience at Awash Bank. It is obvious from the table that most of the respondents have worked with the Bank for quite a long time (above 3years); enough to be familiar with the bank's electronic banking services.

Table 4.2.5 Respondents Years of Service at Awash Bank

Years Of Service	Frequency	Percentage (%)
Less than 1 year	5	17
1 year to 2 years	9	30
3 year to 5 years	7	23
More than 5 years	9	30
Total	**30**	**100**

(Source: Survey result, 2017)

4.2.6 E-Banking Services offered by Awash Bank

The respondents were asked to indicate which E-banking services are actively offered by the bank. Table 4.2.6reveals that, respondents representing (40%) selected ATM as the most widely offered E-banking service within Awash Bank. ATMs are able to provide a wide range of services, such as making deposits, funds transfer between two or more accounts and bill payments (Abor, 2004). However, significant proportion of respondents twenty (20%) also indicated mobile banking, respondents, representing (23%) indicated SMS and (17%) of respondents indicated POS as widely used E-banking service within Awash Bank. Officials of Awash Bank from the responses in the questionnaires indicated that E-banking services like ATM, SMS banking, POS and mobile banking are offered by the bank. Unfortunately, no one indicated internet banking, which implies that the bank has not started to offer the service yet.

Table 4.2.6 Types of E-banking Service offered by Awash Bank.

Type of E-banking services	Frequency	Percentages (%)
ATM	12	40
Mobile Banking	6	20
Internet Banking	-	-
SMS banking	7	23
POS	5	17
Total	**30**	**100**

(Source: Survey result, 2017)

4.2.8 Awash Bank's E-banking Adoption

The respondents were asked to indicate the number of years their bank had been in delivering E-banking services.

The study in table 4.2.8 shows, that majority of respondents (63%) indicated, that the bank offered E-banking services between the last 3-5 years. Only six respondents from the sample population, representing (20%) stated that, Awash Bank has launched E-banking less than one year. Another five (5) respondents representing (17%) indicated the bank offered E-banking between six (6) and eight (8) years. No respondents indicated Awash Bank has launched E-banking before eight (8) years. The respondents gave several reasons which they perceived to have influenced the bank's decision to adopt E-Banking strategies in their banking business.

According to the respondents, Awash Bank adopted E-banking over the five years as a business strategy in response to customer needs and the changing marketing trends in the banking industry.

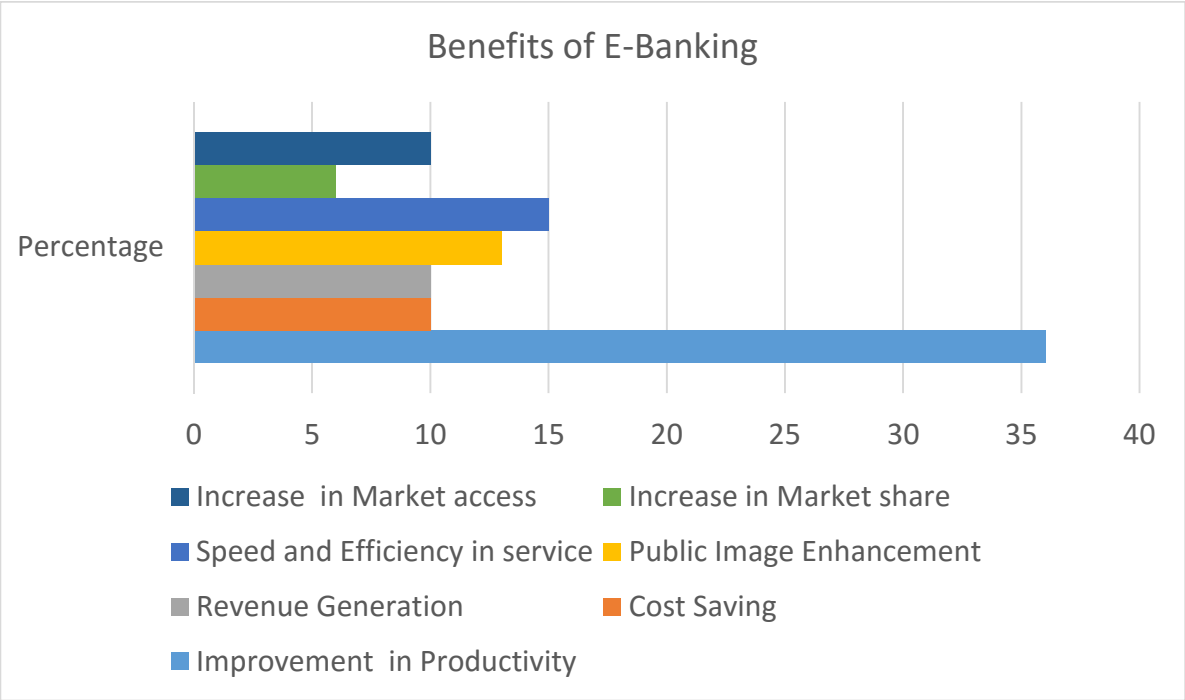
Table 4.2.8 E-banking Adoption by Awash Bank

Responses	Frequency	Percentage (%)
Less than 1 year	6	20
2 years -5 years	19	63
6 years -8 years	5	17
Above 8 years	-	-
Total	**30**	**100**

(Source: Survey result, 2017)

4.2.8 Benefits of E-Banking Adoption for Awash Bank

The respondents were questioned on the benefits Awash Bank has derived from its adoption of E-banking. The responses have been tabulated below.



From the chart above, respondents, representing (36%) of the sample population indicated that Awash Bank has benefited from its E-banking adoption in terms of improvement in productivity. respondents, representing (10%) pointed out that Awash Bank saved operational and other costs. Respondents representing (10%) of the total sample population indicated that, Awash Bank has generated revenue and increase in market access each. Respondents representing (13%) stated that the Bank's public image is enhanced through its adoption of E-banking and only (6%) of the respondents think that there will be increase in market share .Another (15%) of respondents also indicated speed and efficiency in service delivery has been improved due to the adoption of E-banking.

4.2.9 Challenges of E-banking Adoption

Despite the benefits of E-Banking, the respondents agreed that there were challenges as Awash Bank adopted E-Banking. The challenges Awash Bank faced in its implementation are tabulated below in Table 4.2.9, respondents representing (20%) pointed out poor ICT investment in that, lack of solid technological infrastructure in the country has made Awash Bank outsource some of

its banking processes to external service providers. respondents representing (27%) of the total sample population indicated the existence of decreased customer readiness. 23% of the respondents indicated Limited knowledge of IT as one of the most challenges that ,faces Awash Bank in its adoption process. respondents representing (14%) cited security concerns as a challenge Awash Bank faced in its E-banking adoption. two (4) respondents ,representing (3%) of the sample population stated lack of technical and Managerial skill. And only one (1) respondents representing (3%) indicated the legal frame work of the country. Only four (2) respondents representing (10%) listed limited knowledge regarding -Banking. This low percentage is an indication that Awash Bank in its E-banking implementation incorporated security features in its E-Banking infrastructures hence, the bank is considered as one of the top IT security conscious banks. Again Awash Bank has provided Secure Token devices for its customers who patronize its online banking services and all Awash Bank ATMs and POS devices have encrypted PIN pads.

Table 4.2.9: Challenges of E-Banking Adoption

Responses	Frequency	Percentage (%)
Poor ICT Infrastructure of the country	6	20
Decreased customers readiness	8	27
Limited knowledge of IT	7	23
Security concerns	4	14
Lack of technical and Managerial skill	1	3
The legal frame work of the country	1	3
Decreased E-Banking knowledge	3	10
Total	**30**	**100**

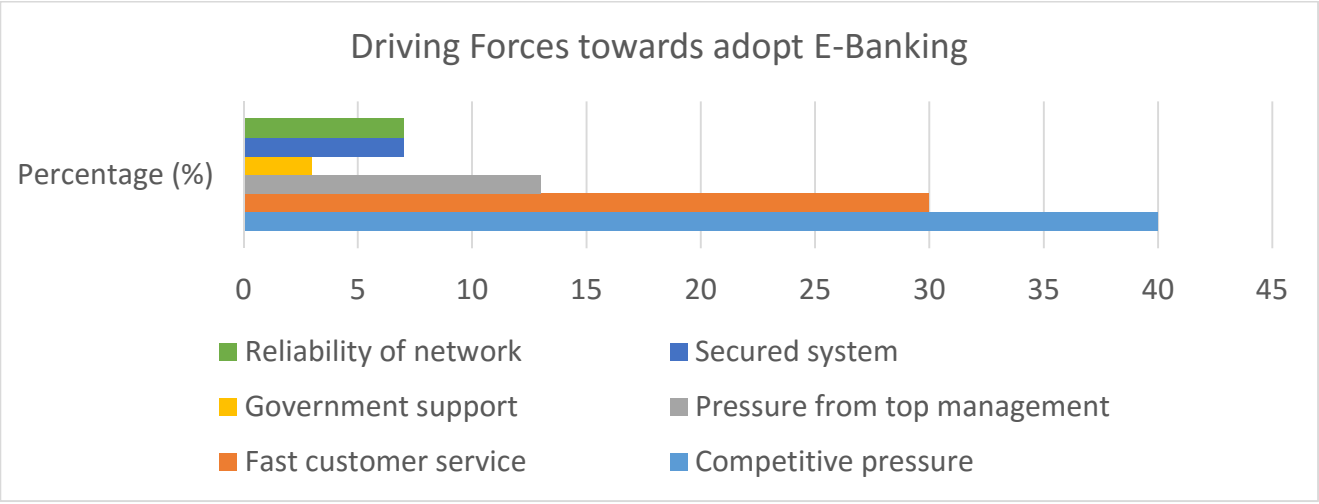
(Source: Survey result, 2017)

4.2.10 Driving Forces to Adopt E-banking

The respondents were asked to indicate the driving forces influencing adoption of E-banking services in Awash Bank. According to Table 4.2.10 below, respondents, representing (40%) believed that, competition from other banks have a strong influence on E-banking adoption in

which, satisfaction of customer needs was the main influencing factor for adoption of E-banking in Awash Bank ,this is because other banks have introduced E-banking hence would lure customers, if Awash Bank have not. (30%) of respondents indicated fast & reliable customer service and respondents, representing (13%) of the sample population indicated that pressure from top management is one of the most important factor to force the bank to adopt E-banking services. among the respondents ,representing (3%) pointed out government support as a driving force to adopt E-banking service. respondents ,representing (7%) also indicated security system of the services .only two(2) respondents, representing (7%) indicated reliability of network as a driving force to adopt E-banking service, this low percentage indicates that, low consistency and availability of network in Ethiopia has been the most challenging factor to do E-banking business in that, it doesn't appreciate banks to adopt E-banking channels.

Therefore, from this it is possible to conclude that it is due to the existence of some driving forces in which banks are initiated to provide modern banking services to their customers. In addition, the table also implied that there are common driving forces that lead the bank to provide E-Banking services.



Results from Interview revealed that objectives towards adopting E-banking is to create cash less societies, to increase customer satisfaction and to provide self –services in order to minimize the load or burden at branch level and to make cost effective services.

The other point both of the respondents raised is that E-banking service provides indispensable advantage or benefits to customers in the form of different facilities like time saving, easy to access, and convenience to the banking services compared to traditional banking system. They are also stated that it make life easy for people in terms of providing 7 days and 24 hours services.

Respondent II also added that E-banking can eliminate the problems of waiting at branches for long time to be served, printing cash notes and cheques that are very common in the traditional banking services. Another one of the reason involves connecting with the future banking trend which will gives availability of services to customers and managed resource utilization to the bank, reduced administrative expense, and increase customers satisfaction.

4.2.11 Risks involved because of adopting E-banking

One of the basic barrier a firm faces, while adopting technological innovation is the perceived risks. For example the study of Sohail and Shanmugham (2003) suggests that one of the barriers in the adoption of electronic banking is fear of security risks.

Moreover, all of the respondents participated in this study were asked whether E-banking risks are involved because of adopting E-banking or not. As shown in the table 4.2.11 below, 100 % of the respondents, were agreed on the issue.

Table 4.2.11 Risks Involved because of Adopting E-banking

Responses	**Frequency**	**Percentage (%)**
Yes	30	100
No	-	-
Total	**30**	**100**

(Source: survey result, 2017)

4.2.12: Types of Risks Involved in E-banking Services

According to the table 4.2.12 below eleven (11) respondents, representing (36%) indicated transaction risk as the most dominant risk arises from fraud, processing errors, system disruptions, or other unanticipated events resulting in the institution's inability to deliver products or services. Six (6) respondents, representing (20%) indicated reputational risk involved in the adoption of E-banking. The table also shows, that five (5) respondents, representing (17%) stated security risk that faces the bank in the adoption process of E-banking. Five (5) respondents, representing (10%) indicated compliance or legal risk .Only three (3) respondents, representing (10%) indicated strategic risk.This low percentage implies that Awash Bank has a clear strategy driven from the top and ensured, this strategy takes account of the effects of E-banking as a relevant.

Table 4.2.12 Types of Risks involved in E-banking services

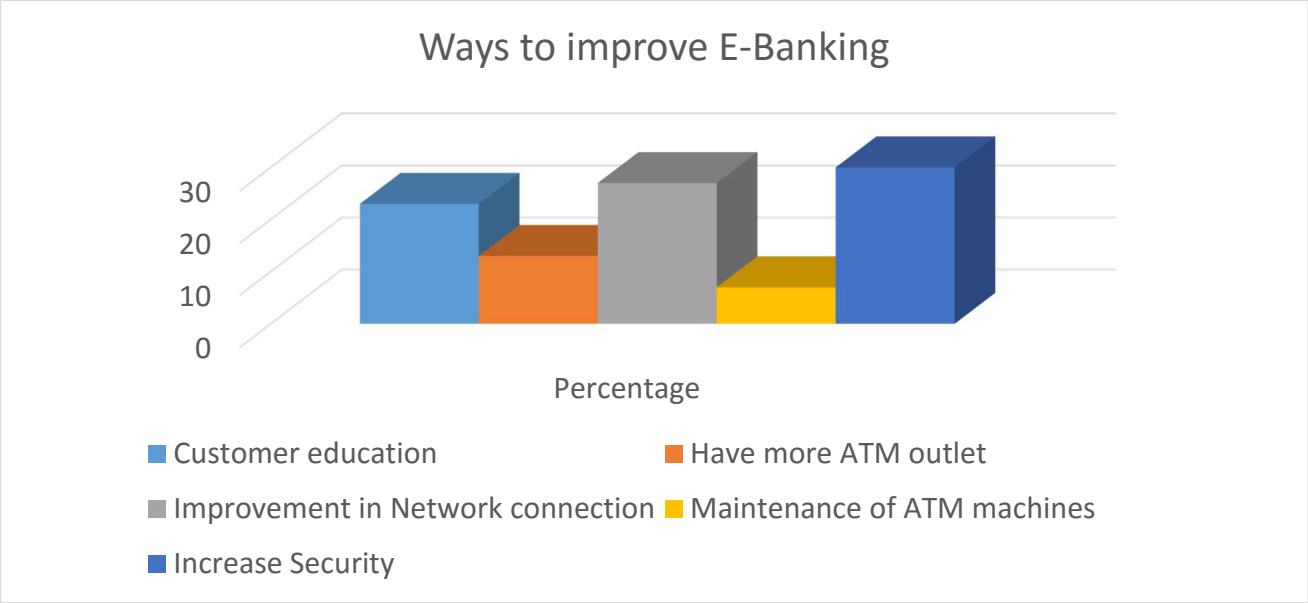
Type of risks	Frequency	Percentage (%)
Transaction risk	11	36
Reputation risk	6	20
Security risk	5	17
Compliance or legal risk	5	17
Strategic risk	3	10
Total	30	100

(Source: survey result, 2017)

4.2.13 Ways to Improve E-banking Services in Awash Bank

With regard to ways of improving upon E-banking usage, Table 4.2.13 indicates that majority of the respondents (23%) pointed out education towards E-banking services to customers. 13% of the respondents from the total sampled population cited designing more ATM outlets, would increase patronage and usage of the services. Eight (8) respondents, representing (27%) indicated improvement on network connections. Only 7% of respondents indicated increase in ATM outlets. While a majority of 30% of the respondents pointed out increase in security in order to improve E-banking service.

Therefore, education of the public concerning the benefits of various E-banking products would attract more customers to bank with Awash Bank. Furthermore, more ATM outlets should be introduced at vantage locations within the city. This would also reduce the distance customers would use to access the facility and entice more customers to bank with Awash Bank.

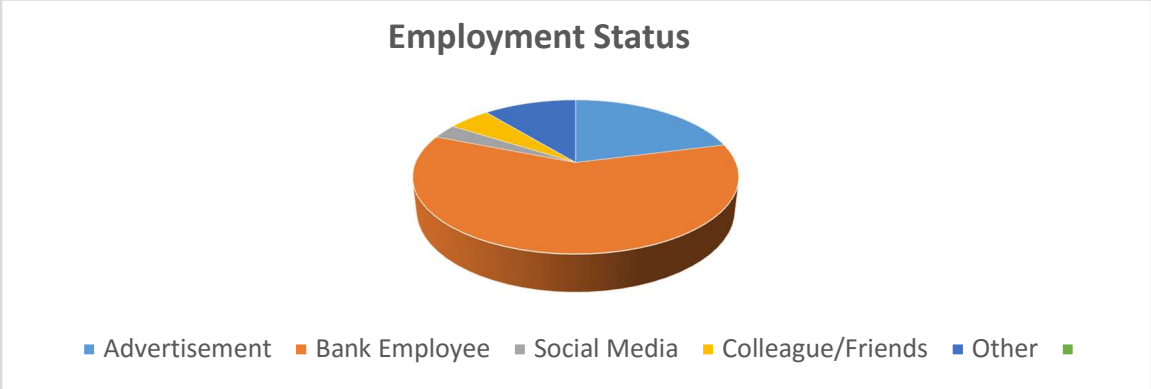


4.3 Findings from Customers of Awash Bank

4.3.1. Employment Status of the respondents

The table below shows the employment status of the respondents in which, 13 (10%) of respondents are found to be government employees, while 59 (47%) respondents are found to be employees of the private sector. On the other customers which have personal business are presented by 20 (16%) and 15(11%) of respondents are to be students. A small minority of 3 customers (4%) of respondents are retired. Finally 16 (12%) of respondents are not employed for various reasons.

. **Source: Survey Result, 2017**



4.3.2 Question regarding usage of E-Banking

Understanding weather customers use E-Banking or not is a major question that is the anchor of this study. This part will discuss if customers use E-Banking or not and related questions.

4.3.2.1 Use of E-Banking

The table below will show how many of the customers use E-Banking. From the total 126 respondents 80 respondents which represent (64%) use E-Banking. On the other hand 46 of the respondents (36%) have agreed that they do not use E-Banking. This indicates that from total participants the number of customers that use E-Banking is greater than the ones who do not.

Table 4.3.2.1: Use of E-Banking

Use E-Banking	Frequency	Valid Percentage (%)
Yes	80	64
No	46	36
Total	126	100

Source: Survey Result 2017

4.4 Response of customers that use E-Banking

The following section will focus on the response of the customers that have agreed that they use E-Banking i.e. 80 respondents that contribute to 64 percent. First understanding of the backgrounds that relates the respondents to E-Banking is assessed. The following section will assess the challenges and opportunities by raising various questions regarding the usage of E-Banking.

4.4.1 Duration of using E-Banking

The duration of use of E-Banking by the respondents is shown in table 4.1.1 below. The table shows that sixteen (16) of the respondents, representing (20%) have been using E-Banking for less than 1 year. A majority of the respondents that are 43 in number (54%) have agreed that they have been using E-Banking in the past 1 to three years. On the other hand 15 respondents that contribute to eighteen percent (18%) have been using E-Banking from 4 to 6 years.

Finally a minority of 6 respondents (8%) have said that they have been using e-Banking for more than 6 years. This is an indication that a majority of the customers have been using E-Banking in the past one to three years. This indicates that it is a developing industry that is just kicking off.

Table 4.4.1 How long respondents have been using E-Banking

Duration of use of E-Banking	**Frequency**	**Percentage (%)**
Less than 1 year	16	20
1 year to 3 years	43	54
4 year to 6 years	15	18
More than 6 years	6	8
Total	**80**	**100**

(Source: survey result, 2017)

4.4.2 Services of E-Banking used by customers

Table 4.4.2 implies that majority of the respondents were users of ATM/Debit card by twenty six respondents (33%).On the other hand, 17 respondents which represented (21%) used SMS Banking and 9 respondents (11%) have agreed that they use internet baking. Another 16 respondents which contributed (20%) use Mobile Banking/M-Wallet while a minority of 12 respondents (15%) used POS. This indicates that most of the customers use ATM and SMS Banking services more than any other service that Awash Bank provides.

Table 4.4.2 Services of E-Banking used by customers

Services	Number of respondents	Percentage (%)
ATM/Debit card	26	33
SMS Banking	17	21
Internet Banking	9	11
Mobile banking (M-wallet)	16	20
Point of sell (POS)	12	15
Total	**80**	**100**

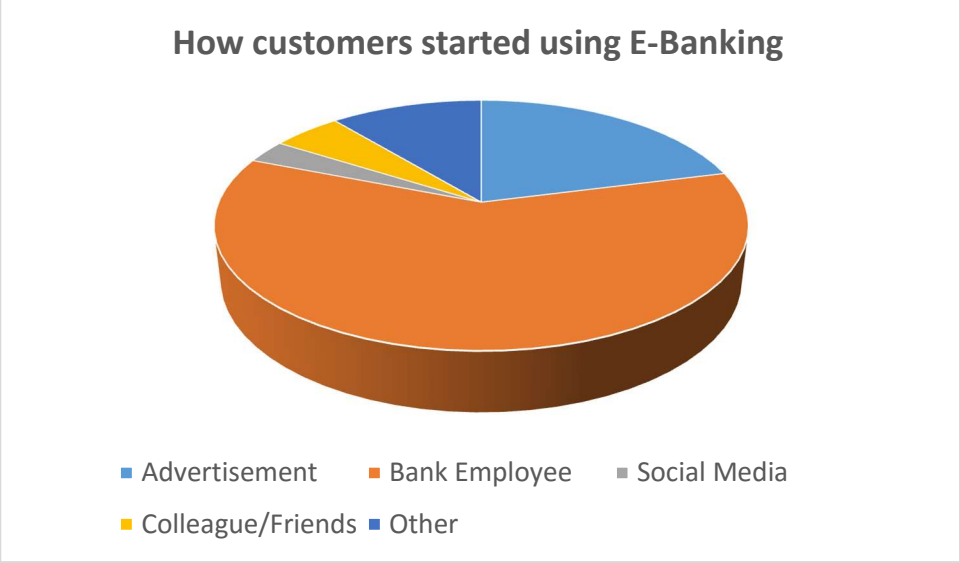
Source: Survey Result, 2017

4.4.3 How customers started using E-Banking

Table 4.4.3 implies that majority of forty eight respondents (60%) had started using E-Banking by hearing about it from a bank employee. On the other hand, 17 respondents which represented (21%) heard about it from advertising and 9 respondents (11%) from other sources.

Another 4 respondents which contributed (5%) heard about E-Banking from colleague/ friends while a minority of 2 respondents (3%) learned about E-Banking from social media. This indicates that most of the customers have started using E-banking from hearing about it either from a bank employee or advertisement.

Source: Survey Result, 2017



4.4.4 Attitude of customers towards E-Banking

The results of the table below indicate that the respondents of 7(8.75%) strongly agree, 36(45%) agree, 32(40%) are neutral, and a minority of 3 and 3 respondents with a percentage of (3.75%) and (2.85%) respectively have responded that Electronic banking technology supports sharing of information. Thus lead that the largest percent of the respondents agreed that Electronic banking supports sharing of information while a major group was neutral to the statement. The outcome of respondents in the above table agreed that better management of finance transaction is gained through E-Banking. This conclusion was reached since 36 respondents (45%) strongly agreed while another majority of 25 respondents (31.5%) agreed with the statement. Respondents that had a number of 12 and 6 with a percentage of (11.5) and (7.5) were neutral and disagreed respectively. A single respondent (1%) strongly disagreed with the statement.

The results of the table below also indicate that the respondents of 66(82) strongly agree, 25(31%) agree, and only 3 respondents (3.75%) are neutral, while no respondents disagree or strongly disagree that E-Banking works towards elimination of bank availability constraint.. Thus lead that the largest percent of the respondents agreed that Electronic banking eliminates bank availability constraints.

The outcome of respondents in the table below agreed that quick and continuous access to information about their account is gained through E-Banking. This conclusion was reached since 12 respondents (15%) strongly agreed while another majority of 43 respondents (53.75%) agreed with the statement. Respondents that had a number of 16 and 6 with a percentage of (20) and (7.5) were neutral and disagreed respectively. Another three respondents (3.75%) strongly disagreed with the statement.

Regarding the issue of E-Banking being a faster way of conducting transactions the respondents of 21(26%) strongly agree, 52(65%) agree, and 6 respondents (7.5%) are neutral, while only 1 respondent (1.25%) disagree .This indicates that the largest percent of the respondents agreed that E-Banking is a faster way to conduct transactions. The outcome of respondents in the table below agreed that E-Banking eliminates time constraint. This conclusion was reached since 17 respondents (21%) strongly agreed while another majority of 53 respondents (66%) agreed with

the statement. Respondents that had a number of 8 (10%) were neutral. On the other hand 2 respondents which contributed (1.25%) each disagreed and strongly disagreed respectively.

The outcome of respondents in the table below were mostly neutral that E-banking is convenient in terms of 7 days and 24 hours services. This conclusion was reached since 2 respondents (2.5%) strongly agreed while another 22 respondents (27.5 %) agreed with the statement. Majority of respondents that had a number of 48 (60%) were neutral. On the other hand 7 respondents which contributed (8.75%) each disagreed while zero respondents strongly disagreed.
Results from the interview have shown that most of the time banks do not provide the technical assistance even if the banks announce that the E-Banking service is fully on board. Also customers have no means about learning how to use E-Banking and troubleshooting when they face problems. This causes the customers to feel that they are not getting a proper E-Banking service assistance. The respondent has also stated that this is one of the areas the bank will improve soon. Also the off and on network and electric power has caused customer to not rely on E-Banking. Another point the respondent raised is regarding new services of E-Banking that the bank has launched. There is a great lack of awareness regarding the newly launched services.

Respondent II stated that within a day the bank deals with various complaints related to the service of E-banking. After the complaints have been admitted, there is a problem of providing adequate information from employees of at branches because they do not give proper assistance and explanation. This is mainly because it is difficult for them to give further explanation to customers because they engaged and busy with other branch works. Because of this the bank deals with complaints and trust issues.

Both respondents are stated that most of the customers lack confidence in using E-banking. The lack of confidence is due to decreased level of awareness among both illiterate and literate customers of the banks. The fear of not getting the money deducted from their accounts and also fear of security regarding to their password as well as error of transactions due to network problem and power interruption are causes of in confidence.

Respondent II has also stated that a major lack of confidence is also present with the literae section of the customers. The customers raise issues related to cyber security and account

security. Currently none of the banks in Ethiopia are affiliated with international companies that provide cyber security. As a result, customer do not feel safe and therefore lack confidence in the E-Banking service the bank provides.

Table 4.4.4 Attitude of customers towards E-Banking

S/No	Description		SA	D	N	A	SA
1	Electronic banking technology support sharing of information.	Frequency	2	3	32	36	7
		Percent	2.5	3.75	40	45	8.75
2	Better management of finance transaction	Frequency	1	6	12	25	36
		Percent	1	7.5	15	31.5	45
3	Electronic Banking eliminates bank availability constraint	Frequency	-	-	3	11	66
		Percent	-	-	3.75	13.75	82.5
4	Quick and continuous access to information about my account.	Frequency	3	6	16	43	12
		Percent	3.75	7.5	20	53.75	15
5	Faster way of conducting banking transactions	Frequency	-	1	6	52	21
		Percent	-	1.25	7.5	65	26.25
6	Elimination of time constraint.	Frequency	1	1	8	53	17
		Percent	1.25	1.25	10	66.25	21.25
7	E-banking is convenient in terms of 7 days and 24 hours services	Frequency	2	6	48	22	2
		Percent	2.5	7.5	60	27.5	2.5
8	Cost effective way of conducting banking transactions	Frequency	-	7	67	4	2
		Percent	-	8.75	83.75	5	2.5

4.4.5 Challenges of E-Banking

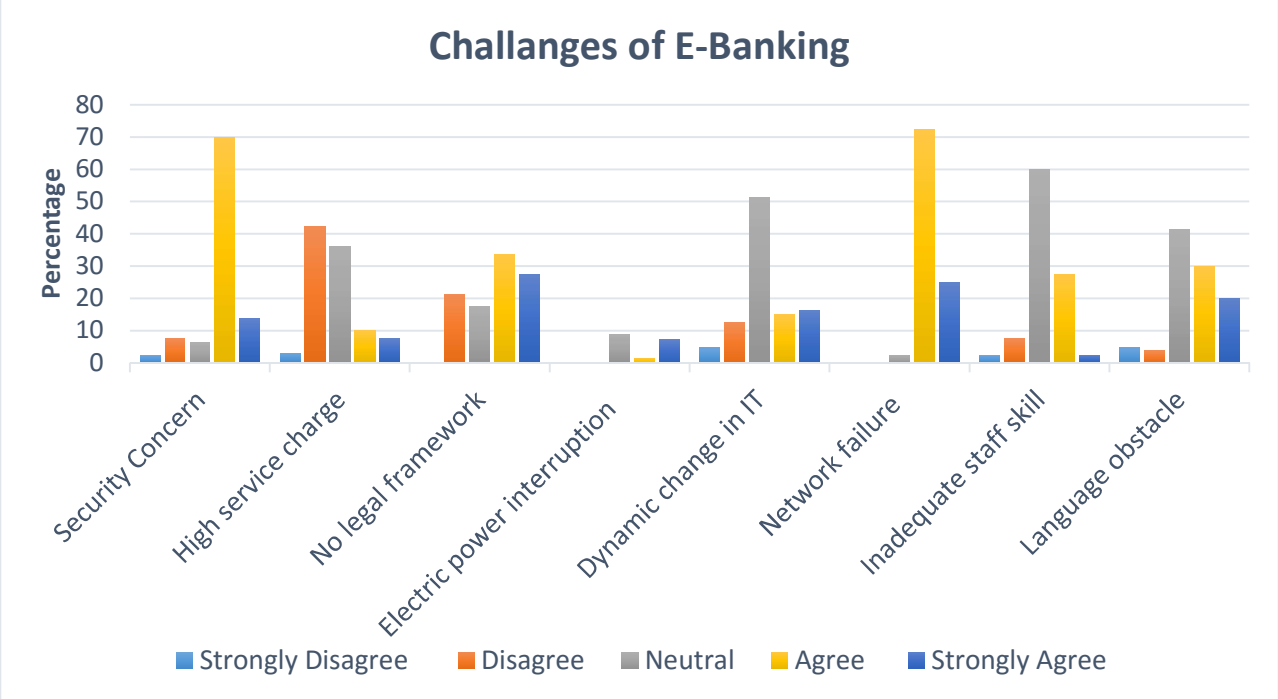
As shown in the above table, majority of the respondents think that security is an issue of concern. This is shown since, 11(13.75%) of respondents strongly agreed, 56(70%) of respondents agreed. Meanwhile 5(6.25%) of respondents were neutral, 6(7.5%) of respondents disagreed and only 2 (2.5%) of respondents strongly disagreed on the matter. This implies that the highest number of the respondents verify that security is a major concern for them while they are using E-Banking.
The results of the table below indicate that the respondents of 6(7.5%) strongly agree, 8(10%) agree, 29(36.5%) are neutral, 34 respondents (42.5%) disagreed and 3(3%) have responded that regarding the cost of E-Banking. Thus lead that the largest percent of the respondents did not agree that cost of service charge is high for using E-Banking services.

The outcome of respondents in the above table agreed that there is lack of suitable legal framework for electronic services. This conclusion was reached since 22 respondents (27.5%) strongly agreed while another majority of 27respondents (33.5%) agreed with the statement.
Respondents that had a number of 14 and 17 with a percentage of (17) and (21) were neutral and disagreed respectively. No respondent strongly disagreed with the statement. This indicates that the customer strongly feel that there is no suitable legal framework for the E-Banking services they use.
The results of the table below also indicate that the respondents of 11 (13%) strongly agree, 60(75%) agree, and only 9 respondents (8.89%) are neutral, while no respondents disagree or strongly disagree that Electric power interruptions causes problems to E-Banking.This signposts that the largest percent of the respondents agreed that Electronic banking eliminates bank availability constraints.

The outcome of respondents in the table below were neutral regarding dynamic change in information making understanding difficult. This conclusion was reached since 13 respondents (16%) strongly agreed while another 12 respondents (15%) agreed with the statement. Respondents that had a majority number of 41 (51.25%) were neutral. On the other hand 10 respondents which contributed (12.5%) and 4 respondent (5%) disagreed and strongly disagreed respectively.

The outcome of respondents in the table below mostly agreed that network failure are a serious problem while using E-Banking. This conclusion was reached since 20 respondents (25%) strongly agreed while a majority of 58 respondents (72.5 %) agreed with the statement. Only 2 respondents (2.5%) were neutral while zero respondents disagreed. There clearly shows that the network is a major problem regarding E-Banking.

The table below also shows that respondents agreed ad were neutral when they were asked if the banks staff had inadequate knowledge regarding E-Banking. This inference was reached since only 2 respondents (2.5%) strongly agreed while another majority of 22 respondents (27.75%) agreed with the statement. Respondents that had a number of 48 and 6 with a percentage of (60) and (7.5) were neutral and disagreed respectively. Another two respondents (2.5%) strongly disagreed with the statement. Regarding language being an obstacle regarding the usage of E-Banking, the respondents of 16(20%) strongly agree, 24(30%) agree, and 33 respondents (41.25%) are neutral, while 3 respondents (3.75%) disagreed and 4 (5%) strongly disagreed .This indicates that the largest percent of the respondents are neutral regarding language barriers.



(Source: Survey Result, 2017)

Interview results also revealed that currently the major challenge for their bank regarding E-Banking services range from awareness creation, insufficient network connection and instability of electric power. Especially since Awash Bank is one of the biggest banks with a large number of customers, large volume cash related transactions like transaction of POS and ATM take place daily. To support this continuous transaction, proper infrastructure is necessary to provide a quality service with E-banking system. In addition to this, Security issue is also another challenges because of highly exposed to fraud due to those highly educated with concerned field of study, lack of skilled man power and poor knowledge of the customers on the system.

Respondent II has mentioned that there is no proper policy for deployment of E-banking services. Due to this reason National Bank of Ethiopia (NBE) should be responsible to develop all necessary frameworks (regulatory frame work) for the successful of implementation of E-Banking system in Ethiopian banking industries. So as to the National bank responsible to develop regulatory framework, the law can protect the banks and customers from different fraudulent risk. Lack of awareness upon staff about E-Banking affects the effectiveness and confidence of customers to use E-Banking.

4.4.6 Importance of service factor

As shown in the table below, majority of the respondents think that it is easiness to access account is strongly important. This is shown since, 20(25%) of respondents strongly agreed, 31(38.75%) of respondents agreed. Meanwhile 26(32.5%) of respondents were neutral, and 3 (3.75%) of respondents disagreed while none of the respondents disagreed on the matter. This implies that the highest number of the respondent's easiness to access account is important while they are using E-Banking.

The results of the table below also indicate that the respondents of 6 (7.5%) strongly agree, 8(10%) agree, 29(36.5%) are neutral, 34 respondents (42.5%) disagreed and 3(3%) have responded that regarding the cost of E-Banking. Thus lead that the largest percent of the respondents did not agree that financial management is not something that they expect from E-Banking.

The outcome of respondents in the table below agreed that availability of E-Banking 24/7 is valuable to them. This conclusion was reached since 22 respondents (27.5%) strongly agreed while another majority of 27 respondents (33.5%) agreed with the statement. Respondents that had a number of 14 and 17 with a percentage of (17) and (21) were neutral and disagreed respectively. No respondent strongly disagreed with the statement. This indicates that the customer's think that availability of E-Banking 24/7 is very important.

The results of the table below also indicate that the respondents of 11 (9%) strongly agree, 11(13.75%) agree, and 24(30%)respondents are neutral, while 22 respondents (27.5%) disagree 14 respondents (17.5%) strongly disagree that cost saving is an important factor.

As shown in the table below, majority of the respondents have agreed that avoiding branch queues is very important to them. This is shown since, 19 (23.75%) of respondents strongly agreed, 22(27.5%) of respondents agreed. Meanwhile 35(43.7.5%) of respondents were neutral, and 4 (5%) of respondents disagreed while none of the respondents disagreed on the matter. This implies that the highest number of the respondents have given importance to avoidance of branch queuing.

The outcome of respondents in the table below also shows that most of the respondents agreed that easiness of getting bank statement is important. This conclusion was reached since 20 respondents (25%) strongly agreed 27 respondents (33 %) agreed with the statement. Another 25 respondents (31%) were neutral while 6 respondents disagreed and 4(5%) strongly disagreed. There clearly shows that printing of bank statements is not as important as the other factors.

The table below also shows that respondents agreed and were neutral when they were asked if the possibility of processing more financial transactions was important to them. This inference was reached since 16 respondents (20%) strongly agreed while another 24 respondents (30%) agreed with the statement. Respondents that had a number of 33 and 3 with a percentage of (41) and (3) were neutral and disagreed respectively. Another four respondents (5%) strongly disagreed with the statement.

Regarding access of account from abroad, the respondents of 17(21.25%) strongly agree, 24(30%) agree, and 33 respondents (41.25%) are neutral, while 4 respondents (5%) disagreed and 2(2.5%) strongly disagreed .This indicates that the largest percent of the respondents are neutral regarding accessing their account from abroad.

Table 4.4.6 Importance of service factor

S/No	Description		SD	D	N	A	SA
1	Easy to access your account	Frequency	-	3	26	31	20
		Percent	-	3.75	32.5	38.75	25
2	Financial management	Frequency	3	34	29	8	6
		Percent	3	42.5	36.25	10	7.5
3	Availability (24X7)	Frequency	0	17	14	27	22
		Percent	-	21.25	17.5	33.75	27.5
4	Cost saving	Frequency	14	22	24	11	9
		Percent	17.5	27.5	30	13.75	11.25
5	Avoiding branch queuing	Frequency	-	4	35	22	19
		Percent	-	5	43.75	27.5	23.75
6	Easy to get/print bank account statement	Frequency	2	6	25	27	20
		Percent	2.5	7.5	31.25	33.75	25
7	Possibility to process more financial transactions	Frequency	4	3	33	24	16
		Percent	5	3.75	41.25	30	20
8	Possibility to access your account (even out of country)	Frequency	2	4	33	24	17
		Percent	2.5	5	41.25	30	21.25

(Source: Survey Result, 2017)

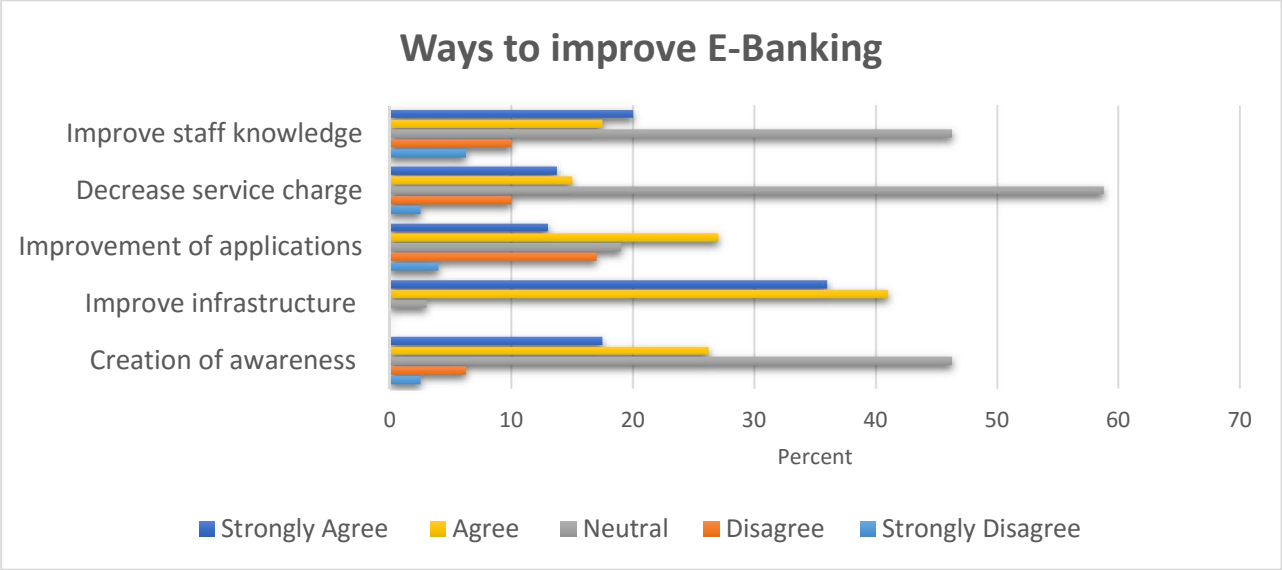
4.4.7 Ways to improve E-Banking Services

As shown in the table below, majority of the respondents are neutral weather creation of awareness won customers that use E-Banking is a way to improve E-Banking service. This is shown since, 14 (17.5%) of respondents strongly agreed, 21(26%) of respondents agreed. Meanwhile a majority of 37 (46%) of respondents were neutral, and 5 (6.25%) of respondents disagreed while 3 (2.5) the respondents disagreed on the matter. This implies that the highest number of the respondents are neutral regarding the creation of awareness on customers.

The results of the table below also indicate that the respondents definitely think that improvement of network is one of the ways to improve E-Banking services. This is drawn since 36 (45%) of the respondents strongly agree, 41(51.25%) agree and only 3 2(3.75%) are neutral, while none of the respondents have disagreed. This leads that the largest percent of the respondents have reflected network improvement has a major impact. The outcome of respondents in the table below had different views regarding improvement of applications that provide E-Banking services as being one of the ways to improve E-Banking itself . This conclusion was reached since 13 respondents (16.25%) strongly agreed while another 27 respondents (33.5%) agreed with the statement. Respondents that had a number of 19 and 17 with a percentage of (23) and (21) were neutral and disagreed respectively. Another 4 respondents (5%) strongly disagreed with the statement. This indicates that the customer's had diverse sights regarding improvement of application.

The results of the table below also indicate that the respondents of 11 (13%) strongly agree, 12 (15%) agree, and 47 (58%)respondents are neutral, while 8 respondents (10%) disagree and 2 respondents (2.5%) strongly disagree that less charging for the services of E-Banking is a way to improve E-Banking services . This shows that a majority of the customers are neutral related to cost issues.

The outcome of respondents in the table below also shows that most of the respondents are neutral regarding increment of staff knowledge on E-Banking. This conclusion was reached since 16 respondents (20%) strongly agreed, 14 respondents (17.25 %) agreed with the statement. Another 37 respondents (46%) were neutral while 8 respondents (10%) disagreed and 5 (6.25%) strongly disagreed.



(Source: Survey Result, 2017)

Regarding the Interview both respondents agree that a major opportunity the bank is willing to explore is related to what the future will bring specifically globalization coming with new innovation technology. Since Awash bank has been long standing, most customers have high trust on it and this could make having large number of customers in using E-banking products and services. Another opportunity is regarding the financial position of the bank as compared to private banks which helps to mobilize essential amount of deposits and to generate hard currency from tourists (foreigners) through forex ATM machine.

4.5 Questions regarding customers that don't use E-Banking

The following questions have been presented to the customers that do not use E-Banking. The questions are designed to know why customers do not use E-Banking. It is stated earlier that 46 customers that contribute to (36%) do not use E-Banking.

As shown in the table below, majority of the respondents are users of computer. This is shown since, 4 (9%) of respondents strongly agreed, 8 (17%) of respondents agreed. Meanwhile 13 (28%) of respondents were neutral, and 3 (3.75%) of respondents disagreed while none of the respondents disagreed on the matter. This implies that the highest number of the respondents are users of E-Banking to some extent.

The results of the table below also indicate that the respondents of 4 (9%) strongly agree, 3(7%) agree, 16 (34%) are neutral, 19 respondents (41%) disagreed and 4 (9%) have responded that they have access to internet. Thus lead that the the customers that have access to internet are half aand half.

The outcome of respondents in the table below agreed most of the customers know about E-Banking. This conclusion was reached since 6 respondents (13%) strongly agreed while another majority of 18 respondents (39%) agreed with the statement. Respondents that had a number of 8 and 5 with a percentage of (17) and (11) were neutral and disagreed respectively. Nine respondents (20%) strongly disagreed with the statement. This indicates most of the customers know about e-Banking.

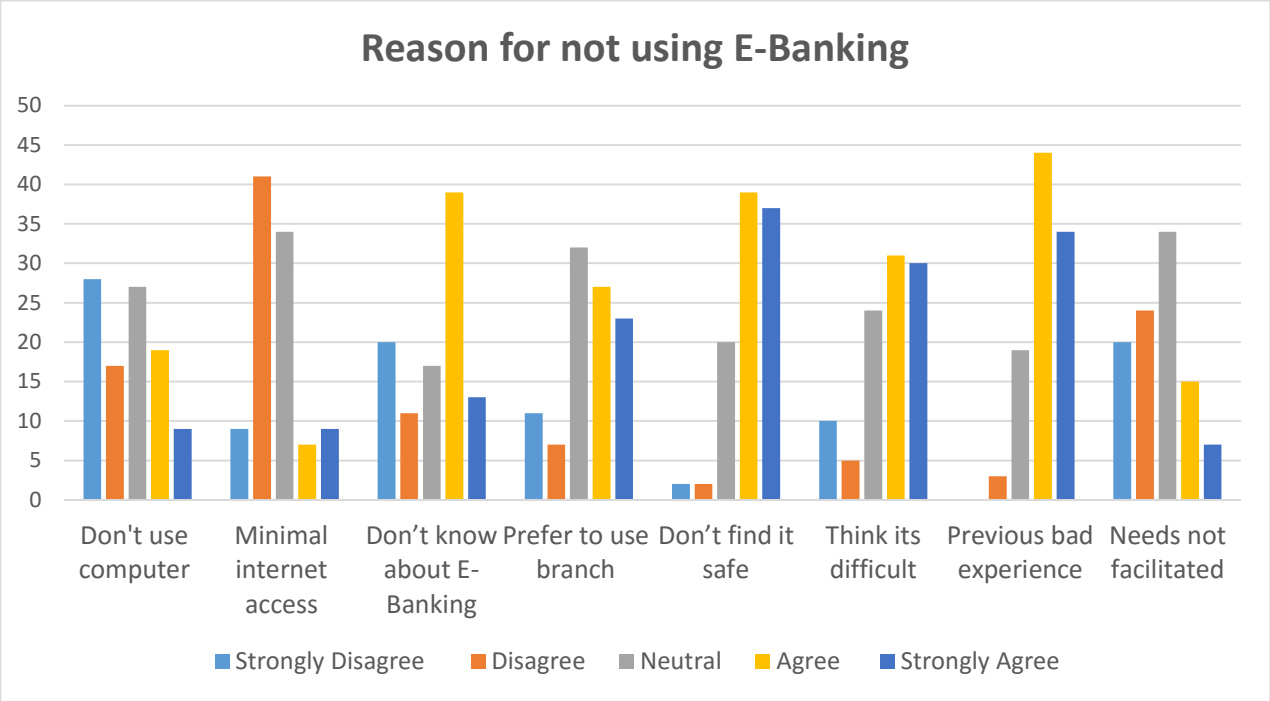
The results of the table below also indicate that the respondents of 11 (23%) strongly agree, 12 (27%) agree, and 15 (32%) respondents are neutral, while 3 respondents (7%) disagree and 5 respondents (11%) strongly disagree that they prefer to make transactions through bank branches. This shows that a majorit6y of the customers do not prefer to use E-Banking.

As shown in the table below, majority of the respondents have agreed that they donot find it safe to use E-Banking. This is shown since, 17 (37%) of respondents strongly agreed, 18 (39%) of respondents agreed. Meanwhile 9 (20%) of respondents were neutral, and 1 (2%) of respondents disagreed while also 1 respondent (2%) of the respondents disagreed on the matter. This implies that the highest number of the respondents do not find E-Banking safe.

The outcome of respondents in the table below also shows that most of the respondents think it is difficult to use E-Banking. This conclusion was reached since 14 respondents (30%) strongly agreed 15 respondents (31 %) agreed with the statement. Another 11 respondents (24%) were neutral while 2 respondents (5%) disagreed and 4(10%) strongly disagreed. There clearly shows that respondents think that E-Banking is difficult to use.

The table below also shows that respondents had pervious bad experience from use of E-Banking. This inference was reached since 16 respondents (34%) strongly agreed while another 20 respondents (44%) agreed with the statement. Respondents that had a number of 20 and 9 with a percentage of (19) and (3) were neutral and disagreed respectively. None of the respondents strongly disagreed with this statement.

Customers were also asked if the bank did not facilitate their E-Banking needs and 3 (7 %) strongly agree, 7 (15%) agree, and 16 respondents (34%) are neutral, while 11 respondents (24%) disagreed and 9 (20%) strongly disagreed .This indicates that the largest percent of the respondents don't agree that the bank did not facilitate their E-Banking needs



CHAPTER FIVE

SUMMARY OF MAJOR FINDING, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This study has investigated the prospects and challenges of E-Banking at Awash Bank. Regardless of the numerous benefits that E-Banking brings to the bank and its customers, it also has its own challenges that range from technological and infrastructural factors to the perception of customers This chapter will give summary of the findings of the study, the conclusion drawn from the study and the recommendations made to address the issues raised.

5.2 Summary of Major Findings

The study emphasized on four main objectives. The first objective was to identify the driving forces towards adoption of E-Banking. The study revealed that competitive pressure was a major driving force towards adoption of E-Banking. Another force came from top management. The staff of Awash Bank have clearly stated that there was pressure from top management in the process of adopting E-Banking. Fast and responsive customer service was also one of the major factors that served as a driving force towards adoption of E-Banking.

Based on the results obtained, benefits that were gained by adopting E-Banking were openly specified. One of the biggest benefits that the bank gained is improvement in productivity. The escalation in productivity came from surge in speed and efficiency of the service. The increase in quickness and efficiency is one of the advantages the bank gained by implementing E-Banking. Another one of the benefits is related to enhancement of public image. The development of public image gives a great advantage to Awash Bank since the banking industry has intense competition.

In spite of the numerous advantages gained by the bank through adoption of E-Banking, there are also risks involved. Transaction/operation risk is one of the main challenges according to the employees of Awash Bank. Reputation and security risks are also other factors that contribute to the risk issue the bank faces.

The study revealed barriers that hamper the successful adoption of E-Banking. Bank staff have strongly agreed that poor Information and communications technology infrastructure is one of the main problems that functions as a barrier to E-Banking adoption. In addition, decreased customer readiness that arises from security concerns is also additional obstacle. Customers and employees limited Information Technology knowledge was also exposed to be one of the blockades.

On the other hand customers cited challenges that impede their efforts to adopt E-banking services. Among these challenges, security concern was the major cause that took lion share of the encounters. Major infrastructural problems like network failure and electric power interruption were also stated as challenges by the' customers. Some portion of the customers also agreed that difficulty of E-Banking due to complexity in nature and language obstacles held them back from usage of E-Banking. By assessing the challenges that become a barrier towards E-Banking services, the study has achieved its objective of investigating the barriers of E-Banking adoption.

Another one of the main objectives of the study investigated is the current practice and extent of E-Banking services that are given by Awash Bank. The study discovered that different E-banking services are offered by Awash Bank and more than half of their customers use E-Banking. The E-Banking services provided by the bank namely are ATM, SMS banking, POS and mobile banking. However, most customers prefer ATM usage mostly, whilst significant proportion of respondents uses combination of these products. The result further shows that most customers have been using these E-banking products within the last 5 years by hearing about it from a bank employee or advertisement. Unfortunately, the bank has not started to give internet banking service yet.

Based on the result obtained customers mentioned elimination of time constraint and cost effective way of conducting banking transactions as benefits. Faster way of conducting transactions, better management of transactions and convenience in terms of 7 days and 24 hours were also stated as benefits that customers gained from use of E-Banking. Customers also mentioned several advantages for using E-banking services. The most dominant reasons were easy access to account, ability to process more financial transactions at ease and avoidance of branch queues associated

with the traditional way of banking. Others advantages stated by the customers included access of account form abroad, 24/7 availability and easier financial management.

On the other hand the study also assessed reasons of customers that do not use E-Banking. Customers have issues that started from safety concern and range to previous bad experience. This has led to preference of bank branch over E-Banking services. Perceived difficulty of E-Banking and lack of good internet access were also reasons that pushed customers to not use E-Banking.

After investigating the benefits and challenges of Adopting E-Banking, assessment of the benefits from the viewpoint of both the bank and customers was done while exploring the practice and extent of E-Banking services provided by Awash Bank. In addition, the study also discovered ways to improve E-Banking services. Respondents proposed ways to address challenges related to E-banking. Notable among them was customer education improvement in network connection an increased security. Other proposed measures included increase in ATM outlets, regular maintenance of ATM facilities, improve on network connections, reduce E-banking charges and increase security features on E-banking services.

5.3 Conclusion

The following conclusions are discussed from the study regarding the prospects and challenges of E-Banking in the case of Awash Bank. All conclusions and recommendations are presented as per the research objectives of this study.

5.3.1 Current Practice and Extent of E-Banking

Awash Bank is one of the fastest growing financial institutions in Ethiopia. The banking industry calls for a major requirement from the banks i.e. introducing themselves with new technologies and easier mechanisms. Attitudes of the staff and customers of Awash bank have shown that the overall performance regarding E-Banking is at a respectable condition. This conclusion is drawn since there are existence of E-Banking instruments such as ATM and POS at convenience places which have caused satisfaction of the customers. In addition, considering the fact that the bank has a large number of customers that use E-Banking, it is clear that the bank has taken appreciable steps towards introduction and adoption of E-Banking. Customers have agreed that E-Banking

services have helped them manage their finances at simplicity, get quick and continuous access to information about their account, and make transactions at ease.

In spite of the good start, both the customers and staff have agreed that Awash Bank has major problems that need to be solved in order to achieve an acceptable level of E-Banking service. The details of the prospects ad challenges that the bank has regarding E-Banking is shown below.

5.3.2 Driving Forces towards Adoption of E-Banking

The study emphasized on four main objectives. One of the main objectives was to identify the driving forces towards adoption of E-Banking. The study revealed that competitive pressure was a major driving force towards adoption of E-Banking. Another force came from top management. The staff of Awash Bank have clearly stated that there was pressure from top management in the process of adopting E-Banking. Fast and responsive customer service was also one of the major factors that served as a driving force towards adoption of E-Banking.

5.3.4 Benefits of E-Banking

Innovation and new technology creates a huge opportunity for the banking industry. In the case of Awash bank, electronic banking shows numerous projections both for the customer and employees of the bank. The following lists are important points regarding prospects of E-Banking drawn from findings of the study.

- ❖ Banking transactions can be performed anytime and anywhere. When Customers of Awash Bank use E-Banking technology, especially internet and mobile banking they control their account, transfer remittance, and find location of ATM, stop payment order, get daily exchange rate and other bank and banking information can be served 24 hours a day. If they use ATM and POS, they can get the service whatever the time including holiday and night without any restriction. This serves as an advantage to the bank since customers would not prefer other banks because of the E-Banking service they find since they can find it right here.

- ❖ E-banking is the best means to reduce the load of customers at each branch. E-Banking plays a role that cannot be substituted since it reduces the number of customer that walk in at each branch even for the smallest and easiest transactions. When the E-Banking service reaches a top stage, that customers that come to bank branches will be the ones who need higher level

of services or the ones that have low literacy. As a result, the bank will have less operating costs and increased customer satisfaction.

❖ E-banking technology helps customer access account quickly and easily which in turn reduces time spent in the bank. Customers that use E-Banking reduce the period consumed in the process going to the bank and making transactions happen. Stress-free access to account without the need of a bank outlet is an easier way for customers since they save time and energy.

❖ E-banking service is a better option of managing of financial transaction. Customers are able to check their history of accounts at ease. This will lead to better financial management since they can get statements and the like anytime anywhere.

5.3.5 Barriers towards adoption of E-Banking

Regardless of the opportunities and prospects that E-Banking brings to the customers and staff of Awash bank major challenges have pulled back E-Banking services. The previous findings have shown various challenges which will be concluded as follows.

❖ Customers of Awash Bank have shown decreased readiness to use E-Banking technology. The main reason for customers' resistance towards the new-fangled technology rises from security concern i.e. fear that the new technology is not safe enough. This fear is a big challenge to Awash Bank since it makes penetration of the market difficult.

❖ Another one of the biggest challenges the bank faces is related to infrastructural problems. Electric power interruption is a serious problem in the smooth running of E-Banking. Due to continuous interruption of electric power, continuous and reliable service of E-Banking is hindered. Even the simplest ATM and POS services are not available without electric supply. Mobile and internet bank also do not work effectively when there is electric power disruption.

❖ Additional infrastructural problem faced by the bank is related to Network issues. Continuous network failure has made it difficult for the customer to rely on E-Banking. One of the serious challenge faced by Awash Bank is that it cannot provide reliably E-Banking service. As a result, customers would rather hold cash in their pocket or visit bank branch instead of using E-Banking.

❖ Languages are an obstacle to use electronic-banking. Services provided especially mobile banking and internet banking use English. This is a perceived problem by the customers. Electronic banking.

❖ Inadequate banks staff skill exists in commercial bank of Ethiopia about E-banking. When customers question bank staffs regarding problems they face while using E-Banking, they do not get a satisfactory response. This is because the employees are already busy with day-to-day activities and also due to the difficulty of understanding they face.

5.4 Recommendation

- As discussed previously, one of the big concerns for customers and providers alike is the safety of banking online. Unless and otherwise significant investments are made to ensure there are systems in place that can safe guard information, it will be difficult to make any progress in this arena. Hence, it is important for banks to advance their cybersecurity systems in order to assure customers that their safety is a priority and risks are minimal.

- Another important aspect of successful implementation of online banking systems is the smooth integration within the company itself. There should be heavy emphasis placed on ensuring employees are not only trained in the area, but are also skillful users of the technology as well. Training shouldn't just be a one-time episode either. Ongoing and continuous trainings are important to ensure that employees have (and are able to effectively use) up to date features of the technology. In addition, such trainings should not only focus on the technology but on bigger concepts such as change management and minimizing resistance to change as well.

- One of the issues customers presented with not being able to use online banking is the lack of dedicated staff that can help with the initial set-up or onboarding and ongoing assistance whenever required. Having dedicated staff members for online banking at several branches can be very appealing to customers in that it not only minimizes the time required (customers don't have to stand in line, for this service, for example), it also creates the perception that this is an easy process and that help is readily available.

- Given that Ethiopia is a very diverse country with several languages that are dominantly spoken, it is important to have customer service representatives and the technology itself available in

different languages. This will certainly help with increasing the adoption rates not just in larger cities but everywhere internet is available as well.

- Increasing awareness of the advantages of online banking among customers is vital to improve the recognition and acceptance of the technology. Conducting informational workshops and integrating this feature in marketing campaigns are examples of steps that can be taken towards creating and improving cognizance among current and potential customers as well.

- While creating awareness is important, it is not enough on its own. Besides the obvious ease of use, customers need to have incentives to take the additional step of actually using the technology. Examples of incentives that have been used in other countries include gift baskets, cash, or coupons in cooperation with other service providers such as restaurants, entertainment venues, etc. Ultimately, the goal is to not only create and improve awareness, it is also to provide customers with additional incentives to try the technology.

- In order to retain customers and continue to improve the usage of the feature, banks need to unceasingly invest in their ability to respond to new platforms and devices. Great digital customer experiences shouldn't be limited to certain design and functionality features. Banks should strive to provide these experiences across various junctures seamlessly.

5.5 Limitation of the Study

Every research study faces a certain limitations until its end. While conducting this research, a number of limitations have occurred. The first challenge was about getting all necessary data. Papers, books and articles on E-Banking in Awash International Bank are very small, due to this there is minimal sufficient data that facilitates this paper.

Within the scope of the study, the problem of getting appropriate interviewees to answer the questionnaire willingly have been a hurdle. Furthermore, some important official documents that would allow the researcher to gain a better insight were not released by the bank since they are confidential. Therefore, referencing some of the information from records was only the top of the iceberg. There will be a lot more under the water that the researcher has not had access to.

To test all of the potential determinants of E-Banking such as availability of networks, level of literacy, quality of internet, and the capability of employees was difficult to explain in quantitative terms since they are extremely subjective. This might lead to unreliable conclusion, so in order to cope up this problem the researcher will highly depend on a limited number of variables. The problem of getting most appropriate interviewees to answer willingly was not possible. Therefore, such limitations have adversely affected the findings of the study.

5.6 Suggestion for future researchers

The study topic was very important for the bank in order for it to give a better service. However, because of time and budget constraints the study had some limitations. Therefore, suggestions for future researchers is found essential.

This study described the challenges and prospects of E-Banking in the case of Awash Bank. The paper has included both the banks and customers perspectives. Nevertheless other stakeholders were not considered. The study has grasped that there are further parties other than the bank and customers that have great impact on the prospects and challenges of E-Banking. Stakeholders like Ethio-Telecom and National Bank of Ethiopia greatly influence the E-Banking sector. Consequently, taking into consideration the impact these stakeholders have, the researcher would like to recommend further researcher to involve them in the research. Moreover, researchers can find a better result by applying additional statistical techniques and by increasing the validity of the research.

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Appendix I: Questionnaire for customers of Awash Bank

St. Mary's University

School of Graduate Studies

Business School

Questionnaire for Customers of Awash International Bank

Dear respondents

I Bezawit Kassaye am a student of St. Mary's University, School of Graduate Studies. Currently I am conducting a research entitled with "***Assessment on the Challenges and Prospects of E-Banking; In the case of Awash International Bank"*** whose purpose is to fulfill the partial requirement for master of Art degree in General Business Management. The objective of this questionnaire is to secure the necessary and relevant first-hand information that may be useful to conduct a research project. The quality of this paper highly relies on information you would provide.

This questionnaire will be used for academic purpose only. Thus comments are highly honored and kept confidential. Your frank response and valuable support in responding to the questions raised is very important to the success of the study. Therefore, I kindly request you to fill the questionnaire carefully and at your best knowledge in all regards. You should choose the answer you think is correct and free of bias.

You are not required to write your name.

Thank you in advance for your cooperation and kind response.

Contact Address

If you have any questions contact me at the following address:

Tel +251-911395254/+251-111270657

Section A
Personal Background Information

- **Please, circle your alternatives**

Sex	Age	Educational Background	Employment Status
A. Female B. Male	A. < 20 B. 20-30 C. 31-40 D. 41-50 E. 51-60 F.	A. No formal education B. High school C. Diploma D. Bachelor's Degree E. Masters/PhD	A. Government Employee B. Private Employee C. Personal Business D. Student E. Retired F. Not Employed

Section B
General Question

Please mark with (√) in the box for your answer

Do you use E- Banking?

Yes ☐ No ☐

If your answer for the above question is no, go to page 5.

If your answer is yes, please continue to answer the following questions

How long have you been using E-Banking	Which E-Banking services do you use (You can circle more than 1)	How did you start using E-Banking
A. <1 Year B. 1-3 Years C. 4-6 Years D. > 6 Years	A. ATM/Debit card B. SMS Banking C. Internet Banking D. Mobile banking (M-wallet) E. Point of sell (POS	A. Advertisement B. Bank Employee C. Social Media D. Colleague/Friends E. Other

Section C

Service Delivery Satisfaction by Each Service Dimensions

- **Please mark with (√)for your extent of agreement with the following statements.**

  Strongly Agree= 5, Agree= 4, Neutral= 3, Disagree=2 and Strongly Disagree=1

	Scale				
ATTITUDE OF CUSTOMERS	1	2	3	4	5
Electronic banking technology support collaboration and sharing of information.					
Better management of finance transactions					
Elimination of bank availability constraint.					
Quick and continuous access to information about my account.					
Faster way of conducting banking transactions					
Elimination of time constraint.					
E-banking is convenient in terms of 7 days and 24 hours services					
Cost effective way of conducting banking transactions					
CHALLANGES OF E-BANKING	1	2	3	4	5
Security is an issue of concern					
Cost of service charge is high for using E-Banking services					
Lack of suitable legal framework for electronic services					
Electric power interruptions causes problems to E-Banking					
Dynamic change in information make understanding difficult					
Network failures are serious problem to use e- banking.					
Inadequate banks staff skill regarding E-Banking					
Languages are an obstacle to use E-Banking					
WAYS TO IMPROVE-BANKING SERVICES	1	2	3	4	5
Creation of awareness on customers of using E-banking service technology					

Increase network reliability					
Increase security the service of E-banking					
Less charging to use E-banking service					
More emphasis on improvement of the service					

- **Please rate the service factors that give you the most importance while using E-Banking.**

  Very Important= 1 Important= 2 Neutral= 3 Less Important= 4 Not Important= 5

Service Factor	Importance of Service Factor				
	1	2	3	4	5
A. Easy to access your account					
B. Financial management					
C. Availability (24X7)					
D. Time and cost saving					
E. Avoiding branch queuing					
G. Easy to get/print bank account statement					
H. Possibility to process more financial transactions					
I. Possibility to access your account (even out of country)					

If you have any comments to be added;

- **If you do not use E-Banking please mark your reason for not using E-Banking below. You can Mark more than one option.**

Reason for not using E-Banking	
A. I don't use computer	
B. I don't have access to internet	
C. I don't know about internet banking	
D. I would prefer to make transaction through bank branch	
E I don't find it safe to transact through internet	
F I think it is difficult to use internet banking	
G. Bad Experience from previous use of E-Banking	
H. Bank did not facilitate my E-Banking needs	

Please write here if your reason is not listed above or have any comments.

Thank you for your cooperation and kind response.

Appendix II: Questionnaire for Employees of Awash Bank

St. Mary's University

School of Graduate Studies

Business School

Master of Business Administration

Questionnaire

Dear respondents

I Bezawit Kassaye am a student of St. Mary's University, School of Graduate Studies. Currently I am conducting a research entitled with "***Assessment on the Challenges and Prospects of E-Banking; In the case of Awash International Bank"***whose purpose is to fulfill the partial requirement for master of Art degree in General Business Management. The objective of this questionnaire is to secure the necessary and relevant first-hand information that may be useful to conduct a research project. The quality of this paper highly relies on information you would provide.

This questionnaire will be used for academic purpose only. Thus comments are highly honored and kept confidential. Your frank response and valuable support in responding to the questions raised is very important to the success of the study. Therefore, I kindly request you to fill the questionnaire carefully and at your best knowledge in all regards. You should choose the answer you think is correct and free of bias.

You are not required to write your name.

Thank you in advance for your cooperation and kind response.

Contact Address

If you have any questions contact me at the following address:

Tel +251-911395254/+251111270657

Section A

Personal Background Information

- **Please, circle your alternatives**

SEX	**AGE**	**EDUCATIONAL BACKGORUND**	**How long have you worked in Awash Bank**	**Do you use E-Banking**
A. Female B. Male	A. 18-25 B. 25-35 C. 36-45 D. 46-55 E. 56 and above	A. Diploma B. Degree C. Masters D. PhD and above	A. <1 Year B. 1-3 Years C. 3-5 Years D. 5-10 Years E. >10 Years	A. Yes B. No

Section B

General Question

6. What are mostly offered electronic channels through which the bank is delivering theService to its customers? You can choose more than once!

A. ATM ☐

B. Mobile Banking ☐

C. Internet banking ☐

D. SMS banking ☐

E. POS machine ☐

7. How long had the bank adopted E-banking?

A. less than 1 year ☐ C. 6 year to 8 years ☐

B. 2 year to 5 years ☐ D. Above8 years ☐

8. What benefits have Awash Bank derived from adopting E-Banking?

A. Improvement in Productivity ☐
B. Cost Saving ☐
C. Revenue Generation ☐
D. Public Image Enhancement ☐
F. Speed and Efficiency in service ☐
G. Increased in Market share ☐
H. Increased in Market access ☐

9. What challenges have Awash Bank faced in its adopting of E-Banking?

A. Poor ICT Infrastructure ☐
B. Perceived customers readiness ☐
C. Limited knowledge of IT and E-Banking ☐
D. Computer illiteracy rate ☐
E. Lack of Technical and Managerial skill ☐
F. Lack of Technical and Managerial skill ☐
G. Lack of Technical and Managerial skill ☐
H. Security concerns ☐

10. What are the driving forces to adopting E-Banking?

A. Competitive pressure ☐
B. Fast and responsive customer service ☐
C. Support from top management ☐
D Government Support ☐

E. Secured system ☐

F. Reliability of network ☐

11. Are there any risks involved because of adopting /using electronic channels for delivering banking services to the customers?

A. Yes ☐ B. No ☐

12. If 'yes', what are these risks facing the bank mostly?

A. Transaction or operation risk ☐ D. Strategic risk ☐

B. Reputation risk ☐ E. Compliance or legal risk ☐

C. Security risk ☐

13. What ways do you think E-banking can be improved in Awash Bank?

A. Increase security ☐

B. Have more ATM outlet ☐

C. Customer education and marketing ☐

D. Maintenance of ATM ☐

E. Improve on network connections ☐

G. Reduce E-banking charges ☐

Appendix III: Interview Questions for Managers

Question One: What are the reasons that drove the bank towards adopting E-Banking?

Question Two: What are the major challenges you have faced with relating to E-Banking?

Question Three: What opportunities is your bank willing to explore in order to improve E-Banking services?

Question Four: What are your customer's attitude towards E-Banking services that the bank provides?

Question Five: Do your customers lack of confidence in using the E-banking system as a payment method? If yes why?

Question Six: What problems does the bank encounter in technological, operational and infrastructural aspects**?**

Annex I: Activity Plan

N o	Activities	Oct 2017	Nov 2017	Nov 2017	Dec 2017	Dec 2017	Jan 2017	
		Week 3 and 4	Week 1 and 2	Week 3 and 4	Week 1	Week 2	Week 1,2	Week 3,4
1	Data Collection							
2	Data analysis and interpretation							
3	Writing the report							
4	First Draft Submission							
5	Final Draft Submission							
6	Defense Period							

Annex II: Budget Plan

Items	Total cost (in birr)
Transportation cost	1000.00
Secretarial and internet cost	2000.00
Telephone and E-mail	500.00
Total cost	**3,500**