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St. Mary's University, Ethiopia

School of Graduate Studies

ASSESSMENT OF CUSTOMER SATISFACTION WITH
E-BANKING: EMPIRICAL EVIDENCE FROM SELECTED
COMMERCIAL BANKS IN ETHIOPIA

BY

ERMIAS KIBRU

June, 2017

ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST.MARY'S
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BY

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ACRONYMS

ADIB	Addis International Bank S.C
AIB	Awash International Bank S.C.
ATMs	Automated Teller Machines
BIB	Berhan International Bank S.C.
CBE	Commercial Bank of Ethiopia
CBO	Cooperative Bank of Oromia S.C.
E-banking	Electronic Banking
EFT	Electronic Fund Transfer
IT	Information Technology
NBE	National Bank of Ethiopia
NIB	NIB International Bank S.C
PSS	Premier Switch Solutions S.C.
SPSS	Statistical Package for Social Studies
UB	United Bank S.C.

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Abstract

This study is aimed about assessment of customer satisfaction on e-banking. The study was conducted based on data collected from customers and employees of PSS through questionnaires and interviews. Moreover, To achieve the research objective the research adopted a descriptive research design; using both qualitative and quantitative approach. Moreover convenience sampling technique was employed. The designed questionnaires were distributed to 204 respondents, of which 187 were gathered from the customer of the six PSS banks. Source of data were primary and secondary; primary data were collected by using 5-point Likert -scale. Due to the fact that AIB, UB and NIB have high level of customers among PSS member banks that is why the three banks have been chosen to collect the data. The collected data was analyzed using SPSS 20.0. focus on descriptive analysis like frequency, percentage, mean and standard deviation. The research finding shows that the major problem faced by PSS member banks in relation to e-banking is network failure, lack of reliable power supply, security risk and delay on response related with charge back issue. In addition to this, the survey result also implied that most of PSS member banks customers were satisfied with PSS ATMs services and also surprisingly the customers do prefer to get the service through the shared automated teller machine, since it saves time. However, the study suggests a series of measures should be taken on the above hindrance on implementing ATMs. And also to sustain a reliable service for such technology, PSS member banks should work together with regulatory bodies.

Key words: ATM Banking, Customers Satisfaction, E- Banking, Information Technology

CHAPTER ONE

INTRODUCTION

1.1. Background of the study

The fast advancing global information infrastructure (including information technology and computer networks such as the Internet and telecommunications systems) enable the development of electronic commerce at a global level. The nearly universal connectivity which the Internet offers has made it an invaluable business tool. These developments have created a new type of economy, which many call the 'digital economy'. This fast emerging economy is bringing with it rapidly changing technologies, increasing knowledge intensity in all areas of business, and creating virtual supply chains and new forms of businesses and service delivery channels such as e-banking(Shah, et al., 2009).

As a direct consequence of the emergence of the 'digital economy', the balance of power seems to be shifting to the customers. Customers are increasingly demanding more value, with goods customised to their exact needs, at less cost, and as quickly as possible. To meet these demands, businesses need to develop innovative ways of creating value which often require different enterprise architectures, different IT infrastructures and different way of thinking about doing business. This transformation of business from an old company to a new agile electronic corporation is not easy and requires a lot of innovative thinking, planning and investment (Shah, et al., 2009).

The introduction of electronic business (e-business), one of the Information Technology (IT) applications has changed the traditional way of conducting business transactions in many organizations and as such a growing number organizations launch new Internet-based business lines to improve their businesses. Organizations in the banking industry have also launched an IT application known as electronic banking (e-banking) in order to meet the growing demands of their customers and to also meet the growing trend of technological advancement in recent years. E-banking is now a key element for improving efficiency and productivity in both private and government banks in order to strengthen the national economy. This presupposes that the benefit of e-banking does not only lie in enhancing the ability of banks to meet the demands of their customer but to also strengthen the national economy. An assessment of E-Banking and its related variables such as service delivery and customer satisfaction is therefore very crucial. Banks have to provide an excellent service to

customers with varied backgrounds and greater expectations who will also not accept any mean service. Therefore, service marketing in general, and particularly banking service has become one of the most significant and modern areas which has seen a substantial growth during the last years globally especially in the area of e-banking. The considerable growth in banking service may accrue to the widening and variety that banking services are associated with. Majority of banks in the developed world and some in the developing world are now offering e-banking services with various degrees of complexities. This gives the indication that e-banking is gradually taking the place of traditional banking services even in developing countries like Jordan, India, Malaysia, Nigeria and Ghana. In developing countries, for example, some banks have adopted e-banking as a way of communicating to customers with regards to issues concerning bank statements while other banks use mobile and internet banking services to allow customers to access their bank accounts and perform other banking transactions(Addai, et al.,2015).

In Ethiopia, the phase of the entire banking industry is rapidly changing and the focus is now on new delivery channels in order to improve customer service delivery and to provide customers with 24 hours a day access to banking services. E-Banking gives customers the opportunity to access banking services from the comfort of their homes and offices and also be able to do most of the transactions which would have been done in the banking halls. Nowadays, customer satisfaction is often considered the most important factor thriving in today's highly competitive business world. Services have unique characteristics that distinguish them from the physical goods. Today's organizations face tough competition and things will only get hard for them to succeed in today's fiercely competitive markets, hence the need for companies to move from a product and selling philosophy to a customer and markets philosophy. To win in today's competitive market place; companies must be customer centered. Satisfied customers are central to optimal performance and financial returns (Zeithaml & Bitner, 1996). In many places in the world, business organizations have been elevating the role of the customer as a key stakeholder over the past; thus customers are viewed as a group whose satisfaction with the enterprise must be incorporated in strategic planning efforts. Forward looking companies are finding value in directly measuring and tracking customer satisfaction as an important strategic success indicator. Evidence was mounting that places a high priority on customer satisfaction was critical to the improvement of organizational performance in a global marketplace (Boone & Kurtz, 1999).

Therefore, banks are increasingly faced with a perceived challenge: customers may appreciate the convenience of e-banking but as they migrate away from traditional banking, the extent of

personal interaction with bank staff decreases as does the switching cost and ultimately long-term customer commitment (Sarel and Mamorstein, 2003).

However, this paper is intended to Assessment of customer Satisfaction with e-banking: Empirical evidence from Selected Commercial Banks in Ethiopia.

1.2. Evolution of E-banking in Ethiopia

The banking industry in Ethiopia is governed by the companies Act, the banking Act, the commercial bank of Ethiopia Act, and the various prudential guidelines issued by the National bank of Ethiopia (NBE). The commercial bank of Ethiopia which falls under the ministry of finance is responsible for formulating and implementing monetary policies and fostering the liquidity, solvency and proper functioning of the financial system. NBE publishes information on Ethiopia's commercial banks and non-banking financial institutions, interest rates and other publications and guidelines Commercial banks in Ethiopia are going through massive transformation efforts to cope up with the constantly changing business environment. Increasing domestic and global competition, economic downturn, rapidly changing market trends, and volatile financial markets have all added to the pressure on organizations to come up with effective respond to survive and succeed.

The role of banks in an economy is paramount because they execute monetary policies and provide means for facilitating payments for goods and services in the domestic and international trade (Shambe, 2003).

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak, 2007), however; a visible presence of this was evident to the customers since 1980, with the introduction of ATM.

Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software. The users of these services were, however, mainly corporate customers rather than retail ones (Sohail & Shanmugham, 2003). The security first network bank was the first Internet banking

in the world that was built in 1995 in USA. After that some famous banks introduced their internet banking one after another, such as Citibank and bank of America.

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. In addition to eight ATM Located in Addis Ababa, CBE has had Visa membership since November 14, 2005. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership, CBE Lagged behind Dashen bank, which worked aggressively to maintain its lead in E-payment system. As 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 E-Banking since 2006. Gardachew (2010) Dashen bank, a forerunner in introducing E-banking in Ethiopia, has installed ATMs at convenient locations for its own cardholders.

By the end of 2008 Wegagen Bank has signed an agreement with Technology Associates (TA), a Ethiopian based information technology (IT) firm, for the development of the solutions for the payment system and installation network of ATMs on December 30, 2008

Zemen Bank, the only Ethiopian bank anchored in the idea of single branch banking, by launching full-blown internet banking, a service which is new to Ethiopian banking industry in the year 2010. The bank tested the venture through its first phase of the online service, and now it is already started the full-fledged version, which enable customers to make online money transfer freely (Asrat, 2010).

Except for the few banks that are part of the premium Switch Solution (PSS), bank ATMs are only for their own clients. Previously, there are only a few agreements in place to share ATM resources. The first was the Premium Switch Solution (PSS), which was established by three banks in 2010, with a capital of 165 million Br, and now has six member banks, including: Awash International Bank S.C. (AIB), United Bank S.C., Nib international Bank S.C. (NIB), Berhan International Bank S.C. (BIB), Addis International Bank (ADB) and the Cooperative Bank of Oromia S.C. (CBO). Zemen bank attempted to become part of the PSS arrangement, but it was rebuffed largely due to disagreements with its single branch approach at the time. The PSS is benefiting member banks and their clients by allowing customer through the use of different ATM machines by member banks more than other banks owning their own ATM only for their own client.

In May 2016 BPC Banking Technologies and EthSwitch S.C. of Ethiopia announced that 17 banks in Ethiopia have been interconnected for inter-bank transactions. The key technology platform that has facilitated this interoperability is SmartVista from BPC. With this implementation 1,500 ATMS, 13,000+ POS-terminals, and 2.5 million cardholders in Ethiopia are interconnected. EthSwitch S.C. is the owner and operator of the national electronic retail payments switch of Ethiopia, National e-Payment Switch. This has been legally established with the purpose of providing electronic retail payment switching and clearing, card issuance and management, and infrastructure services in country at large. In November 2011, the National Bank of Ethiopia became an EthSwitch S.C. shareholder and board member. In addition, 17 Ethiopian banks are also shareholders in EthSwitch S.C..

However, despite the Bank's effort to improve access for its customers by increasing the number of machines, network failure, service breakdown from the country's sole telecommunications service provider and internal network problems are the challenges faced by commercial banks in successful service delivery and distribution of ATM throughout the country.

1.3. Statement of the Problem

Banking practices have undergone significant changes since the advent of the Internet (Black et al, 2001). Banks provide many online services, which are extremely convenient for banking customers. Electronic banking (e-banking) have been existed for decades, starting with automatic teller machines (ATM) in the late 1960s (Broderick and Vachirapornpuk 2002). E-banking makes it possible for banks and their customers to do business from anywhere in the world. This greatly increases the bank's potential client base. Nevertheless, the global approach to banking that e banking permit makes it extremely difficult for regulatory authorities to enforce finance laws (Dong-Her et al., 2004). In the past, customers' demand for banking services was driven basically by safety of their monies as well as interest accruing from such savings. In addition to this, the present day customers' demand has shifted from just safety of money to how banks deliver their services. The reason is that the present day customer requires efficient, fast and convenient services.

ATM-banking was adopted by most of Ethiopian banks with a view of improving the service delivery, by minimizing queues in the banking hall, enable customers withdraw cash 24-hour availability, track personal banking transaction, request for online statement, or even transfer deposit to a third party account. Due to the coming of ATMs, the bank industry can able to save time and money as it was expected to reduce congestion in the banks as clients would

not be in a hurry to beat the closing time for the banking business and hence spend more productivity time at their working places instead of spending long hours in queues.

Despite of all the merits of the ATMs obtained from e-banking, e-banking in Ethiopia is passing into different challenges. E-banking poses some risks to the banks and banking customers who choose to use it. Customers have to weigh these risks against the potential benefits before they decide whether e-banking is a good option. The banks' faced with complaints from customers side, due to frequent system malfunction , Switch in operative, presenter error, network downtime, ATM machines are out of cash , erroneous transactions, and delayed dispute handling etc.

There are also some instances when customers would prefer to queue up in the bank even when the ATMs are operational and no customers are in sight using the facility. People do not believe that they can go and collect the money without informing to anybody; hence, instead of using ATMs, they prefer to go to bank premises to get the service (Nazeret.com).

Numerous studies have shown transforming the banking system from traditional to electronic based have brought support in business operations and serve as competitive advantage. (Sumra et al., 2011), indicated that electronic banking has substantial impact on banks' performance. On the other hand (Hamza et al.,2015), show that the most popular e-banking products among customers are automated teller machine (ATM), master card, visa card, and mobile banking and also the benefits of E-banking as enumerated by respondents include: convenience, time saving, quick services delivery, lower cost of transactions and increased access to accounts. In addition to this as a challenges mentioned by respondents in relation to E-banking services are longer log on time, slow response time, and lack of training for e-banking usage.

Despite the importance of e-banking in bringing customer satisfaction limited studies are available in Ethiopia both in terms of number and scope. Therefore, more studies are still required to understand the relevancy of e-banking in the country.

A research done by Ayana (2014) on factors affecting adoption of E-banking system in Ethiopian banking industry, focused on factors that affect adoption of E-banking in Ethiopian banking industry. In his study he has seen legal framework, national ICT infrastructure, competitive pressure and government support from the environmental factor. Financial and human capital from organizational factor and relative advantage and disadvantage from technological factors. And he concluded that E-banking system is not well adopted in Ethiopian banking industry, due to low level of ICT infrastructure and lack of legal

framework at NBE. In addition to this the result of the study also showed that security risk and lack of trust on the use of technological adoption are other major barriers for the system. On the other hand a study conducted by Gardachew (2010) on practices, opportunity and challenges of E-banking, analyzed the main challenges and opportunities of E-banking. He came up with the challenges being low level of internet penetration and poorly developed telecommunication infrastructure, lack of suitable legal and regulatory framework for ecommerce and e-payment. In addition to these he also mentioned high rates of illiteracy high cost of internet and absence of financial networks that link different banks as challenges of E-banking.

Despite huge investment and Bank's effort to improve access for its customers by increasing the number of ATMs, there are also a number of instances when customers would prefer to use bank premises to get service even when ATMs are operational and no customers are in sight using the ATMs. There is a general outcry from bank customers that the quality of ATM banking service has not been up to their expectations.

The review of literature suggest that most of the studies have been done on issue related to ATM banking in countries like USA, UK, Malaysia (Sathye,1999;Wang et al,2003; Gerrard and Cunningham,2006 etc.) However, not sufficient work has been done in Ethiopia with regard to ATM service and customer satisfaction issues. The present study intend to know assessment of customers satisfaction in ATM service concerning the National payment system and Premier Switch Solutions in Ethiopian context.

1.4. Research Question

- What are the E-Banking services offered by the selected banks?
- Does e-banking changed customer's perception in Ethiopia?
- What are the contributions of the change in ICT application process to the customer?
- How customers see the challenge and prospect of e-banking in the PSS member banks?
- Given the usage of electronic banking services, how satisfied are customers of the bank?

1.5. Objectives of the Research

The study was guided by the following general and specific objectives.

1.5.1. General Research Objective

The general research objective of this study is to assess the extent of customer Satisfaction with e-banking

1.5.2. Specific objectives

- To assess the E-Banking service offered by the selected banks
- To assess the customer perception of E-Banking in Ethiopia
- To determine the contributions of the change in ICT application process to the customer
- To assess the main challenge and prospect of e-banking from the customer point of view
- Identify customers' level of satisfaction with service delivery regarding E-Banking service

1.6. Significance of the study

The study is significant to the banks, customers, stake holders and to the existing body of knowledge and literature related to e-banking in Ethiopia. It helps in understanding what attitude customers' have towards ATM-banking and what actions should the banks take in order to benefit from the opportunities and how to overcome the challenges. This study is also beneficial for the academic institutions and individuals who might be interested in carrying out related researches in the future.

1.7. Scope of the study

This study was restricted to the city of Addis Ababa which has large concentration of ATM and since we are living technological advancement the study is limited with ATM-banking service. In addition to this the researcher is only focusing on those selected banks who are members of both EthSwitch S.C. and PSS. State owned and private banks who are not members of PSS are excluded from this research due to the complexity they bring to the researcher in reaching and gathering data related to customer and banks in the course of the research. EthSwitch S.C. is selected due to the fact that it is a new phenomenon in the country that competing banks share the facilities to serve their customer. Any data relevant to the research is gathered from the member banks.

The study used descriptive research design and in the course of researching both primary and secondary data's was used. With regard to the secondary sources various publications, books, and journals regarding the subject matter were addressed. Population of this study includes selected ATM card users of both EthSwitch S.C. and PSS member banks in Addis Ababa. To achieve the objectives of the study, a well design 5 point likert scale questionnaire was distributed among study respondents selected on Convenience sampling basis.

1.8. Limitation of the Study

The researcher focus on only those customers who have a member of both PSS and EthSwitch S.C., it does not take in to consideration State owned and other private commercial banks. Although the researcher tend to assess the member bank customers coming to only the selected Awash international bank, United bank and Nib international bank. The researcher selected the above three banks due to high capacity of card holders and ATM products compare with other member banks.

1.9. Organization of the study

The research paper is organized into five chapters. Chapter one contains the introduction part mainly dealing with background of the study, research questions and objectives of the study. The second chapter discusses review of related literatures about the subject matter. Chapter three focuses on methodology of the study. Chapter four discusses about the analysis of the study while the fifth chapter contains summary, conclusion and recommendation.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Introduction

This chapter contains the various literatures written on the topic and other related areas. This was made possible by identifying, collecting, reviewing literatures from various sources such as books, journals, reports and the internet.

2.2. Conceptual Review

2.2.1 E-Banking

Technological innovations play a crucial role in banking industry by creating value for banks and customers, that it enables customers to perform banking transactions without visiting a brick and mortar banking system. On the other hand E-banking has enabled banking institutions to compete more effectively in the global environment by extending their products and services beyond the restriction of time and space (Turban, 2008).

There are several definitions given to E-banking by different scholars. Some of them are presented as follows:

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.

Malak (2007) defined E-banking, also known as electronic fund transfer (EFT), as the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash.

E-banking is also defined by Yang (1997) as the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or with other financial service provider remotely via a telecommunications network.

E-banking can be also 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 (Alagheband, 2006). From the above e-banking product the study intend to see the automated teller machine.

2.2.2. Automated Teller Machine (ATM)

ATM is an electronic machine in a public place, connected to a data system and related equipment and activated by a bank customer to obtain banking services without going in to the banking hall. It allows customers to access banking services such as withdrawals, transfers, inquiries about account balances, requests for cheque books, account statements, direct deposits, foreign currency exchange etc. (Fenuga, 2010). Using an ATM requires an ATM card and a pass code, often referred to as a PIN (Personal Identification Number).

Now our relationship with money can be fluid and convenient with the automated teller machine (ATM) that allows user to access 24 hours a day 7 days a week. An automated teller machine is also known as automated banking machine or cash point or cash machine. This is a computerized telecommunication device that provides the clients of a financial institution with access to financial transaction in a public space without the need for a cashier, a human clerk or a bank teller. It enables the users to funds in our savings, money market status, check other accounts. Each bank has its own ATM's but certain features are common to all, an account, Cash withdrawal, Purchase mobile phone recharge vouchers, Deposit cash and cheques (at selected ATMs), Obtain a summary of balances for all your accounts, View and print a mini-statement (last 10 transactions), Transfer money between linked accounts an access card and an ATM. A standard cash machine looks like a panel inset into a wall. The panel usually contains a screen on which the ATM displays messages, a key board, slots for access card insertion and withdrawal and deposits. ATM are designed to be practical, easy and they are user friendly.

1. CPU (to control the user interface and transaction devices)
2. Magnetic and/or Chip card reader (to identify the customer)
3. PIN Pad (similar in layout to a Touch tone or Calculator keypad), often manufactured as part of a secure enclosure.
4. Secure crypto processor, generally within a secure enclosure. Display (used by the customer for performing the transaction)
6. Function key buttons (usually close to the display) or a Touch screen (used to select the various aspects of the transaction)
7. Record Printer (to provide the customer with a record of their transaction)
8. Vault (to store the parts of the machinery requiring restricted access)

9. Housing (for aesthetics and to attach signage to)

2.2.3 Service Quality

The present business era is now named as “Quality Era” because perceived quality of the product is becoming the most important competition factor in business world (Bedi, 2010). It is now the most powerful competition weapon and organization’s life giving blood. Perceived service quality refers to the consumer’s global attitude or judgment of the overall excellence or superiority of the service. Delivering quality service means conforming to customer expectations on a consistent basis (Thakur, 2011).

Service quality is a concept that has attracted the interest of researchers in the field of operations management and marketing research (Elmayar, 2011). Quality in service is an elusive concept because of the intangible nature of the service offering, and the definition of quality may vary from person to person and from situation to situation. Even though a universally accepted definition of quality does not exist till now, most writers on service quality supports a customer’s-centered definition with the reservation that customer expectations are not necessarily consistent or predictable (Santhiyavalli, 2011).

Service quality has therefore, been given several conceptualizations but with focused attention on meeting the expectation of the customer. For example, according to (Asubonteng et al., 1996) it is the difference in customer expectation for service performance prior to the service encounter and service delivered to the customer. (Parasuraman et al., 1988) viewed it as the difference between customer’s expectations of service provider’s performance and their evaluation of the service they received. (Sasser et al.,1978) and Caruana (2002) define service quality as the result of the comparison made by customers about what they feel service firms should offer, and perceptions of the performance of firms providing the services. Service quality should be used as a strategic tool to get a competitive advantage over the competitors; suggesting that customers are not just satisfied by the mere availability of the product or service but the quality of the firm’s output (Santhiyavalli, 2011). This proposition has been defended in a number of ways. According to (Uddin & Akhter, 2012), service quality and fair service charge both have direct impact on customer satisfaction. An assessment of the perceived service quality levels by Elmayar (2011) revealed that service quality has a strong correlation with customer satisfaction.

2.2.4 Customer Satisfaction

Customer Satisfaction has become a major area of marketing that has received considerable publications from practitioners and scholars in the last two decades. (Majid et al., 2011)

perceives customer satisfaction as an evaluation by the customer after buying an industry product and services. According to (Kotler & Keller, 2006), it is a person's feeling of pleasure or disappointment resulting from comparing a product's performance (outcome) in relation to his or her expectation. This implies that satisfaction can vary from person to person and should be determined by the customer. In any business-to-customer type environment, customer satisfaction becomes an ultimate goal and objective (Munusamy et al., 2010).

This is even apparent and critical given the level of competition among enterprises today. Many businesses are therefore, concentrating on the need to satisfy customers through delivery of goods and services that best reflect consumer preference. (Mosahab et al., 2010) therefore, admitted that customer satisfaction plays the role of a mediator in the effect of service quality on customer loyalty. This suggests a direct link between customer satisfaction and loyalty.

A study by (Zakarias et al., 2009) reveals that the higher the customer satisfaction with banking service, the higher the propensity to adopt classical behaviour that relates to loyalty. In banking industry also, the interest rates on loans and charges on the usage of online services such as ATM machines and the processing fee is a major source of conflict between the bank and its customers. If customers think that the charges are more than it should become paring to their needs, they switch. Competition is now fierce in banking industry as it has become too easy to open an account in any other bank that results switching cost to be very minimal. But if a customer is satisfied, the loyalty injects automatically and the customer remains with the current banker for a longer and longer period of time (Fox & Poje, 2002) cited in Afsar (2010).

2.2.5 Adoption of e-Banking

2.2.5.1 Accessibility

Accessibility is defined as the ability of users to access information and services from the web, this depends on many factors. They include: the content format; the user's hardware, software and settings; internet connections; the environmental conditions and the user's abilities and disabilities (Godwin-Jones 2001; Hackett and Parmanto, 2009). The term "web accessibility" generally relates to the implementation of website content in such a way as to maximize the ability of users with disabilities to access it. For example, providing a text equivalent for image content of a web page, allows users with some visual disabilities access to the information via a screen reader. The techniques and approaches that create more

accessible web pages for people with disabilities also address many other access issues such as download speed and discoverability (Hackett et al., 2004; Hackett and Parmanto, 2009).

Jun et al., (1999) revealed reliable/prompt responses, attentiveness, and ease of use had considerable impacts on both customers perceived overall service quality and satisfaction. It also indicated that there is a significant positive relationship between overall service quality and satisfaction. (Yang & Jun, 2002) redefined the traditional service quality dimensions in the context of online services, and suggested an instrument consisting of seven online service dimensions (reliability, access, ease of use, personalization, security, credibility, and responsiveness). (Joseph et al., 1999) considered banking service quality with respect to technology use, such as ATMs, telephone, and the internet and identified six dimensions. They were convenience/accuracy; feedback/complaint management; efficiency; queue management; accessibility; and customization. Therefore, accessibility has positive effect on customer satisfaction.

2.2.5.2 Convenience

E-banking provides higher degree of convenience that enables customers to access internet bank at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (Polatoglu and Ekin, 2001). (Gerrard & Cunningham ,2003) revealed that there are some service quality determinants that are predominantly satisfiers and others that are predominantly dissatisfies with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality.

According to (Ainscough & Lockett, 1996), the provision of customer interactivity is an important criterion that attracts users in the delivery of e-banking. (Gerrard & Cunningham, 2003) also identify other factors of paramount importance in ensuring the success of e-banking, i.e. the ability of an innovation to meet users' needs using different feature availability on the web site. For instance, the provision of interactive loan calculators, exchange rate converters, and mortgage calculators on the web sites draw the attention of both users and non-users into the bank's web site.

2.2.5.3 Privacy

Customers have doubts about the trust ability of the e-bank's privacy policies (Gerrard & Cunningham, 2003). Trust has striking influence on user's willingness to engage in online exchanges of money and personal sensitive information (Friedman *et al.*, 2000). Privacy is an important dimension that may affect users' intention to adopt e-based transaction systems.

Encryption technology is the most common feature at all bank sites to secure information privacy, supplemented by a combination of different unique identifiers, for instance, a password mother's maiden name, a memorable date, or a few minutes of inactivity automatically logs users off the account. Besides, the Secure Socket Layer, a widely-used protocol use for online credit card payment, is designed to provide a private and reliable channel between two communicating entities; the use of Java Applet that runs within the user's browser; the use of a Personal Identification Number, as well as an integrated digital signature and digital certificate associated with a smart card system (Hutchinson and Warren, 2003). Thus, a combination of smart card and biometric recognition using fingerprints offers a more secure and easier access control for computers than the password method.

2.2.5.4 Security

Security simply means defending benefits . Challenges that e-banking faces include privacy and information security concerns . Naturally, users and commercial settings accept systems that have high trust, since providing services and procedures by commercial units depends on easy access and successful operations of the payment infrastructures. Therefore, we can say that security and trust are important features in accepting e-banking and e-payment and lack of security is a great obstacle to accepting them. Thus, we can say that security in payment systems means that the national and personal information are transformed to a form that its disclosure to other groups is prevented and trust means whether the system is adequately strong not to lost the transactions or the money in case of black outs, server failures, network faults or unprecedented input from the users (Soleimani et al., 2015).

Assurance about security relates to the extent to which the web site guarantees the safety of customers` financial and personal information, an area which has witnessed a proliferation of research interest (Kimery and McCord, 2002). Security can be assured by providing a privacy statement and information about the security of the shopping mechanisms and by displaying the logos of trusted third parties. For example, displaying trusted third party logo guarantees a certain level of security protection and has been shown to significantly influence how consumers regard the trustworthiness of e vendors (Jiang *et al*, 2008).

Internet banking is made possible by the creation of Web browsers. In this mode of online banking, consumers do not have to purchase additional software (all they need is the browser), store any data on their computer, backup any data, or wait for software upgrades or new versions (Dong-Her *et al.*, 2004). All transactions occur on a secure server of a bank via the internet. The bank has all of the required data and software to execute the transactions. Customers go the bank's Web site, log in, and then take advantage of the bank's internet

services. Typical bank services are account access and review, transfers of funds between accounts, bill payment, and then a widening variety of new services and products. Security plays an important role in internet banking and so there are several protocols for internet security of encrypted data packets (Kolsaker & Payne, 2002).

2.2.5.5 Speed and Efficiency

Speed in e-payment tools means for new technologies to quickly integrate with current systems and methods to rapidly response to customers` needs and expectations. On the other hand, the e-payment system is efficient when it performs the best operation at each stage of the payment process. Therefore, it is necessary for users to be ensured of the efficiency of the system, since otherwise, they will not use it. In fact, a system that has the necessary efficiency should have the capability to process small payment processes without suffering from costs and drawbacks. Thus, speed and efficiency mean performing the transaction with a low time cost (Soleimani et al.,2015).

2.2.5.6 Information and Accountability

The nature of responding and accountability is being committed to answering questions and requests. The tendency of organizations to be accountable means to help customers and provide services as promised. Information is also one of the most basic levels of internet banking. The bank introduces the services related information and its bank operations through public or private networks. Informing and providing necessary trainings to customers can be investigated from different angles. However, what seems most essential is learning and training e-banking and e-payment services. The advantages of appropriate information and providing training to customers not only reduce costs, but it can also have social, economic, and cultural impacts, like reducing the cost of publishing bills, health, and control(Soleimani et al.,2015).

2.2.5.7 Fees and Charges

Service quality attributes in e-banking industry are important since human-internet interaction is the main service delivery and communication channel. Offering high quality services to satisfy consumers' needs, at lower costs, are potential competitive advantage of e-banking. Some studies show that e-banking has successfully reduced operating and administrative costs (Devlin, 1995; Siriluck & Speece, 2003). Cost savings have helped e-based banks offer lower or no service fees, and offer higher interest rates on interest-bearing accounts than traditional banks (Gerlach, 2000; Jun & Cai, 2001). Therefore, it is hypothesized that fees and charges have positive impact on customer satisfaction.

2.2.6. Adoption of information technology

Technological innovations have transformed most industrial sectors, especially due to the evolution of information-based technologies. In banking services, due to the role of banks as information-based and its role in gathering and analyzing information, technology has made a lot of impact on banking services. Information Technology consist of all hardware and software that a firm needs to use in order to achieve its business objectives. It can therefore be explain in business context as “a set of interrelated components that collect (or retrieve), store, and distribute information to support decision making and control in an organization” (Laudon & Laudon, 2010).

Information Technology (IT) has been defined by Ige (1995) as the modern handling of information by electronic means, which involves its access, storage, processing, transportation or transfer and delivery. (Langdon & Langdon, 2006) also define IT as a set of interrelated components that collect (or remove), process, store and distribute information to support decision making, coordination and control. Technology banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (Sathye, 1999). Technology banking also includes all the systems that enable financial institution and customers to access accounts, transact business, obtain information on financial products and services by technological means. (Laudon & Laudon, 1991) contend that managers cannot ignore Information Systems because they play a critical role in contemporary organization.

In present day banking, total automation of banking operations is an imperative need for all banks to attract more customers, provide efficient and quality services, and survive in the emerging new competition, apart from the profit motive which is the primary objective of the banks. Technology plays a critical role in the performance of core functions of the banks in Ethiopia. This has makes the adoption of technology in banking services the only option for banks to compete in the market (Casuet al., 2006).

These days, information technology (IT) is universally regarded as an essential tool in enhancing the competitiveness of the economy of a country. It is commonly accepted today that IT has significant effects on the productivity of firms. These effects will only be fully realized if, and when, IT are widely spread and used. As Rogers explained Diffusion of Innovation (DOI) is a theory of how, why, and at what rate new ideas and technology spread through cultures, operating at the individual and firm level.

DOI theory sees innovations as being communicated through certain channels over time and within a particular social system. Individuals are seen as possessing different degrees of willingness to adopt innovations, and thus it is generally observed that the portion of the population adopting an innovation is approximately normally distributed over time. 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, artefact 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 favourable attitude to it); decision (commitment to its adoption); implementation (putting it to use); and confirmation (reinforcement based on positive outcomes from it).

2.2.7. Challenges and opportunities of e-banking

The changing financial landscape has brought with it new challenges for bank management and regulatory and supervisory authorities. The major ones stem from increased cross-border transactions resulting from drastically lower transaction costs and the greater ease of banking activities, and from the reliance on technology to provide banking services with the necessary security. While electronic banking can provide a number of benefits for customers and new business opportunities for banks, it exacerbates traditional banking risks. Even though considerable work has been done in some countries in adapting banking and supervision regulations, continuous vigilance and revisions will be essential as the scope of e-banking increases.

In particular, there is still a need to establish greater harmonization and coordination at the international level. Moreover, the ease with which capital can potentially be moved between banks and across borders in an electronic environment creates a greater sensitivity to economic policy management. To understand the impact of e-banking on the conduct of economic policy, policymakers need a solid analytical foundation. Without one, the markets will provide the answer, possibly at a high economic cost. Further research on policy-related issues in the period ahead is therefore critical (Worku et al.,2016).

2.2.7.1 Challenge subsequent to the Introduction of ATMs in Banking Industry

The fact that ATM technology has the potentials for transforming countries into card-based economy as opposed to cash-based economy is not in doubt. This notwithstanding, ATM

technology is faced with many challenges. These challenges are categorized into two machine and human related challenges (Odachi & Gebriel, 2011).

I. Machine Related Challenges:

- **Network Connectivity Problem:** This is one of the problems facing ATM application in Ethiopia. In this case communications are provided by Ethiopian Tele Com (ETC). ATMs are linked to the bank's main computer through the telecommunication channel which in an ideal situation is supposed to be permanently up. An unreliable communication link will result in the ATMs being offline most of the time. It is very disappointing when one goes to ATM to withdraw some money and will be told that ATM is out of Service.
- **Quality of Notes:** This is the physical state of the notes that are put in the ATM for dispensing purposes. The quality of notes that are put in the ATM have direct bearing on how well or how badly the ATM will operate as bad notes are usually the source of note jams in the ATMs which results in poor service.
- **No Cash in the Vault Syndrome:** This is a situation where ATM runs out of cash and not replaced immediately.
- **Inability of the Machine to Print out Receipt:** At times ATM machine gives the user a screen message showing its inability to print receipt. This is very disappointing too.
- **Wrong Debiting:** There are cases of ATM machine debiting the account of a customer without releasing the money to him. It takes time to rectify this problem.
- **Card Trapping:** At times the ATM card is trapped inside the machine, thereby frustrating the owner.
- **There have been cases of ATM giving out money without debiting the account, or giving a higher value notes as a result of incorrect denomination loaded in the money cassettes.**

II. Human Related Challenges

- **Illiteracy/Lack of Skill:** Some account holder cannot read and write. These people find it difficult to use ATM card. Others lack the basic skill on how to use ATM card. The result is that they seek for assistance. A dubious assistant can steal vital information from the card such as the cardholder's PIN and use it to defraud the person being assisted.
- **Basic ATM Infrastructure:** Lack of basic infrastructure such as power is a major challenge to ATM application.

- **Robbery:** Robbery at ATMs takes various shapes. The couriers who fill ATMs with cash are usually robbed, and the money in their possession taken away. Another ATM crime is the issue of a robber waiting outside ATM for a valid user to complete his transaction and be attacked and robbed.
- Other robbery cases include theft of money from ATMs by bank/ATM service employees; theft of personal identification numbers (PINs) through shoulder surfing; robbery of ATM cards and forcing the owners to reveal the PINs etc.

Others challenge for banks is to provide consistent service to customers irrespective of the kind of channel they use. The more a bank relies on electronic delivery channels, the greater the potential for reputation risks. There are some serious implications of international e-banking. 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 (Worku et al.,2016).

Major concerns of electronic transactions are the issues of security and privacy. In the developed countries like France, 3 out of 40 purchases on line and the remaining 37 are reluctant to use on line services and the reason is security and privacy which is the major threats to perform online business. It is not only the duty of industry but also the duty of government assuring people to perform secure electronic transactions (Worku et al.,2016).

When we see the challenges and opportunities of e-banking in Ethiopia only 20% of the Ethiopian households are connected to IT network and a large number of people are served by one bank branch even compared to other African countries. Un-served market, stable and secure political environment, rapidly growing mobile infrastructure, availability of delivery channels (outlets), safe and sound financial sector are the most important opportunities in Ethiopia. Low level of financial literacy of the public, level of readiness and capacity of financial institutions to provide service, infrastructure, insufficient cash flow in rural areas limited potential agents, and presence of a few branches in rural areas are some of the challenges facing the country. Legal and related issues, the importance of looking in to the role of newly emerging third party technical providers, reconsidering pre-paid balance requirements and widening the scope of mobile banking service are also critical (Worku et al.,2016).

Abraham described in Ethiopian, among the known common problems which are related to electronic banking few of them are listed below.

- Lack of banking services through the web or other electronic means such as using mobile phone.
- Data and network security and privacy.
- Lack and limitation of government policies, regulations and e-commerce laws, as well as legislation to protect workers and to make the Internet secure.
- Weak telecommunications.
- Broken and slow Internet connections.
- Lack of Internet awareness.

But in recent years the Ethiopian government has a grand plan for the improvement of ICT infrastructures hoping for Ethiopia to leapfrog into the information age. Banking in Ethiopia faces numerous challenges to fully adopt and adopt e-banking application and seize the opportunities presented by ICT applications in general. Key challenges of 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 of e-commerce in Ethiopia (Worku et al.,2016).

Lack of suitable legal and regulatory framework for e-commerce and e-payment: Ethiopian current laws don't accommodate electronic contracts and signature. Ethiopia has not yet enacted legislation that deals with e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and restricts the use of encryption technologies. High rate 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 know only how to read and write but also possess basic ICT literacy. High cost of internet: The cost of internet access relatively to per capita income is a critical factor. Compared to the developed countries, there is higher cost of entry in to e-commerce market in Ethiopia. These include high start-up investment costs of computers and telecommunication and licensing requirements (Worku et al.,2016).

Absences of financial networks that link different banks, frequent power interruption: lack of reliable power supply is a key challenge for smoothly running e-banking in Ethiopia. Resistance to changes in technology among customers and staff due to lack of awareness on

the benefits of new technologies, fear of risk, lack of trained personnel in key areas, tendency to be content with the existing structures and people may be resistance to new payment systems(Worku et al.,2016).

2.2.7.2 Benefits of Using ATMs

Tague (2010) observed that a plastic Automatic Teller Machine card linked to your bank account makes financial transactions a breeze by eliminating the waste of writing cheques or the dangers of carrying large sums of cash. The debit cards benefit both the card holders and the banks. Some of the benefits of ATM technology is bank decongestion, reduced cost of transactions for both customers and banks. This has drastically reduced banking time. The ability of ATM card holder to make withdrawal at any point in time and anywhere close to him or her is one of the greatest benefits of ATM technology. This has reduced the agony of one running out of cash.

Another nice opportunity provided by ATM to users is the flexibility to move around with minimal cash and thereby reduce incidence of theft. ATM technology when properly used will make the building of cashless society possible. ATM card has assisted travelers in obtaining cheaper exchange rate. Foreign ATM machines offer users access to the wholesale exchange rate, which is often less expensive than paying service fees when exchanging cash or travelers cheques in foreign bank or currency exchange office(Odachi & Gebriel, 2011).

2.3. Empirical Review

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on e-banking technology. Specifically A study done by Wondossen & Tsegai focus on the challenges and opportunities of e-payments in Ethiopia, their intention was to study e-payment practices in developed countries, Africa and Ethiopia. In addition to this they try to propose appropriate e-payment model for Ethiopia. Although the study conduct interview with open-ended questions and On-site observation to review existing e-payment system , to propose and test an e-payment system and also to investigate challenges to e-payment in Ethiopia and found that as a major barriers to e-payment in Ethiopia are poor telecommunication infrastructure , frequent power disruption ,people are resistant to new payment mechanisms ,lack of skilled manpower ,unavailability of payment laws and regulations particularly for e-payment and finally they recommended that its necessary to expand the country ICT infrastructure ,power back up and security must also be given the necessary attention (Wondossen & Tsegai, 2005).

A study undertaken by Senait focused on prospects and challenges of E-banking in Ethiopia from the banks perspective and aims to expand a deep understanding of the factors influencing the adoption of E-banking by banks operating in Ethiopia. The study used a model of perceived influential factors and tested using questionnaire using a sample drawn from Ethiopian banks' officials who believed to have exposure to the subject matter. although the researcher mentioned determinant factors of E-banking in Ethiopia include technological and infrastructural requirement, customers' attitude, capacity of existing banks, capacity of regulatory and supervisory organs in relation to authorization and security and risk management capacity of banks. Moreover, the study revealed benefits of E-banking which includes reduction of transaction cost, perfect information about customer, increased profitability, variety of products enhancing cross selling, customer loyalty (branding) and wider geographical reach. and also the risks involved include strategic risk, compliance risk, and total reliability risk. Finally the researcher concluded the factors tested for the risks involved towards E-banking and the determinant factors of E-banking are found to be effective and recognized as the challenges of e-banking for its successful adoption in Ethiopian market (Senait ,2007).

On the other hand the study conducted by Daghfous & Toufaily 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 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. Finally the result of the study indicated that extent of penetration of E-banking in the growth phase of an emerging

market has an important correlation with the improvement of commercial performance (Daghfous and Toufaily, 2007).

Furthermore a study undertaken by Gardachew conducted a research on the practice, opportunities and challenges of e- banking service in Ethiopia. The study was focused on different e-banking techniques and conducts a survey on the existing operating style of banks collected through on site observation, interview with customers and branch managers of both private and public banks. In addition to this the author analyze and investigate the main challenges and opportunities for e-banking in Ethiopia and stated that some barriers of using e-banking system, such as Lack of infrastructure for telecommunications, Lack of suitable legal and regulatory framework, Political instabilities in neighboring countries, High rates of illiteracy, High cost of Internet, Absence of financial networks that links different banks, Frequent power interruption, Resistance to changes in technology among customers and staff and Cyber security issues. And finally recommend that Banks should invest in automating their banking system by creating a public awareness on the use of ICT, collaborating the public and private banks, in addition to this the government should consider the liberalization of the financial sector for foreign bank entry to enhance the introduction of modern technology in the banking sector (Gardachew ,2010).

A study done by Mesay conducted on bank service quality, customer satisfaction and loyalty in Ethiopian banking sector. The major objective of the study is intended on to measure the quality of service offered by private banks operating in Ethiopia. The study collected data through administrating questionnaire and Convenient sampling procedure, in addition to this the study tries to investigate the relationship between service quality, customer satisfaction and loyalty. Moreover, the researcher use five dimensions of SERVPERF model i.e. reliability, assurance, tangibility, empathy and responsiveness were used to measure the quality of service offered by the private banks. Although the researcher investigate the relationship between dependent and independent variables using Correlation and multiple regressions. the result of correlation indicate that there is a positive relation between the dimensions of service quality and customer satisfaction. And also the results of the regression test showed that offering quality service have positive impact on overall customer satisfaction. However the study proves that empathy and responsiveness plays the most important role in customer satisfaction level followed by tangibility, assurance, and finally the bank reliability. The research findings also indicate offering high quality service increase customer satisfaction, which in turn leads to high level of customer commitment and loyalty (Mesay Sata , 2012).

A study done by Ayana intended to identify factors affecting adoption of electronic banking system in Ethiopian banking industry. The study was conducted based on the data collected from three private banks and one state owned bank and also the study focus on both quantitative and qualitative research approach. the rationale of using such a mixed approach is to gather data that could not be obtained by adopting a single method and for triangulation purpose. The study data collection technique consists of Survey, interviews and document analysis. The researcher has been used technology-organization-environment framework (TOE) and identifies technological factors, organizational and environmental factors. The outcome of the study indicate that the major hindrance of Ethiopian banking industry faces in the adoption of electronic banking are: lack of legal and regulatory framework, lack of adequate ICT infrastructure and lack of competition between local and also foreign banks. Finally the study concludes that to achieve the proposed objective TOE framework must be used. in addition to this regulatory body should establish a clear set of legal frame work on the use of technology in banking industry, investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition (Ayana,2014).

Dr. S. Fakruddin Ali & Muhaba Nuredin (2016) conducted a research on an assessment of the alliance between service quality and customer satisfaction in banking sector in Ethiopia. The study was examining the relationship between services quality and customer satisfaction in relation to the quality of service by considering tangibility, reliability, responsiveness, assurance and empathy. The researcher collecting data through a well-structured administered questionnaire and Convenience sampling technique was used in the study. Furthermore the results of this study indicated that service quality is an important antecedent of customer satisfaction and also this finding reinforce the need for banks managers to place an emphasis on the five dimensions of service quality.

A study done by Worku conducted on the Impact of Electronic Banking on Customers' Satisfaction in Ethiopian Banking Industry (The Case of Customers of Dashen and Wogagen Banks in Gondar City). The aim of the study was to assess and examine the impact of e-banking on customers' satisfaction in Ethiopian banking industry with particular emphasis in Gondar city in comparison with the ordinary mortar and brick banking system. Moreover, the study collected data through both questioners and interview for triangulation purpose and also using simple random sampling techniques. In addition to this the study used tables, percentages, chi-square independency test to see the relationship between demographic characteristics and e-banking, independency t-test to see the visits of branches before and after e-banking by customers is significant or not and regression analysis test has been

conducted to explain the variables which determine customers' satisfaction in e-banking. however the results of the study implied that majority of users of e-banking are the young, the educated, salaried and students, but business men and women are not actively using the service of e-banking and there is also a relationship between e-banking and demographic characteristics, e-banking currently provided for saving and current accounts holders only, e-banking has improved customer satisfaction, reduced frequency of bank hall for banking service, reduced waiting time for customers, there are customers who don't know the fee charged for being e-banking users. finally the researcher recommended the banks should work much in increasing the number of users from all aspects that is from gender, age, educational status, occupationally and should do great job in making- business men/ women to be the users of e-banking and also should keep all rounded personal profile of customers to retrieve easily whenever needed and bankers should determine which customers with which demographic characteristics are more sensitive to e-banking service satisfaction(Worku et al.,2016).

The other descriptive case study analysis conducted by Khalfan on 'Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. 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 barrier. 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(Khalfan et al., 2006).

The study of Shah on critical success factors (CSF) in E-Banking conducted in United Kingdom, aims to determine the critical issues related to financial sector organizations when they establish businesses online. The survey method was used by the researchers which target the financial sector in the UK. The study indicates that Understanding the CSFs in E banking is important for senior management of banking related organizations, because it would potentially help them improve their strategic planning process. The analysis of the study indicates two major types of statistical analyses were conducted, descriptive statistical analyses and factor analysis. In descriptive analyses, the factors (or variables) were ranked in

order of their mean score, the highest score being the most important and so on. The top six factors in order of importance were: user-friendly website, systems security, support from top management, fast responsive customer service, promotion of electronic commerce within organization, and all time availability of services and rapid delivery of services. Factor analysis, which was done to group together, related variables to uncover factors (in terms of factor analyses), found the following factors to be critical for the success in E-banking (Shah et al., 2005).

Issues related to organizational flexibility and speed of services delivery were found to be at the top of the importance list. Issues related to organizational flexibility and speed of services delivery were found to be at the top of the importance list. Business processes and systems integration and enhanced customer services were next in the list of importance. (Gerrard et al., 2006) in their study in Singapore identify risk to be an important factor for Internet Banking adoption. All respondents who did not use Internet Banking services had a negative perception of the security in Internet Banking. The respondents perceived that there were many security risks when using the internet. They felt the privacy was a concern, feeling all their financial information could be in jeopardy. Risk was one of the two most frequently mentioned factors in their study, “Concern about risk was mentioned by all respondents.

An empirical investigation conducted by Sathye (1999) on the adoption of Internet Banking by Australian consumers also identified, security concerns as key factor in internet banking adoption. A report on Internet Banking in Australia finds that, security concerns among banks and customers are keeping both away from Internet Banking” Sathye (1999).

In general, review of empirical studies shows that understanding the significant factors of E-banking is important for banking industries because it would potentially help them improve their strategic planning process. The major hindrances that oppose E-banking implementation are the concerns of security, privacy of information, Switch inoperative, System Malfunction and technology investment cost. Also the previous literature indicates that according to the customers there are different factors that influencing the adoption of E-banking such as, perceived advantages and other factors related to the services itself & how to be accepted and used by the customers, which differ from country to country, reflecting the economical and technological development in each country. In this study researcher has intense to assess the level of customer satisfaction with e-banking by considering the national payment system(Etswitch) and the Premier Switch Solution(PSS) in Ethiopian banking industries by using survey and interview conducted with concerned parties of the selected banks.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Research Design

According to (Ghauri & Gronhaug, 2005) distinguished the basic differences between three main classes of research designs; exploratory, descriptive and explanatory. The research can be exploratory when it deals with unknown problem, Descriptive when there is an awareness of the problem and Explanatory, when the problem is clearly defined. The purpose of this study is to conduct descriptive research in order to gather as much information as possible concerning the extent of customer Satisfaction with e-banking: Empirical evidence from Selected Commercial Banks in Ethiopia.

According to (Kothari,2004) explained that, research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure; it will constitutes a blue print for the collection, measurement and analysis of data. Although a good design will make sure that the information gathered is consistent with the study objectives and data are collected by accurate and economical procedure (Kothari, 1990).

The study used descriptive research design in gathering information, procedure adopted in conducting the research, the techniques uses in analysis as well as presentation of data collected, because it tries to describe and explain the data for the purpose of describing the nature of existing conditions finally to describe facts in the field. Descriptive study is concerned with determining the frequency with which something occurs or the relationship between variables (Churchill, 1991). According to cooper (1996), a descriptive study finds out who, what, where, and how of a phenomenon as it exist in situation. To accurately get the information, questionnaires and interviews were employed.

3.2. Target Population

To achieve the research objectives customers of PSS member bank are the target population of the study, the member bank customer selected due to the simplicity they have bring to the researcher in reaching and gathering data related to the rest of EthSwitch S.C. customers.

Although the study is confined to AIB, UB and NIB banks conveniently. According to the information obtained from PSS the three banks have selected due to the fact that they have the largest number of customers and ATM transaction among all having a total of 166,719 active card holder customers from this AIB 88,335, UB 40,686 and NIB 21,263. The researcher opts only 166,719 active card holders from the total card in circulation (525,656) due to the simplicity that bring the researcher to know which bank customer are more ATM banking user. So given that 90.14% of the customers belong to the three banks.

3.3. Sampling Technique and Sample size determination

The researcher employed a non probability convenient sampling technique. The study used this technique since its convenient to the researcher to opts the data at the field. In addition the reason that elements may be drawn into the sample simply because they just happen to be situated, spatially or administratively, near to where the researcher is conducting the data collection. Semi structured interview also conducted for supervisors to gather information needed for the study. The sample size of the study was 204, which is determined by the equation developed by (Yamane, 1967).

$$n = \frac{166,719}{1+166,719 (0.07)^2} = 204$$

Where n= number of sample size

N= Total number of study population

e= Level of precision

3.4. Source of data collection

Primary and secondary data was used for the study:

3.4.1. Primary Data

The sources of the primary data for this study were e-banking customers of PSS member banks and the supervisor of the e-banking department.

3.4.2. Secondary Data

The sources of Secondary data for this study was obtained from document review, the use of Internet sources, past research papers, journals and textbook. This helped to see what others say about the subject matter, what are their findings and recommendations.

3.5. Method of data Collections

The researcher collected data by using two methods which are questionnaire and interview (Field survey).

3.5.1. Questionnaire

The designed questionnaires were prepared for PSS member bank customers. Once the questionnaires were designed, it was distributed to respondents on convenience sampling basis. The questionnaire was structured in both open-ended & closed-ended type of questions while responses to the closed-ended type of questions were measured on a five Likert rating scale.

3.5.2. Interview

For the purpose of triangulation, semi structured interview was conducted with supervisor of the selected PSS member banks.

3.6. Validity of the instrument

Validity refers to whether the statistical instrument measures the purpose it is intended to measure, i.e. accuracy of measurement (Saunders *et al.* 2000). Validity refers to the extent to which an instrument asks the right questions in terms of accuracy. Validation was done so as to ensure if instruments to be used in collecting data enabled to collect the information needed. The validation was done by gathering opinions from my supervisors, from those who directly working in respective departments, who supervises the operations and customers who uses the services. They assessed the relevance of the contents in the questionnaires and gave their opinions and suggestions that were incorporated to improve the validity of the questionnaires.

3.7. Reliability of the instrument

Reliability refers to whether a measurement instrument is able to yield consistent results each time it is applied (Saunders et al., 2000). It is the property of a measurement device that causes it to yield similar outcome or results for similar inputs. This implies that responses to a reliable survey will vary because respondents have different opinions, not because the questionnaire items are confusing or ambiguous. The researcher started the data analysis by examining the reliability and validity of the sample data. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) provide the following rules

of thumb: “_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable” (p. 231). The results were extracted and presented by the table below, and it shows a result of 0.768. According the result is more than 0.7.

Table 3.1: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.768	26

Source: Compiled by author from SPSS version 20 result, 2017

3.8. Methods of Data Analysis

Data analysis was conducted using qualitative and quantitative approach. Descriptive data analysis is a systematic process involving working with data, organizing and dividing them into small manageable portions. Analysis was done based on the research objectives which are being presented according to the research objectives.

The data was then coded and analyzed with the help of a computer. Analysis of data in this research is done using statistical tools like frequency and mean. In order to support the analysis tables and percentages from survey result are also incorporated. Data analysis was performed using SPSS software.

3.9. Ethical Research

Ethics is one of the major considerations in research. Hence this study was conducted in a good manner while considering personal values. A researcher only deals with the subject matter whereas it observed and keeps all issues outside the study at the field. The responsibility of ensuring that a respondent is respected was the order of the day and thus personal matters were avoided to the great extent. therefore the study has incorporated the following ethical considerations.

- Respondents were clearly communicated about the objective of the study before they were asked to give their answer.
- Respondents were not asked about their name, race and religion etc.
- The questionnaire was distributed after getting the consent of the banks.

CHAPTER FOUR

RESULTS & DISCUSSION

4.1. Introduction

This chapter represent the result of the data collected from the field, presented, analyzed and interpreted by the researcher to give a clear picture of the findings after the fieldwork research.

The study is designed to discuss on the Assessment of customer Satisfaction with e-banking: Empirical evidence from Selected Commercial Banks in Ethiopia. The presentation of the data in this chapter based on the research objectives that aimed to find answer to the projected research questions. The objective of this study included: To assess the E-Banking service offered by the selected banks, assess the customer perception of E-Banking in Ethiopia, determine the contributions of the change in ICT application process to the customer, assess the main challenge and prospect of e-banking from the customer point of view and lastly, identify customers' level of satisfaction with service delivery regarding E-Banking service.

In this chapter, the data collected for the study were analyzed and interpreted. the data is presented in tables beginning with demographic variables and then research question that are formulated to guide the research. The first part of the chapter considered the demographic background of the respondents, focusing on Sex, Age, level of education and numbers of years with the bank. The second part presented the findings from the study in relation to the research question. This chapter presents and analyses the data collected through the different data collection techniques. "Questionnaire" is used as a primary data collection method to gather the required information. In addition, in order to validate the results obtained from the questionnaires, interviews are made with the selected PSS member bank supervisors. Regarding the nature of the data collected, majority of items were closed ended with some measured on a 5-point likert scale.

A total of 204 questionnaires were distributed to the E-banking customers of all the 6 PSS member banks which started to give e-banking services using the National e-Payment Switch of Ethiopia (EthSwitch S.C.). Out of the total 204 questionnaires, 187 questionnaires were

gathered (91.67% response rate) . It is evident that 91.67% questionnaires have been analyzed, while 8.33% questionnaires were not responded.

Table 4.1. Distribution of questionnaire and categories of respondents

Category	No. Of Questionnaire Distributed	Percentage
Responded	187	91.67
Not Responded	17	8.33
Total	204	100

Source: Own Survey Result, 2017

4.2. Demographic data of respondents

The demographic information of the respondents in this study comprised of Gender, Age, Educational level and their working experience.

Table 4.2. Demographic characteristics of respondents

Gender of the respondents				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	116	62.0	62.0
	Female	71	38.0	38.0
	Total	187	100.0	100.0
Age of the respondents				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	36	19.3	19.3
	26-33	104	55.6	55.6
	34-41	32	17.1	17.1
	42+	15	8.0	8.0
	Total	187	100.0	100.0
Educational level of the respondents				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Certificate	14	7.5	7.5
	Diploma	19	10.2	10.2
	Degree	126	67.4	67.4
	Masters Degree	28	15.0	15.0
	Total	187	100.0	100.0
For how long have you served in this bank/working with the bank/				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	≤5	67	35.8	35.8
	6-10	101	54.0	54.0
	11+	19	10.2	10.2
	Total	187	100.0	100.0

Source: Own Survey Result, 2017

4.2.1. Background Information of Respondents

Based on the information from the survey, it can be seen that most of the bank customers working in the sample are male and the female are less in number. In this regard, the percentage for male is 62% and the female is 38%. The male customers are almost double in number as compared to female ones. This implies that majority of respondents who participated in the study were males. The result for gender shows that the customer's attitude towards e-banking adoption is higher for males. A result that potential shows that males are more likely to adopt and use e-banking services than females. It may simply indicate that it is more convenient for male to use e-banking than females.

In the case of classification of the respondents by age, the respondents were required to state their ages from the given options which include; 18 – 25, 26 – 33, 34 – 41, 42 and above. The results were presented in table 4.2. Results in table 4.2 indicate that age of respondents differs. It was revealed that out of 187 Respondents, (19.3%) were between 18 – 25 of age, (55.6%) were between 26 – 33 of age, (17.1%) were between 34 – 41 of age and (8%) were above 42 of age. These findings show that the lowest ages were observed to between 42 and above. However, the highest age were observed to be of those with 26-33. Furthermore, these findings show that the highest ages were between 18 to 33 years that are the ages of most youngsters.

Respondents were asked to state their highest level of education they had attained. Particularly they were to select from a given list comprising various level of education as per the Ethiopian education system. A researcher was interested to know the bank individual customers' education level. The result is presented in Table 4.2. Results revealed that respondents had different level of education results showed that (7.5%) had certificate (10.2%) had diploma, (67.4%) had degree and (15%) had master's degree. Regarding the educational level of the participants, the highest percentage of them have bachelor degree and above.

Respondents were asked to mention their experience with the bank so as to understand the general e-banking knowledge they have. They were asked to choose from the range of experiences in years such as; less than a 5years; 6 - 10 years and above 11 years. The results showed that, 67 respondents representing 35.8 per cent have been customers of the bank for the period of 5 years and below while a total of 101 representing 54.0 per cent have been with the bank for the periods ranging from 6 to 10 years. It was also found that, 19 respondents representing 10.2 per cent have been customers of the bank for the past 11 years and beyond. The highest numbers of respondents were observed to be those with experience between 6-10

years followed by those below 5. However, these findings show that customers have enough experiences with the bank. This implies that the researcher was working with experienced customer of the bank. Therefore, there is a possibility of getting reliable data.

Table: 4.3. Service offered by the member bank (PSS)

No	Statement	Mean	SDV	Strongly Agree(1)		Agree (2)		Neutral(3)		Disagree(4)		Strongly Disagree(5)		Total	
				F	%	F	%	F	%	F	%	F	%	F	%
1	Using E-Banking service enable me to access my account more quickly.	1.86	.454	32	17.1	151	80.7	2	1.1	2	1.1			187	100
2	I am well informed that I can use my ATM card to get the service in six PSS member banks' and EthSwitch S.C. ATM terminals.	1.82	.601	47	25.1	132	70.6	2	1.1	6	3.2			187	100
3	The banks properly maintained customer compliant handling procedure in case of problems experienced in connection with ATM services.	3.01	1.07	9	4.8	78	41.7	3	1.6	97	51.9			187	100
4	I am well informed that the charge of getting service from my home bank is lower than the charge of getting the service from other PSS member banks' ATM terminals.	3.03	1.07	13	7.0	63	33.7	20	10.7	88	47.1	3	1.6	187	100
5	I am informed that i can receive a text alerts whenever my account debited or credited	1.06	.246	175	93.6	12	6.4							187	100
6	I am well informed that once a funds transfer has been scheduled, I can cancel or edit it	2.82	1.12	11	5.9	90	48.1	21	11.2	52	27.8	13	7.0	187	100

Note: 'F' stands for frequency and '%' stands for valid percentage value

Source: Own Survey Result, 2017

The respondents asked using e-banking service enable to access their account more quickly, and the descriptive statistics result in the above table 4.3. No 1 shows that 32(17.1%) of the respondents strongly agree, 151(80.7%) of the respondents agree, 2(1.1%) of the respondents are neutral and 2(1.1%) of the respondents disagree with the mean value of 1.86. The result indicated that majority of the PSS member bank customers agreed on the issue that e-banking service enable customers to access their account quickly. From this we can infer ATM-banking is convenient to the customer to do their business using the machine rather than the traditional one. The result of this study is consistent with the finding of Milkessa et al.,(2016) , Calisir and Gumussoy, (2008) :that pointed out e- banking reduces the time and place limitation , easier to be used and provides various benefits to consumers so that it makes banks more efficient in terms of ease of use and access.

Table 4.3. No 2 shows that 47(25.1%) of the respondents strongly agree, 132(70.6%) of the respondents agree, 2(1.1%) of the respondents are neutral and 6(3.2%) of the respondents disagree with a mean value of 1.82 that the bank informed them they can access their ATM cards in EthSwitch S.C. and PSS member banks. From the results obtained it could be concluded that the banks created awareness to their customer. This finding is also supported by Ephraime, (2016) and Karjaluoto et al.,(2002) : which state that e- banking technology has more benefit as the originator of the technology claims, and e- banking can be used any time anywhere without any limit.

Table 4.3. No 3 shows that 9(4.8%) of the respondents strongly agree, 78(41.7%) of the respondents agree, 3(1.6%) of the respondents are neutral and 97(51.9%) of the respondents disagree with a mean value of 3.01 that the banks properly maintained customer complaint handling connection with ATM service. From the results obtained it could be concluded that the majority of the bank's customers disagree on the bank properly handle the dispute case, at the same time some are agree on the issue. From this we can infer all members shall not fully cooperate to resolve disputes, errors and other issues as quickly as possible. This result is contradict with the finding of Ephraime,(2016) : which infer that the bank properly handle any dispute issue.

Table 4.3. No 4 shows that 13(7.0%) of the respondents strongly agree, 63(33.7%) of the respondents agree, 20(10.7%) of the respondents are neutral, 88(47.1%) of the respondents disagree and 3(1.6%) of the respondents Strongly disagree with a mean value of 3.03 that the charge of getting ATM service from the home bank is lower than the member one. From the results obtained it could be concluded that majority of the respondents disagree on the issue.

Which means the banks service charge regarding on ATM service similar from one member bank to another. This finding is also supported by Worku et al.,(2016) and Ephreame,(2016).

Table 4.3. No 5 shows that 175(93.6%) of the respondents strongly agree and 12(6.4%) of the respondents agree with a mean value of 1.06 that they can received a text alert at the time their account debited or credited. From the results obtained it could be concluded that majority of the bank's customers strongly agreed on the issue that the bank informed them to be aware of transaction made on ATM related with their account.

Table 4.3. No 6 shows that 11(5.9%) of the respondents strongly agree, 90(48.1%) of the respondents agree, 21(11.2%) of the respondents are neutral, 52(27.8%) of the respondents disagree and 13(7.0%) of the respondents strongly disagree with a mean value of 2.82 that they informed they can edit if once a fund transfer has been scheduled. From the results obtained it could be concluded that majority of the bank's customers agreed on the issue, from this we can infer that the banks create awareness about how to use the e-banking product(ATM). This result is contradicted with Tekabe and Gadise (2016): which infer that in order to get e-payment service, first it needs to know how to operate the system. Even the user also mentioned to that there is a lack of awareness how to use the systems. Even the banks doesn't confirmed to that at the time of taking the card.

Table 4.4. Customer perception of E-Banking in Ethiopia

No	Statement	Mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
				F	%	F	%	F	%	F	%	F	%	F	%
1	Customers fears risks related with using of E-banking services	2.46	1.17	41	21.9	80	42.8	8	4.3	55	29.4	3	1.6	187	100
2	Customers do not trust the technology of E-banking services	3.19	1.07	6	3.2	68	36.4	4	2.1	103	55.1	6	3.2	187	100
3	The introduction of National payment system (EthSwitch S.C.) by National Bank Of Ethiopia has positively affected service delivery	2.70	1.13	21	11.2	90	48.1	3	1.6	70	37.4	3	1.6	187	100

Note: 'F' stands for frequency and '%' stands for valid percentage value

Source: Survey Result, 2017

As it is commonly known, people may not welcome every technological services, there may be resistances or even total rejection because the perceived risk related with that particular technology. As the above table 4.4. No 1 shows that 41(21.9%) of the respondents strongly agree, 80(42.8%) of the respondents agree, 8(4.3%) of the respondents are neutral, 55(29.4%) of the respondents disagree and 3(1.6%) of the respondents strongly disagree with a mean value of 2.46 that customers fear risk to make use of E-banking services. From the results obtained it could be concluded that majority of the bank's customers agreed on the issue. This implies that due to rapid changes occurring in technology, customers are faced various risk regarding on ICT, Operational and so on. the study also supported by an interview to triangulate with the survey result: The respondents replied that most of the member bank ATM machine ergonomics structure is not suitable to customer since it's not safe to make transaction at night and also some customer suffering and robbery of money and ATM cards when people are doing transaction by ATMs at night and this can be hindering the owners to use the ATM machine. This finding is also supported by Ayana (2014): which infer that fear of risk is one of the factor that hinder adoption of E-banking system in the country.

Table 4.4. No 2 shows that 6(3.2%) of the respondents strongly agree, 68(36.4%) of the respondents agree, 4(2.1%) of the respondents are neutral, 103(55.1%) of the respondents disagree and 6(3.2%) of the respondents strongly disagree with a mean value of 3.19 that customers do not trust the technology of e-banking service. From the results obtained it could

be concluded that majority of the bank's customers disagree on the issue and this implies that the customer believe the technology. the study also supported by an interview to triangulate with the survey result: The respondents replied that since the number of customer who uses ATM card increases from time to time, it is one of the implication that the customer build up trust & confidence on ATM transactions. Whereas, some users believe the quality of ATM banking service has not been up to their expectations. This finding contradicted with Khalfan.,*et al* (2006), Sathye (1999), Wondwossen and Tsegai, (2005) : which is infer that people lack of trust on the banks technologies.

Table 4.4. No 3 shows that 21(11.2%) of the respondents strongly agree, 90(48.1%) of the respondents agree, 3(1.6%) of the respondents are neutral,70(37.4%) of the respondents disagree and 3(1.6%) of the respondents are strongly disagree with a mean value of 2.70 that the introduction of National payment system has positively affect service delivery. From the results obtained it could be concluded that majority of the bank's customers agreed on the issue. This implies that most of the respondents witnessed that they can easily access the service provided by EthSwitch and they are satisfied since there is no restriction with the service provided by the national interconnected ATM system, whereas PSS provides its service only for the member banks.

Table: 4.5. The contributions of the change in ICT application process to the customer

No	Statement	Mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
				F	%	F	%	F	%	F	%	F	%	F	%
1	E-Banking provide power backup and data recovery system to avoid interrupted transactions in case of power failure	2.91	1.15	15	8.0	78	41.7	11	5.9	74	39.6	9	4.8	187	100
2	I am well informed what should I do, if I forget to answer my security question and/or have been locked out of Online	2.70	1.11	20	10.7	90	48.1	5	2.7	70	37.4	2	1.1	187	100
3	Does your bank believe that e-banking services will enhance your competitive position in the market	2.06	.681	22	11.8	145	77.5	10	5.3	7	3.7	3	1.6	187	100
4	Does your bank believe your e-banking services have helped to reduce your banks daily operating cost	2.55	1.05	19	10.2	104	55.6	9	4.8	52	27.8	3	1.6	187	100
5	Does your bank believe more customer training/customer education is needed in promoting e-banking services	2.20	.830	16	8.6	144	77.0	6	3.2	15	8.0	6	3.2	187	100
6	Does your bank believe current customers' personal information security is better than it was before	2.59	1.02	23	12.3	83	44.4	29	15.5	52	27.8			187	100

Note: 'F' stands for frequency and '%' stands for valid percentage value

Source: Own survey Result, 2017

Table 4.5. No 1 shows that 15(8.0%) of the respondents strongly agree, 78(41.7%) of the respondents agree, 11(5.9%) of the respondents are neutral, 74(39.6%) of the respondents disagree and 9(4.8%) of the respondents strongly disagree with a mean value of 2.91 that whether e-banking provide power back up and data recovery system during power failure.

From the results obtained it could be concluded that majority of the bank's customers agree on the ATM machine have its own power back up system but some customers disagree on the issue because there are times that the customers don't get the ATM service due to frequent interruption of electric power. This implies that the member bank use different ATM machine like NCR and Diebold. This result supported by Karjaluo et al.,(2002) : which infer that e-banking can be used any time anywhere without any limit. Moreover this result contradict with the study of Gardachew, (2010) , Wondwossen & Tsegai, (2005) and Tekabe & Gadise,(2016): Which is infer that lack of reliable power supply is a key challenge for smoothly running e-banking in Ethiopia. Because e-payment system are power dependent so, if the power is off the network also off so, they would not provide a service.

Table 4.5. No 2 shows that 20(10.7%) of the respondents strongly agree, 90(48.1%) of the respondents agree, 5(2.7%) of the respondents are neutral, 70(37.4%) of the respondents disagree and 2(1.1%) of the respondents strongly disagree with a mean value of 2.70 that the bank informed what should they do, if they forget to answer security question and have been locked out. From the results obtained it could be concluded that majority of the bank's customers agree on the issue even if some customers didn't accept it. This implies the banks created awareness to their customers. This result is not consistent with Tekabe and Gadise, (2016): which infer that card holders mentioned to there is a lack of awareness how to use the systems. Even the banks doesn't confirmed to that at the time of taking the card.

Table 4.5. No 3 shows that 22(11.8%) of the respondents strongly agree, 145(77.5%) of the respondents agree, 10(5.3%) of the respondents are neutral, 7(3.7%) of the respondents disagree and 3(1.6%) of the respondents strongly disagree with a mean value of 2.06 that e-banking service will enhance a competitive position in the market. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that ATM banking will have significant effect on the competitive market. This result supported by Milkessa et al.,(2016).moreover, this study is supported with the finding of D'Silva B et al., (2010):that shows e- banking has expanded their geographical reach and may increase customer base through deploying electronic delivery channels at lower cost. The finding of this study is also similar with finding of Young et al (2007): that states electronic bill payment and other related capabilities of e-banking have a real effect on banking practices and rapidly boosts revenue which drives more banks to adopt e- banking technology.

Table 4.5. No 4 shows that 19(10.2%) of the respondents strongly agree, 104(55.6%) of the respondents agree, 9(4.8%) of the respondents are neutral, 52(27.8%) of the respondents disagree and 3(1.6%) of the respondents strongly disagree with a mean value of 2.55 that the bank believe ATM banking service will reduce banks daily operating cost. From the results obtained it could be concluded that majority of the bank's customers agree on the issue that ATM banking reduce operational cost. This implies that using e-banking product like ATM terminals minimize the queuing with the branch, it minimize workforce and also simply establishment of multi-bank cash utilities by collaborating on cash processing, distribution, and machine management. This finding supported by Ayana, (2014): which state that using different technological innovation in banking industry is used to perform banking activities at lower costs. This finding is consistent with the finding of Rasoulina & Javaheri, (2006): which suggests, cost, infrastructure, Socio cultural, time, information, legislation and regulation and economic as the most effective issues affecting the electronic activities. Moreover this study supported by Milkessa et al., (2016), D'Souza (2002) and Cheng, (2006).

Table 4.5. No 5 shows that 16(8.6%) of the respondents strongly agree, 144(77.0%) of the respondents agree, 6(3.2%) of the respondents are neutral, 15(8.0%) of the respondents disagree and 6(3.2%) of the respondents strongly disagree with a mean value of 2.20 that the bank believe customer training is needed to promote e-banking service. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that adequate training for customers when introducing new technological services are important for the adoption of e-banking products. This study is supported by Milkessa et al., (2016): state that e-banking technology service like ATM and mobile internet banking service can be introduced to customers with prior orientation. Then become easier to be applied by customers.

Table 4.5. No 6 shows that 23(12.3%) of the respondents strongly agree, 83(44.4%) of the respondents agree, 29(15.5%) of the respondents are neutral and 52(27.8%) of the respondents disagree with a mean value of 2.59 that the bank current customer personal information security is better than it was before. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that the bank use extra feature for security system than it was before. The above results were also supported by an interview script received from selected respondents to triangulate with customers responses: The respondents replied that since it's highly confidential nobody will never get any personal information from the bank directly unless the banks` consults it`s customer.

Table: 4.6. Challenge and Prospect of e-banking from the customer point of view

No	Statement	Mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
				F	%	F	%	F	%	F	%	F	%	F	%
1	In the case of using ATM banking, security risk affect users decision to use the system	2.74	1.09	21	11.2	75	40.1	25	13.4	63	33.7	3	1.6	187	100
2	Lack of sufficient government support will affect customers willingness to use technological innovation	1.99	.503	18	9.6	158	84.5	5	2.7	6	3.2			187	100
3	Customers of our bank were not familiar with service provided through ATM	3.6	.865	5	2.7	29	15.5	7	3.7	143	76.5	3	1.6	187	100
4	The management of the bank provide training courses for its staff when introducing new services.	2.1	.881	29	15.5	138	73.8	1	.5	11	5.9	8	4.3	187	100
5	E-banking, such as ATM services are enables users to complete basic banking activities more quickly and easily	1.91	.760	59	31.6	90	48.1	34	18.2	4	2.1			187	100
6	E-banking such as ATM service are convenient in terms of time saving	1.7	.527	61	32.6	124	66.3			2	1.1			187	100

Note: 'F' stands for frequency and '%' stands for valid percentage value

Source: Own survey Result, 2017

Table 4.6. No 1 shows that 21(11.2%) of the respondents strongly agree, 75(40.1%) of the respondents agree, 25(13.4%) of the respondents are neutral, 63(33.7%) of the respondents disagree and 3(1.6%) of the respondents strongly disagree with a mean value of 2.74 that the security risk affect user decision to use ATM banking. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that the level of security risk that hinder implementation of ATM banking system in the banks. This result is consistent with Ayana, (2014): state that security is the main concern that hinders banks to use technological facilities. Moreover, Sohail and Shanmugham, (2003): suggests that one of the barriers in the adoption of electronic banking is fear of security risks.

Table 4.6. No 2 shows that 18(9.6%) of the respondents strongly agree, 158(84.5%) of the respondents agree, 5(2.7%) of the respondents are neutral and 6(3.2%) of the respondents disagree with a mean value of 1.99 that lack of sufficient government support will affect customer willingness to use technological innovation. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that even if the government support NBE to apply the National payment system through the core banking system, the customer still not satisfied by the infrastructure for implementation of ATM banking. This study contradict with Ayana, (2014) : stated it is possible to say that the largest number of respondents did not agreed with the idea that lack of government support affect adoption of E-banking system in Ethiopia. In addition to the competitive pressure, the study of Chong and Pervan's (2007) survey of Australian SME suggest that, government initiatives are the most significant factor determining the extent and deployment of E-business adoption. Similarly the study of Sherah et al (2009) noted that government support is the major driver for the adoption of E-banking in china.

Table 4.6. No 3 shows that 5(2.7%) of the respondents strongly agree, 29(15.5%) of the respondents agree, 7(3.7%) of the respondents are neutral, 143(76.5%) of the respondents disagree and 3(1.6%) of the respondents strongly disagree with a mean value of 3.59 that the customer of our bank not familiar with ATM service. From the results obtained it could be concluded that majority of the bank's customers disagree on the issue. This implies that they do have sufficient knowledge regarding the ATM product. This study is contradict with Ayana, (2014): lack of familiarity with different technology and lack of sufficient skills to use and implement E-banking system were considered as barriers to adopt E-banking system in Ethiopia. In addition to this the result also in consistent with Tekabe & Gadise, (2016): state ATM machine are provide a service only in a limited language. This creates a difficulty to use E-payment System, although user also mentioned to that there is a lack of awareness how to use the systems. Even the banks doesn't confirmed to that at the time of taking the card. In addition to this the study made in Greece by Angelakopoulos and Mihiotis (2011) and Ghazi and Khalid (2012) that identified non familiarity with e- banking technology is the main factor that has a negative impact on the adoption of e-banking technology. Generally all this study contradict with the result find from survey, hence this can be due to the time change or the member banks focus on customer training.

Table 4.6. No 4 shows that 29(15.5%) of the respondents strongly agree, 138(73.8%) of the respondents agree, 1(.5%) of the respondents are neutral, 11(5.9%) of the respondents disagree and 8(4.3%) of the respondents strongly disagree with a mean value of 2.10 that the

management of the bank provide training course for the staff when introducing new service. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that the banks give adequate training during technological advancement and timely information communication between employees and management when implementing E-banking product in PSS member banks. The above results were also supported by an interview script received from selected respondents to triangulate with customers responses: The respondents replied that most of e-banking staffs have full knowledge about all activity performed under their department. hence, they can easily solve any customer problem related with ATM-banking services. This result contradict with Milkessa et al., (2016): state that lack of professionals who have been trained on e-banking technology system.

Table 4.6. No 5 shows that 59(31.6%) of the respondents strongly agree, 90(48.1%) of the respondents agree, 34(18.2%) of the respondents are neutral and 4(2.1%) of the respondents disagree with a mean value of 1.91 that ATM banking enable user to complete basic banking activity more quickly and easily. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that the user satisfied by ATM service since its feature is available to accomplish the daily activity without going to the branch and also its look like user friendly. This study supported by Milkessa et al., (2016) and Ephreame, (2016). Moreover, the result of this study is consistent with the finding of Calisir and Gumussoy, (2008) that pointed out adoption of e- banking reduces the time and place limitation, easier to be used and provides various benefits to consumers so that it makes banks more efficient in terms of ease of use and access.

Table 4.6. No 6 shows that 61(32.6%) of the respondents strongly agree, 124(66.3%) of the respondents agree and 2(1.1%) of the respondents disagree with a mean value of 1.70 that the ATM service are convenient in terms of time saving. From the results obtained it could be concluded that almost 98.9 percent of the bank's customers agree on the issue that ATM banking services save time. This implies that ATMs significantly reduces time that would have been spent in the-banking hall to transact business. The result support by worku et al., (2016), Milkessa et al., (2016) and Calisir & Gumussoy, (2008).

Table: 4.7. Customers’ level of satisfaction with service delivery regarding E-Banking service

No	Statement	Mean	SDV	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
				F	%	F	%	F	%	F	%	F	%	F	%
1	Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom	3.91	.743	4	2.1	12	6.4			151	80.7	20	10.7	187	100
2	Customers have high degree of trust on the bank and satisfied with security of electronic banking service provided by the Bank	3.03	.895	2	1.1	66	35.3	44	23.5	75	40.1			187	100
3	Customers are satisfied by government policies implemented for electronic banking like prohibiting cardholders from making payments for international transactions	3.78	.764	5	2.7	10	5.3	20	10.7	139	74.3	13	7.0	187	100
4	Does your e-banking services increased the degree of customer satisfaction	2.57	1.01	24	12.8	80	42.8	35	18.7	48	25.7			187	100

Note: 'F' stands for frequency and '%' stands for valid percentage value

Source: Own survey Result, 2017

Table 4.7. No 1 shows that 4(2.1%) of the respondents strongly agree, 12(6.4%) of the respondents agree, 151(80.7%) of the respondents disagree and 20(10.7%) of the respondents strongly disagree with a mean value of 3.91 that the Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom. From the results obtained it could be

concluded that majority of the bank's customers disagree on the issue. This implies those customers are experienced low speed to complete their ATM transaction. the study also supported by an interview to triangulate with the survey result: The respondents replied that there is no special deal with regulatory body to minimize the network and power failures. therefore, this can be contradict with the issue that e-banking spends a great deal of time and money for developing ATM-banking functionality.

This study supported by Alemayehu & Jacqueline (2011), Khalfan *et al.*, (2006), Sathye (1999), Wondwossen and Tsegai, (2005) and Ayana (2014): indicated that lack of available ICT infrastructure in the country inhibits to use e-banking system. Moreover Tekabe and Gadise (2016): indicate e-payment system needs a network to provide service to the user. According to the user said that most of the machines fails to provide a service because of poor network connection.

Table 4.7. No 2 shows that 2(1.1%) of the respondents strongly agree, 66(35.3%) of the respondents agree, 44(23.5%) of the respondents are neutral and 75(40.1%) of the respondents disagree with a mean value of 3.03 that the Customers have high degree of trust on the bank and satisfied with security of electronic banking service provided by the Bank. From the results obtained it could be concluded that majority of the bank's customers disagree on the issue, at the same time some customer are agree and neutral on the issue. This implies that customer still scare operational risk related with card banking. This finding is also supported by Ayana(2014),Khalfan et al., (2006), Sathye (1999), Wondwossen and Tsegai, (2005): stated security issue is a barrier and also the greatest challenge among the electronic banking sector is winning the trust of customers in the issue of security or perceived security risk.

Table 4.7. No 3 shows that 5(2.7%) of the respondents strongly agree, 10(5.3%) of the respondents agree, 20(10.7%) of the respondents are neutral, 139(74.3%) of the respondents disagree and 13(7.0%) of the respondents Strongly disagree with a mean value of 3.78 that the Customers are satisfied by government policies implemented for electronic banking like prohibiting cardholders from making payments for international transactions. From the results obtained it could be concluded that majority of the bank's customers disagree on the issue. This implies that the card holder would like to settle international transaction using their own card like MasterCard, Visa and Union Pay and also they desire foreign bank to operate in the country. Hence, the regulatory body did not allow foreign banks to operate in the country, these is due to protecting of local banks from the well developed foreign bank competition.

Therefore, the study supported by Ayana (2014), Garedachew (2010) and Milkessa et al., (2016): revealed that lack of legal frame work is one of major challenges in adopting e-banking in Ethiopia, in contrary the study of Wondwossen and Tsegai (2005) revealed that an adequate legal structure and security framework could encourage the use of E-payments in Ethiopia.

Table 4.7. No 4 shows that 24(12.8%) of the respondents strongly agree, 80(42.8%) of the respondents agree, 35(18.7%) of the respondents are neutral and 48(25.7%) of the respondents disagree with a mean value of 2.57 that the e-banking services increased the degree of customer satisfaction. From the results obtained it could be concluded that majority of the bank's customers agree on the issue. This implies that even if there are different obstacles that the customers infer regarding security, speed and other reason, they still satisfy due to accessibility, convenience, service charge and time saving. This result supported by Worku et al., (2016): indicate e-banking has given them more satisfaction than ordinary one.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary of the major findings

- The result of the study shows that over half of the respondents that is 80.7% of the respondents are satisfied with ATM service accomplish their banking activity more quickly.
- The study further shows approximately 132(70.6%) of the respondents agree on the card holder get service from all banks found in Ethiopia since the national payment system interconnected the ATM system without any restriction.
- It is also found that 47.1% of the respondents agree the banks aware their customers know the charge of getting service from the home bank is similar with the charge of getting the service from other PSS member banks' ATM terminal
- Majority of the respondents which is 51.9% are disappointed with regard to dispute handling process and the time it takes to refund charge back request.
- 48.1% of the respondents agreed that their perception about ATMs service delivery had changed radically.
- The customer trust the technology of e-banking product but they still fears risk related with ATM banking because robbery of money when people are doing transaction by ATM machine at night ,lost their card , PIN and other kind of incidents happened a number of times.
- It is found that 41.7% of respondents are agree the member bank provide a power back up since there is frequent interruptions of ATM service due to electric power while 39.6% of respondents disagree with the issue.
- The member bank customers have sufficient knowledge regarding any security question.
- 55.6% of the respondents agree on ATM machine reduces daily operating cost by reducing the queuing system within the branch and also minimize the working force.
- It's found that 84.5% of the respondents agree lack of government support towards E-banking implementation that enforces banking industries to implement technological innovations.

- Customer of member banks are user friendly with ATM machine services whereas 77% of the respondents show that the management also provide training course to the staff when new technology applied
- Most of the customers which is 80.7 % of respondents are not satisfied with the speed of internet and infrastructure provided by Ethio telecom due to low level of internet penetration, poorly developed telecommunication infrastructure and poor interconnectivity among banks to implement the system.
- The studies revealed that customer have high trust on the bank but still fear risk regarding on security issue. Moreover, 51.3% of the respondents dissatisfied with security risk since it is one of the major issue hindering the growth of e-banking service.
- It's found that 55.6 % of the respondents agree ATM-banking service enhancing the degree of customer satisfaction.

5.2. Conclusion

Based on the analysis made in chapter four the following conclusions are made on assessment of customer satisfaction with ATM-banking. it is evident that electronic banking is apparently becoming a matter of need and holds the key that will help the banking industry to formulate their marketing strategy as well as continue to compete in the globalized network and gain market competitive advantage. Hence, the fact that the Member banks made an agreement with EthSwitch S.C. in order to shared the ATM facility gives them many advantages to deliver the service to their respective customers and in fact it has an opportunity to all customers to withdraw money from each ATM machine terminals.

From the study reveals that technological innovations like ATM-banking are convenient in terms of time saving, easily access and look like user friendly, providing power backup, use extra feature for security system, enhancing competitive position, similar service charge, reducing daily operating cost, reduced number of customers visiting the branch and unlimited time of access to bank account. Moreover, in order to create awareness the banks should also offer proper education and training to the customers and employees emphasizing the relative ease and safety in using ATM-banking services so as enhance their overall confidence in the use of electronic banking services in the long term. Despite of the above improvement it brings the research finding shows that there is satisfaction, The following are the major problems encountered, delayed on response time in case of dispute handling, daily withdrawal

limit set for ATM, Telecommunication infrastructure found to be poor to perform electronic based transactions and this becomes a serious obstacle for the implementation of ATM-banking in the country. In addition to this even if the customers trust the technology that is being used for conducting electronic banking business whereas they fear operational risk related with card banking. For this reason, they may not have full confidence to use ATM banking services mainly for security related issues.

ATM-banking implementations are not only confined to the above factors. Lack of government support towards E-banking implementation and absence of legal frame work in e-banking also hinder full implementation of ATM-banking. Therefore, based on the findings the researcher came up with the following recommendation to overcome the hindrance and exploit the available opportunity involve to this excessive emerging market.

However, even if there are problems occur during implementation of ATM-banking, the number of transaction made by customer increase from time to time hence, the researcher revealed that customer of member bank still prefer to get service provided by the national payment system and PSS.

5.3. Recommendations

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

- Electronic journals collection from ATM must be automated. hence this enable timely availability of electronic journals for e-banking dispute handling officer to handle chargeback issue.
- In order to solve the delay of dispute handling in ATM the EthSwitch S.C. must review the time scheduled set for charge back issue.
- The withdrawal limit set by the member bank authorizer for ATM must be changed like personal or corporate internet banking.
- The government should support banking sector by investing on ICT infrastructure enlargement
- The member banks HRM must review the benefit of the employees in order to minimize operational risk related with card banking.
- Each ATM terminal must have its own power backup just like the recent machine available.

- In order to be on the right track of the fast changing technological innovations like E-banking, member banks should therefore continually train their employees who will in turn pass the knowledge to their customers hence the issue of perception is dealt with. Training will help improve confidence as well as improve innovation. By training its employees they will realize the benefits of e-banking services both to them and to their customers hence improve on customer service delivery of e-banking services.
- In order to change the perception of customers the member bank should organized official trainings to their customers through vigorous campaign, advocacy through seminar and workshop. The member bank should also use pamphlets in banking lobby and billboards to enhance customer awareness about ATM banking.
- In order to avoid the note jams the quality of notes must be selected before entering to the ATM since it affect during transaction processed.
- Member banks constantly improve and upgrade their e-banking system's security, since security & privacy are the most important issues for customers to use ATM banking. In this regard, the member banks should provide security measures to their customers that demonstrates full authentication, privacy, completion of transaction from start to end and its confirmation. Moreover, the national bank of Ethiopia in aligned with all EthSwitch S.C. member in the country they should acquire latest computer programs that enable banks to have a powerful technique for security related issues. Therefore, this can protect from hackers before losing their resource just like CBE recently attack.
- In order to change the perception, the bank will be required to post security provisions on their websites so as to increase confidence and improve trustworthiness of the e-banking systems.
- In order to achieve ATM banking system ICT infrastructure is the most important precondition, hence EthSwitch S.C. and PSS member banks must negotiate with Ethio Tel Com in order to avoid interruptions during transaction processed.
- The National bank of Ethiopia need to review a clear set of legal frame work concerning ATM offered.

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APPENDICES



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St. Mary's University, Ethiopia

School of Graduate Studies

Dear Sir/Madam

I am studying a Master of Business Administration at **St. Mary's University**, I have designed the following questionnaire for the study on **“Assessment of customer Satisfaction with E-Banking: Empirical evidence from Selected Commercial Banks in Ethiopia ”**, which required for research work as an integral part of my study. The purpose of this questionnaire is to give you a chance to tell how you feel on E-banking and customer satisfaction in Ethiopian banks; the case of Premier Switch Solution and EthSwitch S.C. S.C. On the basis of your answers, I hope to get a better understanding of the things concerning the E-banking and customer satisfaction. The information that will be gathered will be used for academic purpose only. Your response will be totally anonymous and the highest degree of confidentiality and will be maintained. I therefore request you to answer the following questions as honestly and as openly as you can.

Thank you for your cooperation!

**Regards,
Ermias Kibru
Email: ermiaskibru64@gmail.com**

Part I: Demographic Information

Please respond to the following statements by ticking (√) one answer from each question that applies to your circumstances.

1. Gender:

Male ()

Female ()

2. Age:

18 – 25yrs ()

26 – 33yrs ()

34 – 41yrs ()

42 yrs and above ()

3. Educational level:

Certificate ()

Diploma ()

Degree ()

Masters Degree ()

Other, please specify.....

4. For how long have you served in this bank/working with the bank/

5yrs and below ()

6 – 10yrs ()

11yrs and above ()

Part II: please indicate the degree to which you agree or disagree with the following statements regarding E-Banking services in your bank. Use the scales below as a guide and putting a (√) mark in the space provided.

1=Strongly Agree (SA)

2=Agree (A)

3=Neutral (N)

4=Disagree (D)

5=Strongly Disagree (SD)

	Service offered by the PSS member banks	SA	A	N	D	SD
1	Using E-Banking service enable me to access my account more quickly.					
2	I am well informed that I can use my ATM card to get the service in six PSS member banks' and EthSwitch S.C. ATM terminals.					
3	The banks properly maintained customer compliant handling procedure in case of problems experienced in connection with ATM services.					
4	I am well informed that the charge of getting service from my home bank is lower than the charge of getting the service from other PSS member banks' ATM terminals.					
5	I am informed that I can receive a text alerts whenever my account debited or credited					
6	I am well informed that once a funds transfer has been scheduled, I can cancel or edit it					
	Question related with customer's perception					
7	Customers fears risks related with using of E-banking services					
8	Customers do not trust the technology of E-banking services					
9	The introduction of National payment system (EthSwitch S.C.) by National Bank Of Ethiopia has positively affected service delivery					
	Question related with the contributions of the change in ICT application process to the customer					
10	E-Banking provide power backup and data recovery system to avoid interrupted transactions in case of power failure					
11	I am well informed what should I do, if I forget to answer my security question and/or have been locked out of Online					
12	Does your bank believe that E-banking services will enhance your competitive position in the market					
13	Does your bank believe your e-banking services have helped to reduce your banks daily operating cost					
14	Does your bank believe more customer training/ education is needed in promoting e-banking services					
15	Does your bank believe current customers' personal information security is better than it was before					
	Challenge and Prospect of e-banking from the customer point of view					
16	In the case of using ATM banking, security risk affect users decision to use the system					
17	Lack of sufficient government support will affect customers willingness to use technological innovation					
18	Customers of our bank were not familiar with service provided though ATM					
19	The management of the bank provides training courses for its staff when introducing new services.					
20	E-banking; such as ATM services are enables users to complete basic banking activities more quickly and easily					
21	E-banking such as ATM service are convenient in terms of time saving					
	Question related with satisfaction of customer					
22	Customers are satisfied with the speed of internet & infrastructure provided by Ethio-Telecom.					
23	Customers have high degree of trust on the bank and satisfied with security of electronic banking service provided by the Bank.					
24	Customers are satisfied by government policies implemented for electronic banking like prohibiting cardholders from making payments for international transactions.					
25	Does your e-banking services increased the degree of customer satisfaction					

Part III: E – Banking Items

Please respond to the following items by selecting the appropriate response suitable for you.

26. The introduction of EthSwitch S.C. services by NBE changed your perception about service delivery in PSS?

(a) Yes [] (b) No []

27. If yes, state how you now perceive the National E-payment system

.....
.....
.....

28. Which of the following do you perceive is the major benefit associated with using E-Banking services? Please select only one major benefit and give your reason(s) in the spaces provided.

A	Time savings
B	Easy carrying out transactions
C	Quality of moneys dispense
D	Privacy in banking
E	Twenty four (24) hour services operation

29. Please explain your reason(s) for the benefit selected?

.....
.....
.....

30. Are there any other benefits you perceive is associated with the E-Banking service not captured above?

.....
.....
.....

Part IV. INTERVIEW QUESTIONS

1. Do you think employees of e-banking service providers possess the required skills and knowledge to perform the service?
2. Do you believe e-banking spends a great deal of time and money for developing ATM-banking functionality to allow customers an easy and convenient way to manage their money?
3. Do you believe Customer's financial information may not be passed on to other organizations without consent of customers?
4. Do you think e-banking service users believe that the banking infrastructure is reliable in correcting erroneous transactions related with ATM banking?
5. Do you believe ergonomic visual structure and design are particularly important for using ATM-banking services?

DECLARATION

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

Name

Signature & Date

ENDORSEMENT

This is to certify that Ermias Kibru has carried out his research work on the topic entitled **“Assessment of customer satisfaction with E-Banking: Empirical evidence from selected Commercial Banks in Ethiopia”** The work is original in nature and is suitable for submission for the reward of the MBA Degree in General Business Administration.

Advisor Temesgen Belayneh (PhD) _____