



ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

**FACTORS AFFECTING CUSTOMERS' SATISFACTION WITH REFERENCE TO
ELECTRONIC PAYMENT SYSTEM IN ETHIOPIAN BANKING SYSTEM: THE
CASE OF COMMERCIAL BANK OF ETHIOPIA.**

BY

YIRMED DAMEN

DEC, 2018

ADDIS ABAB, ETHIOPIA

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**A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY, SCHOOL OF GRADUATE
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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Ass.Prof Wondimneh Mamo. 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.

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Dec, 2018

ENDORSEMENT

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

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LIST OF ABBREVIATIONS AND ACRONYMS

ATM- Automatic teller machines

E-banking -Electronic banking

TPB: Theory of planned behavior

CBE-commercial Bank of Ethiopia

NBE-national Bank of Ethiopia

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ABSTRACT

This study is conducted with the purpose of examining factors affecting customer satisfaction referencing electronic payment in Ethiopia in the case of commercial bank of Ethiopia. The study was conducted based on data collected from staff and customers of commercial bank of Ethiopia through questionnaires and interviews. The collected data was then coded and inputted on SPSS for descriptive and inferential statistical analysis.

The response of interviews and the survey show that there are certain issues that become a challenge for the use of EPS in Ethiopia. In this regard, the result of the study indicated that the major challenges for the use of EPS in commercial bank of Ethiopia are lack of awareness and information, inadequate point of sale terminal, lack of governmental support, Security risk, lack of trust, shortage of skilled professionals, and lack of adequate infrastructure, functionality of technology and economical problem.

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

Keywords: E-payment, Customers satisfaction, Commercial Bank of Ethiopia

CHAPTER ONE

INTRODUCTION

1.1 Background Of The Study

In general sense, “Bank” means financial institution that deals with money. Currently, there is rising competitiveness in the financial service market which resulted in force to modernizing and expanding its hand in different financial delivery mechanisms to stay and sustain in the market. A strong banking sector is vital in every nation and can have an important consequence in supporting economic development through efficient financial Services. The role of the banking sector is going with the globalization movement at the practical level. At the same time the banking process is becoming faster, easier and is becoming wider. In order to survive in the competitive field of the banking sector all organizations are looking for better service opportunities to provide their fellow clients.

For last few years, e-payment is a very common service that is provided by most of the commercial banks in Ethiopia. It is one of the most recent channels of distribution used in the financial services organizations is electronic banking; this method was established in the mid-1990s, thereafter steadily becoming more important . The term electronic payment refers to "the provision of information or services by a bank to its customers, via a computer or television (Allen and Amin. 2011). E-payment is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (White and Nteli 2004). E-banking includes the systems that enable financial institution, customers, individuals and businesses to access accounts, transact business or obtain information on financial products and services through a network including the internet (Siriluck and Speece 2003). E-Payment is a subset of an ecommerce transaction to include electronic payment for buying and selling goods or services offered through the internet. When we think of electronic payments as referring to online transactions on the internet, they are actually many forms of electronic payments. As technology developing, the range of devices and processes to transact electronically continues to increase while the percentage of cash and check transactions continues to decrease. The evolution of e-payment started from the use of Automatic Teller Machines (ATM) and Finland is the first country in the world to have taken a lead in e-payment (Mishra and Kiranmai, 2009).

Electronic payment has been widely used in developed countries and is rapidly expanding in developing countries. However, the slow diffusion of e-commerce to African countries has been attributed to a number of issues some of which may be unique to the African continent (Darley, 2011). In Ethiopia commercial bank of Ethiopia being the pioneer in introducing ATM based payment system but Dashen Bank is the first to fully implement this system in the country. E-payment is a self-service that allows customers to perform financial activities over the Internet (Aladwani, 2001; Tan & Teo, 2000). There is not a single basic definition of e-payment that is being used universally. There has been a lack of consensus in the definition given by researchers (Sathye, 1999). Regardless of the differences in definition, e-payment refers to many kinds of electronic services through which bank customers can request information and get most of the retail banking services via a computer. E-payment provides a change from the traditional way of face-to-face contact at a bank's counter during office hours to a remote way by online network connection anywhere at any time (24 hours a day, seven days a week). In general e-payment provides many benefits not only for a bank's customers but also for a bank itself as well (Hu and Liao, 2011).

The benefits the users gain include convenience and flexibility. This is because these new services can be easily be accessed at any time from any locations with up-to-date information, efficient and effective response time, and user friendly use of the technology (Aderonke and Charles, 2010; Pikkarainen, Karjaluoto and Pahlila, 2004). Users also enjoy a self-service, reduced stress of standing in line in front of bank employees, and reduction in transaction cost (Hu and Liao, 2011). E-payment also offers benefits to service providers. It offers them the opportunity for cross-selling banking services and products, thus improving performance. It is also extending their services by making the service available at all times of the day. This enhances the banks competitive position (Pikkarainen and Ancker, 2004). Furthermore, e-payment enables the bank to satisfy customer needs, create new distribution channels, and improve the bank image. Additionally, it decreases their operation costs when compared to that of the traditional branch-based banks.

As explained above e-payment provides many advantages for bank and customers as well. Therefore, many banks have invested heavily in e-payment services. Although e-payment provides many benefits, many individuals still refuse this service. Since the acceptance or rejection of new technology depends on the factors that influence individuals' behavioral intention toward this technology. Apart from good plans that the Commercial Bank of

Ethiopia has, the Customers complains on E- payment increases. These complains from the Customers indicates that there are not satisfied with the services on e-payment from Commercial Bank Ethiopia. This may lead to bad reputation of the Commercial Bank of Ethiopia as a result Customers may shift to other Banks which may think can satisfy them therefore, this research investigated factors that affect or influence individuals' acceptance of e-payment services, and used commercial bank of Ethiopia Addis Ababa region as the sampling frame. To my knowledge, no study has been done to factor affecting customer satisfaction referring to e-payment regarding commercial bank of Ethiopia, from this background.

1.2 Background of The Organization

The National Bank of Ethiopia was established in 1963 proclamation 206 of 1963 and began operation in January 1964 prior to this proclamation the bank used to carry out dual activities i.e. commercial banking and central banking. The proclamation raised the Banks capital to Ethiopian dollars 10 million and granted broad administrative autonomy and juridical personality. The Commercial Bank of Ethiopia (CBE) is the leading bank in Ethiopia, established in 1942. At the moment CBE has more than 15.9 million account holders and also it has strong correspondent relations with more than 50 renowned foreign banks and SWIFT bilateral arrangements with 700 others. The CBE is noted as the pioneer of modern banking the country. It was the first bank to serve Automatic Teller Machine (ATM) services for its locals and the first to serve western union money transfer services in the country early 1990s and currently working with other 20 money transfer agents like money gram, bole Atlantic international, x press money and others. In the long years of its market existence, CBE has ensured sustainable profitability with strong support to the country's economic growth, expanded its branch network covering large geographical areas, substantially increased its customer base and capital site and hence it becomes one of the top African banks in terms of in directing Ethiopia's economy towards development and progress. As on June 30th 2017 This government owned bank holds more than 485.7 billion Birr worth of assets with around 33,000 employees, making it one of the largest bank in the country. By the year 2012/2013 the bank posted a gross profit of 8.4 billion birr and according to a performance report tabled by the office of strategy and management with the Bank, the fiscal year also saw

the opening of additional 148 branches. It is also effectively serving its customers in Juba, Sudan, since it received a regulatory approval in 2009 ([Http://www.cbebanketh.et](http://www.cbebanketh.et)).

1.3 Statement Of The Problem

Due to the rapid advances in telecommunication and computer technology development in the past decade, the e-payment has become the fastest growing marketplace in the world. It has emerged as the leading medium, and innovative distribution channel for businesses (Hua, 2009). The e-payment system has transformed the traditional retail banking into electronic banking. The electronic payment is one of the e-commerce tools that are adopted by the banking industry. E-payment is playing a critical role in improving the banking industry (Michailidis, Daghfous and Luarn, 2011). Banking practices have undergone significant changes since the advent of the Internet (Black, Chen and Chmielar, 2001). Banks provide many services online, which are extremely convenient for banking customers. Electronic payment has existed for decades, starting with automatic teller machines (ATM) in the late 1960s.

Commercial bank of Ethiopia has been moving towards the cyber financial system since the year 2006. The government owned commercial bank of Ethiopia has introduced the electronic payments (ATM) for the first time to facilitate payment 2010. In spite of commercial bank of Ethiopia great efforts to provide easier and more useful financial services systems, CBE customers' adoption of e-payment financial services has been slower than anticipated. This is despite the fact that people can perform fast and convenient financial transaction using e-payment services. Customers can easily access their up-to date account information at any time (24 hours a day, seven days a week, and 365 days a year) from any locations around the world. However, regardless of the benefits obtained from e-payment, e-payment in Ethiopia Bank is passing into different challenges. E-Payment 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-payment is a good option. Payment lacks one thing most bank institutes thrive on customer service. E-Payment is conducted by the customer instead of a bank teller, so there is no face-to-face interaction. The customers do not seek any additional services or help on by pro-actively contacting the bank. Some customers refuse to use these services because they feel they are entitled to in-person customer service. On the other hand, there are⁴Customer's complains on the issues with

security and accuracy. These complain have made some of the Customers not frequently use e- payment and consequently lead to an increase of queue inside a Bank. Queue inside a Bank has leads to unnecessary overcrowding of Customers inside a Bank which affects performance of the Bank. Therefore, this study aimed to answer a general question what are the factors that affect customer satisfaction on the use of e-payment in Ethiopian banks?

1.4 Objective

General objective

The general objective of this study is to investigate factors that affect customer satisfaction referring to e-payment system in Ethiopia banks, focusing on Commercial bank of Ethiopia.

Specific objective

1. To investigate the main organizational factor (like human and financial resource) that affect customer satisfaction
2. To identify strategic factor (like product attribute and marketing campaigns) of e-payment that affect customer satisfaction.
3. To evaluate whether the technology readiness contribute to explain additional variance in individuals intention to accept e-payment services
4. To determine economical cost and efficiency factors that enhances the use of e-payment to create customer satisfaction.
5. To analyze where the technology functionality affecting the consumer's attitude to use electronic payment services

1.5 Research Questions

1. Is e-payment systems user satisfaction affected by organizational factor?
2. What are the main strategically factors of e-payment systems that affect customer satisfaction.
3. Does the technology readiness explain additional variance in customer satisfaction?
4. Is the technology functionality affecting the consumer's attitude to use electronic payment services?
5. What are the economic factors which enhances the use of e-payment system in commercial Bank of Ethiopia?

1.6 Hypothesis Development

H1: Higher level of organizational flexibility of e-payment adoption leads to higher level of customer satisfaction.

H2: Higher level of technological innovation in-payment leads to higher level of customer satisfaction.

H3: Higher level of strategic endorsement in e-payment leads to higher level of customer satisfaction.

H4: Higher level of functional performance in-payment services, leads to higher level of customer satisfaction.

H5: Higher level of economic cost e-payment services leads to lower level of customer satisfaction.

1.7 Significance Of The Study

The study is significant to the banks and financial institutions customers, stake holders and to the existing body of knowledge and literature related to e-payment in Ethiopia. The result of this study will enable the supervision body- the Central bank, to understand the current issue on e-payment. This study also will be beneficial for the academic institutions and individuals who might be interested in carrying out related researches in the future. The findings also will help the policy makers to reexamine regulations on e-payment in Ethiopia. In other words, this study is very useful for two levels including the practical level and the academic level.

1.8 Scope Of The Study

The study has been conducted at commercial bank of Ethiopia Addis Ababa city branches stretching in the four districts at Addis Ababa area. So that, this paper did not consider the cases of districts of commercial bank of Ethiopia which are located out of Addis Ababa city. Furthermore, it does not consider the cases of other commercial banks operating in the town due to their different orientation, ownership, time and cost matters.

1.9 Limitations Of The Study

Within the scope of the study, the problem of getting most appropriate interviewees to answer the questionnaire willingly was envisaged. However, the researcher ensures that respondents gave relevant information concerning the study. Furthermore, some important official documents that would allow the researcher to carry out the study were not released by the bank since they are confidential. Therefore, referencing some of the information from records was not detail. Time and resource constraints also limited the study.

1.10 Organization Of The Paper

The study contains five chapters. Chapter one is the introduction part which Contains the back ground, the statement of study, objectives of the study, research questions, significance of the study and scope of the study.

Chapter two is all about the review of related literature that includes the theoretical, empirical and conceptual framework reviews.

The third chapter is about the research methodology involving the research design, source of data and collection method, sampling techniques and size, data analysis method and ethical consideration.

The fourth chapter is also about the discussion, data analysis and interpretation parts. The last chapter, chapter five, is also about the summary, conclusion and recommendation part.

CHAPTER TWO

REVIEW OF RELATED LITERATURES

2.1 Theoretical Review

This chapter comprises of conceptual definitions, Types and channel of e-payment system, different factors of e-payments systems that affect customer satisfaction are presented.

2.1.1 Meaning of E-Payment

The concept of electronic banking has been defined in many ways; Daniel defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery plat forms that can be used with different terminal devices such as personal computers and mobile phone with browser or desktop software, telephone or digital television (Aldas-Manzanoand and Incau, 2009). Electronic payment defined as any use of information and communication technology and electronic means by a bank to conduct transactions and have interaction with stakeholders (Goj,Abid and Noreen, 2006).

It also defined electronic payment as a system of payment whereby transaction takes place electronically without the use of cash. E-payment is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone,etc. The concept and scope of e-banking is still evolving. It facilitates an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably (Healy, 1999). He argues that electronic banking is a product of e-commerce in the field of banking and financial services (Child, 1975). In what can be describe as business to consumer domain for balance enquiry request for cheque books recording stop payment instruction balance transfer instruction account opening and other forms of traditional banking service. Banks are also offering payment services on behalf of their customer who shop indifferent e-shops.

2.1.2 Types Of Electronic Payment Systems

Currently there exist more than hundred e-payment systems. Some e-payment systems are simply electronic versions of existing payment systems (e.g. online credit card). Some others are based on digital currency, which enables storage and exchange of values digitally (Tadesse and Kidan 2005). With the growing complexities in the e-commerce transactions, different electronic payment systems have appeared in the last few years. At least dozens of electronic payment systems proposed or already in practice are found (Marthy, 2002).

2.1.2.1 Online Credit Card Payment System

Online credit card payment system is the most common type of payment system for e-commerce. This payment system has been widely accepted by consumers and merchants throughout the world, and by far the most popular methods of payments especially in the retail markets (Laudon and Traver, 2002). This form of payment system has several advantages, which are never available through the traditional modes of payment. Some of the most important are: privacy, integrity, compatibility, good transaction efficiency, acceptability, convenience, mobility, low financial risk and anonymity. However, online credit card payment seeks to address several limitations of online credit card payments for merchant including lack of authentication, repudiation of charges and credit card frauds (Singh, 2009).

2.1.2.2 Electronic Payment Based On Trusted Third Party

Since there is no face-to face interaction in most e-commerce transactions, the payment system must be strongly secured. Trust is also another important factor that has to be considered. Towards this end, most electronic payment systems used for e-commerce are based on the idea of Trusted Third Party (TTP). TTP provides trust, security, identification and authentication, which are highly desirable in these kinds of payment schemes. The specific role of the TTP varies from one payment system to another. In some payment systems such as Cyber Cash the role of TTP is limited to serving as a channel of communication between the open Internet and close financial networks. In other systems,

such as PayPal and First Virtual, both buyers and sellers have to open account in the TTP and transfer money into their TTP account (Tadesse and Kidan, 2005).

2.1.2.3 Electronic Cash (Digital Cash)

Electronic cash (e-cash) is a new concept in online payment system because it combines computerized convenience with security and privacy that improve on paper cash. E-cash is an electronic or digital form of value storage and value exchange that have limited convertibility in to other forms of value and require intermediaries to convert (Singh, 2009)

Electronic cash has got some similarities with real money such as privacy, transferability and convenience, low transaction cost, good acceptability, authority, like real money, digital cash is totally anonymous. However, there is also a type of digital cash called an identified e-money, which reveals the identity of the person who first withdrew the money from the bank. But unlike real cash, digital cash cannot be instantly converted to other form of value without the involvement of a third party like bank. Privacy in digital cash is achieved using blind signature without the involvement of TTP. This is in contrast with other e-payment systems (Tadesse and Kidan, 2005).

2.1.2.4 Electronic Cheque Payment System

Electronic cheques address the electronic needs of millions of businesses, which today exchange traditional paper cheques with the other vendors, consumers and government. Electronic cheque also known as e-cheque and I-cheque are used to make electronic payment between two parties through an intermediary and not very much different from the traditional or current cheque processing system. Electronic cheques are generated and exchanged online (Juang, 2006). Electronic cheque system has many advantages: they don't require consumers to reveal account information to other individuals when setting an auction, they don't require consumers to continually send sensitive financial information over the web, they are less expensive than credit cards and they are much faster than paper based traditional cheque. But, this system of payment also has several disadvantages includes, they relatively high fixed costs, their limited use only in virtual world and the fact that they can protect the users anonymity (Singh, 2009).

2.2.2..5 Mobile Payments

Mobile payment (m-payment) is an electronic payment done using mobile devices. One of the main uses of m-payment is in mobile commerce (m-commerce). Instead of using cash or cards a consumer can use a mobile phone to pay for a wide range of services and goods. There are 5 million of cell phones around the world. Japan is the leading country to introduce mobile payment and it is a major payment system in Japan. Smart phone can be equipped with NFC (Near Field Communication) to communicate with reader an out 4cm away. Other approaches of mobile payment include free cash: make the payment from phone, pay pal mobile opopay, Google g pay, based on text messages (Marek, 2011).

SMS (Short Message Service), WAP (Wireless Application Protocol) and Bluetooth application are the technology that enabled m-commerce. M-payment is used for online payments and for POS (Point of Sale) transactions. Mobile devices are also used at POS terminals, vending machines, ticketing machines (Tadesse and Kidan, 2005).

2.2.2.6 Smart Card Based E-payment System

Smart cards are receiving renewed attention as a mode of online payment. They are essentially credit card sized plastic cards with the memory chips and in some cases, with microprocessors embedded in them so as to serve as storage devices for much greater information than credit cards within built transaction processing capability (Chakarabari and Kardile,2002). In e-payment smart cards are used either as storage of money or to enhance e-payment security. To use smart card it is necessary to have a smart card reader, a hardware device that communicated with the chip on the smart card. The reader can be attached with PCs, electronic cash register, etc. These are actually stored-value cards in which prepayment or currency values are electronically stored on the card chips. Compared with traditional electronic cash system, smart cards based electronic payment does not need to maintain a large real time database. They also have advantages, such as anonymity, transfer payment between individual parties, and low transactional handling cost of files. Smart cards are also better protected from misuse than, say conventional credit cards, because the smart card information is encrypted. The benefit of smart card is highly dependent on the availability of smart card reader (Singh, 2009).

2.1.2.7 Electronic Billing Presentment and Payment.

Electronic Billing Presentment and Payment (EBPP) are online payment systems for monthly bills. EBPP enables consumers to pay their bills by electronic means after they view their bills electronically. Bills, particularly monthly bills, are norms of modern life. It includes, electronic bills, telephone bills, etc. are some instances. EBPP enables consumers to pay their bills by electronic means after they view their bills electronically. Actors for EBPP include customers, commercial banks and third party processors. Third party processors facilitate bill presentment and payment (Tadesse and Kidan, 2005). Bill processing is costly. From the time the bills are issued to the time they are paid, a substantial amount of cost is incurred. Electronic payment systems reduce considerably the cost associated with paying bills (Laudon and Traver, 2002).

2.1.3 Features and Benefits of E-payment

All e-payment methods share number of common characteristics (Gardachew, 2010). These are: independence, inter-operability and portability, security anonymity, divisibility ease of use, transaction fees, convenience, cost, control and traceability. Electronic payment system is most beneficial for online sellers, because it allows them to transact sales online rather than being confined in a local brick store. It reduces operational and processing cost at the same time saves paper for receipts. It allows merchants to reach out to the global market. Depending on the company, it offers security for credit and debit card payments. Blue Snap is a great example of a reliable gateway for online payments. In time for this season, consumers can now shop online avoiding long mall lines and heavy traffic during holidays ([Http://www.answers.com/topic/payment](http://www.answers.com/topic/payment)). In general e-cards offer a number of benefits to the issuing banks and customers of the bank including: Enhance payment security, Reduce Undeliverable payments via electronic delivery to the card account, Prevent fraud through automated controls, Increase customer satisfaction and enhance services to constituents, Improve operations efficiency and profitability of the issuing banks, Reduce printing, mailing and financial handling costs associated with processing transaction, For any buying and selling activity it is so much more convenient, It saves time or much faster than carrying cash. Electronic payments have significant number of economic benefits apart from their convenience and safety. These benefits when maximized can go a long way in contributing immensely to economic development of a nation! The high level of cash transactions creates

an opportunity for the electronic payment industry, it also impossible a cost on local economies. Cash has to be omitted, securely transported, counted and reconciled, kept secure and maintained for reuse time and time again. The per payment cost is high, will always remain high whereas the costs of electronic system are fixed. Once the infrastructure has been built, the costs per- transaction is very low (Cob, 2005). Automated electronic payments act as a gate way into the banking sector and as a powerful engine for growth such payments draw cash out of circulation and in to the banking accounts, providing low cost funds that can be used to support bank lending for investment adviser of overall economic activity. The process creates greater transparency and accountability, leading to greater efficiency and better economic performance (Alshaikh, 2005).

2.1.4 Delivery Channels of E-payment

E- Banking services are delivered through various electronic means collectively called Electronic delivery channels. Electronic payment is really not one technology, but an attempt to merge several different technologies. Each of these evolved in different ways, but in recent years different groups and industries have recognized the importance of working together (Abor, 2004). The various delivering channels for E-payment are discussed as follows.

2.1.4.1 Automated Teller Machines (ATMs)

ATM is also called 24-hour tellers are electronic terminals which give consumers the opportunity to bank at almost any time (FTC, 2006). ATM banking is one of the earliest and widely adopted retail E-banking services in Ethiopia (Gardachew,2010). It is described as a combination of a computer terminal, record-keeping system and Cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerized records 24 hours a day (Rose, 1999).

To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number. Once the customer login, access to transactions are displayed on the screen. It offers several retail banking services to customers. They are mostly located outside of banks, and are also found at airports, malls, and places far away from the home bank of customers. They¹³were introduced first to function as cash

dispensing machines (Abor, 2004). Some ATMs charge a usage fee for this service, with a higher fee for consumers who do not have an account at their institution. If a fee is charged, it must be revealed on the terminal screen or on a sign next to the screen (Rose, 1999).

ATM services have a lot of advantages. They include an increase in productivity during banking hours if the service is available in addition to the human tellers. They are a cost-effective way of achieving higher productivity per period of time. According to Rose (1999), an ATM transaction is an average of about 6,400 per month compared to 4,300 for human tellers. Furthermore, it saves customers time in service delivery as an alternative to queuing in bank halls, customers can invest such time saved into other productive activities (Abor, 2004). In addition, ATMs continue to serve customers while human tellers in the banking hall have stopped work, thereby increasing productivity for the banks.

2.1.4.2 Personal Computer Banking Services

PC-Banking is a service which allows the bank's customers to access information about their accounts via a proprietary network, usually with the help of proprietary software installed on their personal computer. Once access is gained, the customer can perform a lot of retail banking functions. The increasing awareness of the importance of computer literacy has resulted in increasing the use of personal computers. This certainly supports the growth of PC banking which virtually establishes a branch in the customers' home or office, and offers 24-hour service, seven days a week. It also has the benefits of Telephone Banking and ATMs (Abor, 2004). It offers consumers the convenience of conducting many banking transactions electronically using a personal computer. Consumers can view their account balances, request transfers between accounts and pay bills electronically from home.

2.1.4.3 Electronic Funds Transfer at Point of Sale (EFTPOS)

An Electronic Funds Transfer at the Point of Sale is an on-line system that allows customers to transfer funds instantaneously from their bank accounts to merchant accounts when making purchases at purchase points. A POS uses a debit card to activate an Electronic Fund Transfer Process. Point-of-Sale Transfer Terminals allow consumers to pay for retail purchases with a check card, a new name for debit card. This card looks like a credit card but

with a significant difference, the money for the purchase is transferred immediately from your account to the store's account.

Increased banking productivity results from the use of EFTPOS to service customers shopping payment requirements instead of clerical duties in handling cheques and cash withdrawals for shopping. Furthermore, the system continues after banking hours, hence continual productivity for the bank even after banking hours. It also saves customers time and energy in getting to bank branches or ATMs for cash withdrawals which can be harnessed into other productive activities (Abor, 2004). Some banks issued international cards (such as Visa, MasterCard etc.) to their customers. Such cards can be used wherever accepted, and payment on the cards can only be done through an ordinary domiciliary account of the cardholder, or any other account that may be permitted. Some of these cards are credit or debit cards.

2.1.4.4 Credit Cards

A credit card is a small plastic card issued to users as a system of payment. It allows its holder to buy goods and services based on the holder's promise to pay for these goods and services. The issuer of the card creates a revolving account and grants alien of credit to the consumer (or the user) from which the user can borrow money for payment to a merchant or as a cash advance to the user (Mavri and Ioannou, 2006). A credit card is different from a debit card in that it does not withdraw money from the users account after every transaction. The issuer lends money to the consumer to be paid to the merchant. Holders of a valid credit card have the authorization to purchase goods and services up to a predetermined amount, called a credit limit. The vendor receives essential credit card information from the cardholder, the bank issuing the card actually reimburses the vendor, and eventually the cardholder repays the bank through regular monthly payments. If the entire balance is not paid in full, the creditCard issuer can legally charge interest fees on the unpaid portion.

2.1.4.5 Debit Cards

A debit card (also known as a bank card or cheque card is a plastic card that provides an alternative payment method to cash when making purchases. Functionally, it can be called an electronic cheque, as the funds are withdrawn directly from either the bank account or from

the remaining balance on the card. In some cases, the cards are designed exclusively for use on the internet, and so there is no physical card (Mavri and Ioannou, 2006). In many countries the use of debit cards has become so widespread that their volume of use has overtaken or entirely replaced the cheque and, in some instances, cash transactions. Like credit cards, debit cards are used widely for telephone and Internet purchases and, unlike credit cards, the funds are transferred immediately from the bearer's bank account instead of having the bearer pay back the money at a later date. Debit cards may also allow for instant withdrawal of cash, acting as the ATM card for withdrawing cash and as a check guarantee card.

2.1.5 Challenges of E-Payment

E-payment has many positive impacts in the banking industry and economic development of the country in general. However, there are challenges to fully implement this system even in the developed world and also in the developing country especially in Africa. The identified challenges as revealed by previous research works are security infrastructure, regulatory and legal issues and socio-cultural challenges.

2.1.6 E-payment System Challenges in Ethiopia

E-payment in Ethiopia faces numerous challenges to fully implement it (Gardachew, 2010).

In general Challenges for e-payment system in Ethiopia are:

- Low level of Internet connection and poorly developed telecommunication infrastructure is a major challenge.
- High rates of illiteracy. Low literacy rate are a serious impediment for the adoption of E-payment in Ethiopia as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of E-payment, they should not only know how to read and write but also possess basic ICT literacy.
- High cost of Internet access relative to per capital income is critical factor compared to the developed countries, are higher costs of entry into the e-commerce market in Ethiopia.
- Electric power interruption. Lack of reliable power supply is a key challenge for smoothly running e-payment in Ethiopia.
- Cyber security issues is a global challenge that requires global and multidimensional response with respect to policy.

2.1.7 Challenges of Electronic Payment in Africa.

The following have been identified as barriers for the introduction, adoption and growth of electronic payments in the African context (Tadesse and Kidan (2005) :

- Most banks in Africa do not deliver credit cards
- Behavioral constraints: the fact that African society is cash based, people are accustomed to using cash for most of their transactions.
- Banks attitude: African banks are very conservative; they use very few innovative products and marketing techniques.
- Lack of confidence: the security issue is one of the major challenges in the development of e payments in Africa.

2.1.8 Prospects of E-payment

The following points are prospects of e- payment development (Gardachew, 2010):

- ✓ Opportunities offered by ICT through e-learning programs.
- ✓ World bank and other responsible organizations are helping developing countries to design national e-strategies
- ✓ Commitments of the governments. The Ethiopian governments consider ICT as an indispensable tool to alleviate poverty and facilitate a state transformation aiming an effective and efficient service delivery.
- ✓ Create awareness on the society regarding to e-payment.
- ✓ Enhance ICT infrastructure
- ✓ Sharing of experience developing countries regarding to e-payment
- ✓ Promote how e-payment makes life easier.
- ✓

2.2 Review of Empirical Studies

Banking industry is driven by the technological innovation, market uncertainty and competition. There has been a rapid shift from traditional banking to electronic banking. Competitive banks make significant investments in adopting new technology to align business strategies, enable innovative functional operations and provide extended customer services. Electronic payment system has been defined in deferent ways by different authors. Among these authors, electronic payment defined¹⁷ as automated delivery of financial products

and services directly to customers (Agboola, 2006). It is the use of automated processes or electronic devices such as telephone or the internet to perform financial transactions (Crede, 2012). Electronic payment system has also been defined as the use of internet and digital stored value systems, personal computers, telephones, fax machines, internet card payments and other electronic channels to implement financial transactions (Elisha, 2010).

2.2.1. Human-Technology Adoption Model

The conceptual framework for the research is incorporated from the research models used in the past. This framework is designed to study the adoption of technology and behavioral intention of users. The Technology Acceptance Model depicts that perceived usefulness and perceived ease of use determines an individuals' intention to use a system As proposed by (Drennan, 2010). Adoption of a technology in customer's point of view is the ease and usefulness he considers to avail from it. Similarly, task technology Fit model "focuses on the match between user task needs and the available functionality of the IT (Dishaw and Strong, 1999). Technology innovation bridges the gap between customer's expectation and their perceived experience of performance. The technology advancement increases the usefulness which leads to higher customer satisfaction. Delone and McLean IS success model is a "framework for IS success measures that distinguishes system quality, information quality, user satisfaction, use, individual impact and organizational impact (Livari, 2005). Furthermore, the theory of planned behavior is a theory about the link between attitudes and behavior of customer. The model assumes behavioral intention to use as customer satisfaction determined by usefulness, risk and trust. Based on the literature related to, Theory of Planned Behavior (TPB) (luern and lin, 2005) and Innovation Diffusion Theory (Chen and tsoin, 2007), E-banking Services Evaluation Criteria (Dognfous and toufail,2007), Task-technology Fit model Technology Acceptance Model (TAM) Wessel and Dreman, Delone and McLean IS success model (DMISM),the current study extends its applicability in context to E-banking adoption.

2.2.1.1 Organizational Factor

Competitive organizations actively adapt to their changing environments. With the passage of time and advent of technology, the size of organization's business must increase to gain recognition and profit. Organization's size "refers to capacity, number of personnel, outputs

(customers, sales), resources (wealth)” as suggested by (Borgatti, 2001). The organizational structure of a firm plays a pivotal role in new technology service adoption. Centralized decision making negatively affects the adoption of new technology while, decentralized decision making helps to come up with more creative and innovative ideas (Daghfous and Toufaiy, 2007). e-banking is in the growing phase of the organizational life cycle. Banks follow different programs related to organizational development like employee training and development and hiring IT professionals and competent staff is recognized by their expertise and qualification (Kim, Mallat and Dahlberge, 2009). Firms with proficient organizational structure establish its economical base to adopt a technology. Organizational factor is concerned with the organizational structure, the firm’s culture and management style as well as the flow of information (Piery, 1996). The criteria mentioned above form major portion of the organizational factor that immensely affects the organization’s services and its customers. Organizational culture is the social tie in which the employees operate, and share ideas with each other (Gillespie, Toufaiy and Daghfous, 2007). This social connection builds up the idea that the departments or units operating in a firm are the core foundations which promote advancement. Financial institutes like banks need to create their unique identity in the mind of customers because they offer almost the same kind of services. The display of corporate image in the market requires robust organizational policies and structure. Literature suggests that in banking sector, firms need to pay major emphasis on customer satisfaction and quality of service to define the difference between their bank and competitors.

2.2.1.2. Technological Factor

Increasing complexity of technology reduces the adoption of technology and makes it costly for the firm to implement. Higher technological innovation with reduced complexity is profitable for adoption of e banking as well as it increases the trust of customers on the service provider thus increasing customer satisfaction Pu’zchel, *et.al*, (2010). Comparatively traditional banking system incorporated tedious authentication and verification methods which required the customer to visit the bank personally. This activity consumed time of the customer as well as the service provider, increasing the cost and complexity and reducing profit. Technology innovation has reduced the requirement of staff at the branch, thus reducing the salaries given to them. The office setup required and other utilities are removed, thus saving firms investment, which is now used to establish computer infrastructure that operates automatically under the supervision of few skilled IT professionals, saving time and

money (Lewis, 2010). E-banking as provides the facility of entity authentication which means “users should be sure that they are communicating with the real bank, before sending sensitive information to it; banks should know the identity of a user before processing its transactions”.

Numerous researchers have followed the theoretical construct of perceived characteristics of an innovation established by (Rogers and Shoemaker, 1999), which was a part of his work on diffusion theory. According to the theory relative advantage, compatibility, complexity, trial ability and observe ability are the factors influencing adoption and diffusion of innovations. In addition to the above “more positively new users perceive an innovation with regard to these five characteristics, the greater the likelihood that the innovation will be adopted”. On the basis of this, he further classified the adopters into categories named innovators, early adopters, early majority, late majority and laggards (Cruz, 2010).

2.2.1.3. Strategic Factor

Customer loyalty and customer retention has importance over customer acquisition. The value of customer relationship management has become apparent in this competitive era of technological innovation. Trust is the backbone of any business (Sheriq, 2006). The level of risk involved varies with the nature of the product offering. The security issues are involved in customer authentication and authorization through all the stages of wireless transmission (Daghfous and Toufaity, 2007). Ease of use, transaction security, transaction accuracy, speediness, convenience, time utility, provision of different personal services, social desirability, usefulness, economic benefits, and user involvement as psychological factors associated with banking channel adoption (Gil, 2006). Successful strategy in terms of customer retention or enhancement ultimately leads to the profitability. A stream of research has argued that in banking sector, the strategic focus of banks is to remain competitive in order to retain as many customers as possible (Pullshel, 2007). They further added that retention of existing customers is more economical compared to acquiring the new ones. Long-term customers also take little time of the company and are less sensitive to price changes argued by (Healy, 1990). Thus, customer retention and customer satisfaction are the two main prospects to be catered while designing firm’s strategy. Service quality, competitive differentiation, high profit/volume, and low price or cost as market strategies prioritized by (Piery, 1996). The degree of complexity and degree of versatility in the organizational environment contributes to the confusion in decision making (Child, 1975). Uncertainty leads

to flawed decision making done by managers, which can be harmful for organization's profitability. To avoid these situations of changing circumstances, market assessment is essential. Social and technological changes have a great impact on the efficiency of banks (Cohenet, 2006). The technological development in the market and communication system has compelled banks to develop strategic marketing practices.

2.2.1.4 Functional Factor

Functional aspect of service provision to customers, in banking sector, is targeted to increase their interest and attract new customers. But to retain customers, the functionality offered must be reliable and timely. Similarly, accessibility with respect to convenience is a vital issue for the customers. Moreover timely delivery of service is also crucial or else it may cause anxiety in customers and a firm may lose them. Relationship service is the key factor that adds value to the service. Service provider must take care of this issue in order to extend the adoption of e-banking. Trust, which is a crucial factor, can be linked to customer service. Through the use of FAQ's and personnel contact to ensure reliability on the system can be created. The system must show full detail of the utility. Help material and printed material should be provided to customer. Confirmation detail is one of the functionality which broadens the aspect of trust in customers. SMS alerts cater the need to keep the customer updated with the bank transaction. Quality operations, management, staff pay and promotions and staff training and evaluation as managerial uses of customer satisfaction measurement (Piery, 1996). The evidence suggests that the functional criterion of a service has a vital impact on the customer's satisfaction level. Guidance is one of the critical features which must be provided to the customer. Help center provides proper navigation details through the system, which enables a user to gain full benefit from the utility. Functional features like speed, interactivity, accessibility and security are the desired deliverables of customers. Furthermore, feedback and complaint management are the service demanded for proper user satisfaction. Customer inquiry service must be timely for customer satisfaction and retention. Functional diversification, service quality and versatility as well as efficiency of customer inquiry service as the key factors of measuring customer satisfaction (Chmiclar, 2002). Furthermore, research shows that bank's put in their best effort to sell different products and services to customers. Today's customer's desire quality products and services along value added benefits (Cohenet, 2006). He further added that "improvement in communications

efficiency could have a significant impact on customer satisfaction and consequent behavioral intention.

2.2.1.5 Economic Factor

The important driving factor towards the adoption of technology advancement is the economic boost that it has brought to the setup. The recognition of E-payment service in e-commerce depends upon the cost effectiveness introduced to the traditional banking system. E-payment offers customers reduced service charges than traditional banking charges. This is an incentive offered by the banks to use the technology and to attract customers, to increase their profit margin. Adopting technology-based innovation can be costly as institutions require a complete setup of computers; network coverage and skilled workers to start up with. But e-technology has an advantage over other innovations as it acknowledges the existing infrastructure available in the market. E-payment network coverage provided by the telecom companies is used by the banking sector to provide their services. To cope up with the changing environment and to ensure provision of risk free technology to customers, banks invest in establishing measures to provide secure and reliable transaction of money. Investment done to ensure security must be balanced with respect to the costs, as extra costs generally increase the cost of availing a service (Soroor and Toafi, 1997). The repercussions of e technology are not necessarily transformed into financial profits, but often passed to the customer in the form of reduction in prices. The study emphasizes that adoption of E-payment enhances the performance of a bank in terms of reduction in costs, such as transaction, administration, and promotion cost (Doghfous and Toufail, 2007). Economic cost is one of the biggest concerns for any technology adoption. Numerous technological advancements fail due to high expenses and operational costs. Thus, technology having optimal expenses is launched in the market and rapidly adopted by the customers. Evaluating customer satisfaction requires certain dimensions to be considered. Level of service quality determines customer satisfaction and improved service quality has a positive outcome, but it must not exceed the expected profit margin. Therefore, creating long-term relations with customer through attention to needs, increase in service quality along with reduction in cost, leads towards improving firm's overall performance (Coporcini, 2007). Similarly, perceived financial cost will have a negative effect on the behavioral intention to use-payment (luern and Lin, 2005). The argument suggests that customer satisfaction improves with reduced economic costs. Customer satisfaction is the leading indicator for business profitability as

suggested by (Coporcini, 2007). He further argues that customer retention and penetration is the measure for customer satisfaction level.

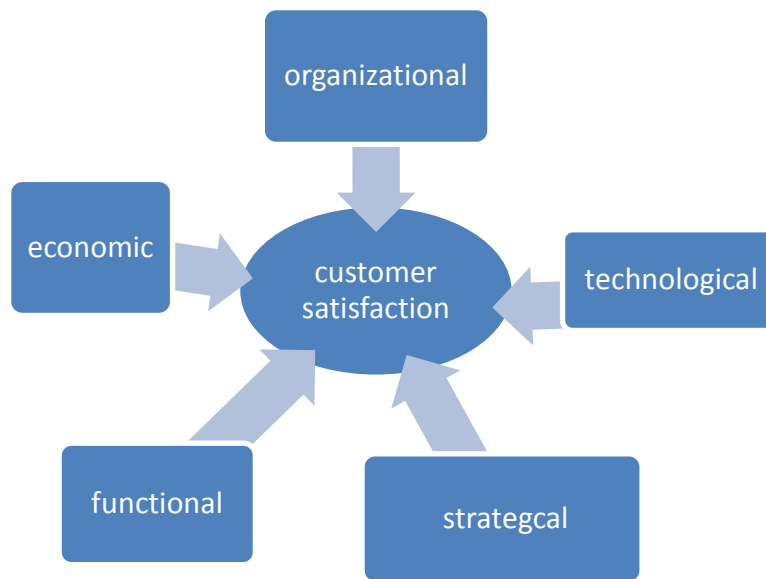
2.2.2. Customer Satisfaction

Customer satisfaction measures how well a product or a service supplied by a firm meets customer expectation. ease of use, security, low transaction costs, and wide applicability of the solutions increase perceived customer value and should be managed by e-payment solution provider (Dahlberg and Mallet, 2002).“Numerous researchers have investigated perceived usefulness and perceived ease of use as a valid construct to measure customer satisfaction level “Amin et.all, 2007). E-banking is adapted by the banks as means to provide customers swift and easy access to their bank accounts. Customers adopt a technology when they find it easy to understand and implement. Perceived usefulness has a positive effect on the behavioral intention to use e banking (Amin and Daghfous, 2007).

2.2.3. Conceptual Framework

The research is mainly based on the conceptual framework developed that adopted from the modification different journals conceptual framework as depicted in figure below. Based on the conceptual framework, the earlier hypotheses and research questions have been developed. This research study has namely organizational factors (human and resource), technological factors, strategic factors, functional factors and economic (cost and efficiency) factors independent variables, and one dependent variable i.e. customer satisfaction. The purpose of the study as mentioned above was to find out the relationship between independent variables and dependent variable. Moreover, to see to what extent such factors affect customer satisfaction in the use of e-payment service in commercial bank of Ethiopia Addis Ababa city branches.

Figure 1



From this conceptual framework the following econometric model is developed.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Y = Customer satisfaction

X₁ = organizational factors

X₂ = technological factors

X₃ = strategic factors

X₄ = functional factors

X₅ = economic factors

ε = error term

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology section of the study provides the basis through which the empirical data is obtained to answer the research questions and hence by extension the research problem. This chapter focuses on the method that was employed to collect the data for the study. It discusses the research design, population for the research, sample and sampling procedure, the research instruments, data collection procedure, data analysis procedure and ethical issues.

3.2 Study Design

The primary aim of this study is to insight the determinant factors affecting customer satisfaction referencing to e-payment system at commercial bank of Ethiopia Addis Ababa district city branches. To achieve this objective, descriptive type of research design with a mixed approach has been employed. The descriptive type of research design helps to portray accurately the characteristics of a particular individual, situation or a group (Creswell, 2014). So that, in this study the descriptive research design is employed to describe the factors affecting customer satisfaction using e-payment service at commercial bank of Ethiopia in Addis Ababa city branches.

With regard to research method, mixed research method is considered to be very efficient in answering research questions compared to the quantitative and qualitative approach when used in isolation (Creswell, 2014). Therefore, in this study a mixed approach is used since it helps to capitalize the strength of using the quantitative and qualitative approaches and remove any biases that can be encountered in any single research method.

3.3 The Study Area and Population

3.3.1 Area of The Study

The study was conducted at Commercial Bank Ethiopia. Selection of Commercial Bank Ethiopia was based on the fact that Researcher is aware with Commercial Bank Ethiopia, so it was easy for data collection. Additionally, selection of Commercial Bank Ethiopia is also based on the fact that the Bank is among the Ethiopian commercial Banks which is fully computerized with modern E-banking facilities modules and that has adopted e-banking system for years now.

3.3.2 Target Populations

Population is a group of individual who have one or more characteristics in common (Kothari, 2000). The targeted population in this study was customers of Commercial Bank Ethiopian Addis Ababa city braches. In line with the objectives of this study, primary data has been collected from customers and employees.

3.4 Sampling Procedures

3.4.1 Sample Size

The study has employed both probability and non-probability sampling which are stratified simple random and purposive sampling techniques respectively. The branches which are found in the four districts have been stratified based on their grade level, and have been selected randomly via lottery system for getting respondents. Furthermore, human resource directors in each district have been participated under purposely sampled interviews. The sample size is distributed to the different grade levels of the bank in each district. For each sampled branch, the questionnaire is distributed to respondents randomly.

In order to get a sample size which is representative of the population of customers, the

International Fund for Agricultural Development (IFAD, 2009) formula for determining sample size is applied. The total number of active e-payment user commercial bank of Ethiopia customer as June, 2018 is 1,580,458 i.e. 91 percent of the total e-payment user 1,736,768 (www.comnak.et, Nov, 2018).

IFAD sample size formula:

$$n = \frac{t^2 \times p(1-p)}{m^2}$$

Description of variables in the formula

n = required sample size

t = confidence level at 95% (standard value of 1.96)

p = estimated proportion of the study population with similar characteristics.

m = margin of error at 5% (standard value of 0.05)

With proportion of the study population that make one form of payments or the other (p) set at ninety one (91) percent which is equivalent to 0.91 the sample size for the study is calculated as follows:

Calculation of the sample size

$$n = \frac{t^2 \times p(1-p)}{m^2} = \frac{1.96^2 \times 0.91(1 - 0.91)}{0.05^2} = \frac{0.31462704}{0.0025} = 125.850816 = 126$$

The calculated sample size (n) of 126 customers was employed for the study. The 126 customers were proportionally allocated to the 32 selected Branches. The following are List of randomly Sampled Branches via lottery method to get the sampled respondents of customer of commercial bank of Ethiopia in each of the four district of Addis Ababa city branches. In each district, eight branches have been selected randomly from the different grade levels. Such selection becomes representative since there is homogeneity among the target populations.

Table 1; sample distribution

No.	Distric t	Level I	Level II	Level III	Level IV	TOTA L
1	East Addis	1.Kokeb Area 2.Dispora Adebabay	1.Kara 2.Tefera Degifie	1.ECA 2.Air Port	1.Meskel Square 2.Andinet	8
2	North Addis	1.Ras Mekonen 2.Tayitu Bitul	1.Filwuha 2.Kebena	1.Sebara Babur 2.Yared	1.Mehal Ketema 2.Silassie	8
3	South Addis	1.Gofa Mazoriya 2.Combo	1.Saris 58 2.Kera	1.Adey Abeba 2.Saris Abo	1.Finfine 2.Gofa Sefer	8
4	West Addis	1.Hawariyat 2.Mesalemiya	1.Ehil Berenda 2.Geja Sefer	1.Addisu Michael 2.Paulos	1.Ayer Tena 2.T/Haimano t	8
Total		8	8	8	8	32

3.5 Method of Data Analysis

In this study, descriptive data analysis method has been employed. Data collected through interviews has been analyzed by using qualitative analysis method through narration. On the other hand, the data collected through questionnaires is analyzed through statistical package for social sciences/ SPSS. Finally, the research result is validated by triangulating different data sources of information and examining evidence from the source to determine the accuracy of the findings.

3.6 Reliability of the Instrument

According to Kothari (2004), a measuring instrument is reliable if it provides consistent results. Cronbach's alpha is a coefficient of reliability. It is commonly used as a measure of the internal consistency or reliability of a psychometric test score for a sample of examinees. The measure of it between 0.8 and 0.95 are considered to have very good quality, scales with

coefficient alpha between 0.7 and 0.8 are considered to have good reliability, and coefficient alpha between 0.6 and 0.7 indicates fair reliability.

Accordingly, the reliability test of the study shows that as it has good quality with reliability measure of 0.708

Table 2: Reliability Test of The Study

	N	%	Cronbach's Alpha	N of Items
Cases Valid	20	100	.708	57
Excluded ^a	0	0		
Total	20	100.0		

Source: Researcher, 2018

3.7 Validity of the Instrument

The instrument validity is about the degree to which the study is measuring what it is supposed to measure. More simply, it focuses on the accuracy of the measurement. The Sample questionnaires are administered before distributing finalized one for some respondents and adjustments have taken to the questionnaire items. Finally, there is a cross check or triangulation between the questionnaire and interview. In addition, the questionnaire and interviews are adopted from different journal articles and theses.

3.8 Ethical Consideration

The researcher gives emphasis to the ethical issues in every aspect of this study that demands it. The participants have been selected based on their consent/free will/. Beyond that when distributing the questionnaire, respondents have been informed and guaranteed that the information they provide as to be kept confidential and used only for academic purpose. Moreover, a statement that conforms to the prohibition of disclosing identity detail or personal reference in the questionnaire is used. This helps to avoid any biased responses or unauthentic data provided by respondents and to make participants feel safe in filling the questionnaire. Therefore, the collected data is kept confidential and not used for any personal

interest. Generally, the whole process of the study is conducted within the frame of acceptable professional ethics.

CHAPTER FOUR

ANALYSIS AND DISCUSSION OF RESULTS

This chapter presents the analysis and discusses the results of the study.

4.1 Socio-Demographic Characteristics of Respondents

This section describes the socio-demographic characteristics of respondents. Data gathered and analyzed were about socio-demographical variables such as gender, age, educational levels, employment status, and monthly income bracket and the bank or organization they operate with.

Table 1: Profile of the Respondents

Characteristics		Frequency	Percent
Gender			
	Male	54	68
	Female	46	58
Age	Less than 20	8	6
	21-30	15	12
	31-40	66	52
	41-50	27	22
	51-60	6	5
	Above 60	4	3
Level of Education	Primary	38	30
	Secondary	25	20
	College/university	60	48
	Post-graduate	3	2
Monthly income	Less than 1000	5	4
	1000-3000	11	9
	3001-5000	27	21
	above 5000	83	66

Gender is an importance variable in the use of technology. Hence the study sought to find out the gender of respondents in relation to the use of the E- payment system as shown in Table 1 above.

Out of the 126 clients that took part in the study, 54 percent were males while 46 percent of them were females. Hence more males indicated they have signed on to the e-payment system than females as indicated by Table 1. The findings follow the observations made by (Venkatesh and Morris, 2000), that men may be more task-oriented than women. In this context, task-orientation may be defined as the accomplishment of a task that requires the use of technology.

Age is a key variable that influences the ability and capacity of people to embrace new things, events or conditions. From table 1, the study revealed that customers within the age group 31-40 formed the majority of respondents (52 percent) that embraced the e- payment system. This was followed by 41-50 age groups with the least group being those aged 60 years and above.

Education is a crucial variable that helps in the understanding and application of basic concepts, principles and regulations. Since the focus of the study was to examine the customer satisfaction with referring to E-payment system, it was important to find out the level of education of the respondents as this will help to assess the level to which they can appreciate key issues in the technology. The study revealed that all the respondents had attained some level of formal education. As the table shows 30 percent of the respondents indicated they had up to 12 complete, with 20 percent having Diploma/TVTE education. The Majority of the respondents (48 percent) were Degree holders while 2 percent had attained post-graduate level of education.

As indicated in Table above, the level of education of respondents was relatively high. Hence they are able to use the e-payment system to make payments and also use it for other transactions with little difficulty.

Types of Electronic Payment Systems

The objective of this section of the chapter was to identify the types of electronic payment systems being used by customers of the selected banks. This is in view of the fact that there are several payments systems in use globally and their use depends on variety of reasons. Respondents were asked to tick among the available payment system, those they use for banking transactions. Table 2 presents the results. Out of the 126 respondents, 49 representing 39 percent indicated the use the ATM Card for transactions. This was followed by 34 percent that used e Money Transfer system. 17 percent indicated they used online Banking with 9 percent using telephone banking. The least used payment system is the Credit/debit card which was indicated by 3 percent of the respondents.

Table 2: Types of Electronic Payment Systems in Use by clients

Electronic Payment Systems	Frequency	Percentage
ATM Card	49	39
Mobile Banking/Money Transfer	34	27
Online Banking	21	17
Telephone Banking	12	9
Credit/debit Card	4	3
None	6	5
Total	126	100

Source: Fieldwork, August 2018

As indicated in the Table 2 above, 5 percent of the respondents said they do not use any of the existing electronic payment systems available in the country for transactions. For the rest of the payment systems, the respondents have not used them for payments or transactions with the banks and other corporate institutions.

The above findings show that the ATM Card is the most common payment system used by customers for transactions. It also point to the fact that most of the existing payment systems have are not being used by customers in the Ethiopia commercial banking industry for transactions.

4.2. Descriptive Statistical Analysis

Table 2: Percent of respondents, Mean, SD and Variance

Variable	Percent of respondents			Mean	SD	Variance
	Agree	Undecided	Disagree			
OF	69.46	10.22	20.32	4.014	0.214	0.046
TF	66.55	13.75	19.70	3.936	0.210	0.044
SF	60.82	15.90	23.28	4.014	0.214	0.046
FF	72.86	6.00	21.14	4.002	0.197	0.039
EF	73.20	11.00	15.80	3.950	0.212	0.045
CS	63.38	8.00	28.62	3.009	0.209	0.044

CS= Customer Satisfaction, OF=Organizational Factor, TF= Technological factor, SF=Strategic Factor, FF= Functional Factor, EF=Economic Factor

According to Gillespie et, all, 2007organizational factors (human and financial resources asserted that organizational factors influence customer satisfaction on the use e-payment system. This was ascertained in this study by asking customer the extents to which they agree with the different organizational factor statement. As indicate in figure above, organizational factor has a mean score of 4.014 and standard deviation of 0.214. the results show the variance statistic as 0.046. 69.46 percent of the customer agreed that human and organizational resource influence the use of e-payment serice.10.22 percent were not certain, whiles 20.322 percent disagreed with the statement.

The second object was to determine from respondents their opinion on how the technological factors influence their use of e-payment system.

On the technology perceived risky and benefit (mean=3.936 and standard deviation=0.210). 66.55 percent of the respondents agreed to it as a factor that influences their use of e-payment system. 13.75 percent disagree with 19.70 percent not certain.

From the figure 2 above, all the respondents expressed their opinion regarding the influence of strategic factors on the use of e-payment system.

60.82 percent of the respondents agreed that strategic problem was a hindrance to the use of the e-payment system. Whiles 23.28 percent of them disagreed and 15.90 percent not certain (mean=4.014 and SD=0.214).

The response on the influence of functionality of the technology on its satisfaction showed that 72.86 percent agreed, 6 percent were not certain. 21.14 percent of the respondents disagreed with the statements (mean=4.002 and 0.197).

As can be seen from the results of the survey presented in the table above 73.20 agreed that economical cost and efficiency influence their use of e-payment system.11 percent not certain and 15.80 disagreed with the statements (mean=3.950 and SD=0.212).

Customer satisfaction is the dependent variable in the research. It accounts for a mean score of 3.009 and standard deviation of 0.209. On the satisfaction of the current e-payment service 63.38 percent agreed with the service they are given. 8 percent not certain and 28.62 percent respondents disagreed with the statements.

4.3. Regression Analysis

MODE analysis

Multiple regression analysis was conducted to analyze the influence among the various variables. Stoical packages for SPSS V21.0 was used for data analysis

Model Summary

The model summary is presented in the table below

Table10: Summary of regression Mode

Mode	R	R Square	Adjusted Square	STD Error of the Estimate
1	.777	.604	.545	0.8823

Source: Fieldwork, August 2018

The fitness of the mode was ascertained by the use of coefficient of determination. the average adjusted coefficient of determination(R²) from the model was 54.50% of the variations in challenges of EPS by commercial banks are explained by the factors

(strategically, organizational, technological, functional and economic).Hence ,a fairly good model it was since $R^2 > 50\%$.

4.3.1 Analysis of Variance

ANOVA technique was used to review the significance of the model. The following are tabulated in table below. The f results presented below.

Table11; ANOVA

Model		Sum of Squares	DF	Mean Square	F	Sig
1	Regression	215.329	5	43.07	2.484	.0031b
	Residual	589.501		17.34		
	Total	804.83				

Source; research data, 2018

Critical value=2,011

As shown above the, ANOVA test results revealed that $F(5, 34) = 2, 484, P < 0.05$.

This implies that the relationship between the dependent variable and independent variable of the model fitted in the data collected is statistically significant. This outcome is also supplemented by the F-critical Value than the critical value ($2,484 > 2.011$).it indicates that the strategically, organizational, technological, f functional and economic factors have significant effect on the use of EPS.

4.3.2 Coefficients

Coefficient table was used to determine the study model. the findings are presented in the table below. Multiple regression analysis was used to analyze the influence amongst the parameters. Statistical package for social (SPSS V) was used for data analysis.

Table 12: Regression Mode Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T/Z	Significance(p0
	B	Std. Error	Beta		
(Constant)	0.416	0.070		0.840	0.006
SF	0.457	0.016	0.4812	2.856	0.03
OF	0.408	0.152	0.408	2.685	0.041
TF	0.483	0.13	0.4804	3.715	0.023
FF	0.415	0.046	0.4156	2.767	0.042
EF	-0.4125	0.060	-0.4215	2.578	0.0312

CS= Customer Satisfaction, OF=Organizational Factor, TF= Technological factor, SF=Strategic Factor, FF= Functional Factor, EF=Economic Factor

Output as presented in the table above, the

$$\text{equation} = 0.416 + 0.457x_1 + 0.408x_2 + 0.483x_3 + 0.415x_4 + 0.4125x_5 + e$$

4.4; Results Obtained from Interviews

For the purpose of accomplishing the objective of the study, interviews were made with senior banks officials including one Division Head and one Department Manager from CBE staffs respectively.

From the interview of the respondents, a detailed description of the current scenario with respect to the subject matter is obtained. The respondents gave detailed information on the challenges of EPS on customer satisfaction. The respondents discussed factors strategically implementation, human and financial problems of the organizational, technological acceptance and functionality, and economical challenges.

4.4.1 Strategically Challenges

Regarding Strategic challenges on EPS, respondents mentioned that information is the most important element for Strategic implementation. They mentioned that the customer who wants to use EPS must know all the basic information regarding the electronic banking. When information is provided to customers then it will motivate customers to use EPS

services and in this way they can save their time. They also mentioned that many bank websites are not providing clear information to customers; and when customers use banks' website, customers do not able to trust on the information that has been provided on the banks' web site. Respondents unfortunately stated that almost all the customers only come for some reason but no one is interested in electronic banking. They added that bank employees are very busy in their own work so they don't give much time to the customers.

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

According to respondents, no proper policy for deployment of EPS services from the government of Ethiopia. In this regard, National Bank of Ethiopia (NBE) which is operating under government policies is responsible to develop regulatory frameworks for the successful implementation of EPS and awareness.

4.4.2 Organizational Issue

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

4.4.3 Technological Challenges

Regarding the Technological issue of EPS the respondents mentioned that the security of the transactions is very necessary in electronic banking. They mentioned that completion of

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

4.4.4 Functional Issue

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

As far as respondents is concerned, most of the time customers of the bank encounter frequent problems related with interruptions of internet connectivity.

According to them, if a given customer wants to make transaction using mediums of EPS, the login time to connect to his account requires the customer to wait longer times due to slow connectivity. This might also happened when he tried to logout from his account. They also added that, even if the infrastructure is available at satisfactorily level, it is not reliable so that's why people don't want to use electronic banking and the cost of being associated with internet is very high. So customers are not willing to carry out business over mediums of electronic banking that requires internet connection.

4.4.5 Economical Issue

According to respondents, there is another challenge for the development of EPS which is economical problem of individuals to buy personal computer which in turn requires a very high price. Due to financial constraints customers can't afford to buy Personal computers or other devices that enable to use electronic based banking. In addition, an ordinary customer cannot afford the cost of broadband connections. According to respondents customers can have the option of using a Dialup Connection which is much cheaper and affordable but the quality is very poor and it is unreliable for data communication

4.5: Discussion of Finding

Organizational factors factor: The first hypothesis in this study (H1) is about the impact of Organizational factor on the level of customer satisfaction. The hypothesis is accepted as the results show that Organizational factor has a coefficient value of 0.408 and significance of 0.041, which is consistent with the results of the study done by Healy, 1999. This leads to the acceptance of the hypothesis as there exists a positive relationship between Organizational factor and customer satisfaction.

Technological factor: The analysis result shows the coefficient value of 0.4804 and significance of 0.023. The result shows a strong positive relationship of the variable with customer satisfaction. The result confirms the hypothesis (H2) that has found a significant positive relationship between technological complexities and intention to use e-payment Services Sivanand, et,al, (2004).

Strategic factor: Based on the coefficient value (0.4812) and significance level (0.03), it is suggested that strategic factor is the strongest predictor of customer satisfaction among the rest of the variables. Hence, hypothesis (H3) is accepted to be true. The research findings are consistent with the previous studies of (Malhotraetal, 1999).

Functional factor: The result shows coefficients value of 0.4156. Confirm a positive relationship between the independent and dependent variable at a significance level of 0.042. The result leads to the acceptance of our hypothesis (H4) and findings in the literature (Karjaluoto, 2002).

Economic factor: Economic factor is found to have a negative relationship with customer satisfaction as shown by coefficient value of -0.4215 with the significance level of 0.0312. The results confirm the hypothesis (H5) as there exists a negative relationship between the economic factor and customer satisfaction which is consistent with the previous studies of Lewis, *et,all*, (2010).

Regression Equation: The result shows 0.416 as the intercept or constant term of the regression equation = $0.416 + 0.408(\text{OF}) + 0.483(\text{TF}) + 0.457(\text{SF}) + 0.415(\text{FF}) - 0.4125(\text{EF})$.

In regard to these findings, a change in unit of organizational factors with other influences being constant leads to an increase in customer satisfaction of CBE by 0.408. The same is true for a unit change in technological, strategic and functional factors while holding the other factors constant leads to an increase in customer satisfaction by 0.483, 0.457 and 0.415. A unit change in economic factors while holding the other factors constant results to decrease in customer satisfaction by 0.4125. In general it was found that there is a positive correlation between OF, TF, ST and FF and level of Customer Satisfaction. A unit improvement of these factors results to a corresponding increase in the uptake level of customer satisfaction in EP service. Significance of predictor variable is displayed by a probability of less than α , a vice versa of which displays the opposite. The predictor variable in this model were as indicated by p values which are 0.03, 0.041, 0.001, 0.023, 0.042 and 0.0312 for OF, TF, ST, FF AND EF were less all than $\alpha = 0.05$. Using normal distribution, at $\alpha = 0.05$, critical Z value = 1.96. All the Z values are higher than this (i.e. 2.856, 2.684, 2.039, 3.7154, 2.7667 and 2.5781). This supports conclusion using p value that all the independent variables were of significance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The primary purpose of this study is to assess factors that affect customer satisfaction referring to e-payment systems in commercial banks in Ethiopia in case of commercial banks of Ethiopia. This chapter, based on the findings of the study, presents the summary, conclusions and recommendations of the study.

5.1 Summary

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

5.1.1 Types of E-Payments System in Ethiopia

On the types of EPS used by customers for making payments, the study found that the ATM card was the dominant. This was followed by e-money transfer system. The least used payment system is the debit card. Similarly, the ATM and mobile transfer system were the main types of electronic payment services provided by commercial banks of Ethiopia.

5.1.2 Challenges Involved With The Use of EPS

The majority of the respondents confirmed that the existing system for making payments was fraught with challenges. Of the challenges, strategic efficiency and effectiveness, financial and structural of the organizational, technological acceptance and functionality of the technology were identified as the main obstacles to the use of EPS. In regarding to this finding, strategic factor has the most significant and strong impact on customer satisfaction. Relative advantage of technology and the degree of service expansion significantly contribute to the factors for the variance. The practical implication of E-payment system depicts that there is a positive relationship between Organizational factor and customer satisfaction. Results show a weak positive relationship between customer's satisfaction and technical

infrastructure. The study supports the research finding that there is a negative relationship between economic factor which is associated with the usage of E-payment system and customer satisfaction. In the words, a unit improvement of these factors results to a corresponding increase in the uptake level of customer satisfaction.

5.2 Conclusions

The primary purpose of this study is to assess factor that affect customer satisfaction referring to e-payment system commercial banks in Ethiopia in case of commercial bank of Ethiopia. This chapter, based on the findings of the study, presents the summary, conclusions and recommendations of the study.

The results of the study suggest that electronic payment system has a bright future in Ethiopia. The Ethiopian government has taken steps to build up policy for the local banks to adopt the technology in the near future. Keeping in mind that “E-payment system” is a relatively new concept, it is emphasized that customers do not understand the technology. Therefore, it is crucial at this stage to create awareness about the usage of electronics device and familiarize people with its benefits. A key finding of the research is that E-payment system is a critical service in banking industry. Therefore, it can be concluded that it is vital for the banking industry that E-payment system service is adopted by the account holders. The findings also indicate that E-payment system adoption requires technologically efficient as well as cheap, reliable and secure technology development. In order to ensure that customers adopt the technology it must be efficient and quick as well as easy to understand and use. The study supports the hypothesis that strategic factor has the most significant and strong impact on customer satisfaction. Relative advantage of technology and the degree of service expansion significantly contribute to the factors for the variance. The practical implication of E-payment system depicts that there is a positive relationship between Organizational factor and customer satisfaction. Results show a weak positive relationship between customer’s satisfaction and technical infrastructure. Furthermore, the type of decision making is the most contributing factor in bringing change in the dependent variable. The study supports the research finding that there is a negative relationship between economic factor which is associated with the usage of E-payment system and customer

satisfaction. Cost of doing business and market risk being the most important measures of economic factor which affects the customer satisfaction.

According to the research findings, certain areas are identified as the most critical while adopting a new technology. These identified areas must be thoroughly considered by the banks, especially in Ethiopia financial environment to increase their customer base.

- Reduction of risk related to day-to-day transactions performed through electronic device enables customers to build up trust in the banking services being offered.
- The degree of service expansion done by the bank periodically motivates customers to adopt the technology, as it offers versatility in its offerings.
- Sophisticated technical infrastructure should be developed in order to ensure reliable and timely provision of services to customers.

5.3 Recommendations

As per the findings from the analysis of the collected data; the following recommendations are forwarded in order to promote and develop viable e-payment service in Ethiopia.

- Proper awareness can produce more results by enhancing awareness level of people to use the electronic banking facility. In this regard, CBE should promote the electronic banking products in different media including their websites. Websites of banks play an important role to attract customers especially if the information provided is understandable and brief. Provision of demo also helps customers to use the electronic banking. Furthermore, CBE need to arrange successive training programs for enhancing the awareness level of individuals. These actions might aid to attract new customers to use electronic banking which can result in considerable amount of profits at low transaction costs.
- Ongoing efforts by the Ethiopia telecommunication corporation to expand ICT infrastructure should be encouraged by the government and gradually the corporation should try to reduce the service charge.
- Commercial Bank Ethiopia prepares various capacity building activities for regarding e-payment operation and provide incentives for banks to invest rigorously on ICT and use of e-banking.
- Security risk is the major challenge for the use of e-banking service in the banking industry. Therefore, the national bank of the country in collaboration with all banks in the country

should prepare typical security technologies applicable to control system networks such as firewall, intrusion detection and Prevention etc.

- In order to strengthen the trust of customers on the technology, CBE should take some security measures regarding policy for protection of customer's account, bio data and personal records. In addition, CBE should ensure to their customers that they are delivering accurate transactions within the required time so that customers can rely on it; which in turn motivate them to make electronic based transactions without any hesitation. In general, CBE need to provide more sophisticated security measures to win the confidence of their customers
- Without technology it is impossible for banks to compete and provide quality services. It is also very important that the existing IT employees of the two banks should learn new skills. It is also recommendable for the commercial banks to hire well trained and experienced IT professionals to handle the business competently and who are capable of solving the problems with adequate knowledge
- In order to exploit the benefits that can be achieved from the provision of E-banking services, banks operating in the country needs to establish a strong link with customers by providing the required information that will enable them to use electronic banking services in the future. In this regard, it is recommendable to make website information clear and precise so that customers can easily understand about the service. Furthermore, since it is the duty of the concerned staff to provide all the information to its customers, they should provide all the materials to customers that demonstrate how to use electronic banking.

5.4 Further Research

Banks that are currently providing the service should promote the system in order to raise public awareness on the use of e-banking service.

E-payment service is relatively unexplored technology in Ethiopia financial institutions, mainly in banks. The author proposes the following recommendations:

- Further research should be conducted in this area to explore the profitability associated with the technology.
- There is a need to explore more independent variables that can have an impact on customer satisfaction.

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APPENDICES

Appendix - A

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Bank customers

The purpose of this study is to assess the customer satisfaction reference to of electronic payment systems by Commercial bank of Ethiopia in Addis Ababa city. This questionnaire is designed to elicit information regarding this research work. You are kindly requested to answer the questions as frankly and openly as you can. You are also assured of full confidentiality, privacy and anonymity of any information that you provide. Thanks for your-operation.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS RESPONDENTS

Q.1 Gender (1) Male [], (2) Female []

Q.2 Age (1)less than 20[],(2) 21-30[], (3)31-40[],(4)41-50[], (5)51-60[],(4)41-50[](6)60%above

Q.3 Level of education

(1)Primery [], (2)Secondary []

(3)College/University [], (4)Post-Graduate[]

Q.4 Level of employment

(1) Employed (Part time or self-employed) [], (2) Unemployed []

If employed, indicate your monthly income brackets

(1) Less than Birr 1000[], (2) From Birr 1000-3000 []

(3) From Birr 3001-5000 [], (4) More than Birr 5000[]

Which bank/organization do you operate with?

What type of account do you operate?

(1) Savings [], (2) Current [], (3) Savings and Current []

SECTION B: TYPES OF ELECTRONIC PAYMENT SYSTEMS

In the list below, indicate the types of Electronic Payment Systems that you have used for transactions by ticking the appropriate box where it applies.

NO	PAYMENT SYSTEM	USED (√)	NOT USED (√)
a	ATM CARD		
b	TELEPHONE BANKING		
c	INTERNET BANKING		
d	MOBILE BANKING		

SECTION C: STRATEGICAL FACTORS AFFECTING CUSTOMERS' SATISFACTION OF E-PAYMENTS SYSTEMS

The following strategically factors of E-payment systems that affect the customer's satisfaction in using E-banking transactions. Kindly indicate the extent of your agreement by ticking the appropriate box.

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree

NO	STATEMENT	SA	A	U	D	SD
1	Inadequate point of sale terminal					
2	Inadequate marketing campaigns/advertisements					
3	Customers are satisfied by government policies implemented for electronic banking like money laundering & prohibiting cardholders from effecting payments for international transactions					
4	The Bank provides an alternative way to use electronic banking services when there is slow internet connection.					
5	The Bank provides training to enhance awareness of customers to use electronic banking.					
6	Low level of internet penetration					
7	Inability to use uniformed E-payment Platform					
8	E-banking service is more accessible to users than visiting a bank branch					

SECTION D: ORGANIZATIONAL FACTORS AFFECTING CUSTOMERS' SATISFACTION OF E-PAYMENTS SYSTEMS

The following organizational factors of E-payment systems that affect the customer's satisfaction in using E-banking transactions. Kindly indicate the extent of your agreement by ticking the appropriate box.

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree

NO	STATEMENT	SA	A	U	D	SD
9	Customers are fully aware & have enough information about electronic banking services.					
10	Customer has the access to personal computer and internet					
11	Banks have experienced and skilled IT professionals to administer latest technologies					
12	The bank have adequate physical infrastructure					
13	Using E-payment system increases costs do banking task					
14	Lack of coordination and cooperation with other banks					
15	High rates of illiteracy affect the easy practice of E-payment System					
16	The company use advanced E-payment Technologies to support operation to customer service					

SECTION E: TECHNOLOGICAL FACTORS AFFECTING CUSTOMERS' SATISFACTION OF E-PAYMENTS SYSTEMS

The following Technological factors of E-payment systems that affect the customer's satisfaction in using E-banking transactions. Kindly indicate the extent of your agreement by ticking the appropriate box.

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree

NO	STATEMENT	SA	A	U	D	SD
17	Using E-payment requires a lot of mental effort.					
18	Customers are concerned about their private information & security policy					
19	Customers have high degree of trust on the bank and are satisfied with security of electronic banking service provided by the Bank					
20	The bank has put in place adequate mitigation measures against technology risk					
21	Fear to use E-banking Technologies, such as ATM, internet Banking, and Mobile Banking					
22	Lack of confidence in security issue on the use of E-payment technology					
23	The use of technology has ensured quick and effective services to the clients					

SECTION F: FUNCTIONAL FACTORS AFFECTING CUSTOMERS' SATISFACTION OF E-PAYMENTS SYSTEMS

The following functional factors of E-payment systems that affect the customer's satisfaction in using E-banking transactions. Kindly indicate the extent of your agreement by ticking the appropriate box.

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree

No.	Statement	SA	A	U	D	SD
24	The services are adapted to disable and elder people who are lacking computer experience					
25	Learning and using electronic banking is easy to use					
26	Customers encounter power interruption problems related with internet while using electronic banking services					
27	Customers are satisfied with the speed of internet & infrastructure provided by Ethio Telecom					
28	Temporary or sudden problem frequently occurred when processing EPS transaction					
29	customer can use e-payment technology simply ant time and any where banking service					

SECTION H: ECONOMICAL FACTORS AFFECTING CUSTOMERS' SATISFACTION OF E-PAYMENTS SYSTEMS

The following economical factors of E-payment systems that affect the customer's choice in using E-banking transactions. Kindly indicate the extent of your agreement by ticking the appropriate box.

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree

No.	Statement	SA	A	U	D	SD
30	Customers think that using electronic banking facility saves their time and money.					
31	E-payment service charges not affordable.					
32	Using EPS increase speed and efficiency					
33	Using E-payment increases cost to do banking task					
34	Using E-payment reduce the long queue available banking hall.					
35	Using E-payment maximize productivity					

SECTION I: FACTORS AFFECTING CUSTOMER'S SATISFACTION IN THE USE OF EPS

The following economical factors of E-payment systems that affect the customer's satisfaction in using E-banking transactions. Kindly indicate the extent of your agreement by ticking the appropriate box.

SA: Strongly Agree; A: Agree; U: Undecided; D: Disagree; SD: Strongly Disagree

Customer Satisfaction

NO	Statement	SA	A	U	D	SD
36	EPS completes tasks accurately					
37	EPS process tasks quickly					
38	Case of problem happen, can contact staff immediately					
39	EPS provide security for transaction data and privacy					
40	EPS website is ease to use					
41	EPS provide 24 hours 7 days service					
42	EPS website provides accurate information					
43	Requests of EPS service are handled promptly					

In your opinion, what measures should be put in place to overcome the prospective and challenges involved in the use of Electronic Payments system on customer satisfaction?

APPENDICES

Appendix – B

St. Mary's University

School of Graduate Studies

Interview questions designed for the managers of the four selected Branch's.

1. What type of EPS service do you provide? ATM, Internet banking, mobile banking or others? Please
2. When do you start EPS service?
3. With what software and device provider company does your bank purchase its software/device?
4. How many customers do you have who use EPS? Specify by type
5. How many ATM devise, POS and agent does your bank have?
6. What are the basic prospective of EPS?
7. In your opinion what are the key challenges in your institution to practice EPS)
8. Do you think that the organization strategy have impact on the practice of EPS system? (Please Specify/explain)
9. Do you think that the human and financial organization have impact on the practice of EPS system? (Please Specify/explain)
10. Do you think that acceptance of the technology have impact on the practice of EPS system? (Please Specify/explain)
11. Do you think that the technology functionality have impact on the practice of EPS system? (Please Specify/explain)
12. Do you think that the socio- economy have impact on the practice of EPS system? (Please Specify/explain)
13. What support would you expect from the government in relation to the EPS improvement in Ethiopia?
14. 14.If you have comments
