ST.MARY'S UNIVERSITY SCHOOL OF GRADUATESTUDIES

MASTER OF BUSINESS ADMINISTRATION GRADUATEPROGRAM

THE EFFECT OF POINT OF SALES(POS) TERMINAL SERVICE QUALITY ON CUSTOMER SATISFACTION IN COMMERCIAL BANK OF ETHIOPIA

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THE EFFECT OF POINT OF SALES (POS TERMINAL SERVICE QUALITY ON CUSTOMER SATISFACTION IN COMMERCIAL BANK OF ETHIOPIA

A Thesis Submitted to the School of Graduate Studies of St. Mary's Universityin Partial Fulfillment of the Requirements for the Degree of Master of Business Administration

BY: Girma Gizaw Abebe

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DECEMBER, 2020

Addis Ababa, Ethiopia

DECLARATION

I, **Girma Gizaw h**ereby declare that the thesis titled "**the effect of point of sales (POS) terminal service quality on customer satisfaction in commercial bank of Ethiopia''** submitted to, in partial fulfillment of the requirements for the award **of Master of Business Administration** is record of original and independent research work done by me under the supervision and guidance of **Dr Zemenu Aynadis.** The ideas and views of other researchers have been duly expressed and acknowledged.

Declared by: Girma Gizaw

Signature: _____

Date: _____

CERTIFICATION

This is to certify that the thesis prepared by Girma Gizaw, entitled “the effect of point of sales (POS**)** terminal service quality on customer satisfaction in commercial bank of Ethiopiaand submitted in partial fulfillment of the requirements for the award Degree of Master of Business Administration complies with the regulations of the University and meets the accepted standard with respect to originality and quality.

AdvisorZemenuAynadis.(PhD)**Signature _____ Date _____**

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Signed by theExamining Committee:

External Examiner	Signature	Date
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LIST OF ACRONYMS/ABBREVIATIONS

ATM	Automated teller machine
CBE	Commercial bank of Ethiopia
EFT	Electronic funds transfer
E-SERVQUAL	Electronic service Quality
ISOS	Independent sales organizations
PDA	Personal digital assistant
SPSS	Statistical Package for Social Studies
POS	Point of Sales Service
SAAD	South Addis Ababa District

ABSTRACT

Service quality and customer satisfaction has increasingly been identified as key factors for influencing Point of sale machine customers for their being loyal to the bank. The main aim of this study is to examine the effect of Point of sales machine service quality on customer satisfaction in CBE by selecting five branches of South Addis Ababa district. The study adopted E-SERVQUAL model measurement dimensions comprising of seven dimensions (Reliability, Responsiveness, Security, Efficiency, fulfillment, Assurance and Empathy) by using primarily quantitative data. And also the study used Descriptive, Correlation, Regression and ANOVA analysis Via SPSS.The regression finding revealed that Security, Responsiveness, Empathy and Efficiency are statistical significant whereas Reliability, Assurance and Fulfillment are statistical insignificant. The correlation finding shows that the variables of Empathy, Responsiveness, fulfillment and Reliability have strong positively association with overall customer satisfaction. The other dimensions ofprivacy, assurance and efficiency have a positive moderate relationship with customer satisfaction. Moreover,the descriptive analysis showed that based on the computed mean scores efficiency andsecurity are the most dominant service quality dimensions. Thus,the study concludes thatto improve the service quality of POS of the bank leads to enhance its competition by paying much more attention to satisfying customer's needs. Finally, the study recommends that the management of CBE should give more emphasis on customer's satisfaction in order to sustain the profitability of the bank by improving the service quality dimensions

Key words: Service quality, Customer Satisfaction and E-servqual model

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

The banking industry is a very important position in the process of economic growth of the countries which acting as an intermediary to agriculture, industry and service sectors of the economy. Hence, through their intermediation function of this banks play a vital role in the efficient allocation of resources in the country by mobilizing resources for productive activities**.** Technological innovations and its use in banking activities have led credibility to transformation of manual system banking operations to technology based banking all over the world. The recent year's information have been recognized as the heart of banking sector while for a robust economy banking sector is playing a significant role. As competition within the financial services industry is more intense than ever, and as banking industries' service menus are becoming increasingly comparable, the need to understand bank customer satisfaction is vital. Customer satisfaction facilitates the measure of how service and product provided by company meet customer satisfaction (Rose & Marquis, 2006). Hence, service quality and product quality are vital elements in determining.

Customer satisfaction, as is customer awareness. In this context, quality is the key factor and is synonymous with the consumer's ability to select from a wide array of products and services that provide a closer match to his or her needs and desires (Ho, Lau, Lee &Ip, 2005).

In the recent commercial phenomenon, E- banking technologies have an essential role the way in which banks provide their services and customers conduct their banking needs. One of these technologies which have increasingly become a favored distribution channel by service providers and customers is electronic banking services Electronic banking allows customers easier access to financial services and time saving in managing their finance .Thus, E-Banking as a banking channel which allows customers to conduct all banking services, such as making fund transfer, bill payments, balance enquiry, cash out service , buying goods ,buying airtime and provide other services. The advancement of information technology in today's banking system has become simple, speedier and readily accessible through various devices such as personal

computers, mobile phones, etc. The electronic banking services include Point of sales (POS) Machine, Automated Teller Machines (ATM), Mobile banking, Internet Banking, Tele Banking, Electronic Credit cards, (Abdi, 2006). As a result of technological improvement and dynamism the Banking sector is experiencing rapid changes and this demands banks to serve their customers electronically. Customer satisfaction is one of the most important variables for long-term business success.

One of the most important electronic payment or E-banking systems that provide services to customers of commercial bank of Ethiopia with access to financial transaction in market places is point of sales (POS) Machine. This implies that, POS is engaging deeply in the development of the technology as a means of serving its customers.POS accepts different cards for payment of goods and services. This card stores account information on microchips. The microchip contains a purpose in which monetary value is held electronically. The card can be used to make purchase of goods and services online, in supermarket, shopping mall, and other market places. POS allows card holder to have a real time online access to funds and information in their bank account through debit or cash cards (Omotayo&Dahansi, 2015)

POS machine handle credit authorization, cash withdrawing and cash payment. It enhances electronic fund transfer at point of sale. Thus customer account would be debited immediately with the cost of purchase in an outlet such as station or super market. The implication of this is that customer can make payment for goods and services without necessarily coming in contact with physical cash as the purchase price would be debited on the buyer card and credited on the service provider account (Olatoke, Olasunkamin& Felicia, 2014).Since bank is a customer oriented service industry. A bank depends upon the customer for their survival in the market. The customer is the focus and customer service is the differentiating factor in which a bank can differentiate itself from competitors by providing high quality customer service (Tadese, Edosa & shakra 2015).Thus, this study will be focused on one of the E-payment systems that is Point of Sale (POS) Machine introduce in commercial bank of Ethiopia (CBE).

1.2. Statement of the Problem

One of the major significance of e-banking product and services is improved efficiently and effectiveness of the operations so that transactions can be processed faster and most

conveniently. Hence, it has enhanced customer services, effective distribution, improved operations, faster access to information and improved internal processes. This implies that customers benefit ranges from reduced frequency of going to the banking halls to handling of cash (Wahid, 2013; Karen, 2002; Bordens& Abbott, 2011). Deposit machine now allow consumers carry out banking transaction beyond banking hours and these have enhanced customer's satisfaction globally. Banks with higher level of quality of service is have higher level of customer satisfaction of an introduction for achieving competitive advantage

From electronic banking products this study focused on point of sale (POS) machines to conduct transaction through point of sale terminal there are three parties participated, these are merchant (business firms which sell goods and services) by using point of sale machine, the card holder (the one which own debit or credit card such as visa, master card) and financial sector such as banks and card association. Merchants are business firms (e.g. Hotels, supermarket, galleries, hospitals, ceramic show rooms and petroleum stations etc.). but merchant/business organization /face challenge in conducting transaction with point of sale machine the challenges are lack of adequate infrastructure, network failure, absence of open standards or trust among banks , frequent power outage, preference for cash from card holder side , as well as security of communication over the network. Banks did not provide point of sale service as promised employee of banks which are not responsive when point of sale user encounters problems. Which implies that employee of banks do not have detail knowledge about point of sale terminal and banks and their employee did not work according to best interest of point of sale user this result in dissatisfaction of customers for the point of sale service delivered by banks.

Currently there are some factors which affect customer satisfaction and service quality in point of sale (POS) machine service quality in banks specifically in Commercial Bank of Ethiopia. Those are machine out of service, network failure, failure to provide printing statement, frequent breakdown of POS service, lack of sufficient technician for maintenance and support, interruption of network, and reversing a transaction, refund is not possible, holding the amount and not credit or debit for some days and hardly do people talk about problems of these services.

Even though point of sale (POS) machine is deployed by public and private banks in Ethiopia, merchants which sell good services are still accept their transaction by cash rather than card

payment because of improper function of (POS) machine and card holder still use cash for payment due to awareness problem about card payment and there is problem in customer service in banks employee and the bank itself. There are few studies done about point of sale (POS) in commercial bank of Ethiopia. The few studies address on customer satisfaction, customer awareness, service quality and its challenge in of point of sale (POS) machine. And thus these studies attempts to empirically support the area but, do not covers customer satisfaction towards point of sale (POS) machine services quality at commercial bank of Ethiopia (CBE) specifically. Moreover, most of the studies are limited only on e-banking system on customer satisfaction in general.

In addition to this; most studies are not give focus for target customer who uses point of sale (POS) machine service and satisfaction. Satisfaction and service quality is a crucial concern for both customers and organizations including banks. So that it brings customer satisfaction because as we all know the customers' has been using banks for many years before this technology even if they are not satisfied. But, these days the market competition is very high and customer satisfaction becomes a very significant matter to sustain the customers in the bank.Hence, this study showed that the continuity of point of sale (POS) machine in customer satisfaction through conceptualization of service quality guided by a gap theorywhich uses a service quality scale called E-SERVQUAL to measure the performance and quality of a service (Siddiqi K. O., 2011).The customer satisfaction measured by using the seven service quality dimensions (i.e. Responsiveness, Reliability, fulfillment, Security, Efficiency, Assurance and Empathy).

Thus, this attempt to investigate effect of point of sale (POS) machine Service on Customer Satisfaction in case of Commercial Bank of Ethiopia (CBE).

1.3. Objectives of the Study

1.3.1. General Objectives

The main objective of this study is to examine the effect of point of sale (POS) machine Service on Customer Satisfaction in Commercial Bank of Ethiopia (CBE).

1.3.2. Specific Objectives

1. To assess the impact of point of sale (POS) machine services on customer satisfaction in Commercial Bank of Ethiopia (CBE).
2. To identifypoint of sale (POS) machine services factors that determines customer satisfaction in CBE.
3. To identify which service quality dimension have significant contribution to customers' satisfaction in CBE.

1.4. Research Questions

Base on its objective, with the help of sufficient and appropriate empirical data on the following research questions was formulated.

1. What is the impact of point of sale (POS) machine services quality on customer satisfaction?
2. What are the points of sale (POS) machine services quality factors to determine customer satisfaction?
3. Which service quality dimensions have significant contribution to customers' satisfaction?

1.5. Research Hypotheses

The following hypotheses are developed

1. H1: Reliability service quality dimension does not have an effect on customer satisfaction.
2. H2: Responsiveness service quality dimension does not have an effect on customer satisfaction.
3. H3: Assurance service quality dimension does not have an effect on customer satisfaction.
4. H4: Privacy (Security) service quality dimension does not have an effect on customer satisfaction.
5. H5: Empathy service quality dimension does not have an effect on customer satisfaction.
6. H6: Efficiency service quality dimension does not have an effect on customer satisfaction

7. H7:fulfillmentservice quality dimension does not have an effect on customer satisfaction

1.6. Scope of the Study

The scope of this study was delimited to see the effect of point of sale (POS) machine service quality on customer Satisfaction by using the seven dimensions of service quality; these are (Efficiency, fulfillment, Responsiveness, Reliability, Assurance, Empathy and Security) (Zeithaml, Parasuraman and Malhotra (2005).

Geographically the study focus was on Commercial Bank of Ethiopia selected branches. The study restricted to specific area which is South Addis Ababa district five selected branches (Dil Gebeya, Finifine, Mexio, Sarbet and Karl Adebabay branch) as opposed to the entire branches of CBE all across the country.As the method of primary data collection, only questionnaire were used to conduct the study. The study only focuses on point of sale machine (POS).

1.7. Limitation of the Study

First, in this study those customers those are ATM card holders and waiting for POS services at Commercial Bank of Ethiopia, selected market places in the time of data collection will be taken as respondents. For instance like customers who send and receive local transfers was not include in the study unless they are account holders as e-banking service is given to account holders in the bank. The Second limitation of this study is that it only considers customers perspective of e-banking service specifically POS and it does not take in to consideration what perspective do all bankers, employees and other stake holders have on the technology. In addition to this, a larger and more representative sample will give broader representation to identify the effect of Point sales machine service quality on customer satisfaction. Third, only the Seven service quality dimension variables will be used to see their Effect.

1.8. Significance of the Study

First, the study would be useful for Commercial Bank of Ethiopia in order to see the Effect of point of sale service quality on customers' satisfaction. Second, it helps to understand what attitude customers' have towards e-banking specifically POS. Third, it will be a good indicator for the managers to identify the gap between the perception about point of sales (POS) and

the actual customer satisfaction generated from this service. Moreover, it may be used as a reference for other researchers who are interested to conduct study related to this problem.

1.9. Organization of the Study

The rest of the chapters organized as follows. The second chapter presents a review of the literature of point of sale machine (POS) service on customer satisfaction which included theoretical, empirical studies and conceptual framework. The empirical studies which consist of literature of other countries experience of (POS) service on customer satisfaction as well as Ethiopian experience of (POS) service on customer satisfaction. The third chapter describes methodology and research design and in the fourth chapter the results and discussion was presented. The last chapter conclusions and recommendations made based on the findings. At the end, references have been mentioned.

CHAPTER TWO
LITERATURE REVIEW

In this chapter has been presented the review of theoretical literature , empirical literatures which is done previously and conceptual framework which is based on theories and previously literature reviewed in the area of point of sale banking(POS) and customer satisfaction, to clarify the various terms used in this study that constitute the variables verified. And thus, it looks into the term E-banking service quality specifically point of sale (POS) machine and its characteristics followed by dimensions of service quality and dependent variable of the study are discussed in detail

2.1. Theoretical Review

2.1.1 Definition of E-banking

E-banking is a form of banking service where funds are transferred through an exchange of electronic signal between financial institutions, rather than exchange of cash, checks, or other negotiable instruments (Kamrul, 2009). E-banking, also known as electronic funds transfer, is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash (Malak, 2007). The term of E-banking often refers to online banking/Internet banking which is the use of the Internet as a remote delivery channel for banking services (Furst&Nolle, 2002). With the help of the internet, banking is no longer bound to time or geography. Consumers all over the world have relatively easy access to their accounts 24 hours per day, seven days a week. Another definition of E-banking is that "E-banking is the use of a computer to retrieve and process banking data (statements, transaction details, etc.) and to initiate transactions (payments, transfers, requests for services, etc.) directly with a bank or with other financial service provider remotely via a telecommunications network" (Yang 1997). It should be noted that electronic banking is a bigger platform than just banking via the internet. E-banking can be also defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking (or offline banking) whereby customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS),

kiosk, or touch tone telephone (Alagheband, 2006). Different forms of E-banking system are discussed as follows.

Automated Teller Machine (ATM): is a computer controlled device that dispenses and provides other services to customers who identify them with a personal identification number (PIN). An ATM device allows a bank customer to withdraw cash from his account via a cash dispenser (Machine), and the account is debited immediately (Ojokuku and Sajuyigbe, 2012). A fundamental advantage is that it need not be located within the banking premises. It is usually instores, shopping malls, fuel stations etc. It saves customers time in service delivery as alternative to queuing in bank halls, customers can invest such time saved into other productive activities. ATMs are a cost-efficient way of yielding higher productivity as they achieve higher productivity per period of time than human tellers.

Point Of Sale Terminals: This mode of e-banking handles cheque verification, credit authorization, cash deposit and withdrawal and cash payment. It enhances electronic fund transfer at the point of sales. Thus customers account would be debited immediately with the cost of purchase in an outlet such as a petrol station or supermarket. The implication of this is that customers can make payment for goods and services without necessarily coming in contact with physical cash as the purchase price would be debited on the buyer's card and credited on the seller's account (Olanipekun et al, 2013).

Mobile banking: This mode of e-banking primarily uses mobile phones as the electronic devices. Mobile phone gives customer the opportunity to operate their account with bank as long as their phones and network services provider support the SMS (short messaging service) which would enable the customer check account balance (Olanipekun et al, 2013).

Card System: The card system is a unique electronic payment type. The smart cards are plastic devices with embedded integrated circuit being used for settlement of financial obligations. The power of cards lies in their sophistication and acceptability (Ojokuku and Sajuyigbe, 2012) to store and manipulate data, and handle multiple applications on one card securely. Depending on the sophistication, it can be used as a Credit Card, Debit Card and ATM (Automated Teller Machine) card.

PC Banking: The technology of e –banking has a universe of possible applications. Online banking for example provides the opportunity of paying bills and performing transactions of any kind. The availability of online information has provided banking and customer with a powerful vehicle for research (Olanipekun et al, 2013).

2.1.2. Benefit associated with electronic banking

Perception of various stakeholders especially bankers has attracted the attention of researchers as per the available literature on electronic banking. According to Berry (1984) maintenance of highbreaching of industrial barriers, the interface of new competitors, and the emergence of new business models (Liao and Cheung, 2003)

2.2. Customer Satisfaction

2.2.1.. The Concept of Customer Satisfaction

Customer satisfaction is typically defined as a post consumption evaluative judgment concerning a specific product or service (Gunderson, Heide & Olsson, 1996). It is the result of an evaluative process that contrasts pre-purchase expectations with perceptions of performance during and after the consumption experience (Oliver, 1980). It seems that the expectation and service performance perception of customers are the key components of customer satisfaction. Customers are satisfied when their expectations are met and delighted when their expectations are exceeded. Satisfied customers remain loyal, buy more, are fewer prices sensitive and talk favorably about the company. Customer satisfaction can be defined as the company's ability to fulfill business, emotional, and psychological needs of its customers. In other word it is a summary of psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumers‟ prior feeling about the consumption experience (Chavan and Ahmad, 2013). However Kumbhar (2011) argued that a customer satisfaction is an ambiguous and abstract concept. He continued that, actual manifestation of the state of satisfaction will vary from person to person, product to product and service to service.

It is well-researched fact that there is a strong linkage between customer satisfaction and operational performance. According to Qureshiet et al. (2013) customer satisfaction has strong influence on the efficiency and financial performance of banks. It has great influence upon

performance and profitability of the banks. He also claimed that satisfied customers share their experiences with other people and occupy unambiguous word of mouth (grapevine) advertisement and publication of the banks. This positive word of mouth publication is very helpful in increasing banks relationship and interaction with the whole community. Many literatures found that there is strong relationship between customer satisfaction and organizations efficiencies, operational and financial. The state of satisfaction depends on a number of factors which consolidate as psychological, economic and physical factors. The quality of service is one of the major determinants of the customer satisfaction (Kumbhar, 2011).

Service quality can be defined as the difference between customer expectations for services performance prior to service encounter and their perception of the service received (Wandaogou and Jalulah, 2011).

2.2.2. Measurements of Service Quality and Customer Satisfaction

Various scholars have proposed different methods to measure service quality. SERVQUAL and SERVPERF are the two major service quality measurement scales.

i. SERVQUAL Model

SERVQUAL is one of the most commonly used model in measuring service quality and therefore customer satisfaction. SERVQUAL is designed to measure service quality as the difference between the expected and perceived performances (Parasuraman et al, 1988). At the beginning, Parasuraman et al (1985) identified 97 attributes to assess overall service qualitywhich were condensed into ten dimensions. The ten dimensions were tangibility, reliability, responsiveness, competence, access, courtesy, communication, credibility, security, and understanding the customer. But after refinement, the attributes were reduced to 22 pair of likert-type items and the dimensions were reduced to five as tangibility, reliability, responsiveness, assurance, and empathy. The assurance dimension includes a combination of attributes originally designed to assess competence, courtesy, credibility, and security. On the other hand, the empathy dimension contains the attributes that were originally designed to assess accessibility, communication and customer understanding (Sabir, 2014).

Each attribute in SERVQUAL instrument is of two types (Adil et al, 2013). The first is to measure expectations and the other to measure perception regarding the firm's service after using the services. The quality gap (Q) is assessed by subtracting the expectation (E) score from the perception (P). The aggregated sum of difference between perceptions and expectations from the five dimensions result is used to construct the overall quality gap (Adil et al, 2013).

ii. SERVPERF Model

Traditionally, service quality is measured as the difference between customer expectations and perceived performance of the service provider. However, there is little evidence that customers access service quality as the gap by subtracting expectations from perceptions (Sonne 1999, Adil et al 2013). This pave the way for the foundation of a new performance based measurement of service quality called SERVPERF (Service Performance). Adil et al 2013 argued that SERVPERF is an enhanced means of measuring the service quality construct. Jain and Gupta (2004) said "empirical studies evaluating validity, reliability, and methodological soundness of service quality scales clearly point to the superiority of the SERVPERF scale''.

SERVPERF is simply the performance component of the SERVQUAL scale. It tries to measure the five underlying dimensions of the SERVQUAL in terms of only performance or by dropping the expectation component.

Parasuramanet et al. (2005) incorporated e-services and conceptualized and constructed a multiple-item scale (E-S-QUAL and E-RecS-QUAL models) to assess electronic service quality. The final E-S-QUAL Scale, consisting of 22 items on four dimensions, which they labeled and defined the dimensions as follows:

Reliability : – the ability to perform the promised service dependably and accurately. This dimension is critical as all customers want to deal with firms that keep their promises and this is generally implicitly communicated to the firm's customers.

Responsiveness:-willingness to help customers and provide prompt service. This dimension is concerned about dealing with the customer's questions, requests, and complaints attentively and promptly. In other word the company's ability to provide appropriate problem-solving mechanisms (online complaint handing, handling returns mechanisms, online guarantees, etc.).

Assurance:- the Knowledge and courtesy of employees and their ability to convey trust and confidence. The trust and confidence may be represented in the personnel who link the customer to the organization.

Empathy:- the provision of individualized attention and caring to customers. There are numerous ways that empathy can be provided: knowing the customer's preference, his name, and his needs. Many small companies use this approach to render customized services as a competitive advantage over the larger firms.

Efficiency : – refers to the ability of the customers to get to the website, or point of sales find their desired product and information associated with it, and check out with minimal effort.

Fulfillment:–The extent to which the bank promises about order delivery and item availability are fulfilled incorporates accuracy of service promises, having products in stock, and delivering the products in the promised time.

Security: –the degree to which the site (the system) is safe and protects customer information includes. And also assurance that shopping behavior data are not shared and that visa card information is secure.

Generally there are several a varieties of service quality measurement models such as SERVQUAL and SERVPERF were widely used model, those were developed by (Parasuraman, Berry, &Zeithaml, 1985). Thus, the model proposed that service quality is measured by five dimensions: assurance, reliability, empathy, tangibles and responsiveness. But E-SERQUAL model is the improved and refined which measured by seven dimensions: Reliability, Responsiveness, Assurance, Efficiency, fulfillment, Security and Empathy (Parasuraman, zeithaml, & Malhotra, 2005).

2.1. Empirical Literature Review

In this section presents the empirical literature review of the effect of e-banking specifically point of sales (POS) machine on customer satisfaction based on the previous studies findings and journal articles what they done.

According to Hassen M, Mohammed S & Mohammed F (2015) A Study about Customer Satisfaction of e-Service Quality on POS:- The study was done by using SPSS software servqual model with a sample of 200 customers from this study we can see, all variables related to e-Service Quality are correlated with Customer Satisfaction. The lowest mean of the Variable is reliability. It showed reliability of POS is low to users and customers. In other way, cost and ease of use were variables those reveal the highest correlation with customer satisfaction. Generally the analysis results of this research show that security and being useful have the highest effect on customers' satisfaction, and also the result of their study reflects that Responsiveness has the lowest effect on customer satisfaction.

Mesay (2012) in his study "Bank Service Quality, Customer Satisfaction and Loyalty in Ethiopian Banking Sector" The main objective of the study was to measure the quality of service offered by private banks operating in Ethiopia. Moreover, it tries to investigate the relationship between service quality, customer satisfaction and loyalty. The five dimensions of SERVPERF model i.e. reliability, assurance; tangibility, empathy and responsiveness were used to measure the quality of service provided by the private banks. His result revealed that there is a positive correlation between the dimensions of service quality and customer satisfaction. The study indicates that empathy and responsiveness plays the most important role in customer satisfaction level followed by tangibility, assurance, and finally the bank reliability.

As the study of Simon Nahusenay Ejiguthe study on E-banking Service quality and its impact on customer satisfaction in State Owned Banks in East Gojjam Zone Ethiopia. To achieve his objective the researcher was employed statistical tools such as mean, standard deviation, correlation regression by using spss software. In this study the correlation result revealed that except assurance the four service quality dimensions have positive and significant effect on customer satisfaction. As statistics result of service quality dimensions showed customers of the banks (CBE) were satisfied by the five service quality dimensions. However respondents are most satisfied with responsiveness dimensions followed by tangibility and reliability respectively.

In other way Sintayehu Yitbarek (2015) study conducted on the impact of E-banking service on customer satisfaction. Indicated that Reliability dimension have highest correlation with customer satisfaction followed by transaction efficiency. The result of correlation implies

Reliability of E-banking service of commercial bank of Ethiopian has significant relationship with customer satisfaction. as the SPSS output revealed the overall customer satisfaction of E-banking was moderate with mean 3.30 and std diviation1.061.And except customer support all independent variables have a positive relationship with customer satisfaction.

As the work of Sisay Abebe(2016) on the effect of electronic banking service quality on customer satisfaction, implies the correlation coefficient between explanatory variables and customer satisfaction indicated positive relationship. The most dominant service quality dimension in the analysis was assurance. The analysis of the study also shows that the independent (reliability, responsiveness, empathy, tangibility and assurance) has significant and positive effect on customer satisfaction. But assurance has the most significance effect on customer satisfaction.

2.2. Conceptual Framework

This section of the study revealed that a conceptual description between customer satisfaction and service quality dimension based on theories and previous literature reviewed. On the relationship between the e-service quality dimensions developed by (Parasuraman, Berry, &Zeithaml et al, 1985) which are the explanatory variables**(**Responsiveness, Assurance, Efficiency, Fulfillment, Reliability, Security and Empathy)and the dependent variable (customer satisfaction).Thus, the seven e-service quality dimensions(factors) that contribute to customer satisfaction for the organization, these dimensions have their own impacts on customer satisfaction in commercial bank of Ethiopia. In the diagram below showed that the left side of the figure the seven e-service quality dimensions while the right side customer satisfaction which is affected by-service quality.

Independent VariablesDependent Variable

Service quality dimensions

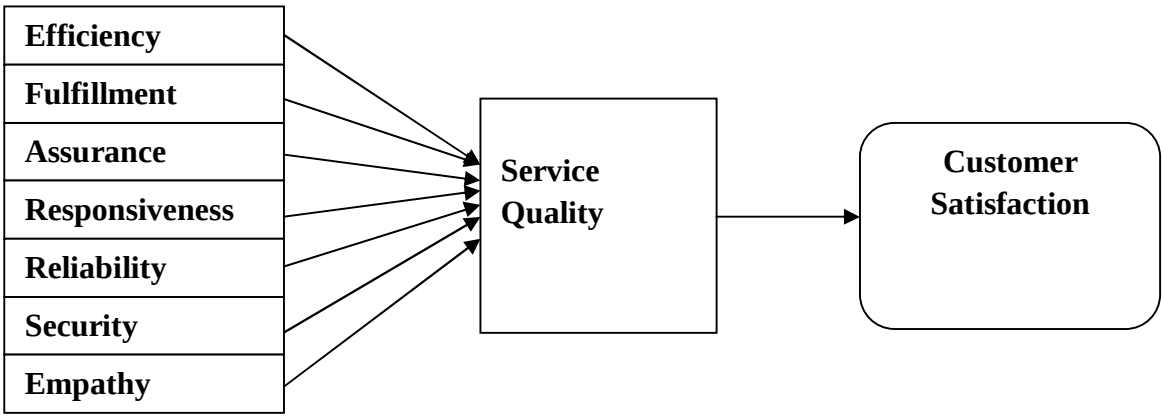

Figure2.1**: Theoretical Model for the Study**

Sources:-Zeithaml, Parasuraman and Malhotra (2005)

CHAPTER THREE
RESEARCH METHODOLOGY

3.1. Research Design

In order to answer the research question the nature of the study was explanatory research design. Explanatory research design was used to identify the cause and effect of point of sales machine service quality on customer satisfaction which is appropriate for the objective of the study, also explanatory research design is a good fit to know the effects of the independent variable (Efficiency, Fulfillment, Responsiveness, Reliability, Assurance, Empathy and Security) on the dependent variable customer satisfaction. The researcher was also employed ANOVA, Regression and correlation analysis.

3.2. Research approach

The approach to this study was both quantitative and qualitative research approach. Qualitative approach attempts to increase our understanding of why things are the way they are and why people act the way they do. In addition to this, the study was make use of quantitative approach for better understanding by using Five-point Likert-scale in the data analysis as well because one of the characteristic of quantitative research was make it suitable for this study. The researcher, therefore, has used combined quantitative and qualitative (mixed) approaches.

3.3. Type and Source of Data

In order to meet the objectives of the study both primary and secondary sources of data was used. The study more depends on primary data, which was collected by using a questionnaire developed based on E- SERVQUAL instrument and obtained from customers of selected sample branches located in South Addis Ababa District.

3.4. Population of the Study

3.4.1 Target Population

According to (Sekeran, 2001) cited in (Hirut S.2015), a population is "the entire group of people, events, or thing of interest that the researcher wishes to investigate". The population of this study was customer of point of sale machine (POS) at commercial bank of Ethiopia Addis Ababa city branches under SouthAddis Ababa district (SAAD). The reason to focus on in this district is: SAAD have large number of POS users and customers that use point of sales machine frequently (semi-annual report 2019-2020).The target population for the study was customers of South Addis Ababa district grade four branches. These branches selected for this research because they have large amount of active point of sales machine customers and high volume of transaction by POS machine.

3.4.2 Sample Size

The sample size refers to the number of observations or replicates to include in a statistical sample. In order to determine sample size; the researcher was used formula for calculating the required sample size from five branches which are found in South Addis Ababa District. The formula was developed by Taro Yamane (1967), which is used money researcher. And it is calculated as follows

Assumptions

A 95% confidence level, and e = ±5%

$$n = \frac{N}{1 + N\,(e)^2}$$

Where:-

n = the sample size

N = the population size

e = the level of precision is 95% (Sampling error)

$$= \frac{109{,}721}{(1 + 109{,}721(0.05)^2)}$$

=**236**sample size of the research

Hence, the total sample size was 236 since the number of *POS* machine users in each branch is not the same, the number of samples for each branch was calculated by the following formula:

$$n = \frac{nN1}{N}$$

Where;

n= is total number of sample

N =is total number of population

N1= is total number of population in each branch

Table 3.1: **List of Sample Branch**

Sample Branch	**Total Number of Population**	**Total Number of Sample**
Dil Gebeya	20,833	45
Finifine	26,524	57
Mexio	18,319	39
Sarbet	24,789	53
Karl Adebabay	19,461	42
Total	109,721	236

Source: Quarter performance of CBE 2019-2020.

Finally, after determining the sample size the researcher was used simple random sampling to distribute questionnaire for the respondent.

3.4.3 Sampling Technique

Mugenda&Mugenda (2003) observed that the purpose of sampling is to secure a representative group which enables the researcher to get information about an entire population when faced with limitations of time and energy.

In this study, the researcher was selected South Addis Ababa district (SAAD) by using purposive sampling method. Stratified sampling technique was applied in order to obtain representative sample respondents. Based on stratified sampling technique branches of CBE are divided into four strata which is Grade one, two, three, and four. From this category; the researcher was selected only grade four branches. Thus, out of 123 branches that provide POS service under SAAD 8 of them are under grade four categories. To make the study manageable and because of resource constraint, among 8 grade four branches providing point of sales machine service under SAAD; 5 (Five branches) was selected by convenience sampling technique as a sample branch namely Dil Gebeya, Finifine , Mexio, Sarbet and Karl Adebabay branch whose total active card users are 109,721.

Thus, branches were selected based on the relative size, year of operation of the branches, number of total active card user's, number of point sales machine users visit the branch per day and also thus branches have a number of active merchants under it to deploy a POS machine in supermarkets, hotels, hospitals, collages and different business centers and the users of thus branches are active users of POS machine.

3.5. Data Collection Instrument

The primary data was collected through personally administered questionnaire in order to get first-hand information from point of sales machine users.

A five-point Likert scale ranging from (1) "strongly disagree" (2) "disagree" (3) "neutral" (4) "agree" and (5) "strongly agree" was used to measure the perception of service quality in point of sales machine.

3.6. Method of Data Analysis

The data analysis is converting, transform, and processes all the raw data into useful and valuable information using appropriate technique. Data analysis stages consists procedures which was carried out to summarize and transform the data into useful information (Zikmund, 2010).

In this study the survey questionnaire data was encoded to SPSS version 20. The statistical tools used for this study are descriptive analysis, correlation and regression analysis.

Descriptive statistics method was made based on the results of the tables and figures using mean value. Correlation coefficient was used to determine the strength relationships between point of sales machine e-service quality dimensions (efficiency, FulfillmentSecurity, responsiveness, assurance, empathy and reliability) and customer satisfaction.

Finally, the regression analysis was done to know how much the independent variable i.e.efficiency, fulfillment, Security, responsiveness, assurance, empathy and reliability influence the dependent variable (customer satisfaction).

Based on the regression function, the following regression equation was used for this study:-

CS = B0 +β1 EFF +β2 FUL +β3REL +β4 PRI +β5 RES + β6 ASS

+β7 EMP +Ui ……………………………………………………………………..eq1

CS is Customer satisfaction, EFF is Efficiency, FU isFulfillment, REL is Reliability, SEC is Security, RES is Responsiveness, ASS is Assurance, EMP is Empathy, Ui is error term and βi are parameters(coefficients) of the variables

3.7. Ethical Consideration

Ethics is one of the major considerations in research. Hence the study has incorporated the following ethical considerations.

- Respondents were clearly communicated about the objective of the study before they were asked to give their answer.

- The questioner explained to the respondent and all respondents were requested politely to participate in the study on voluntarily basis while their information would remain kept confidential.
- Respondents were not asked about their name, race and religion etc.

CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION

This chapter presents the results of the data analysis according to the research methodology discussed in chapter three. The general background of the characteristics of the respondents and a detailed discussion regarding the three specific objectives of the study are also presented.

Descriptive statistics were used for describing the characteristic of demographic parts. And correlation and linier regression analysis also conducted for the typed questionnaires in order to know the current information of the bank with regard to the factor that distresses POS machine customer's satisfaction. The questionnaires were distributed to the customers of five branches of commercial bank of Ethiopia which are conveniently selected from South Addis Ababa district (Dil Gebaye, Finifine, Karl Adebabay, Mexio and Sarbet Branches).

To achieve the main objectives of the research a total of 236 questionnaires were prepared and distributed to POS machine customers at commercial bank of Ethiopia. Out of these questionnaires, 206 of them were collected with a response rate of 87.3% while the remaining 30 or (12.7%) of the questionnaires were not included due to incompleteness of the questionnaire. Accordingly the data collected from the questionnaire is analyzed as follows.

4.1. Reliability Analysis

Measuring the consistency of the questionnaire particularly the Likert-type scale the reliability analysis of the overall reliability of all the variables is very important. Hence, to carry out this reliability analysis, Cronbach's Alpha (α) is the most common measure of scale reliability and a value greater than 0.700 is very acceptable (Field, 2009; Cohen and Sayag, 2010) and according to Cronbach's (1951), a reliability value (α) greater than 0.600 is also acceptable.

Table4.1: Reliability Statistics

Reliability Statistics		
Cronbach's Alpha		No of Items
.941		31

Source: output SPSS20

The above table revealed that the value for Cronbach's Alpha (α) was 0.941 for all variables. This calculated reliability value implies that the reliability of the variables is very acceptable since the Cronbach's Alpha value greater than 0.700 and close to 1. Hence, the responses generated for all of the variables' used in this research are reliable enough for data analysis.

4.2. General Characteristics of Respondents

This part shows the survey questionnaires were designed to identify the customers of point of sales machine (POS) demographic characteristics and banking service experience. All respondents participated in this study were from (POS) service users of the commercial Bank of Ethiopia, (Dil Gebaye, Finifine, Karl Adebabay, Mexio and Sarbet) branches . Results of the demographic variables and point of sales machine service experiences of the respondents are presented.

Table 4.2: Demographic Characteristics of the Respondents

Parameter		Frequency	Percent	Cumulative Percent
Gender	Female	118	57.5	100.0
	Male	88	42.5	42.5
	Total	**206**	**100.0**	
Age	18-25	79	38.3	38.3
	26-35	87	42.5	80.8
	36-45	29	14.2	95.0
	above 46	11	5.0	100.0
	Total	**206**	**100.0**	

level of Education	Diploma	79	38.3	38.3
	BA degree	108	52.5	90.8
	MA/master's degree	19	9.2	100.0
	Total	**206**	**100.0**	
Experience of using point of sales machine	Less than1year	70	34.1	34.2
	between1-2 years	72	35.0	69.2
	between2-3 years	45	21.7	90.8
	between3-4years	19	9.2	100.0
	Total	**206**	**100.0**	
Which are the purpose point of sales machine service which you use	cash withdrawal	84	40.8	40.8
	purchasing goods	69	33.3	74.2
	pay education fees	27	13.3	87.5
	hotel service	15	7.5	95.0
	Others	11	5.0	100.0
	Total	**206**	**100.0**	
how often do you use point of sales machine service	every day	88	42.5	42.5
	Twice a week	72	35.0	77.5
	once a week	27	13.3	90.8
	once a month	19	9.2	100.0
	Total	**206**	**100.0**	
how would you proportion your skills of using point of sales machine service	Advanced	81	39.1	
	very advanced	72	35.0	74.2
	Average	29	14.2	88.3
	Basic	24	11.7	100.0
	Total	**206**	**100.0**	

Source: own survey result

Table 4.2 above shows respondents' profile in this study. It indicated that respondents almost split between males (42.5%) and females (57.5%), suggesting both genders represented in the study shows that majority of respondents who were using POS machine are females. With regard to age of respondent from the majority of the respondents (42.5%) were within the age range of 26-35 and (38.3%) within the age group of 18-25, (14.2%)within the age group 36-42 of the respondents and (0.7%) of the respondents were above 46 years. This result also may indicate that the POS Services given by CBE may be attractive to customers within the age range of 26-35 and 18-25.

With regard to educational level of respondents the highest Percentage, (52.5%) of respondents were degree holder, 38.3% of Respondents were diploma holders and 9.2% of the respondents in this study were Masters Holders and above.

Regarding to experience of using point of sales machine since each respondent has start using POS service, (34.1%) of the respondents has experience of less than 1 year,(35%) of the respondents has experience of using POS machine for 1-2 years, (21.7%) of the respondents has used POS machine for 2-3 years and (9.2%) of the respondents has used POS for more than 5 years .

Towards Repetitive using of POS machine service, (42.5%)of the respondents were use every day,(35%)of the respondents made their transaction twice a week, (13.3%) of the respondents were process their transaction once a week. and (9.2%) of the respondents were make transaction once a month..

Within the different point of sales machine service, as the above table showscustomers uses different service. (40.8%) of the respondents use POS machine for cash withdrawal,(33.3%) of the respondents were use POS machine to purchasing different goods and services.(13.3%) of the respondents to pay their education fees, the smallest percent of the respondents (5 %)choice point of sales machine or Hotel purpose, and the rest of (7.5%) were uses POS for other purpose. So, from the above result we understand that most of the respondents use point of sales machine for cash withdrawal purposes.

With regard to the skills of the respondents using POS,(11.7%) of the respondents have average skill of using the POS machine,(14.2%) of the respondents have basic knowledge of point of sales machine service, respondents those who have advanced skill of point of sales machine were (39.9%) and the rest of the respondents (35%) were categorized under very advanced skill of POS machine service

4.3. DATA ANALYSIS

4.3.1. Descriptive Analysis of the Dependent and Independent Variables

A descriptive statistics has conducted for the dependent variable (Customer Satisfaction) and independent variables (Efficiency, FulfillmentReliability, Security, Responsiveness, Empathy and Assurance). It includes mean and standard deviation. Mean score was calculated to show the average responses of respondents for each question that was included under each dimension. Mean scores 4.3-5.00 excellent or very good, 3.31-4.30good, 2.31-3.30 average or moderate, 1.51-2.30 fair and 1.00-1.50 is poor (poonlar btawee:1987).

Table 4.2: **Efficiency Dimensions**

Measurement Item	N	Mean	Std. Deviation
The bank provide delivery of quick services through the point of sales machine service	206	3.32	1.378
It is quick to complete a transaction through the bank's point of sales machine	206	3.71	1.260
Point of sales machines are user friendly interface	206	3.48	1.322
Point of sales machines do not have network problem	206	3.17	1.386
Using the bank's point of sales machines does not require a lot of efforts	206	3.83	1.225
Grand mean		**3.50**	

Source: output SPSS20

An Efficiency dimension refers to the ability of the customers to get the website or the point of sale machine service finds their desired information. As shown from the above table, the highest

mean for this dimension come from the fifth item that implies using the banks POS does not require a lot of effort, with the mean score of 3.83 that indicates efficiency of POS of CBE is good. The second highest mean comes from second items; with the mean of 3.71which it is fastto complete a transactionthrough the POS machine service. That implies customers satisfaction with efficiency dimension is good. Item third with the mean score of 3.48 shows point of sales machine are user friendly. The lowest mean of Efficiency dimension shows point of sales machine do not have network problem with the mean score of only 3.17 which shows customers satisfaction is average. The other one was the mean score of 3.32 that shows it is quick to complete transaction through bank's POS machine and this also shows customers satisfaction within POS efficiency is moderate. In general the grand mean scored for service efficiency dimension is 3.50. Therefore, the study revealed that, in terms of service efficiency, customer's satisfaction is good but it still needs enough development in order to satisfy customers.

Table 4.3: FulfillmentDimensions

Measurement Item	N	Mean	Std. Deviation
When The Bank Promises To Do Something By A Certain Time, It Does To	206	3.27	1.4992
The Bank Point Of Sales Machine Transaction With The Bank Are Always Accurate	206	3.49	1.322
The Service Delivered Through The Bank's Point Of Sales Machine Is Quick	206	3.55	1.315
The Bank Point Of Sales Machine Makes Accurate Promises About The Service Being Delivered	206	3.26	1.599
Grand Mean		**3.39**	

Source: output SPSS20

The above table 4.4 describes items that measurefulfillment. The highest mean score was 3.55which is the third item, that describes the service delivered through the bank's POS machine is quick. The other highest mean scored (3.49) was from second indicator that shows the bank

POS machine transaction with the bank are accurate. And also the mean score of 3.27 from the first item which was, when the bank promises to do something by a certain time, it does to. The smallest mean score of 3.26from the last item that banks POS machine makesmoderately accurate promises service delivered. In general, from the above table we understand that customer's satisfaction about fulfillmentis good but in order to get service excellence the bank should still expected to do enough improvement on fulfillmentdimension.

Table 4.5: **Reliability Dimensions**

Measurement Item	N	Mean	Std. Deviation
Quick Completion Of The Transaction On Time	206	3.81	1.252
Point Of Sales Machine Service Available 24 Hours For Business	206	3.27	1.566
The Bank Does Not Misuse My Personal Information	206	2.78	1.559
The Bank Point Of Sales Machine Have Accuracy With Accurate Services Delivered On Time	206	2.95	1.566
Grand Mean		**3.20**	

Source: output SPSS20

Reliability refers the ability to perform the promised service dependably and accurately. Mudie and pirrie,(2006 . According to the table, the highest mean is scored from the first item i.e. Quick completion of transaction with POS machine for minimize the time spent in the banking service with a mean score of 3.81. And then the second itemwhich a mean score is 3.27, which indicates the point of sales machine service is available 24 hours. Item four with the mean of 2.95 shows that the bank' point sales machine have accuracy with accurate service delivery ontime modernly. Similarly,he bank's POS perform least on item three which is reliability in performing The bank does not misuse personal information, With the mean score of 2.78. In general the grand mean score for service reliability dimension is 3.20. From this, the study implies that, in terms of reliability customers are good but not still satisfied enough.

Table 4.6: Security Dimensions

Measurement item	N	Mean	Std. Deviation
The bank give enough concern to point of sales machine user information	206	3.52	1.261
The bank makes you feel safe while performing banking transaction	206	3.45	1.321
The bank does not misuse my personal information	206	3.80	1.261
The bank point of sales machine have accuracy with accurate services delivered on time	206	3.21	1.566
Grand mean		**3.49**	

Source: output SPSS20

The security Dimensions. The above table reveals items that measures Privacy. The highest mean score was 3.80 which is from the third indicator show the bank does not misuse personal information. So this indicates customer's satisfaction regarding privacy is good. The second highest mean 3.52which the bank gives enough concern to point of sales machine user information expresses point of sales machine service are easily accessible. And also the other mean 3.45 from the second item which the bank makes you feel safe while performing banking transaction is good. To generalize as shown in above table the grand mean for privacy is 3.49 which indicated that regarding to privacy or personal information commercial bank of Ethiopia POS users perceive that the concern given by the organization is good

Table 4.7: Responsiveness Dimensions

Measurement item	N	Mean	Std. Deviation
The bank gives prompt responses to my request by e-mail or other means	206	3.15	1.334
The bank quickly resolve problems you encountered with your point of sales machine transaction	206	3.25	1.530
The bank point of sales machine customer service are easily accessible by telephone or other means	206	2.57	1.314
Grand mean		2.99	

Source: output SPSS20

The responsiveness dimension involves willingness to help customers and provide prompt services. As shown in the above table 4.7 the grand mean for responsiveness dimension is 2.99 which is the average or the least mean as compared to other independent variables. All items from theResponsiveness Dimensions of the mean values lie between 2.31-3.30, which is average or moderate. This implies that lowest grand mean of responsiveness attribute of service quality which compared with other service quality dimensions in this study. Thus, this indicated that the grand mean of responsiveness dimension ofPOS on customer's satisfaction is not as much, with the responsiveness dimension of the bank and they have no good perception about the responsiveness dimension of the bank

Table 4.8: **Assurance Dimensions**

Measurement item	N	Mean	Std. Deviation
Attention to ordered services	206	3.43	1.371
On time service delivery	206	2.84	1.471
Fast transmission of consent given by user regarding the entered sensitivity information	206	3.52	1.426
Adjustment between presented service and expected service	206	3.53	1.303
Grand mean		3.33	

Assurance dimension refers to the knowledge and courtesy of employees and their ability to inspire trust and confidence including competence, credibility and security.The above table describes items that measures assurance. The highest mean score was 3.53 which is the fourth item that describes Employees assigned on point of sales service have the required knowledge on POS machine and to answer customer's Question. The second highest mean was scored 3.52 which assigned employees on POS machine are fast on transmission of approval. The other one was mean scored 3.43 in item one related to attention for ordered service. Whereas, the least mean scored 2.84 in item four which shows adjustment between current service and expected service.In assurance dimensions of quality compared to other dimensions it is good and employees also have best knowledge to assure customers questions. In general, the above table showed that the grand mean for assurance is 3.51 which indicate regarding to assurance commercial bank of Ethiopia POS customers perceive that the quality of service being offered by the organization is good.

Table 4.9: **Empathy Dimensions**

Measurement item	N	Mean	Std. Deviation
The bank working hour is suitable for POS machine users	206	3.50	1.277
The bank give personal attention to customer	206	3.43	1.499
The bank provide delivery of quick services through the point of sales machine service	206	3.37	1.347
The bank does not misuse my personal information	206	3.35	1.382
Grand mean		3.41	

Source: output SPSS20

The empathy is dimension provision of individualized attention and caring to customers including access or approachability and ease of contact, effective communication, and understanding the customers. As shown from the table above, the highest mean for this dimension come from the third item that signifies the bank has operating the best interest of POS customers at heart with a mean score of 3.50 followed by the bank has suitable working hour for POS machine users , with a mean score of 3.43. In other way the second item which is personal attention to customers shows minimum mean score of 3.37. However, the fourth indicator which

is call centers of the bank operating hour is convenient to all customers with mean score of 3.37. Generally, the grand mean of 3.41 of empathy dimension indicates customer's satisfaction regarding empathy is good.

Table 4.10: Overall Satisfaction

Measurement item	N	Mean	Std. Deviation
I am satisfied with the bank point of sales machine because it reduce cash holding	206	3.69	1.215
I am satisfied with point of sales machine service b/c it reduces the time used for banking service	206	3.71	1.260
I am satisfied with point of sales machine service because it simplifies my everyday life	206	3.80	1.261
Grand mean		3.73	

Source: output SPSS20

According to scholars defined, customer satisfaction in a competitive environment is viewed as being a crucial element in the firm's strategy. The firm needs to retain existing customers and target new one. Customers become satisfied if the performance of the good or service is equivalent to, more than expectation. As clearly seen from the table above, the highest mean for this dimension come from the third indicator that signifies POS customers satisfied with financial consulting provided on POS service with a mean score of 3.80 followed by the CBE point of sales banking service level of the bank close to POS customers' expectations with a mean score of 3.71. However, the least mean comes from the first item which reduces cash holding limits and customers are satisfied with the POS service provided by the bank with a mean score of 3.69.As a general, the grand mean score of this concept based on customers view is 3.73, this shows regarding to overall customer satisfaction customers have good or moderate perception about satisfaction which means the customers are still not satisfied enough by POS service provided by the bank.

4.4. Correlation Analysis

Correlation analysis is applied to test the "Interdependency" of the variables. In this section of the study, the direction and degree of the strength of the relationship among the variables are determined. A Correlation analysis means the relationship expressed by value within the range -1.00 to + 1.00 as Pearson product–moment indicates. Pearson correlation is +1 in the case of a perfect increasing (positive) linear relationship (correlation), -1and1 in all other case indicating the degree of liner dependency between variables shukran(2003).In this study a correlation analysis with Pearson´s correlation coefficient (r) was conducted on all variables to investigate the relationship of point of sales (POS) machine service quality dimensions and customer's satisfaction. To interpret the strengths of relationships between variables, the guidelines suggested by field (2005) were followed, mainly for their simplicity. His classification of the correlation coefficient (r) is as follows: 0.1– 0.29 is weak; 0.3 – 0.49 is moderate; and= > 0.5is strong.

Table 4.12: Correlation Analysis

Correlations									
		Efficiency	Fulfillment	Reliability	Security	Responsiveness	Assurance	Empathy	Satisfaction
Efficiency	Pearson Correlation	1	.364**	.620**	.592**	.312**	.377**	.463**	.434**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.000
	N	206	206	206	206	206	206	206	206
Fulfillment	Pearson Correlation	.364**	1	.571**	.578**	.758**	.609**	.744**	.602**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.000	0.000
	N	206	206	206	206	206	206	206	206
Reliability	Pearson Correlation	.620**	.571**	1	.859**	.689**	.714**	.787**	.522**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.000	0.000	0.000

	N	206	206	206	206	206	206	206	206
Security	Pearson Correlation	.592**	.578**	.859**	1	.547**	.659**	.659**	.356**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000	0.000
	N	206	206	206	206	206	206	206	206
Responsiveness	Pearson Correlation	.312**	.758**	.689**	.547**	1	.768**	.740**	.622**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000	0.000	0.000
	N	206	206	206	206	206	206	206	206
Assurance	Pearson Correlation	.377**	.609**	.714**	.659**	.768**	1	.662**	.446**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000		0.000	0.000
	N	206	206	206	206	206	206	206	206
Empathy	Pearson Correlation	.463**	.744**	.787**	.659**	.740**	.662**	1	.714**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000		0.000
	N	206	206	206	206	206	206	206	206
Satisfaction	Pearson Correlation	.434**	.602**	.522**	.356**	.622**	.446**	.714**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	N	206	206	206	206	206	206	206	206
**. Correlation is significant at the 0.01 level (2-tailed).									

Source: output SPSS20

The aboveCorrelation Analysis table resultsrevealed that the degree of correlation or the relationship among variable. The Correlation coefficient between Empathy and customer satisfaction is (r=0.714) with (P<0.01) level of significance which indicated that a positive and strong relationship between them. The correlation coefficient between Responsiveness and customer satisfaction shows a strong relationship and positively related (r=0.622) with (P<0.01).

The correlation result offulfillmentand customer satisfaction is revealed that strongly and positively related that is r=0.602 with P=0.000 level of significance. And also, the correlation coefficient between Reliability and customer satisfaction has strong relationship and positively related (r=0.522) with (P<0.01) level of significance.

The result of the table above shows securityand customer satisfaction are moderate and positively related (r=0.446) with (P<0.01) level of significance and this implies the customers of the bank not highly satisfied with POS service provided by the bank, in other word employees are does not give the right response to the customer . The assurance and customer satisfaction also positively related (r=0.356 with (p=0.000) level of significance, as well has moderate relationship. The seventh explanatory variable is efficiency which is also a positively moderate related to customer satisfaction having a correlation (r=0.434) with (P=000) level of significance which means Employees give personal attention for POS customer which enhances the customer satisfaction with POS machine service provided by the bank.

The Pearson correlation matrix table results shows thatthe variables of Empathy,Responsiveness,fulfillment andReliabilityhave strong association with overall customer satisfaction. The other variablesprivacy,assurance andefficiency have a moderate relationship withcustomer satisfaction in this study. Based on the above results the signof the correlation coefficient of all variables arepositive which meansservice quality and customer satisfaction are positively correlated.This implies the better service quality was the higher customer satisfaction. Accordingly, the most important service quality dimension that affects customer satisfaction is fulfillment, which goes to prove that ease of use, perceived as a dominant service quality followed by Reliability.

4.5.RegressionAnalysis

Regression analysis helps to understand how the value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held constant. In this study regression analysis is used to identify the effect of service quality dimension on customer satisfaction thus it answers the third research question.

Table 4.13: RegressionCoefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.158	.734		7.024	.000
	Fulfillment	.090	.068	.111	1.322	.188
	Reliability	.001	.098	.001	.011	.991
	Security	.258	.073	.344	3.514	.001
	Responsiveness	.238	.079	.289	3.025	.003
	Assurance	.086	.060	.111	1.438	.152
	Empathy	.432	.066	.592	6.565	.000
	Efficiency	.210	.045	.276	4.720	.000

A. Dependent Variable: Satisfaction

Based on the above regression results, we produced in the following equation in terms of customer satisfaction (CS)

CS = 5.158 + .09FU+.001RE + .258SE + .238RES+ .086ASS + .432EMP

+.210EFF + Ui ……eq2

Where,

CS is Customer satisfaction, EFF is Efficiency, FU is Fulfillment, RE is Reliability, ES is Security, RES is Responsiveness, ASS is Assurance, EMP is Empathy andUi is error term.

The above table (regression results) showed that the point of sale (POS) machine service quality dimensions of Security, Responsiveness, Empathy and Efficiency are statistical significant since the t-value is greater than 1.96 or P- value less than 0.05 whereas, Reliability, Assurance and Fulfillmentare statistical insignificant at 5% critical (conventional) level. This implies that Ease of use, Reliability and Assurance have not a significant effect on POS customer satisfaction which means these service quality dimensions are not determines customer satisfaction in commercial bank of Ethiopia.Security, Responsiveness, Empathy and Efficiency have a significant effect on POS customer satisfaction.Hence, these variables are considered as significant (important) variables in this study and also sign of coefficients reveal that the positive effect on the predicting dependent variable that is customer satisfaction. This means any increase in the independent variables (service quality dimensions) lead to increase in the dependent

variable (customer satisfaction). This finding is consistent with findings of the previous studies that are (Mihret and Yismaw, 2007; Cohen &Sayag, 2010; Arena and Azzone, 2009; Al-Twaijry et al. 2004). From these variables,Empathy andSecurity are high elasticity (response) to compare with other variables for customer satisfaction in CBE.

One of the factors that have a higher statistical significance contribution of this model isEmpathy. As seen table 4.12, if the Empathy increased by one percent then customer satisfaction lead to increase in 0.43 percent at 5% level of significance. This implies thatEmpathydimension of service quality is positively related and has significant impact on POS user customer's satisfaction in commercial bank of Ethiopia (CBE). This is supported by the study of Mesay (2012) which isEmpathy have positive and significant effect on customer satisfaction. As the same as a one percent increase in responsiveness leads to raise POS customer satisfaction in commercial bank of Ethiopia by 0.24 percent at the same level of significant. Responsiveness deals with willingness to help customers and to provide prompt service. The results of multiple regressions imply that that responsiveness dimension of service quality is positively related and has significant impact on POS customer satisfaction at 95% confidence level.

Privacy (security) is one of the other important of service quality dimension in this study which is the results shows positively related and has significant impact on POS customer satisfaction. Privacy is carrying individualized attention the firm provides its customers. In this study the regression result indicates a change in security by one percent is going to increase POS user customer's satisfaction by 0.29 percent. Efficiency is also refers to the ability of the customers to get to the website or point of sales service, find their desired product and information associated with it, and check out with minimal effort. Moving on the beta value table of independent variable (efficiency) is 0.21with t value (4.7) which implies that a one percent increase in efficiency leads to raise 0.21 percent in POS customer satisfaction.In general, this regression results implies that theservice quality dimensions ofSecurity, Responsiveness, Empathy and Efficiencyare the most important determinants of customer satisfaction in which the bank should give more emphasis.

4.6. Assessment of Multi Collinearity

Multicollinearity exists when there are strong correlations among the predictors and the existence of r value greater than 0.80, tolerance value below 0.10 and Variance Inflation factor (VIF) greater than10 in the correlation matrix are the causes for the multicollinearity existence (Field, 2009; Myers, 1990; Pallant, 2007). Tolerance is a statistics used to indicate the variability of the specified independent variable that is not explained by the other independent variables in the model and the model suffers multi-collinearity problem only if the variables are correlated at equal to or greater than 0.80.

Table 4.14: Collinearity Statistics

Collinearity Statistics	
Tolerance	**VIF**
.647	1.545
.385	2.595
.450	2.220
.502	1.993
.503	1.989
.358	2.796
.392	2.552

The above Co linearity Statistics test (VIF) result revealed that the model free from multi-collinearity problem since the Variance Inflation factor (VIF) value less than 10 or tolerance value greater than 0.10.

4.7. Linearity Test

Source: Survey data, SPSS20 output

Figer 4. 1 Linearity Test

Linearity refers to the degree to which the change in the independent variable is related to change in the dependent variables. Normal p-p plot shows that the point generally flow the normal line which show there is no strong deviation. It indicates that the residual are normally distributed in which inference made about the population parameters from the sample statistic tend to be valid

4.8. ANOVA Test

Table 4.15: ANOVA Test

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	832.968	7	118.995	45.223	.000[b]
	Residual	520.998	198	2.631		
	Total	1353.966	205			

a. Dependent Variable: Satisfaction

b. Predictors: (Constant), Efficiency , Responsiveness , Security , Fulfillment, Assurance, Empathy, Reliability

This section deals with econometric techniques of finding out whether the model adopted is a reasonable fit for the data. And thus the ANOVA test shows the significance of the model by the

value of F-statistics (P =.000) and F = 45.223 which implies that there were strong relationship between the predictors and the outcomes of the regression variables and are at best fit the model to predict the effect of POS machine service quality. The F- statistics which is 45.22 indicated that the explanatory variables are jointly significant. Thus, this model is the best-fit model since the F-statistics is greater than 1.96 at conventional level in this study.

Table 4.16:**Model Summary test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.784[a]	.615	.602	1.62213

a. Predictors: (Constant), Efficiency , Responsiveness , Security , Fulfillment, Assurance, Empathy, Reliability

The above table presents the coefficient of determination (R-square) indicates the proportionate amount of variation in the response variable (customer satisfaction) explained by the independent variable in the linear regression model. From Model Summary Test result, the coefficient of determination that is R-square (R2) value is 0.615. This implies that 61.5% variation of the dependent variable (Customer Satisfaction) are explained by the variation of the independent variables (in the overall service quality dimensions) such efficiency, Fulfillment, reliability, Security, responsiveness, assurance and empathy in this study. The value of adjusted R2, which also shows the explanatory variables which is the overall service quality dimensions accounts for 60.2% of the variation in customer satisfaction.

CHAPTER FIVE
CONCLUSION AND RECOMMENDATION

5.1. Conclusion

Based on the findings of the study the following main conclusions are drawn. The main objective of this study was to examine the effects of point of sales (POS) machine service quality dimensions on customer's satisfaction in commercial bank of Ethiopia (CBE) by employing E-SERVQUAL models that are efficiency, Fulfillment, reliability, Security, responsiveness, assurance and empathy. From this, the finding of the study revealed that Security, Responsiveness, Empathy and Efficiency are statistical significant whereas Reliability, Assurance and Fulfillmentare statistical insignificant at 5% critical (conventional) level. The descriptive analysis also showed that based onthe computed mean scores of E- SERVQUAL dimensions, privacy(security) andefficiency are the most dominant service quality dimensions. Moreover, The Pearson Correlation test results indicated that the electronic service quality dimension like efficiency, fulfillment, reliability, Security, assurance, responsiveness, empathy and the dependent variable customer satisfaction are positive and strong degree of relationship exists between the variables in this study.

The service quality dimensionsof Security, Responsiveness, Empathy and Efficiency as considered as in this study that effects on customer satisfaction is positively. This implies that the improve service quality leads to raise business survival of the bank in order to get competitive advantage through high quality service. Thus, Quality and customer satisfaction have long been recognized as playing a crucial role for success and survival in today's competitive market. These service quality dimensions not only brings the level of the service quality to the customers' expectation and satisfactions but also increases increased profitability of the bank which result in sustainability of the bank. The implication of this conclusion is that, the study result provides useful insight to assist management of banking institutions who might deliver the point of sales machine service being interested in enhancing their organizational performance through customer satisfaction by Providing delivery of quick services through the point of sales machine service, by providing point of sales machine transaction which is always accurate, and also assign customer service officers who are easily accessible by telephone or other means in

achieving its goals. Precisely, bank managers who are desire improved customer satisfaction or need to resolve their firm's negative performance.

In Conclusion, the major findings of this research shows that Security, Responsiveness, Empathy and Efficiencyare the most important determinants of customer satisfaction in which the bank to enhance its competition by paying much more attention to satisfying customer's needs.

5.2. Recommendations

The analysis of this study includes implications for Commercial bank of Ethiopia as far as the satisfaction level of their customers with different electronics banking services is concerned. Hence, based on the analysis and the findings of the study, these recommendations are made to may help an improved electronic banking service quality dimensions on customer's satisfaction in commercial bank of Ethiopia (CBE).

The in tangibility nature of banking service makes the service quality highly performance based.Therefore, to make the service appealing to customers, all branches better focus on improving their service package. The service package should also be appropriately communicated to target customers, taking in to consideration the interests of frequent service users. Furthermore use of materials that promote point of sales machine and having adequate number of point of sales machine deployed in business areas would also help. In addition to this, Commercial Bank of Ethiopia should have willingness and readiness to sustain its service quality, the bank should give trainings to its employees about service quality dimensions and how to handle customers inquire.

The service quality dimension has got a positive confirmation that related to the quality and skill of personnel. Therefore, the bank should continue to its current service. But also have to improve its service quality and the knowledge of the employees to cop up with the time. In order to sustain customer'sthe employees of the bank should be willing to help customers and to provide prompt service should be improved by giving continuous training to staff with relation service quality. The bank should minimize the gap in this area by answering customer requests, questions, complaints and problems quickly and by recruiting qualified employee

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APENDIX

St. Mary's University

School of Graduate Studies

Questionnaire to be filled by Bank Customers

A survey questionnaire on The Effect of point of sales machine on Customer Satisfaction in the case of commercial bank of Ethiopia in the case of Commercial Bank of Ethiopian (CBE)

Researcher: Girma Gizaw

Dear Respondent, I would like to express my honest pleasure for your time, truthful and prompt responses

Objectives

This questionnaire is designed to collect data for Effect on Point of Sale (POS) Terminal Service Quality and its Influence on Customer Satisfaction. The information that you offer me withthis questionnaire will be used as a primary data in which I am conducting as a partialrequirement of Masters of Business Administration. Hence, this research is believed tobe evaluated in terms of its contribution towards investigating the Point of Sale (POS) Terminal Service Quality and its Influence on Customer Satisfaction along with its contribution to improvements in the bankingindustry of Ethiopia.

General Instructions

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

Secrecy

I want to promise you that this research is only for academic purpose authorized by St. Mary's University. In this regard, no other person shall access the data collected. In any

sort of report that I might publish, I will not include any information that will make it possible to identify any respondent.

Thank you once again!!

Girma Gizaw

Tel. No. 0910551894

E-mail:- girmagizaw1@gmail.com

General Instruction

- Do not write your name in any part of the questionnaire
- Your frank response is vital for the success of the study
- Please put a "✓" mark on your choices

Section A: Demographic Profile

1. Gender: Male☐ Female ☐
2. Level of Education:

   Diploma ☐ Graduate ☐ Master's Degree ☐
3. Age:

18-29 year ☐ 30-40 years☐ 41-50 years ☐ 50 years and above ☐

4. Experience of using point of sales machine services

Less than 1 year☐ between 2-3 years ☐ 3-4 years ☐ More than 5 years ☐

Section B: General Background

Q.1 how often do you use point of sales machine services?

Everyday ☐ twice a week ☐ once a week ☐ once a month☐

Q.2 how would you rate your skills of using point of sales machine services?

Advanced☐ Very advanced☐ Average ☐ Basic ☐

Q.3 what are the different point of sales machine services which you use?

Cash withdrawal ☐ Balance transfer ☐ Purchasing Goods ☐

Pay education fees ☐ Hotel service☐ Other value added services ☐

Others _____

The following statements relate to your feelings about the banks point of sales machine (POS) service quality. Please give your score based on service you received at the bank.

S.No	Dimensions of E-SERVQUAL	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
	• **EFFICIENCY**					
1	The bank provide Quick delivery of services through the point of sales machine service					
2	Point of sales machines are User friendly interface					
3	Point sales machine do not have network problem					
4	It is quick to complete a transaction through the bank's point of sales machine					
5	Using the bank's point of sales machine does not require a lot of effort					
	• **EASE OF USE**					
1	When the bank promises to do something by a certain time, itdoes so					
2	The banks point of sales machine transactions with the bank are always accurate					
3	The service delivered through the bank's point of sales machine is quick					
4	Accurate promises about the services being delivered					
	• **RELIABILITY**					
1	Quick completion of the transaction on time					
2	Point of sales machine service available 24 hours for business					

S.No	Dimensions of E-SERVQUAL	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
3	The bank Point of sales machine do not have error					
4	The bank point of sales machine have accuracy with accurate services delivered on time					
	• **SECURITY**					
1	The bank give Enough concern to point of sales machine user information					
2	The bank makes you Feel safe while performing banking transactions					
3	The bank does not misuse my personal information					
4	The bank makes you Feel confident against the misuse of personal information					
	• **RESPONSIVENESS**					
1	The bank gives prompt responses to my requests by e-mail or other means					
2	The bank quickly resolves problems you encounter with your point of machine transaction					
3	The bank has customer service representatives for point of sales machine service available online					
	• **ASSURANCE**					
1	Attention to ordered services					
2	On time service delivery					
3	Fast transmission of consent given by user					

S.No	Dimensions of E-SERVQUAL	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
	regarding the entered sensitive information					
4	Adjustment between presented service and expected service					
	• **EMPATHY**					
1	The bank give personal attention to customer					
2	The bank working hour is suitable for pos machine customers					
3	The bank has your best interests at heart					
4	Call centers of the bank have operating hours convenient to all its customers.					
	• **OVERALL SATSFACION**					
1	I am satisfied with point of sales machine because it reduce cash holding					
2	I am satisfied with point of sales machine service because it simplifies my everyday life					
3	I am satisfied with point of sales machine service b/c it reduces the time used for banking services					

Thank you!

ENDORSEMENT

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

Advisor Signature._____.&Date._____.