

**ST. MARY'S UNIVERSITY SCHOOL OF
GRADUATE STUDIES
MBA PROGRAM**



**THE EFFECT OF SERVICE QUALITY ON CUSTOMER
SATISFACTION**

**(THE CASE OF E-PAYMENT SYSTEM IN SELECTED
COMMERCIAL BANKS)**

BY: - KULENI TAREKEGN GURMU

ID No.:- SGS/0182/2010A

ADVISOR: - ZEMENU AYNADIS (Ass. Prof)

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St Mary's University
Addis Ababa, Ethiopia**

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APPROVED BY BOARD OF EXAMINERS

_____	_____	_____
Dean, Graduate Studies	Signature	Date
_____	_____	_____
Research advisor	Signature	Date
_____	_____	_____
Internal examiner	Signature	Date
_____	_____	_____
External examiner	Signature	Date

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List of abbreviation

ATM	Automated Teller Machines
AVR	Automated Voice Response
CBE	Commercial Bank of Ethiopia
EFT	Electronic Funds Transfer
ICT	Information and Communication Technology
IT	Information Technology
KPI	Key Performance Indicator
NBE	National bank of Ethiopia
NPS	National Payment System
PDA	Personal Digital Assistant
PIN	Personal Identification Number
POP	Point Of Purchase
POS	Point of Sale
TTP	Trusted Third Party
SERVQUAL	Service Quality Measurement Tool
SPSS	Statistical Package for Social Sciences
SMS	Short Message Service

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Abstract

Under the current growing and competitive environment of the banking industry, Customer satisfaction plays a vital role in maintaining firm's profitability. Thus, the purpose of this study was to explain the effect of service quality on customer satisfaction in the context of selected commercial banks operating in Addis Ababa City west district; namely Commercial Bank of Ethiopia, Dashen Bank and Awash Bank. The study was designed and carried out using descriptive research method using qualitative and quantitative data. In order to answer the basic research questions and attains objectives of the study. Primary data was collected through questioner and interview. From the target population of 2025 customers 323 of them was identified as a sample size and selected to respond a questionnaire using convenience sampling technique. Among the samples, 91.02% of them have appropriately filled. Thus, the analysis and interpretation of the data was based on appropriately filled and returned questionnaires. Furthermore, the results of interview conducted with three district e-payment managers of the banks were also used in the analysis and interpretation of the data. The collected data were analyzed through descriptive and inferential statistics by processing the data using SPSS V20. Moreover, the information obtained from interview and open- ended item of the questionnaire was analyzed using narrative form. A descriptive ANOVA and correlation analysis was carried out and revealed that service quality dimensions are significant predictors of customer satisfaction. Accordingly, the results of data analysis showed that, among the five service quality dimensions; responsiveness, reliability, empathy and tangibility are statically significant to influence the status of service quality on customer satisfaction in the e-payment system. But assurance is not statically significant. In addition, the top four challenges: network interruption, power disruption, limited amount for daily transaction, and difficulty for adjusting errors had a strong negative correlation with customer satisfaction. Finally, based on the findings of the study and conclusions made, possible recommendations were forward to help decision makers to improve e-payment service and customer customers satisfaction in commercial banks found in Addis Ababa city west district.

Keywords: *Service quality, Customer satisfaction, E-payment, Commercial Banks*

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Banking industry is a business that keeps money for individual people, companies, and exchange currencies, makes loans and offers other financial services. The role of banks in the economy of any country is crucial. They are the main intermediaries between depositors and those individual and business with viable projects that requiring money for their investment. The Banking industry of the 21st century operates in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate. In general, banks have at least a function of lending money, depositing others money, transferring money locally or abroad and working as paying agent (Terefe, 2013).

Banking industry is one of the most important industries which have utilized e-payment systems as a means of financial transaction that can provide customers with fast and continent money transaction facilities (Chavosh et al, 2011). Thus, information and communication technology (ICT) is at the center of this global change. Amedu (2005) asserts that banks over the time have been using electronic and telecommunication networks for delivering a wide range of value-added products and services. Payment is generally understood as a transfer of funds from the payer to the payee. Electronic payment is a payment carried out electronically. The European Central Bank defines e-payment as a payment that is initiated, processed and received electronically. It is the electronic exchange or transfer of money from one account/card to another, either within a single financial institution or across multiple institutions, through computer-based systems (Wondwossen and Tsegai, 2005).

Customer satisfaction is a term used in business explaining about the quality of product and service that are being provided by companies to fulfill the need of their customers. For some, it is also a key performance indicator (KPI) of a company. According to Vijay, (2011) customer satisfaction is an ambiguous and abstract concept. Actual manifestation of the state of satisfaction will vary from person to person, product to product and service to service. The state of satisfaction depends on a number of factors which consolidate as psychological, economic and physical factors. (Timothy, 2012), Customer's satisfaction holds the potential for increasing an organization's customer base, increase the use of more volatile customer mix and increase the firm's reputation. Consequently, obtaining competitive advantage is secured through

intelligent identification and satisfaction of customer's needs better and sooner than competitors and sustenance of customer's satisfaction through better products/services. Technology is then essential in providing faster and more efficient services to customers. Technology acquisition must be based on actual needs and the proven ability to deliver customer – friendly solutions.

The National bank of Ethiopia (NBE) inaugurated its new centralized, online, real-time, electronic (CORE) Banking system in effect since Nov 2013 in order to facilitate the payment of the banking system and also a mandatory to use electronic banking that enable banks to provide mobile, internet and card banking services. Following the implementation of the NBE's national payment system (NPS) in 2011, a plat form which integrates all electronic inter-bank money transactions, all Ethiopian banks were required to deploy CORE banking solutions (Sisay, 2016).

Currently in Ethiopia the competition within banking industry is getting stiffer and the profitability of each commercial bank depends on its customers. According to Fenuga(2010), Customers of banks seek for safety of their funds and increased returns on their investment and they demand efficient, fast and convenient services. Many customers today prefer banks that offer them services that will meet their particular needs and support their business goals. And almost all banks in Ethiopia are adopting electronic banking as a means of enhancing service quality of their banking services. It also increases customer satisfaction in banking services (Shittu, 2010). Therefore; the effect of e-payment system in the banking industry has played an important role in the delivery of efficient and effective services that can improve customer's satisfaction.

Electronic payment is not a new phenomenon. The use of electronic networks for trade began in the early 1970s in the financial sector. Some of the first applications involved Electronic Funds Transfer (EFT) - the movement of money between financial institutions via telecommunications networks. Even Automated Teller Machines (ATMs), beginning in the 1980s, are a form of electronic payment (Abdi, 2006). Every time the customer uses the ATM, it involves a transaction made over a computer network. 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. (Barnes, Sand Hunt, 2001).

The Ethiopian banking industry also entering in to this ICT based service to customer in order to bring efficiency in operation by minimizing operating cost thereby increasing customer satisfaction and profitability. The state-owned Commercial bank of Ethiopia is pioneer in introducing electronic banking service in the country with eight ATMs machine in 2001 in Addis Ababa and then at this time almost all commercial banks are implemented e-payment system as a means of marketing strategy through attracting new customers, retaining the existing once. In the specific area in which the study was conducted, In Addis Ababa city, west district there are 15 private and 1 state owned commercial banks. Among those based on year of establishment (year of service) of the bank and number of customers; Commercial bank of Ethiopia Grade Four, Dashen Bank Grade Four and Awash Bank Grade One was selected for this study.

1.2 Statement of the Problem

Banks play an important and active role in the financial and economic development of a country. An effective banking system greatly influences the growth of a country in various sectors of the economy. The rapid growth and wide expansion of the banking industry is a preeminent foundation for the economy of the country as well as for the improvement of societal change through addressing unbaked society, minimizing extravagance, resource mobilization, creating cash less society, safety and security. Thus, it is crucial for banks to better understand changing customer needs and adopt the latest information technology system in order to compete more effectively with global organizations (Malhotra and Mukherjee, 2004).

Besides, regarding customer satisfaction, Tse and Wilton (1988) identified as; consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product perceived after its consumption. Customer satisfaction is highly personal assessment that is greatly affected by customer expectations (Parasuraman et al., 1988). It is also based on customer's experience of both contacts with the organization and personal outcomes. Customer satisfaction differs depending on the situation and the product or service. A customer may be satisfied with a service, an experience, service provider, or an attribute or any of these. Spreng and Olshavsky (1993) stated that customer satisfaction or dissatisfaction is considered to be the result of a comparison between the pre-use expectations

that a customer has about the service and the post-use perception of product or service performance.

Even though, the banking industry in Ethiopia is at its leading stage of doing things and providing service; the existing high competition forced the firms to come up with modern technology and methods that will enable them to become competitive and advantageous than their competitors. That is through their quality of service and the use of e-payment system.

Following the expansion of commercial banks the introduction of e-payment system serve as part of ensuring service excellence by reducing waiting time, errors, human capital costs, and most importantly as a customer satisfaction tool. And also for the banks E-payment allows to expand their market share by providing quality and 24/7 services through mobile banking, ATM, internet banking and POS (Tamirat, 2016).

As to the knowledge of the researcher, some researchers have been attempted to measure the effect of e-payment on customer satisfaction and their future behavior and suggested various strategies for achieving customer satisfaction to companies from the findings of these studies. For example, according to Fatemeh, Sanaz & Reihaneh (2015) finding, there is a positive relationship between the speed, efficiency, security, trust, accountability, information of e-payment tools and customer satisfaction. However, according to Wondwossen and Tsegai(2005), despite the importance of e-payment there are some challenges of using e-payment system such as high rate of illiteracy, lack of customer trust in the initiatives, unavailability of payment laws and regulations particularly for e-payment, lack of skilled manpower and frequent power disruption.

According to Sintayehu's(2015)finding, on both public and private commercial banks in Ethiopia; e-banking customers suffer from frequent disruption of e-banking services due to poorly developed telecommunication infrastructure, lack of reliable power supply and lack of knowledge from customers end. On the other hand, e-payment reliability, transaction efficiency and ease of use have a positive relationship with customer satisfaction. As Ethiopian business review of December 2016 reported the shut and slowdown of internet services in the country highly affect the banking sector, which relies mainly on internet infrastructure for optimum functioning. Moreover, from the finding of Nupur (2010), the introduction of electronic banking into the banking sector helps to bring customer satisfaction and service quality to

enhance banks profitability. According to Fenuga(2010), e-payment has affected an average increased in the customer service delivery and customer satisfaction. Though some disadvantages were encountered such as high cost of installing e-payment system as well as security problem because it makes use of some codes and if tempered with, it will affect the operations of e-payment system. However, all the researchers did not clearly identify the effect of practicing e-payment system on satisfaction of customers in the banking industry.

Moreover, the researcher observed that there are still long waiting lines in some banks. Some customers also complain the implementation of the system. There are some machines that did not properly operate all the time. In addition to this a problem of queues at the banking hall, failure of network system, interruption of ATM services, long period of time for the preparation and delivery of ATM cards, difficulties for adjusting errors on mobile banking transactions; and lack of clearly stated guidelines for e-payment users had been reputedly complained by the customer as observed by the researcher. These and the above mentioned research results showed that there is a gap between the goal of e-payment system and the actual situations as well as the implementation of e-payment system and customers' satisfaction. Therefore, this research was conducted in order to fill the gaps through identifying the effects of service quality on customer satisfaction in the case of e-payment system.

1.3 Research Questions

To attain the objectives of the study attempt was to answer the following research questions:

1. Which service quality dimensions is more important and has major influence on customer satisfaction of e-payment system users?
2. How the implementations of e-payment system service quality enhance customer satisfaction in Addis Ababa city, west district commercial banks?
3. What are the major factors that affect e-payment system in terms of service quality perspective on customer satisfaction?

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of the study is to explain the effect service quality on customer satisfaction in the case of electronics payment system in Addis Ababa city, west district commercial banks.

1.4.2 Specific Objectives

1. To identify which service quality dimension is more important and have major influence on customer satisfaction of e-payment system users.
2. To assess the effect of implementing e-payment system service quality on customer satisfaction in Addis Ababa city, west district commercial banks.
3. To identify factors that affect electronic payment system on service quality perspective on customer satisfaction.

1.5 Research Hypotheses

Based on the research objectives and questions of the study the following hypotheses are developed and were tested in this study:

- H1** Tangibility has no significant effect on customer satisfaction
- H2** Reliability has no significant effect on customer satisfaction.
- H3** Responsiveness has no significant effect on customer satisfaction.
- H4** Assurance has no significant effect on customer satisfaction
- H5** Empathy has no significant effect on customer satisfaction.

1.6 Significance of the Study

The study will help public and private banks through understand the effect of service quality on customer satisfaction in e-payment system and to make considerable effort for the improvement of e-payment system implementation and service quality of the banks.

To formulate appropriate strategies in building customer satisfaction in line with the purpose of e-payment system service quality and realize the existing challenges of e-payment system service quality within the banking sector.

In addition the research will help regulator of financial institutions and other stakeholders to make decisions to how improve and promote non-cash environment.

Furthermore, the study is also expected to help other researchers to make use of for further study regarding the issue under investigation.

1.7 Scope and limitation of the Study

1.7.1 Scope of the study

The scope of the study concentrates on Three major areas; conceptual, geographical & Methodological.

1.8.1.1 Geographical scope

To make the study specific and manageable; geographically, the scope of this study is delimited to selected three banks found in Addis Ababa city, west district; namely Commercial Bank of Ethiopia Grade Four, Awash Bank Grade One and Dashen Bank Grade Four. Addis Ababa city, west district is chosen as study area, because of the researcher's affiliation to observe and get awareness about the issue. Additionally, the commercial banks are selected as a subject of the study based on their longer time experience, large number of customers and appropriateness of them to get the required data for the researcher and to properly manage the study.

1.8.1.2 Conceptual Scope

The research emphasizes on effect of service quality on customer satisfaction the case of electronic payment system. From numerous and emerging types of electronic banking such as Automated Teller Machine (ATM), internet banking, mobile banking, debit cards, E-switch telephone banking, SMS banking, home banking, Point of sell (POS), network banking (core banking) and so on. From those the study focus on ATM and Mobile banking service because of currently both are widely available and incorporate large number of customers in all commercial banks in Ethiopia.

1.8.1.3 Methodological Scope

The researcher used explanatory research design to explain and understand the effect of service quality on customers' satisfaction the case of e-payment system in the selected banks.

To make the study generalizable the methodological scope is delimited to used mixed approach. Qualitative and quantitative data was merged to provide a comprehensive analysis of the research under study. Descriptive research method was used figure out what exists at the study area and the study was used primary source of data and also determined sample size from the customers was selected using convenience sampling techniques.

1.7.2 Limitation of the Study

There were some limitations observed in this study among this are; the study considers only the customer side of service quality satisfaction and it doesn't consider the perspective of bankers,

employees and stake holders that have on technology. The other limitation of this study was that the research sample didn't incorporate all the E-payment customers due to time constrained. As a result the study validly can be generalized only from the three commercial banks in Addis Ababa city branches.

1.8 Organization of the Paper

This study is organized in five chapters. The first chapter presents, background of the study, statement of the problem, objectives of the study, Scope and Limitation of the study Significance of the study, and Organization of the paper. Chapter two presents literature review. Third chapter deals with the methodology of the study in which data type and source, method of data collection and instrumentation, research design and sampling techniques, method of data analysis and ethical consideration. Chapter Four presents the results and discussion. Finally, chapter five provides conclusions and recommendations.

1.9 Definition of key Terms

Given below is a short description of the terms that appear throughout the document in order to provide the reader their meanings and a clear understanding.

Online Banking Services (E-banking Services): Banking services delivered over the Internet. These include opening/closing of account, domestic/foreign money transfer, standing orders, direct debit, debit card application, loan application, credit card application, insurance investment, mutual funds investment, foreign/domestic equity investment, deposit account opening, life insurance contract, traffic insurance contract, etc. (Centeno, 2003).

E-Service Quality: Consumer's overall evaluation and judgment of the excellence and quality of e-service offerings in the virtual market place (Santos, 2003).

SERVQUAL: A 22-item instrument used for measuring customer expectations and perceptions of a service along five quality dimensions: tangibles, reliability, responsiveness, assurance and empathy (Parassuraman et al., 1991).

CHAPTER TWO

REVIEW OF LITERATURE

2.1. Theoretical Literature Review

2.1.1 Meaning of e-payment

E-payment systems, as a strategic information system, are considered one of the main components of economic development, particularly in developing countries, and they greatly help to reinforce the capabilities and provision of financial services (Akbarian, 2011). The payment system is a mechanism, which can transfer money from an account in a bank to an account in another bank and therefore, its role in economy is like veins that flow money to different economic firms (Golnabi, 2013). E-payment is a form of financial exchange that is done between a buyer and a seller and electronic communication facilitates this financial exchange (Fatemeh, Sanaz and Reihaneh, 2015). On the other hand, e-payment is defined as a payment service that uses information and communication technologies, including cryptography and remote communication networks (Moertini, Athuri, Kemit and Saputro, 2011). Generally, e-payment is paying money for a commodity in ecommerce, i.e. paying money through electronic devices, particularly the internet. In performing an electronic payment, there are at least four roles: payer, receiver, the bank serving the customer or the financial institution issuing credit for the customer, and the bank serving the seller (Fatemeh, Sanaz and Reihaneh, 2015). E-payment systems can be divided into three broad groups: traditional monetary transactions, digital money, and credit debt payment. These payments systems have many requirements, such as security, acceptance, convenience, cost, control, tracking capability, and encryption control (Havinga, Smit and Helme, 1996).

Conventional payments are enabled through cash, check or credit card whereas electronic payments are carried out by means of software, payment cards and electronic cashes. The major components of e-payment system are money transfer applications, network infrastructures, and rules & procedures governing the use of the system. Customers and merchants are the major actors of e-payment systems. Most of the time, banks and trusted third party (TTP) or intermediaries may also participate in e-payment systems (Wondwossen and Tsegai, 2005).

Currently there exist more than hundred e-payment systems and 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. Digital

currency has got some similarity with real money such as privacy and transferability. Although electronic payment is used for different purposes, its main use is for e-commerce. In fact, e-payment is a crucial component of e-commerce (Wondwossen and Tsegai, 2005).

2.1.2 Meaning of e-banking

Electronic banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers, individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the Internet. E-Banking is also called Internet banking, on-line banking or PC banking. E-Banking may include ATMs, wire transfers, telephone banking, electronic funds transfers and debit cards. Now a day, internet banking sites process customer service inquiries, allow transactions from one account to another, take loan applications, open new accounts etc. Some provide commercial services and others are full service banks rushing to get there. The advent of Internet, electronic commerce, communication technology and users' response to this technology has opened opportunity for many businesses including the financial institution (Parisa, 2006).

2.1.3 Benefit of E-banking

The benefits of electronic banking cannot be over emphasized. This is to say that it provides a lot of benefits both to the customer and the bank itself. To begin with a foremost benefit e-banking service is competitive branding and as well as better appreciation to the market demands. As such banks that provide services are known to be leaders in technology implementation and advancement. Thus, the better image brand they enjoy (Prince, 2015).

The other advantages may be measured in terms of money. The primary objective of every institution is to increase profits with which banks can't be excluded. Many contend that E-banking can do away the hitherto laborious and less viable methods for banking. As indicated by perspectives communicated by Mols (1998), it was opined that the Internet is a revolution that will do away the old request holds much influence. The internet revolution in electronic-banking transaction is much less expensive than branch or even telephone transactions. According prince (2015), electronic-banking has made common open doors for banks and businesses around the world, and that is clear in the way they sort out financial transaction. Although opportunities to

banks, there are various difficulties such as the innovation of IT applications, the obscuring business sector limits, rupturing modern boundaries, the passage of emerging competitors, and the development of new plans of action.

According to Rotchana and Speece (2003), E- banking provides various benefits to both banks and customers. With electronic banking customers can check accounts, transfer money and can have access to numerous banking products services. There is no need for Customers to visit banks to make transactions, (Cheng et al., 2006).

Electronic banking assumes a vital part in the economy helping buyers and sellers to make financial worth via the exchange of goods and services by avoiding physical contacts (Prince, 2015). Through electronic banking, banks have the capacity to draw in versatile clients which give to a great degree huge profit by giving portable money related services. Wind (2001), demonstrated that numerous banks are roused to actualize E-banking by components identifying with augmenting their profit through expansion market scope. The increase use in credit card is attributable to electronic banking. Customers are able to shop worldwide without the need of carrying paper money.

2.1.4 The introduction of E-payment system in Ethiopian banking industry

Electronic innovation in banking industry can be traced back to 1970, when the computerization of financial institutions gained momentum (Malak, 2007). However; a visible presence of this was evident to the customers since 1980, with the introduction of ATM. Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s witnessed the emergence of automated voice response (AVR) technology. By using the AVR Technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services, through PC owned and operated by costumers at their convenience, through the use of intranet propriety software. The users of these services were, however, mainly corporate customers rather than retail ones (Sohail&Shanmugham, 2003). The security first network bank was the first Internet banking in the world that was built in 1995 in USA. After that some famous banks introduced their internet banking one after another, such as Citibank and bank of America.

The appearance of E-banking in Ethiopia goes back to the late 2001, when the largest state owned, commercial bank of Ethiopia (CBE) introduced ATM to deliver service to the local users. In addition to eight ATM Located in Addis Ababa, CBE has had Visa membership since November 14, 2005. But, due to lack of appropriate infrastructure it failed to reap the fruit of its membership. Despite being the pioneer in introducing ATM based payment system and acquired visa membership, CBE Lagged behind Dashen bank, which worked aggressively to maintain its lead in E-payment system. As CBE continues to move at a snail's pace in its turnkey solution for Card Based Payment system, Dashen Bank remains so far the sole player in the field of E-Banking since 2006 (Gardachew, 2010).

2.1.5 Forms of e-banking system

The common forms of e-payment system in Ethiopia commercial banks are as follows;

- 1. Automated Teller Machines (ATM)** - According to Fenuga (2010), Automated Teller Machine (ATM) is a machine where cash withdrawal can be made over the machine without going in to the banking hall. It also sells recharge cards and transfer funds; it can be accessed 24 hours/7 days with account balance enquiry. Automated teller machine (ATM) is a computerized communication device that provides services to the customer of a financial institution in a public place without the help of the human clerk or a bank teller. It is connected to a computer terminal, record keeping system and cash vault in one unit that permits a customer to enter personal identification number (PIN) or by punching a special code number into the computer terminal that is linked to the bank's computerized records. The customer or a card holder is identified by inserting a plastic mark card with a unique card number and security information (Ahimbisibwe, 2009).

ATMs enable a customer to perform a full range of banking transactions like cash withdrawal, cash and cheque deposits, bill payments, fund transfer, airtime loading and balance checks. ATMs are placed not only inside or near the premises of the bank, but also in locations such as shopping malls, airports, grocery stores, gas stations, restaurants or any place where large number of people may gather. There are new innovations in AMT services that are been introduced to improve service delivery by banks to their customers. The ATM switch technology cod named switch was

introduced in 2005. This enables any card holder can withdraw, deposit, credit or debit his or her account from any ATM service center (Steve ,2002).

2. **Point-of-Sale Transfer Terminals (POS)** - The system allows consumers to pay for retail purchase with a check card, a new name for debit card. This card looks like a credit card but with a significant difference. The money for the purchase is transferred immediately from account of debit card holder to the store's account (Malak, 2007). It also sometimes referred to as point of purchase (POP) or checkout is the location where a transaction occurs. A "checkout" refers to a POS terminal or more generally to the hardware and software used for checkouts, the equivalent of an electronic cash register. A POS terminal manages the selling process by a salesperson accessible interface (Shittu, 2010).
3. **Internet/Extranet Banking-** Internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society. It may include of any transactions related to online usage. Banks increasingly operate websites through which customers are able not only to inquire about account balances, interest and exchange rates but also to conduct a range of transactions. Unfortunately, data on Internet banking are scarce, and differences in definitions make cross-country comparisons difficult (Alabar, 2010).It is also an electronic home banking system using web technology in which Bank customers are able to conduct their business transactions with the bank through personal computers (Ayana, 2012).
4. **Mobile banking-** Mobile banking (M-Banking) is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). The earliest mobile banking services were offered over SMS, a service known as SMS banking. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural areas. This aspect of mobile commerce is also popular in countries where most of their population is un-banked. In most of these places, banks can only be found in big cities, and customers have to travel hundreds of miles to the nearest bank. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information (Tiwari, 2007).

2.1.6 Service

According to (Kotler & Armstrong, 2011) service is “Any activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything”. (Grooroos, 2007) also defined service as activity or series of activities of more or less intangible nature that normally, but not essentially, take place in communications between the customer and service providers and/or their systems, which are provided as solutions to customer problems. (Quinn and Gagnon ,1986) mention that services have different characteristics and they differ based on the nature of the service. The main purpose of service industry is to manage customer satisfaction. According to (Grooroos,2007) services are provided with high customers’ involvement and it is intangible. According to (Parasuraman, Berry and Zeithaml ,1985) services are characterized by inseparability, intangibility, heterogeneity and Perish ability. Gilmore (2003) explains the services feature as follows. Services are intangible i.e. that cannot be feel, see, or test. Services are perishable, if there is no one who will use the services, that particular service is lost and perishable. Inseparability or simultaneous provision and consumption, and it cannot be stored for future.

2.1.7 Service quality

Service quality has been defined as a breach between the customer’s prospect of a service and the customer’s perception of the service providers (Parasuraman, Berry, & Zeithaml, 1985). Now, there is no practical, worldwide, or all-inclusive definition of service quality. (Grooroos, 2007) defines it is “the result of an evaluation process where the user compares his expectations with the service he perceived he has consumed”. Definitions of quality incorporated: (a) satisfying the customer or exceeding expectations; (b) product of service features that please declared needs; (c) conformance to obviously specific necessities; and (d) robustness for use, whereby the product meets the customers’ needs and is free of deficiency (Toyin, David & Stodnick, 2008).

2.1.8 Customer Satisfaction

Customer satisfaction and quality has long played an important role in the survival and success in today`s competitive market. Customer satisfaction has attracted the most attention in the marketing literature, since it has an important impact on customers` behaviors and purchase intentions. Customer satisfaction is an emotional or cognitive reaction with a certain focus (expectation, product, consumption experience, etc.) at a certain time (after consumption, after selection, based on experience) (Cote and Giese, 2002). In a credible categorization, regarding

the expected quality, customer requests are formed in three levels or layers and the realization of each qualitative layer depends on the satisfaction of the previous one to increase persistent customer satisfaction. These layers include basic quality (the minimum value that prevents dissatisfaction), efficiency quality (performance necessities that ignoring them dissatisfies the customers), and motivational quality (features that ignoring them does not dissatisfy the customers, but realizing them by a manufacturer cause (Fatemeh, Sanaz and Reihaneh, 2015).

2.1.9 Service Qualities vs. Customer Satisfaction

Understanding satisfaction is vital in the sense that dissatisfied customers hardly ever complain, but rather simply purchase from another service provider (Mueller, Palmer, Mack, & McMullan, 2003). Satisfaction is most commonly described in terms of the disconfirmation approach, which describes it as the difference between a customer's pre-purchase expectations and post-purchase perceptions of the concrete service performed (Chang, 2009). The general thought is that satisfaction mediates the relationship among perceived service quality and firm performance (Babikas, Bienstock, & Van Scotter, 2004).

However, some researches propose that satisfaction is a sign of service quality. According to Millan and Esteban (2004) finding, service quality and satisfaction have frequently been used interchangeably. Their differences is only satisfaction is a post- experience decision customer experience while quality is not; in the satisfaction literature expectations reflect anticipated performance made by customers about levels of performance during their contact (Burns, 2003). The distinction between perceived service quality and satisfaction is important because higher officials need to know whether their purpose is to present the maximum level of perceived service quality or to have satisfied customers. The standard of contrast in forming satisfaction is predictive expectations, or what the consumers consider will happen. Perceived service quality is the consequence of a comparison of performance and what the consumer senses a firm should provide.

Burns (2003), explains negative disconfirmation as a happening when performance is less than expectations. Positive disconfirmation is obvious when performance is greater than expectations. Customer satisfaction results in the disconfirmation of prior expectation that is if the service provider meets or exceeds expectations then the customer is more likely to be pleased (Laroche, Ueltschy, Shuzo, & Cleveland, 2004). Satisfaction is related to size and direction of non-confirmatory: experience defined by the difference between initial expectations of the individual and the real outcome resulted. While expectations are the needs

or desires of the consumer, based on what the consumer senses should be delivered prior to receiving it. Perceptions are the viewpoints of the consumer relative to the service received. The consumer's judgment of satisfaction or dissatisfaction relay on how the consumer perceives the real result obtained relative to what was anticipated (Bakr, Mustafa, & al-Din, 2005).

According to Babikas, Bienstock, & Van Scotter, (2004), a great deal of the attention given to service quality is motivated by the foundation that it will increase customer satisfaction and ultimately lead to better financial performance. The quality of products and services has also been associated to external indicators of customer satisfaction like warranty, complaints, litigation and market share.

2.1.10 The Five Service Quality Dimensions

According to Parasuraman, Berry, & Zeithaml(1985), first identified ten overlapping dimensions of service quality which consumers use to assess the quality of a service. The dimensions were: - responsiveness, reliability, competence, courtesy, communication, access, credibility, understanding, security and tangibles. In their 1988 work, it reduced to five dimensions with 22 items in 1991: reliability, tangibles, responsiveness, remained the same, but the other seven components merged into two aggregate dimensions called empathy and assurance.

- **Responsiveness:** - It concerns the 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. A firm is known to be responsive when it communicates to its customers how long it would take to get answers or have their problems dealt with (Andaleeb&Conway, 2006).
- **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 (Zeithaml, Bitner, &Gremler, 2006).
- **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 (Bolton &Saxena-Iyer, 2009).
- **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 (Zeithaml, Bitner, & Gremler, 2006)

- **Tangibles:** - the appearance of equipment, physical facilities, personal and communication materials. It translates to the restaurant's the appearance and condition of the cutlery, interiors, uniform of the staff, the appearance and tableware, and design of the menu, restaurant signage and promotion system (Andaleeb & Conway, 2006).

2.1.11 Customer satisfaction in e-banking service

Now a day, it is recognized that banks gaining higher customer satisfaction will have a visible marketing control because the higher customer satisfaction is associated with greater revenues, increased cross-sell ratios, higher customer retention and bigger market share (Gonzalez M., et al 2004). Zeithaml a., et al (2000) the state of satisfaction depends on a number of factors which consolidate as psychological, economic and physical factors. The quality of the service is one of the major determinants of customer satisfaction and many researchers and experts mentioned that, service quality can be enhanced by using advanced information and communication technology (ICT). The study also stated that customer satisfaction is an ambiguous and abstract concept. Actual manifestation of the state of satisfaction will vary from person to person, product to product and service to service.

A study by Kumbhar, (2011) on customer Satisfaction towards E-banking services of ICICI bank in Chennai, India which considered factors affecting on customers' satisfaction: an empirical investigation of ATMs service and examined that the cost effectiveness of ATM service were core service quality dimension and it was significantly affecting on overall customer satisfaction in ATM service provided by commercial banks. However, result of factor analysis indicates that cost effectiveness, easy to use and security and responsiveness were also influence customer satisfaction.

2.2 Empirical Evidences

Among different researches on customer satisfaction the researcher tries to see some what related studies to the e-payment system and customer's satisfaction. The titles, their objectives and major findings are discussed below to have an insight about these studies.

The first work was carried out by Chavosh, Halimi and Espahbodi (2011), with the title of Comparing the Satisfaction with the Banks E-payment Services between Degree Holder and Non-Degree Holder Customers in Penang-Malaysia. The main purpose of this study was to

investigate bank customers' satisfaction with e-payment services in Malaysia and through a review of literature, the research considered issues associated with electronic payment and discussed its advantages. Thereafter, a comparative analysis was provided by looking at the satisfaction rate with e-payment services in Malaysia's Banking Industry between two sample groups in Penang. These two groups consist of respondents who are holders of Degree and Non-Degree users of electronic payment bank services. The results of the study demonstrated that in spite of inconveniences, cost and some security concerns both groups of respondents indicated high level of satisfaction with e-payment services. The study found inconvenience to be the most important challenge identified by Non-Degree holders, while Degree holders were more concerned about security issues. The study concluded by pointing to the fact that the outcomes from the research can be used as platform for bank manager and e-payment companies to improve their systems and services.

The second work is done by Jannatul (2009), entitled as E-banking and Customers' Satisfaction in Bangladesh. his study was focused on understanding the impact of variables of e-banking, on customer satisfaction in Bangladesh and the five service quality dimensions namely reliability, responsiveness, assurance, empathy, and tangibles are established based on the SERVQUAL model and the literature review. These variables were tested in e-banking to explore the relationship between service quality and the customer satisfaction. Data were gathered through survey interview by a structured questionnaire and the study finding shows that these factors are the core service quality dimensions for customer satisfaction in e-banking. It also explores that reliability, responsiveness, and assurance have more contribution to satisfy the customers of e-banking service in Bangladesh.

The other work is prepared by Sintayehu (2015), on the impact of e-banking service on customer satisfaction on the selected commercial banks in Addis Ababa. The main objective of the study was to find the electronic banking service dimensions that have the impact on customer satisfaction in two private banks Dashen Bank (DB) and Wegagen Bank (WB) and one public bank Commercial Bank of Ethiopia (CBE) in Addis Ababa. The researcher was used case study methodology through both qualitative and quantitative approach. And also the researcher basic assumptions are that e-banking service quality dimensions namely (reliability, transaction efficiency, customer support, service security, ease of use, performance, service content) influence customer satisfaction. Furthermore a multiple regression modeling approach employed for studying the relationships. The results of the study implied that majority of users

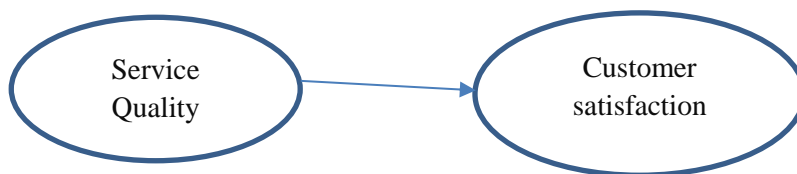
of e-banking are the young, occupationally salaried and business men/women are not actively using the service of e-banking. Reliability, transaction efficiency and ease of use have a positive relationship with customer satisfaction in agreement with the Hypotheses reliability; transaction efficiency and ease of use have a positive relationship. Both public and private commercial bank e-banking customers suffer from frequent disruption of e-banking services due to poorly developed telecommunication infrastructure, lack of reliable power supply, and lack of knowledge from customers end.

In general, even though, the above studies were made attempt to assess the issues on e-payment service (e-banking) service quality and customer satisfaction by using SERVQUAL model and other way of measuring service quality, But most researcher not concerned on identifying service quality dimensions that have major influence on customers' satisfaction and the effect of implementing electronic payment system on banks service delivery and customer satisfaction. Rather the previous researchers highly emphasized on e-banking service found in Addis Ababa and in other countries but on this study the researcher want to apply this SERVQUAL model in commercial banks (both private and state owned) by taking the sample commercial bank of Ethiopia, awash and dashen bank found in Addis Ababa city West District.

2.3 Conceptual Framework

The conceptual framework is developed based on the general idea from the past literatures and the service quality dimensions developed by Parasuraman, Berry, & Zeithaml (1985), which are Tangible, Reliability, Responsiveness, Empathy and Assurance; with the objective of assessing their relationship on service quality dimensions and identifying their effect on customer satisfaction which is dependent variables.

Figure 2. 1 Conceptual frame work of the study



Source; Parasurman, Berry and Zeithaml (1985)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

In this part issues related to research design, research methodologies, sources of data, sample and sampling technique, data collection instruments, validity and reliability test, methods of data analysis, and ethical consideration were presented and discussed

3.1. Research Design

A research design is an important part of a research; because it serves as a guideline how to carry out the study. This study was conducted to examine the effect of service quality on customers' satisfaction in the case of e-payment system on selected commercial banks found in Addis Ababa City West District using explanatory research design. As stated by Yin (1994) when the focus is on cause-effect relationships, the study can be explanatory explaining which causes produce which effects and how one variable affects or is responsible for changes in another variable.

The purpose of this study is to explain the effect of service quality on customer satisfaction in the case of e-payment system commercial banks found in West Addis Ababa District city branch. In order to use various data (qualitative and quantitative data) that was collected from different sources; the study was carried out using a mixed approach. As described by Kothari (2004), the methodology of a study using a mixed approach involves the use of qualitative and quantitative approaches and the mixing of both approaches in a study. In a mixed approach, the researcher bases the inquiry on the assumption that collecting diverse types of data best provides an understanding of a research problem. Thus, in this study the researcher has merged quantitative and qualitative data in order to provide a comprehensive analysis of the topic under study using the data collected from the respondents.

Moreover, to describe the effect of service quality on customers' satisfaction in e-payment system the banks quantitatively and qualitatively with the data collected through questionnaire and interview; descriptive research method was considered and selected to figure-out what exists at present by determining the nature and existing situations of the issue in the study area.

In this regard, Cohen, et al. (2007) stated that, many social study research methods are descriptive; that is, they set out to describe and to interpret the state of affairs of the issues under study as it exists. It is concerned with conditions or relationships that exist; practices that prevail; beliefs and points of views that are held; processes that are going on; effects that are

being felt; or trends that are developing. At times, descriptive research method is concerned with how, what is or what exists and is related to some preceding event that has influenced a present condition or event.

3.2. Sample and Sampling Techniques

3.2.1. Target Population

The population of the study was e-payment users of Commercial Bank of Ethiopia, Awash Bank and Dashen Bank found in Addis Ababa City West District. Based on year of establishment (year of service) of the bank and by their number of customers those banks were selected for this study. According to the data obtained from those banks there are 37 ATMs have been serving the customers in those areas.

The data obtained from those branches further shows that; on average about 152 customers in CBE, 139 in Awash and 114 in Dashen bank; a total of 405 ATM and mobile banking customers have been served at each ATM of the banks every day. Accordingly, a total of 2025 customers were served at 37 ATM of the three banks CBE grade four, Awash grade one and Dashn grade four on five days. (For more information see Table 3.1).So, those customers are considered as a population of the study; from which the required sample size was determined for this study.

3.2.2. Sample Size

To determine the number of sample respondents, a formula developed by Kothari (2004) was considered. It helps the researcher to correctly determine appropriate sample size from the two groups of respondents for the study.

$$n = \frac{Z^2 * p * q * N}{(e^2(N - 1)) + (Z^2 * p * q)}$$

Where:

n= the required sample size

Z^2 = is the abscissa of the normal curve that cuts off an area α at the tails (1- α equals the desired confidence level. The value for Z is found in statistical tables which contain the area under the normal curve. e.g., Z=1.96 at 95% confidence level; and $Z^2=3.841$).

N= the population size (2025)

p = the population proportion (assumed to be 0.5 since this would provide the maximum sample size)

$q = 1 - p$

e = is the desired level of precision or margin of error (5% error or 0.05)

Accordingly; using the above formula; out of 2025 customers 323 of them were identified as a sample size for this study to respond a questionnaire. Then, the identified sample size was distributed to each bank included in this study proportionally as illustrated in Table 3.1

Table 3.1 Population and sample size of the respondent customers

Banks	Number of ATM Machine	Customers served ATM per day	Target Population (Customers served within Five Days)	Sample Size	Remarks
CBE	30	152	760	121	
Awash	5	139	695	111	
Dashen	2	114	570	91	
Total	37	405	2025	323	

Source: Commercial Bank of Ethiopia, Awash Bank, Dashen Bank

3.2.3. Sampling Techniques

The determined sample sizes from the customers were selected using convenience sampling. Because, this study was conducted by collecting data from people who are available, volunteer, or can be easily engaged and included as a sample in the study area. In the process of selecting the respondent's due consideration was made to incorporate reasonable number of male and female customers from each bank.

Moreover, three district e-payment managers of the banks included in this study were selected using purposive sampling technique to respond an interview question. These respondents were included with the assumption that their position is important to describe the issues related to the e-payment service quality and customer satisfaction in their respective bank.

3.3 Source of Data

The study used primary source of data. Primary data are necessary in order to get relevant, original and reliable first-hand information about the topic under study. Thus, for this study the primary data was collected from customers through questionnaire and interview.

3.4. Data Collection Instruments

In order to collect relevant information, the study used both questionnaire and interview as a data collection instrument from primary source of data.

Questionnaire

The questionnaire was used as the major data collection instrument. Initially, it was prepared in English language. Then for easy understanding of the sample respondents, the questionnaire was translated to Amharic language by professional language translator.

In the questioner a set of close-ended and open-ended questions for each specific objective of the study were derived from extensive literature. The close-ended questions were developed, with the belief that, it will help the respondents to choose one option from the given alternatives that best fit their responses. In addition, the open-ended questions were included in the questionnaire in order to give an opportunity for respondents to express their view, feelings, perceptions, and intensions related to the effect of e-payment system on customers' satisfaction in the study banks.

The processes of data collection through the questionnaire from all sample respondents were carried out by the researcher with the assistant of three trained data collector. So, the questionnaire was distributed to all sample respondents and collected from them by the researcher and the assistant data collector within five consecutive days.

Interview

In this study, interview was undertaken in the form of person-to-person encounter using semi-structured questions, enabling respondents to address ideas in their own terms and words. The interview was administered with three district e-payment managers and to get more detailed information about the topic understudy and to fill the gaps that are not covered through the questionnaire.

In this regards as stated by Kothari (2004), in a semi-structured interview, the researcher wants to know specific information which can be compared and contrasted with information gained in other form of data collection instruments. Thus, using interview for this study has helped the researcher to collect more supplementary opinion so as to stabilize the data collected through the questionnaire. To this end, almost similar questions were raised with all interviewees by the researcher.

3.5 Validity and Reliability Test

In order to assure data quality, the questionnaire prepared for this study was validated and tested at pilot level for its reliability before distributed for sample respondents and used as data collection instrument.

The pilot testing was carried out at three ATM machine found in the study area. In doing this, the questionnaire was distributed to 32 randomly selected customers of the banks. Then, to measure the reliability of the questionnaire, Cronbach's alpha coefficient was calculated for all parts the questionnaire.

Table 3. 2 Reliability Test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.744	.758	42

Concerning the acceptability level of Cronbach's alpha results most authors suggested 0.67 or above. According to Cohen, et al (2007), the reliability level is acceptable if it is 0.67 or above. And also suggested that, Cronbach's alpha results can be used on the basis of the following guidelines: >0.90= very high reliable; 0.80–0.89=highly reliable; 0.70–0.79=reliable; 0.60–0.69=marginally reliable; and <0.60=lowly reliable or unacceptable.

The calculated Cronbach's alpha coefficients for all items of the questionnaire in this study and illustrated in the table above shows the reliability level of the questionnaire was highly acceptable (r=0.744 for all items in the questionnaire).

3.6 Method of Data Analysis

The data collected for this study was checked and organized with respect to basic research questions and objectives of the study. Then they were analyzed quantitatively and qualitatively. At the beginning the data collected from sample respondents through the questionnaire, was

checked and organized for tabulation. The tabulation of the data was made using Statistical Package for Social Science (SPSS V.20) software.

Then, the tabulated data was analyzed and interpreted using descriptive statistics; like frequency, mean, mode, percentage, standard deviation, and range. The results of quantitative data were organized and illustrated using tables and graphs. Furthermore, description and presentation of the data takes place following each tables and graphs. On the other hand, the information obtained from interview and open-ended items of the questionnaire was analyzed qualitatively using narrative form under tables and graphs they are associated with.

In this study Pearson's correlation coefficient was used to determine the relationships between service quality dimensions (Tangibility, reliability, responsiveness, assurance and empathy) and customer satisfaction

Regression analysis was used to examine the effect of service quality dimensions (Tangibility, reliability, responsiveness, assurance, and empathy) on customer satisfaction. The equation of the regressions was generally built around two sets of variable, namely dependent variables (customer satisfaction) and independent variables (Tangibility, reliability, responsiveness, assurance, and empathy).The basic objective of using regression equation on this study was to make the study more effective in describing, understanding, predicting, and controlling the stated variables.

Regression result of the service quality dimensions on customer satisfaction

$$Y_i = \beta_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6$$

Where:

- ✓ Y is the dependent variable- customer satisfaction; X₂, X₃, X₄, X₅, and X₆ are the explanatory variables (or the repressors).
- ✓ β_1 is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average value of Y when the stated independent variables are set equal to zero.
- ✓ β_2 , β_3 , β_4 , β_5 , and β_6 refer to the coefficient of their respective independent variable which measures the change in the mean value of Y, per unit change in their respective independent variables.

3.7 Ethical Considerations

Throughout this research process, the researcher was governed by the ethical principles of the research. Specially, the two most importantly emphasized ethical principles that was applied in this study are respecting the privacy of respondents and confidentiality of information revealed by the respondents. This requires, participants should be fully informed about the procedures and risks involved in research and give their consent to participate. Moreover, it required a researcher not to put participants in a situation where they might be at risk or harm both physical and psychological as a result of their participation. The researcher assures that the participant's responses should be treated confidentially and with anonymity of the respondents (Cohen et al., 2007).

Therefore, during data collection process of this study, a letter from the University was used as introductory means to get permission to collect data from the sample respondents of the banks included in this study. Accordingly, during the data collection processes, the researcher has informed the respondents about the purpose of collecting the data from them; in that it was only used for academic purpose: in order to fulfill the requirements for Master Degree. Moreover, the data collection processes were conducted by informing the respondents the right they have to participate or not in the research activities to respond the questionnaire or interview questions. They were informed that they can withdraw from the study at any time without explaining their reasons. So, all the data required for this study were collected from sample respondents, if and only if they provided on their own interests.

Additionally, confidentiality of information about the respondents was secured; no personal detail of individual respondents was produced on any parts of the study documents. Furthermore, any confidential information revealed by the respondents was kept secret except used for academic purpose.

CHAPTER FOUR

ANALYSIS AND INTERPRETATION OF THE DATA

The major purpose of this study was to explain the effect of service quality on customers' satisfaction in the case of electronic payment system in Addis Ababa city west district commercial banks. More specifically the study objective includes: to identify which service quality dimension is more important and have major influence on customer satisfaction of e-payment system users. To assess the effect of implementing electronic payment system on customer satisfaction; and to identify major factors that affect electronic payment system on service quality perspective of the banks understudy.

In order to attain these objectives attempt was made to answer basic research questions of the study; which includes: which service quality dimension is more important and have major influence on customer satisfaction of e-payment system users.; how the implementations of electronic payment system enhance customer satisfaction; and what are the major factors that affect e-payment system in terms of service quality perspectives in the study banks.

To answer basic research questions and the attainment of objectives of the study; primary data were collected through questioners and interview. The questioners were initially distributed to 323 respondents selected as a sample for this study. Among those, 294 (91.02%) of them have appropriately filled. The remaining 29(8.98%) respondents had not correctly filled and returned the questionnaires. Thus, the analysis and interpretation of the data in this study was based on appropriately filled and returned questionnaires. Furthermore, the results of interview conducted with three district e-payment managers of the banks understudy were also used in the analysis and interpretation of the data.

The analysis and interpretation of the data were based on the data collected from primary sources and presented in tables and figures. The data were analyzed and interpreted in accordance with the objectives of the study and basic research questions. Therefore, the analysis and interpretation of the data were divided in to four parts. The first part of the chapter presented about background information of the respondents. In the second part issues related to Service Quality Dimensions that have major influence on Customers' Satisfaction was identified and presented. In the third part of this chapter, issues related to Customer Satisfaction

with respect to service quality dimensions were presented and analyzed in detail. Finally, major factors that affect e-payment system were identified and analyzed using tables.

4.1. Background Information of the Respondents

In this part of the chapter, the results on background information of the respondents, which includes gender, age, educational backgrounds, occupation, and starting period of using e-payment products were presented and discussed using the data illustrated in two tables.

Table 4.1 Respondents' Background Information

Items		Count	%
Gender	Male	181	61.56
	Female	113	38.44
	Total	294	100
Age	Less than 20 Years	12	4.08
	21-30 Years	148	50.34
	31-40 years	97	32.99
	41-50 years	33	11.22
	Above 50 year	4	1.36
	Total	294	100
Educational backgrounds	Primary School education	13	4.42
	Secondary School Education	29	9.86
	Certificate	16	5.44
	Diploma	60	20.41
	First Degree	151	51.36
	Masters Degree and above	25	8.50
	Total	294	100

Source: Primary Data (2019)

According to the data of Table 4.1, majority of the sample respondents 181 (61.56%) were males; and the remaining 113 (38.44%) of them were females. This shows, male customers who have been using e-payment products are greater in number than female customers.

Moreover, the demographic information regarding respondents' age reveals that majority of them were between 21-30 years (50.34%) and 31-40 years (32.99%). Very few respondents age were found above 50 years (1.36%). This implies that, out ten sample respondents the age of eight of them were found between 21-40 years age group.

With respect to educational background of the respondents, the data of the Table showed that, most respondents are first degree holders (151 or 51.36%); followed by Diploma holders (60 or 20.41%). Moreover, the educational statuses of few respondents were found with Primary School education level (13 or 4.42%). This shows that respondents had considerable literacy level to understand and respond the questionnaire.

Table 4. 2 Occupations and Relation of the Respondents with the Bank

Items		Count	%
Occupation	Professional	38	12.93
	Business Person	64	21.77
	Government Employed	72	24.49
	Employees of Private Organization	78	26.53
	Self- employed	21	7.14
	Unemployed	2	0.68
	Student	17	5.78
	Other	2	0.68
	Total	294	100
Starting the services	Less than 12 months	16	5.44
	Between 1 and 3 years	61	20.75
	Between 3 to 4 years	144	48.98
	Between 4 to 5 years	43	14.63
	More than 5 years	30	10.20
	Total	294	100

Source: Primary Data (2019)

As can be seen from the data of Table 4.2, concerning the occupation of the respondents' 78(26.53%) of them were employees of private organization; followed by government employed respondents (72 or 24.49%) and business persons (64 or 21.77%).The remaining few

respondents were engaged in different occupation like professional work (12.93%), self-employed (7.14%), and student (5.78%).

Concerning the time in which the customer have been started using e-payment services; the data of the Table showed that, about half of the respondents (48.98%) were start using e-payment products before 3 to 4 years. Moreover, 61 respondents (20.75%) were started using the service between 1 to 3 years; and 43 respondents (14.63%) were found between 4 to 5 years. The number of respondents who start using the service for more than five years accounts only 10.20%. This implies that relatively large majority of the respondents had sound experience on the e-payment tools.

Table 4. 3 Frequency of Visiting the bank for transaction and after the introduction of e-banking services

Frequency of visiting the bank for transaction	Before		After	
	Count	%	Count	%
Always	47	15.99	99	33.67
Frequently	61	20.75	91	30.95
Often	110	37.41	55	18.71
Sometimes	62	21.09	32	10.88
Quite	14	4.76	17	5.78
<i>Total</i>	294	100.00	294	100.00
<i>Average</i>	3.22 (SD=1.097)		3.76 (SD=1.194)	

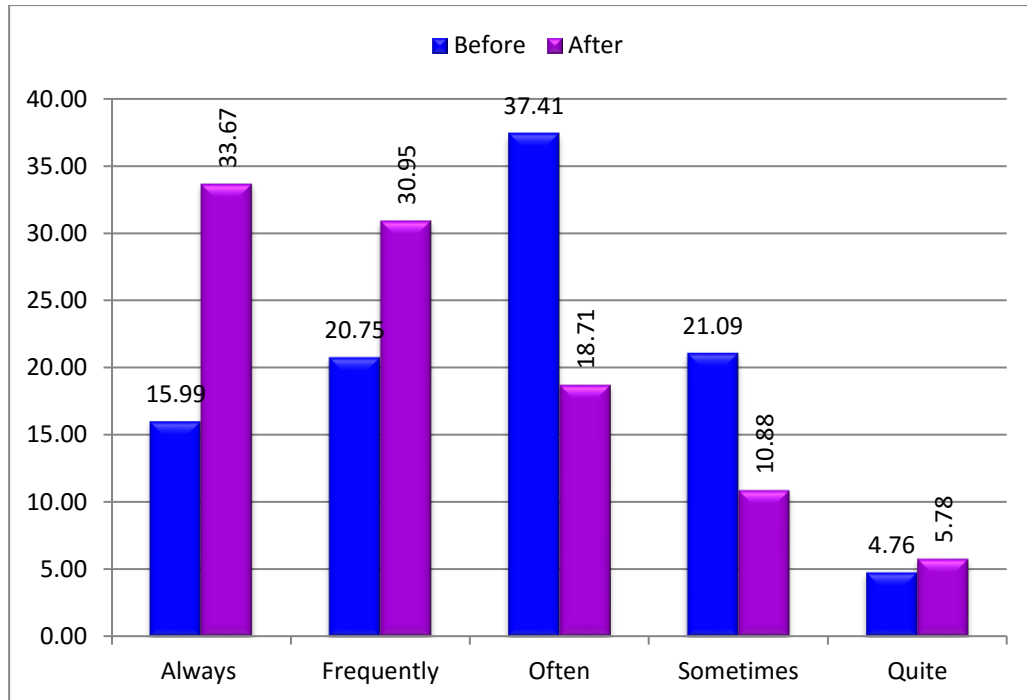
Source: Primary Data (2019)

In the questionnaire respondents were asked to rate frequency of visiting the bank for transaction in a month *before* and *after* the introduction of e-Banking Services; and the results were illustrated in Table 4.3 and Figure 4.1.

According to the data of this Table 4.3 and Figure 4.1, before the introduction of e- banking service majority of the respondents 110(37.41%) were often visited the bank for transaction within a month, 62(21.09%) of the respondents were sometimes visited the bank. Next to those, 61(20.75%) and 47(15.99%) of the respondents had visited the bank for transaction every month ‘frequently’ and ‘always’ respectively.

On the other hand, after the introduction of e-banking services improvement was observed among the respondents to visit the bank for transaction within a month. About one-third of the respondents (33.67%) were always visited the bank for transaction within a month; and 30.95% of the respondents were frequently visited the bank. Moreover, 18.71% and 10.88% of them were occasionally visited the bank for transaction within a month.

Figure 4. 1 Frequency of visiting the banks for transaction before and after the introduction of e-Banking services



Source: Primary Data (2019)

In general the results illustrated in Table 4.3 and Figure 4.1 showed that, before the introduction of e-banking service a large number of respondents were often visited the banks for transaction. However after the introduction of e-banking services, majority of respondents were mostly visited the banks for transactions.

This implies that, the introduction of e-banking services has been increased the number of customers who contacted the bank for transaction; and operation of the bank; which can be considered as advantage of introducing ATM and mobile banking services for customers and the banks in the study area.

4.2. Service Quality Dimensions that are more important and has Major Influence on Customers' Satisfaction

This part of the chapter focuses on customers responses related to the extent of service quality dimensions that have high importance (level of influence) on customers' satisfaction which related with the first basic research question: To examine e-payment system service quality dimensions that have major influence on customers' satisfaction.

Table 4. 4 Service Quality Dimensions that have major influence on Customers satisfaction

No	Items	Mean	SD
1	<i>Tangibility</i> : The appearance of the banks physical facilities, equipment, personnel and communication materials.	3.08	1.33
2	<i>Reliability</i> : The bank's ability to perform the promised service dependably and accurately	2.70	1.32
3	<i>Responsiveness</i> : The banks willingness to help customers and provide prompt service.	2.04	1.12
4	<i>Assurance</i> : The knowledge and courtesy of the bank's employees and their ability to convey trust and confidence.	3.54	1.29
5	<i>Empathy</i> : The caring individual attention the bank provides its customers.	3.13	1.46

Source: Primary Data (2019)

There are various dimensions and features of service quality to be considered in E-payment system. Among those, five sets of features pertaining to e-banking services were presented for respondents to rate the extent of importance (level of influence) of them to their satisfaction using the scales Very High (5) to Very Low (1). Accordingly the results of respondents' ratings (mean score) were illustrated in Table 4.4 categorizing in to the five service quality dimensions.

In accordance with the results presented in Table 4.4, among the five set of service quality dimensions the highest mean score(M=3.54, SD=1.29) was rated with the knowledge and courtesy of the banks employees and their ability to convey trust and confidence that is *Assurance*.

Next to this, issues related to *Empathy*, the caring individual attention of the bank provides its customers with 3.13 mean score and $SD=1.46$; was rated the second highest mean score followed by items of *Tangibility*, that is the appearance of the banks physical facilities, equipment, personnel and communication materials ($M=3.08$, $SD=1.33$).

Moreover issues related to *Reliability*: the bank's ability to perform the promised service dependably and accurately ($M=2.70$, $SD=1.32$) and that of *Responsiveness*, banks willingness to help customers and provide prompt service, with 2.04 mean score and $SD=1.12$ were rated by respondents as the fourth and fifth important service quality dimension in the study banks.

This implies that, among the five service quality dimensions; Assurance, which encompass 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 was more important than other service quality dimensions. Whereas, issues related to Responsibility was considered by the customers less important than other service quality dimensions.

In general, the above responses assured that the three service quality dimensions: Assurance, Empathy and Tangibility were more important for e-payment customers of the banks understudy than Reliability and Responsiveness.

4.3. Service Quality Dimensions and Customer Satisfaction

This part of the chapter focuses on the extent to which E-payment (ATM & Mobile banking) service delivery of the bank had satisfies the respondents with regard to the five service quality dimensions which are directly related to the second basic research question: to assess the effect of implementing electronic payment system on customer satisfaction in Addis Ababa City West District commercial banks.

Tangibility

Tangibility is one of the service quality dimensions among the others and it emphasized on the physical evidence of the service or appearance of physical facilities and personnel.

Table 4. 5 Tangibility SERVQUAL score

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

	Item	5		4		3		2		1		Total		Mean	Tangibility mean
		F	%	F	%	F	%	F	%	F	%		%		
1	The ATM machine is placed in a convenient location	65	22.11	96	32.65	62	21.09	42	14.29	29	9.86	294	100	3.43	3.09
2	The physical facility of ATM is visually appealing	99	33.67	58	19.73	65	22.11	41	13.95	31	10.54	294	100	3.52	
3	The bank's e-payment support employees are neat appearing	52	17.69	66	22.45	91	30.95	59	20.07	26	8.84	294	100	3.20	
4	Materials associated with ATM & Mobile banking services such as statement printing and advise are available for users	14	4.76	22	7.48	66	22.45	105	35.71	87	29.60	294	100	2.22	

Source: Primary Data (2019)

As the data illustrated in Table 4.5, among the four tangibility items; the highest mean scored (M=3.52) was concerned with the physical facility of ATM is visually appealing. This means that, the color, shape, size and structure of the automated tellers machines were attractive for the respondents. Next to this the convenience location of the ATMs has got the highest mean score (M=3.43), followed by the bank’s e-payment support employees neatness (M=3.20).The least mean was scored regarding the availability of materials associated with ATM and Mobile banking service such as statement printing and advise (M=2.22).This indicated that, those commercial banks were not successfully delivering the appropriate materials related with e-payment tools for their customers.

Reliability

Reliability is more related to measure the ability to perform service; dependably, accurately and delivering on its promises. It encompasses issues like: 24 hours availability of E-payment service every day; when the e-payment users has problems, the bank is sympathetic, reassuring, and has a sincere interest to solve the problem; when the e-payment tools of the bank promise to do something by a certain time, it does so; the e-payment tools of the bank provide the

service at the time the bank promised to do so; and the e-payment tools of the bank keeps error free records

Table 4. 6 Reliability SERVQUAL Score

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

Item	5		4		3		2		1		Total		Mean	Reliability mean
	F	%	F	%	F	%	F	%	F	%				
5 There is 24 hours E-payment service availability everyday	41	13.95	66	22.45	64	21.77	91	30.95	32	10.88	294	100	2.98	2.68
6 When the e-payment users has problems, the bank is sympathetic, reassuring, and has a sincere interest to solve the problem	81	27.55	68	23.13	53	18.02	49	16.67	43	14.63	294	100	3.32	
7 When the e-payment tools of the bank promise to do something by a certain time, it does so.	30	10.20	53	18.03	80	27.21	100	34.01	31	10.55	294	100	2.83	
8 The e-payment tools of the bank provide the service at the time the bank promised to do so	6	2.04	4	1.36	38	12.93	74	25.17	172	58.50	294	100	1.63	
9 The e-payment tools of the bank keeps error free records	19	6.46	39	13.27	85	28.91	111	37.76	40	13.60	294	100	2.61	

Source: Primary Data (2019)

As can be seen from the data of Table 4.6, respondents were more agreed on the item of reliability that focuses on ‘when the e-payment users has problems, the bank is sympathetic, reassuring, and has a sincere interest to solve the problem which has got the highest mean (M=3.32). Next to this the availability of 24 hours e-payment service had 2.98 mean score; followed by when the e-payment tools of the bank promise to do something by a certain time, it does so(M=2.83); and the e-payment tools of the bank keeps error free records and (M=2.61).

On the other hand, the e-payment tools of the bank provide the service at the time the bank promised to do so (M=1.63) was found at a lower level than other service quality dimensions. This implies that the selected commercial banks e-payment tools didn’t keep their promise.

Responsiveness

Responsiveness is the most important dimension that concerns with the willingness or readiness of employees to provide service and the bank ability to dealing with the customer’s requests, questions and complaints promptly and attentively. In this regards respondents were asked to their responses using the items list in Table 4.7.

Table 4. 7 Responsiveness SERVQUAL score

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

	Item	5		4		3		2		1		Total		Mean	Respo. Mean
		F	%	F	%	F	%	F	%	F	%				
10	The e-payment tools of the bank provide appropriate information to customers when a problem occur	22	7.48	26	8.84	62	21.09	67	22.79	117	39.80	294	100	2.21	2.08
11	The e-payment tools of the bank provide prompt service	11	3.74	20	6.80	52	17.69	116	39.46	95	32.31	294	100	2.10	
12	The e-payment tools of the bank are never too busy to respond to your request	12	4.08	17	5.78	53	18.03	82	27.89	130	44.22	294	100	1.98	
13	Employees in the bank tell you exactly the time that the e-payment services will be performed.	13	4.42	27	9.18	52	17.69	67	22.79	135	45.92	294	100	2.03	

Source: Primary Data (2019)

With regard to responsiveness the data illustrated in table 4.7 shows that relatively higher mean identified regarding, e-payment tools of the bank provide appropriate information to customers when a problem occur (M=2.21). Next to these respondents were rated almost similar mean score about the e-payment tools of the bank provide prompt service (M=2.10); and item that state about employees in the bank tell you exactly the time that the e-payment services will be performed (M=2.03).

The least mean score was identified on the e-payment tools of the bank are never too busy to respond to customers request (M=1.98). This implies that, the commercial banks e-payment tools were not strict to make follow up and respond customers' requests on time.

Assurance

Assurance entails the knowledge and courtesy of employees and their ability to convey trust and confidence. It also includes competence, courtesy, credibility and security of the bank regarding e-payment services. Assurance emphasizes on issues like: e-payment tools service instill customers confidence on the bank; customers should feel safe when transacting with e-payment tools; employees of the bank are consistently courteous with customers and they have the knowledge about e-payment tools to answer customers' questions.

Table 4. 8 Assurance SERVQUAL score

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

		5		4		3		2		1		Total		Mean	Assurance mean
		F	%	F	%	F	%	F	%	F	%		%		
14	The e-payment tools service instill your confidence on these bank	99	33.67	80	27.21	60	20.41	35	11.91	20	6.80	294	100	3.69	3.55
15	Customers should feel safe when transacting with these e-payment tools	98	33.34	68	23.13	68	23.13	30	10.20	30	10.20	294	100	3.59	
16	Employees of the bank are consistently courteous with you	90	30.61	62	21.09	69	23.47	52	17.69	21	7.14	294	100	3.50	
17	Employees in the bank have the knowledge about e-payment tools to	83	28.23	63	21.43	61	20.75	61	20.75	26	8.84	294	100	3.39	

answer your questions.															
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Source: Primary Data (2019)

Regarding assurance items the data illustrated in Table 4.8 showed that, the highest mean scored rated by respondents was about the e-payment tools service instill customers confidence on the banks(M=3.69);This may shows that e-payment products and customers confidence had positive relationship; leading them to satisfaction. Subsequently, the two items of assurance that focused on; ‘customers should feel safe when transacting with e-payment tools’ (M=3.59); and ‘employees of the bank are consistently courteous with customers’ (M=3.50) had rated by respondents synonymously.

On the other hand, the least mean score (M=3.39) was rated regarding an item that stated; Employees in the bank have the knowledge about e-payment tools to answer customer’s questions. This could pointed toward the management of the bank to schedule training programs on e- payment products, arrange different scheme, manuals, guidelines and other related materials that will enhance employees knowledge towards the e-payment system.

Empathy

Empathy involves caring and provision of individualized attention to customers by personnel of the firm. There are numerous ways that empathy can be provided: knowing the customer’s preference, his name, and his needs. Companies use this approach to render customized services as a competitive advantage over the larger firms. Considering these respondents were asked to rate the practices of empathy using the items listed in Table 4.9.

Table 4. 9 Empathy SERVQUAL score

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

Item		5		4		3		2		1		Total		Mean	Mean (Empathy)
		F	%	F	%	F	%	F	%	F	%		%		
18	The bank had given customers individual attention.	67	22.79	54	18.36	55	18.71	46	15.65	72	24.49	294	100	2.99	3.15
19	The bank had operating hours convenient to all e-payment customers	106	36.05	57	19.39	61	20.75	38	12.93	32	10.88	294	100	3.57	
20	The bank had employees who give e-payment customers personal service	57	19.39	51	17.35	58	19.73	42	14.28	86	29.25	294	100	2.83	
21	The bank had e-payment customers' best interest at heart	74	25.17	74	25.17	60	20.41	35	11.90	51	17.35	294	100	3.29	
22	The employees of the bank understand the specific needs of e-payment customers	66	22.45	63	21.43	54	18.37	41	13.95	70	23.80	294	100	3.05	

Source: Primary Data (2019)

Among the items of Empathy, the banks operating hours convenience to all e-payment customers had highest mean score (M=3.57). This means, the working hour of the banks was relatively comfortable for e-payment customers. Moreover, the results of the data illustrated in Table 4.9 showed that, the bank had e-payment customers' best interest at heart (M=3.29); and the employees of the bank understand the specific needs of e-payment customers (M=3.05) had the moderate mean score.

However, the least mean scored was observed regarding an items that focuses on the bank had given customers individual attention (M=2.99) and the banks had employees who give e-payment customers personal service (M=2.83). These implies that, the banks effort to focus on individual needs, wants and interest like offering ATM cards based on each person favorite color, providing the e-payment service in favor of each individuals is not satisfactory.

Table 4. 10 Summary Result of SERVQUAL Score (Service Delivery Practice)

No	Items	Mean	SD
1	<i>Tangibility</i>	3.09	1.34
2	<i>Reliability</i>	2.68	1.30
3	<i>Responsiveness</i>	2.08	1.16
4	<i>Assurance</i>	3.55	1.30
5	<i>Empathy</i>	3.15	1.48
Overall Results		2.91	1.41

Source: Primary Data (2019)

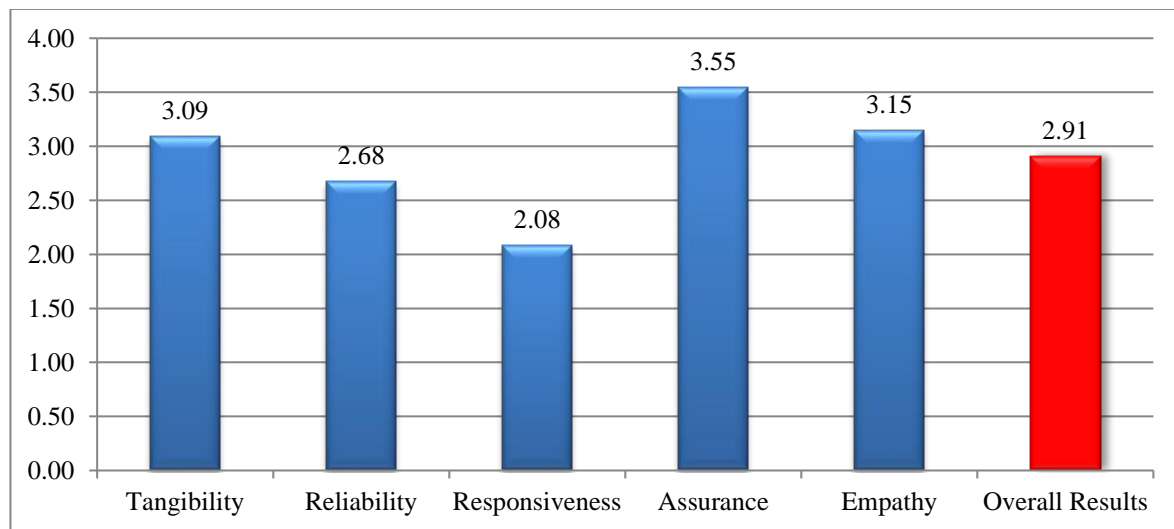
The summary result of the data in Table 4.10 shows summary result of service delivery practices of each service quality dimensions. According to the mean score illustrated in the Table, items of assurance (M=3.55, SD=1.30) was rated the highest rating results. Accordingly, the ability of the bank and its employees to use their knowledge and courteous behavior to instill trust and confidence in customers regarding the e-payment service had better rating value than other service quality dimensions. This implies that respondents were relatively satisfied on this set of service quality measurement, and also the commercial banks had enhanced performance on this of service delivery dimension.

Next to assurance, two dimensions are identified with moderate mean score by the respondents: Empathy (M=3.15, SD=1.48) and Tangibility (M=3.09, SD=1.34). According to these results, the banks caring and provision of individualized attention to customers by personnel of the firm; and the appearance of the banks physical facilities, equipment, personnel, and communication material was moderately practices. These may implied that, customer's level of satisfaction on this regard was moderate.

On the other hand, items of Reliability ($M=2.68$, $SD=1.30$) were rated by the respondents lower mean score. With regards to reliability since it is the important aspect in e-banking services it depends on handling customers' services problems, delivering e-payment services right the first time, provide services at the time the bank promised to do so and maintaining error-free records the banks had better to focus on keeping the accurate order fulfillment, accurate records, and keep services promise.

Similarly, regarding responsiveness the data illustrated in table 4.10 showed that relatively lower mean score was identified less than the remaining four service quality dimensions ($M=2.08$, $SD=1.16$). In this regards as stated in the literature, Responsiveness is the most important aspect in e- payment service and it is focus on the e-payment tools of the bank provide; appropriate information to customers when a problem occur, prompt service, fast response to customers request and the willingness of employees to inform the exact time that the e-payment service will be performed to the customers. However, as can be seen from the data of Table 4.10, the above mentioned items of responsiveness had not performed as other services quality dimensions.

Figure 4. 2 Summary Result of SERVQUAL Score (Service Delivery Practice)



Source: Primary Data (2019)

In general the results illustrated in Table 4.10 and Figure 4.2 showed that, the overall result was below moderate level ($M=2.91$, $SD=1.41$). This showed that, customers who participated in this study were not sufficiently satisfied by the e-payment system service delivery quality. So, through creating some improvement on responsiveness and reliability in lines with the other

service quality dimension the banks can enhance quality service delivery and customer satisfaction in their respective banks.

Table 4. 11 Overall customers’ satisfaction on the banks E-payment system

Responses	Count	%
Excellent	21	7.14
Very Good	50	17.01
Good	91	30.95
Poor	88	29.93
Very Poor	44	14.97
Total	294	100.00
Mean	2.71	
SD	1.130	

Source: Primary Data (2019)

In order to identify overall level of customers’ satisfaction with the current service delivery practices in the study banks; respondents were asked a separate question to rate their level of satisfaction in the questionnaire and their responses was illustrated in Table 4.11.

Accordingly, the results illustrated in the Table 4.11 clearly indicated that, the number of respondent who responded their level of satisfaction with the e-payment system excellent and very good were account only 7.14% and 17.01% respectively. Majority of the respondents were rated their satisfaction Good (30.95%) and Poor (29.93%). Moreover, 14.97% of the respondents agreed as theirs satisfaction on the e-payment service were Very Poor.

Moreover the mean score (M=2.71, SD=1.130) illustrated in the Table further showed less than moderate level of customers’ satisfaction with the e-payment services rendered by the bank understudy. This implies that e-payment services in the banks understudy had not sufficiently satisfying their respective customers.

Table 4. 12 Correlation Matrix; Overall Service Quality and Customers Satisfaction

		Customer Satisfaction	Service Quality
Customer Satisfaction	Pearson Correlation	1	
	Pearson Correlation	.841**	1
Service Quality	Sig. (2-tailed)	.000	
	N	294	294

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data (2019)

The results illustrated in the correlation matrix of table 4.12 showed strong positive relationship between service quality and customer satisfaction at 0.01 level of significant ($r=0.841$, $n=294$, $p<0.01$). That is, as services quality in the e-payment system' increases; customer satisfaction also significantly increases. This implies focusing on quality of the services and making an improvement on the dimension of service quality of the e-payment could greatly contributed for the enhancement of customer satisfaction in the banks.

However, correlation results illustrate in table 4.12 doesn't show the extent of influences of service quality on customer satisfaction. Moreover, it doesn't indicate the extent to which each dimension of service quality influences customer satisfaction in the e-payment. Thus, the following regression analysis was made.

Table 4. 13 Model Summary and ANOVA ^a Results

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
0.838	0.703	0.679	0.563	1.828	
	Sum of Squares	Df	Mean Square	F	Sig.
Regression	203.050	22	9.230	29.154	.000 ^b
Residual	85.794	271	.317		
Total	288.844	293			

a. Dependent Variable: Overall Customer Satisfaction

b. Predictors: (Constant), Empathy, Tangibility, Responsiveness, Reliability, Assurance

The determination coefficient R-square has the value 0.703 and expresses that 70.3% of the variation of customer satisfaction be explained by the practices of dimensions of service quality variables taken into consideration. The adjusted correlation ratio also shows that 0.679 of the total variation is due to the regression line, given the number of degrees of freedom.

From the ANOVA table it has been determined that $f=29.154$ and significant at 0.01 level, confirms that service quality dimensions have significant effect on customer satisfaction.

Multicollinearity Test

In essence, predictors should not be too highly correlated. In regression, this assumption can be checked with tolerance and variance inflation factor (VIF) statistics. Multicollinearity exists when there is a strong correlation between two or more predictors in a regression model.

Table 4. 14 Multicollinearity Test

No	Dimensions	Collinearity Statistics	
		Tolerance	VIF
1	Tangibility	.775	1.290
2	Reliability	.556	1.798
3	Responsiveness	.748	1.336
4	Assurance	.547	1.827
5	Empathy	.644	1.552

Dependent Variable: Overall Service Quality

Adjusted $R^2=0.703$; $1-Adj. R^2=0.297$

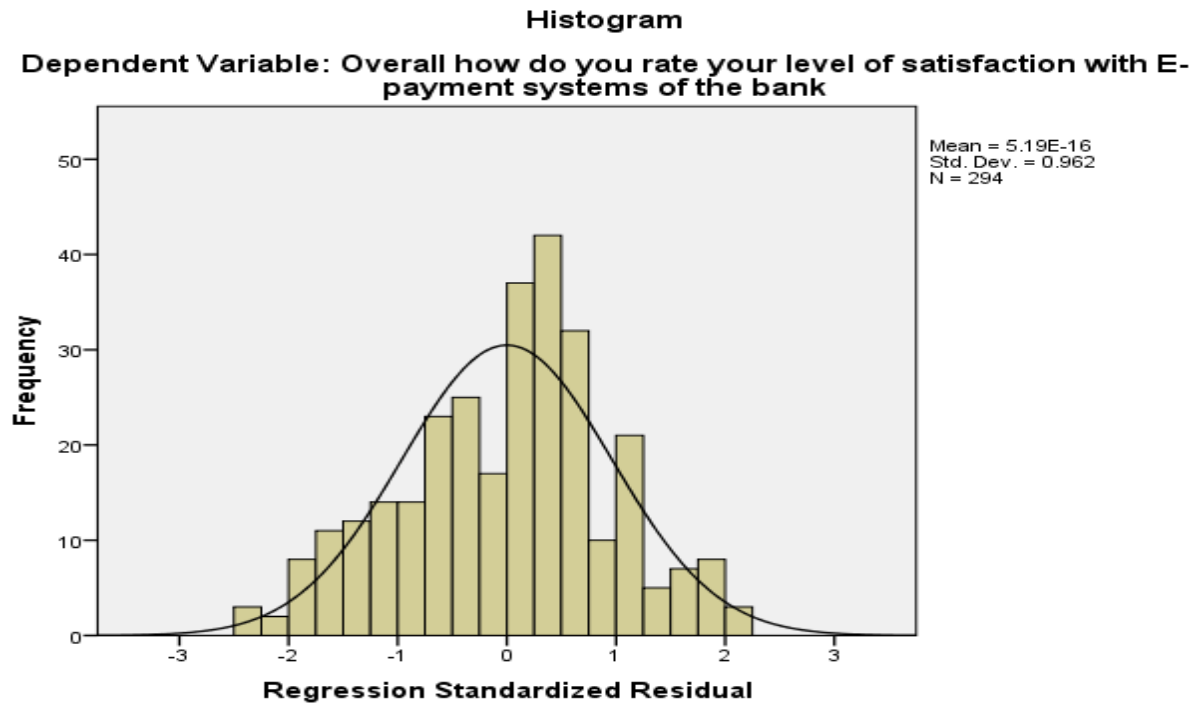
VIF mean variance inflation factor ($VIF=1/Tolerance$)

If the Tolerance value for the predictor is lower than the value of $1- R^2$, then there is a probably of Multicollinearity problem. However, in this case the adjusted R^2 is 0.703 and the value of $1- R^2$ is about 0.297, that is, tolerance values of all independent variables are greater than 0.297. Therefore, the result showed that there is no Multicollinearity problem among predictor variables.

Normality Test

Once the data were collected a very useful thing to do is to plot a graph of how many times each score occurs. This is known as a frequency distribution or histogram. In an ideal world the data would be distributed symmetrically around the center of all scores. As such, if a vertical line was drawn through the center of the distribution, then it should look the same on both sides. This is known as a normal distribution.

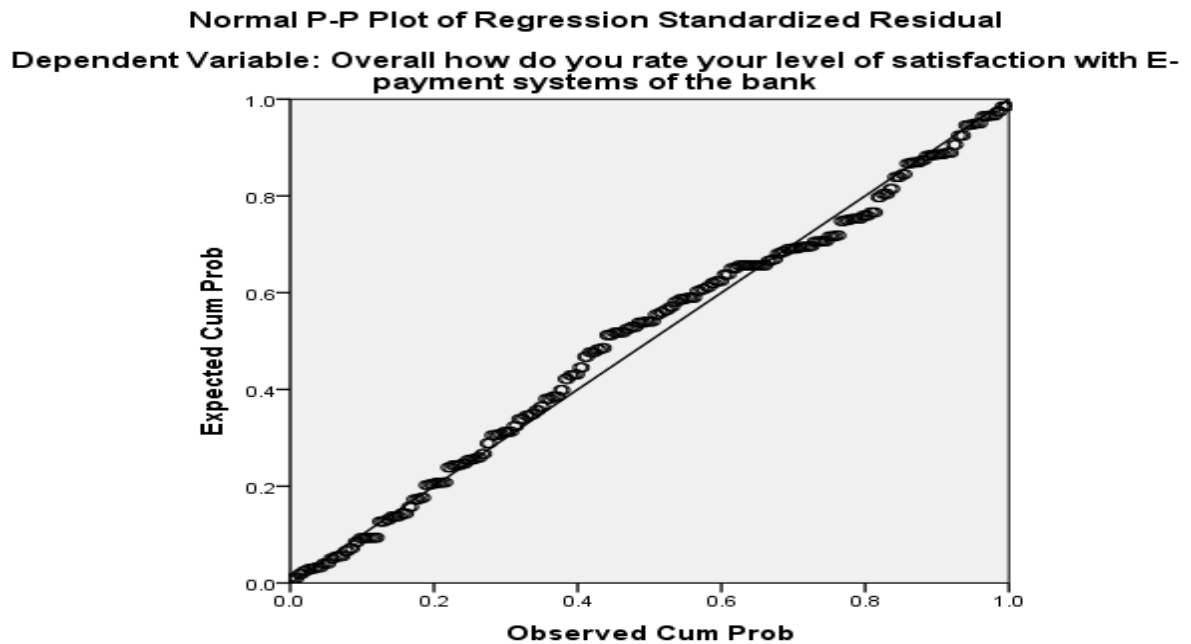
Figure 4.3 Frequency Distribution of Standardized Residual



Accordingly, the result illustrated in figure 4.3 is a histogram of the residuals with a normal curve; was obtained from SPSS output in relation to the effect of service quality on customer satisfaction in the commercial banks. The residuals look close to normal curve. This indicates no problems with the assumption that the residuals are normally distributed.

Moreover, figure 4.4 also shows the results of linearity test. It indicated that, the mean values of the outcome variable for each increment of the predictor(s) lie along a straight line or the outcome was linear relationships with the predictors.

Figure 4. 4 Normal Point Pilot of Standardized Residual



Thus, the above Normal p-p Residual plot and Normality test result shows that multiple linear regression used for this study meet the assumption, that is, there is no Multicollinearity problem and the residual is normally distributed.

Regression Analysis

Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables.

More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. A regression is therefore fitted between customer satisfaction and the various Service Quality dimensions.

Table 4. 15 Regression Analysis Effect of Service Quality on Customer satisfaction

	Unstandardized Coefficients		Standardized Coefficients	T	Sig	95% Confidence Interval for B	
	B	Std error	Beta			Lower bound	Upper bound
Constant	-1.580	.381		-4.144	.000	-1.047	-.005
Tangibility	.256	.070	.214	3.693	.000	.133	.325
Reliability	.609	.093	.456	6.575	.000	.246	.500
Responsiveness	.216	.090	.143	2.392	.018	.073	.320
Assurance	.177	.085	.134	2.075	.040	.092	.325
Empathy	.180	.097	.129	1.844	.067	.002	.268

R=0.838, R²=0.703, Adjusted R²=0.679

a. Dependent Variable: Overall Customer satisfaction

Predictors: (Constant), Empathy, Tangibility, Responsiveness, Reliability, Assurance

*. Significant at the 0.05 level (2-tailed).

**. Significant at the 0.01 level (2-tailed)

Source: Primary data (2019)

The results of regression analysis of service quality dimensions on customer satisfaction presented in table 4.15 showed that, among the five dimensions of service quality; reliability, tangibility, responsiveness and assurance are statically significant to influence the status of service quality in the commercial banks. But Empathy is not statically significant.

The findings further showed that, the coefficient of four Service Quality dimensions are significant at 0.01 levels, suggesting a positive relationship between customer satisfaction and Tangibility, Responsiveness, Reliability and Assurance. The findings confirm the literature that, improvements in service quality is beneficial to the banks as it helps to increase customer satisfaction.

More specifically, among the Service Quality dimensions, reliability obtained the highest coefficient (0.609). This means, a 1% increase in the level of Reliability may lead to 60.9% rise in Customer satisfaction. Furthermore, a 1% increase in Tangibility will lead to 25.6% increase in customer satisfaction; and a unit rise in responsiveness leads to 21.60% increase in the level of customer satisfaction. The coefficient of Assurance 0.177 also indicated a 1% increase in Assurance will result in 17.70% rise on customer satisfaction of the banks.

Thus, the following regression model was resulted from the analysis of the coefficients:

$$CS = -1.580 + .256TA + .609RE + .216RES + .177AS$$

Where: CS= Customer satisfaction; TA=Tangibility; RE=Reliability; RES=Responsiveness; and AS=Assurance.

Hypotheses result

HYPOTHESES 1

H1: Tangibility has no significant effect on customer satisfaction

As shown in the above table tangibility are significant at $P < 0.05$ levels. Therefore, the researcher rejects the null Hypotheses and accepts tangibility has a significant effect on customer satisfaction.

HYPOTHESES 2

H2: Reliability has no significant effect on customer satisfaction.

As result of table 4.15 showed Reliability are significant at $P < 0.05$ levels. Thus, the researcher may reject the null Hypotheses and accept that reliability has a significant effect on customer satisfaction.

HYPOTHESES 3

H3: Responsiveness has no significant effect on customer satisfaction.

The result of table 4.15 showed that Responsiveness is significant at $P < 0.05$ levels. Therefore, the researcher rejects the null Hypotheses and accepts responsiveness has a significant effect on customer satisfaction.

HYPOTHESES 4

H4 Assurance has a significant effect on customer satisfaction

Furthermore, table 4.15 also indicates that Assurance is significant at $P < 0.05$ levels. As a result, the researcher rejects the null Hypotheses and assurance has a significant effect on customer satisfaction.

HYPOTHESES 5

H5: Empathy has no significant effect on customer satisfaction.

As shown in the above table, Empathy is not significant at $P < 0.05$ levels. Thus, the researcher fails to reject the null Hypotheses and empathy has insignificant effect on customer satisfaction.

Generally, as the above result shows out of five service quality dimension Tangibility, Reliability, Responsiveness, Assurance have significant effect on customer satisfaction of e-payment system user and Empathy has no significant effect on customer satisfaction of e-payment system user.

Table 4. 16 Summary of Research Hypotheses Result

Hypotheses	Statement of the Hypotheses	Sig.	Result
H1	Tangibility has no significant effect on customer satisfaction	.000	Reject
H2	Reliability has no significant effect on customer satisfaction.	.000	Reject
H3	Responsiveness has no significant effect on customer satisfaction.	.018	Reject
H4	Assurance has no significant effect on customer satisfaction	.040	Reject
H5	Empathy has no significant effect on customer satisfaction.	.067	Accept

4.4 Major Factors that Affect E-payment System

The third foremost objective of this study is to identify major factors that affect electronic payment system on service quality perspective. The list of challenges was selected based on extensive literature review and discussion made with professionals and practitioner on e-payments services. Thus, in this part of the chapter respondents' responses regarding the major challenges were presented and analyzed using Tables as follows.

Table 4. 17 Major factors that affect e-payment system

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

No	Items	5		4		3		2		1		Mean
		F	%	F	%	F	%	F	%	F	%	
1	Network interruption highly affects E-payment system	154	52.38	98	33.34	11	3.74	12	4.08	19	6.46	4.21
2	Power disruption has great impact on E-payment tools of the bank	145	49.32	70	23.81	39	13.27	19	6.46	21	7.14	4.02
3	Cash shortage of the ATM has a major influence on the accessibility of the product	60	20.41	54	18.37	60	20.41	54	18.37	66	22.44	2.96
4	Failed to deliver a receipt highly dissatisfying me while using E-payment products	63	21.43	36	12.25	62	21.09	61	20.75	72	24.48	2.85
5	Difficult for adjusting errors on e-payment tools has major impact on E-payment system	123	41.84	81	27.55	38	12.93	28	9.52	24	8.16	3.85
6	Lack of clear guideline of the products make a great dilemma on the users	61	20.75	56	19.05	50	17	43	14.63	84	28.57	2.89
7	Password sensitivity is the main problem of e-payment products	46	15.66	36	12.24	41	13.94	74	25.17	97	32.99	2.52
8	The procedure (language) of the e-payment products is difficult for understanding	78	26.53	36	12.24	29	9.87	75	25.51	76	25.85	2.88
9	Limited amount for daily transaction is dissatisfying factor for E-payment products that I use	156	53.06	49	16.6	39	13.27	22	7.48	28	9.52	3.96

Source: Primary Data (2019)

Based on the results illustrated in Table 4.16 the top four major factors that affect e-payment system in the study banks were:

- a) Network interruption (M=4.21): This was occurred when the connection is lost between all switches, servers, and applications. As per the respondents had responded; network

interruption was a major challenge that affects the e-banking customers so far in the study banks.

- b) Power disruption (M=4.02): This is also called a power outage, cut, failure, and blackout. It may be a short-term or long-term loss of the electricity power to a particular area of the banks. In this regards, majority of the respondents agreed that power disruption had been a major challenge that hinder the provision of electronic payment service in the study banks.
- c) Limited amount of cash (M=3.96): This refers to the amount money allowed for individual customer to withdraw from the banks at a time and on daily basis. Regarding this respondents were identified as this was a third major challenge; in that limiting maximum amount of money for daily transaction from both ATM and Mobile Banking service had been affecting their transaction and using the services from the study banks.
- d) Difficult for adjusting errors (M=3.85). This was identified as the fourth major challenge identified by the respondents. It was a challenge associated with ATM and Mobile Banking service. However, the case might be more serious in relation to Mobile Banking service; since it difficult to reverse any error made throughout using the services once transaction had taken place.

Besides, as to the data illustrated in the Table, the lower mean score was identified regarding password sensitivity (M=2.52), failed to deliver a receipt (M=2.85), and Difficult for understanding the procedure or language (M=2.88). These issues had moderately considered by respondents as challenges that affect the implementation of e-payment services and customer delivery system in the study banks.

Moreover, interview result and responses obtained from open-ended questions of the questionnaire; the severity of network interruption and power disruption was also confirmed. Those challenges can leads customers to suffer by other challenges like; capturing of ATM cards, lateness to adjust when some problems occur, lateness to give fast response, failed to send mobile text messages on time, and monotonousness to complete one mobile banking transaction.

In addition, respondents were also agreed that, the limited amount of cash allowed for daily transaction had its own impact on customer's satisfaction. For example, the maximum limit for ATM cash withdrawal allowed for both commercial bank of Ethiopia and Awash banks are up

to 10,000 ETB and for Dashen bank it is up to 15,000 ETB. This implies that as most of the respondents occupational status was employees (both private and Government organization) and Business person the maximum bounds of the allowed amount may affect them during transaction with the banks in the study area.

In general, based on the above analysis the rigorousness of the challenges the interruption of network had the premium level followed by power disruption, minimum allowed limit of cash for daily operation and difficult for adjusting errors. Those challenges pave the way to the exacerbation of e-payment service quality problems and customer dissatisfaction towards the products.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of the Study Findings

The finding of this study confirmed that, Assurance which deals with the knowledge and courtesy of the bank's employees and their ability to convey trust and confidence was more important than other service quality dimensions. Whereas, issues related to Responsiveness was considered by the customers less important than other service quality dimensions.

The overall result was below moderate level ($M=2.91$, $SD=1.41$). This showed that, customers who participated in this study were not sufficiently satisfied by the e-payment system service delivery quality and also it clearly indicated that customers' level of satisfaction in the banks e-payment system was not satisfactory.

Moreover, the effect of service quality dimensions on customer satisfaction in the commercial banks was identified using the regression results obtained from SPSS outputs. The results of correlation coefficient also showed strong positive relationship between service quality and satisfaction of customer in the commercial banks. That is, as services quality in the banks increases; satisfaction of customers also significantly increases. This implies focusing on quality of the services and making an improvement on the dimension of service quality of the banks could greatly contributed for enhancement of the status of customer satisfaction.

In addition, the determination coefficient R-square has the value 0.703 and expresses that 70.3% of the variation of customer satisfaction can be explained by the practices of dimensions of service quality variables taken into consideration. The adjusted correlation ratio also showed that 0.679 of the total variation is due to the regression line, given the number of degrees of freedom.

From the ANOVA results it has been determined that $f=29.154$ and significant at 0.01 level, confirms that service quality dimensions have significant effect on customer satisfaction. Furthermore the result of test made to identify the presence of strong correlation between two or more predictors in the regression model also confirmed that there is no Multicollinearity among predictor variables. A regression is therefore, fitted between customer satisfaction and the five service quality dimensions. Accordingly the results of regression analysis of service

quality dimensions on satisfaction of customer identified that, among the five dimensions of service quality; reliability, tangibility, responsiveness and empathy are statically significant to influence the status of service quality in the commercial banks. But assurance is not statically significant.

This confirms the literature that, improvements in service quality was beneficial to the banks as it helps to promote customer satisfaction. Thus, banks operating in West Addis Ababa Districts, city branches of commercial banks should try to improve their service quality in order to achieve enhanced status of satisfaction of their customers.

The major factors that affect electronic payment system on service quality in the commercial banks were identified using the descriptive statistics and correlation coefficient. According to summary results of descriptive statistics, the top four challenges of e-payment system that identified in the study banks were; Network interruption (M=4.21, SD=1.13): Power disruption (M=4.02, SD=1.24): Limited amount of cash (M=3.96, SD=1.35): and Difficult for adjusting errors (M=3.85, SD=1.28). The mean score regarding these challenges were to some extent greater than the other challenges in the study area.

5.2 Conclusions

Customer satisfaction is the blood and soul of every service organization. In order to satisfy customers providing quality of service incontestable and delivering the service as per the expectation of customers need and wants is very essential. This is particularly true in the e-payment service. The present study has been undertaken to explain the effect of e-payment system on customers satisfaction found in Addis Ababa City. Based on analysis of the data and findings the following conclusions were drawn:

- According to the findings of this study, overall customer satisfaction towards e-payment service was rated below moderate level. From the five service quality dimensions: Assurance, Empathy and Tangibility were more important for e-payment customers of the banks under study than Reliability and Responsiveness. This indicates that, the knowledge and courtesy of the bank's employees and their ability to convey trust and confidence; the caring individual attention the bank provides its customers; the appearance of the banks physical facilities, equipment, personnel and communication materials plays a major role in customers' satisfaction.
- With regard to services quality dimensions items the highest rating result was identified: on the tangibility item; the physical facility of ATM is visually appealing which is the color, shape, size and structure of the automated tellers machines were attractive for the respondents. In the reliability items; when the e-payment users has problems, the bank is sympathetic, reassuring, and has a sincere interest to solve the problem. In the responsiveness items; e-payment tools of the bank provide appropriate information to customers when problems occur. in the assurance items; the e-payment tools service instill customers confidence on the banks and in the empathy items; the banks operating hours convenience to all e-payment customers are positively perceived by respondent customers than the other items of each service quality dimensions items. However, the commercial banks couldn't meet the overall satisfaction regarding responsiveness, reliability, tangibility and empathy respectively.

Moreover, the results of correlation coefficient also showed strong positive relationship between service quality and satisfaction of customer in e-payment system. The determination of coefficient of R-square has expresses that the variation of customer satisfaction can be explained by the practices of dimensions of service quality. This

indicated; focusing on quality of the services and making an improvement on the dimension of service quality of the bank could greatly contributed for enhancement of the status of customer in e-payment system.

The results of regression analysis of service quality dimensions on satisfaction of customer also identified that, among the five dimensions of service quality; reliability, tangibility, responsiveness and Assurance are statically significant to influence the status of service quality. But Empathy is not statically significant. The conclusion that can be drawn from those results is that, commercial banks operating in west Addis Ababa districts city branch should try to improve their service quality on e-payment system in order to achieve greater status of their customers' satisfaction.

- Regarding, the major challenges that affect e-payment service. The factors can be divided into two; external factors and bank related factors. Based on our result network interruption and power disruption categorized under external factors. These due to the challenges were faced in a country level. On the other hand, limited amount that allowed for daily transaction and difficult to adjust errors on the e-payment service were put under banks related factors. Because these challenges comes through lacks of development, improvement, good management and appropriate follow up in the administrative organs of the banks. In general it can be conclude that the top four major factors (Network interruption, power disruption, limited amount for daily transaction and difficult for adjusting errors) highly affect e-payment system in the study banks.

5.3 Recommendations

In view of the findings and conclusions made in this study, the following recommendations are forwarded:

From the e-payment system service quality dimensions; Responsiveness, Tangibility and Reliability and Assurance have significant effect on customers' satisfaction. so, the banks has to work regarding banks willingness to help customers and provide prompt service, the appearance of the banks physical facilities, equipment, personnel and communication materials and ability to perform the promised service dependably and accurately and knowledge and courtesy of the bank's employees and their ability to convey trust and confidence.

Through adjusting the e-payment tools to provide appropriate information to customers when a problem occur; using updated IT improvements that helps to deliver prompt service and minimize the busyness of the e-payment tools; The banks should maintain 24/7 hours of e-payment service through continuous follow up specially on holiday, weekend and other days that the bank couldn't open for customers; invest on trainings to enhance its employees knowledge and on performing consistent and correct service delivery; providing services at the time promised to customers; serious follow up on the ATMs transaction report to assure that it keeps the records accurately; showing sincere interest in solving customers' problems; and putting their legs on customers shoes; and through paying attention to the physical facility of ATMs and related ornament for mobile banking users for their phone. Using different decorations such as; alluring colors, shapes, sizes and structures for the automated tellers' machines to make it more attractive for the customers. The bank management should train their employees on E-payment products focusing to improve their skills and knowledge on how to understand E-payment system to gain customers trust and confidence.

Since the e-payment products are important to create cash less society in the country commercial banks well publicize to the customers. Even so, the banks should minimize the factors that affect customer satisfaction regarding the e-payment service. Based on the study conclusion the external factors; network interruption and power disruption can be minimized through work with Ethio- telecom & Ethiopian Electric Power to resolve service interruptions and minimize the brunt of the consequences of unreliable and also using alternative networks like EVDO which is a 3G technology that focuses on bringing high-speed data to CDMA

networks. Furthermore, installation of electric generator machine to overcome the disruption of electric power.

In addition, the internal factors; limited amount allowed for daily transaction can be resolved through conducting market research in order to know the type of customers, assess which group of the society more used the service and increasing the limited amount for daily transaction for both ATM and Mobile Banking. And the difficult for adjusting transaction errors particularly for Mobile Banking service the bank should adjust the system as it has possibly conducted.

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6. How long is the period, since you started using ATM & MOBILE BANKING service?
 a) Less than 12 months ____ b) Between 1 and 3 years ____ c) Between 3 to 4 years ____
 d) Between 4 to 5 years ____ e) More than 5 years ____

Part II: Importance Weights

2.1. *Before* the introduction of e banking products, how frequent in a month do you visit the bank for transaction?

Infrequently Often
 Sometimes Very frequently
 Quite

2.2. *After* the introduction of e banking, how many times in a month do you now visit the bank for transaction?

Infrequently Often
 Sometimes Very frequently
 Quite

2.3. There are various dimensions and features of service quality to be considered in E-payment system. Listed below are the five sets of features pertaining to e-banking services in your bank offer. The study would like to know how much each of these sets of features is more important and has influences on customer satisfaction. Thus, among the listed service quality dimensions in the following table; please rate the extent of their importance (level of influence) to your satisfaction using the scales; (5) Very High, (4) High, (3) Moderate, (2) Low and (1) Very Low.

No	Items	5	4	3	2	1
1	The appearance of the banks physical facilities, equipment, personnel and communication materials to be used in e-payment system					
2	The bank's ability to perform the promised e-payment service dependably and accurately					
3	The banks willingness to help customers and provide prompt e-payment service					
4	The knowledge and courtesy of the bank's employees and their ability to convey trust and confidence regarding e-payment system					
5	The caring individual attention the bank provides to customers of its e-payment system					

PART III: Service Quality Delivery and Customer Satisfaction Related Items

3.1. Please show the extent to which E-payment (ATM & Mobile banking) service delivery of the bank had satisfies you with regard to the following items of service quality dimensions. What the study interested in here is to identify the extent of your satisfaction about E-payment services (ATM & Mobile banking). Please, rate each statement using the scales: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1).

	Items	5	4	3	2	1
TN1	The ATM machine is placed in a convenient location					
TN2	The physical facility of ATM is visually appealing					
TN3	The bank's e-payment support employees are neat appearing					
TN4	Materials associated with ATM & Mobile banking services such as statement printing and advise are available for users					
RL1	There is 24 hours E-payment service availability everyday					
RL2	When the e-payment users has problems, the bank is sympathetic, reassuring, and has a sincere interest to solve the problem					
RL3	When the e-payment tools of the bank promise to do something by a certain time, it does so.					
RL4	The e-payment tools of the bank provide the service at the time they promise to do so					
RL5	The e-payment tools of the bank keeps error free records					
RS1	The e-payment tools of the bank provide appropriate information to customers when a problem occur					
RS2	The e-payment tools of the bank provide prompt service					
RS3	The e-payment tools of the bank are never too busy to respond to your request.					
RS4	Employees in the bank tell you exactly the time that the e-payment services will be performed.					
AS1	The e-payment tools service instill your confidence on these bank					
AS2	Customers should feel safe when transacting with these e-payment tools					
AS3	Employees of the bank are consistently courteous with you.					
AS4	Employees in the bank have the knowledge about e-payment tools to answer your questions.					
EM1	The bank had given customers individual attention.					
EM2	The bank had operating hours convenient to all e-payment customers					
EM3	The bank had employees who give e-payment customers personal service					
EM4	The bank had e-payment customers' best interest at heart					
EM5	The employees of the bank understand the specific needs of e-payment customers					

- 3.2. Overall how do you rate your level of satisfaction with E-payment systems of the bank?
 a) Excellent _____ b) Very Good ____ c) Good ____ d) Poor ____ e) Very Poor ____

Part IV: Items Related to Major Factors that Affect E-payment Systems

- 4.1. In the following table possible major factors that affect e-payment system are listed. Please, show the extent of your agreement using the scales: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1) by putting tick mark “✓” in the space provided.

Nº	Items	5	4	3	2	1
1	Network interruption highly affects E-payment system					
2	Power disruption has great impact on E-payment tools of the bank					
3	Cash shortage of the ATM has a major influence on the accessibility of the product					
4	Failed to deliver a receipt highly dissatisfying me while using E-payment products					
5	Difficult for adjusting errors on e-payment tools has major impact on E-payment system					
6	Lack of clear guideline of the products make a great dilemma on the users					
7	Password sensitivity is the main problem of e-payment products					
8	The procedure (language) of the e-payment products is difficult for understanding					
9	Limited amount for daily transaction is dissatisfying factor for E-payment products that I use					

- 4.2. Please write any other problems you faced while using ATM and Mobile banking services.

- 4.3. Please write any suggestions that the management of the bank should do to alleviate problems related to e-payment services.

Thank you for your efforts and devotion of time to respond this questionnaire!!

Appendix-B

መጠይቅ (በአማርኛ) ቅድስት ማርያም ዩኒቨርሲቲ የድህረ ምረቃ መርታ-ግብር ቢዝነስ አድሚኒስትሬሽን ትምህርት ክፍል

የተከበሩ ደንበኛ

ይህ መጠይቅ በአዲስ አበባ ከተማ ምዕራብ ዲስትሪክት የንግድ ባንኮች ውስጥ የደንበኞችን የኤሌትሮኒክስ ባንኪንግ አገልግሎት እርካታ ውጤቶች በተመለከተ የዳሰሳ ጥናት ለማድረግ የመጀመሪያ ደረጃ መረጃ ለማሰባሰብ የታሰበ ነው። በዚህ መጠይቅ የሚሰበሰበው መረጃ ለትምህርት ዓላማ በቢዝነስ አድሚኒስትሬሽን ሁለተኛ ዲግሪ (ኤም/ቢ/ኤ) ከ ቅድስት ማርያም ዩኒቨርሲቲ ለማግኘት ከፊል ማሟያ ሆኖ የሚያገለግል ነው። በመሆኑም ለጥናቱ ስኬት መረጃ በመስጠት በመሳተፍ የሚያደርጉልን ትብብር እና ፍቃደኝነት እጅግ አስፈላጊ ነው።

ከዚህም የተነሳ ይህንን መጠይቅ በመሙላት በዚህ ጥናት ውስጥ እንዲሳተፉ የተመረጡ መሆኖዎን እየገለፅን የሚያቁትን መረጃ እንዲሰጡ በትህትና እንጠይቃለን። ማንኛውም የሚሰጡን መረጃ በሚስጥር የሚያዝ መሆኑን ማሳወቅ እንወዳለን።

ስለትብብርዎ አመሰግናለሁ!

አጠቃላይ መመሪያ

- በዚህ መጠይቅ የተኛውም ክፍል ላይ ስምዎን አያስፍሩ።
- ለዚህ ጥናት ስኬት በታማኝነት መልስ መስጠትዎ አስፈላጊ ነው።
- አንድ ምርጫ መልስ ላላቸው ጥያቄዎች የገምገማኛ አድርገው የሚመስልዎትን መልስ ይምረጡ።
- ማብራሪያ ለሚጠይቁ እና ክፍት ቦታዎች ላሏቸው ጥያቄዎች አጭር የሆነ መልስ ያስፍሩ።

ክፍል: የመላሾች አጠቃላይ ሁኔታ መግለጫ

1. ጾታ ሀ) ወንድ _____ ለ) ሴት _____
2. የዕድሜ ምድብ: ሀ) ከ20 በታች _____ ለ) 21-30 ዓመት _____ ሐ) 31-40 ዓመት _____ መ) 41 እስከ 50 ዓመት _____ ሰ) ከ50 ዓመት በላይ _____
3. የትምህርት ደረጃ: ሀ) የመጀመሪያ ደረጃ ትምህርት _____ ለ) የሁለተኛ ደረጃ ትምህርት _____ ሐ) የምስክር ወረቀት _____ መ) ዲፕሎማ _____ ሰ) የመጀመሪያ ዲግሪ _____ ረ) ሁለተኛ ዲግሪና ከዚያ በላይ _____
4. ሥራ: ሀ) ባለሙያ (Professional) _____ ለ) የንግድ ሠራተኛ _____ ሐ) የመንግስት ሠራተኛ _____ መ) የግል ድርጅት ሠራተኛ _____ ሰ) የግል ሥራ የሚሰሩ _____ ረ) ስራ የሌለው _____ ስ) ተማሪ _____ ሸ) ሌሎች _____
5. የትኛው የንግድ ባንክ ደንበኛ ነዎት?
ሀ) የኢትዮጵያ ንግድ ባንክ _____ ለ) ዳሽን ባንክ _____ ሐ) አዋሽ ባንክ _____

6. ኤ/ቲ/ኤም እና ሞባይል ባንክ አገልግሎት ከጀመሩ ምን ያህል ጊዜ ሆኖታል?

- ሀ) ከ12 ወራት በታች ___ ለ) ከ1- 3 ዓመት ያህል ___ ሐ) ከ3 -4 ዓመት ያህል ___ መ)
 ከ4 -5 ዓመት ___ ሰ) ከ5 ዓመት በፊት ___

ክፍልII: የባንኩ አገልግሎት የጠቀሜታ ደረጃ መግለጫ

2.1. የኢ-ባንክ አገልግሎቶች ከመጀመራቸው አስቀድሞ፣ የባንኩን አገልግሎት ለመጠቀም በወር ወደ ባንኩ ምን ያክል ጊዜ ይመላለሱ ነበር?

ሁልጊዜ በተደጋጋሚ

ብዙ ጊዜ አንዳንድ ጊዜ

በመጠኑ

2.2. የኢ-ባንክ አገልግሎቶች ከተጀመሩ በኋላ ወደ አዚህ ባንክ ምን ያህል ጊዜ በወር ይመላለሳሉ?

ሁልጊዜ በተደጋጋሚ

ብዙ ጊዜ አንዳንድ ጊዜ

በመጠኑ

2.3. በኢ-ባንኪንግ ክፍያ ስርዓት ውስጥ የተለያዩ የአገልግሎት ዘርፍ እና ገጽታዎች አሉ።

ከዚህ በታች በእርስዎ ባንክ በሚሰጡ የኢ-ባንክ አገልግሎቶች ላይ የሚታዩ አምስት የገጽታ ዓይነቶች በጥቅል ተቀምጠዋል። በዚህ ጥናት ከእያንዳንዱ ጥቅል ገጽታዎች ጋር በተያያዘ ለደንበኞች ርካታ ጠቃሚ እና ይበልጥ ተጽዕኖ ፈጣሪ የሆኑው የትኛው እንደሆነ ለማወቅ እንወዳለን። በመሆኑም፣ እባክዎን ከተዘረዘሩት የአገልግሎት ጥራት መመዘኛዎች ውስጥ በሰንጠረዥ ውስጥ ለእርስዎ ርካታ የጠቃሚነታቸውን ደረጃ (የተጽዕኖቸውን ልክ) የህምልክት በማድረግ ያመልክቱ። 5=በጣም ከፍተኛ፣ 4=ከፍተኛ፣ 3=መካከለኛ፣ 2=አነስተኛ፣ 1=በጣም አነስተኛ በማለት ያመልክቱ።

ቁ.	ዝርዝሮች	5	4	3	2	1
1.	ባንኩ በኢ-ክፍያ ስርዓት የሚጠቀሟቸው የአገልግሎት መስጫ መሣሪያዎች፣ ሰራተኞች እና የመግባቢያ ገፅታ አግባብነት					
2.	ባንኩ ለደንበኞች ቃል የገባውን አገልግሎት በተፈለገው መጠን ለመስጠት መቻሉ፣ ተግባራዊነት እና ትክክለኛነቱ					
3.	ባንኩ ደንበኞችን ለመርዳት እና ፈጣን የኢ-ክፍያ አገልግሎት ለመስጠት ያለው የፍቃደኝነት ደረጃ					
4.	የባንኩ ሰራተኞች ዕውቀት እና ትህትና፣ እንዲሁም ስለ ኢ-ክፍያ ስርዓት በደንበኞች ላይ አመኔታ እና መተማመንን የመፍጠር ችሎታቸው					

5.	ባንኩ ለኢ-ክፍያ ስርዓት ደንቦች በግል የሚሰጠው ትኩረትና እንክብካቤ					
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ክፍል III: አገልግሎት አቀራረብ ጥራት እና የደንቦች እርካታ ጋር የተያያዙ መረጃዎች

3.1 እባክዎን ከባንኩ ስለሚያገኙት የኢ-ክፍያ (ኤ/ቲ/ኤም እና የሞባይል ባንኪንግ)

አገልግሎቶች አሰጣጥን በተመለከተ ምን ያህል እርካታ እንዳገኙ ከሚከተሉት

የአገልግሎት ጥራት አንጻር ይግለጹልን። እባክዎን ለዚህም የሚከተሉትን መለኪያዎች

ይጠቀሙ። 5=በጣም እስማማለሁ፣ 4=እስማማለሁ፣ 3=ገለልተኛ ነኝ፣

2=አልስማማም፣ 1=በጣም አልስማማም በማለት ያመልክቱ።

	ዝርዝሮች	5	4	3	2	1
ቲ/ኤን1	ኤ/ቲ/ኤም ማሽኑ የተቀመጠው በምቹ ቦታ ላይ ነው					
ቲ/ኤን2	የኤ/ቲ/ኤም አገልግሎት መስጫው ማሽኖች ሲታዩ ለአይን ማራኪናቸው					
ቲ/ኤን3	የኤ/ት/ኤም አገልግሎት ድጋፍ ሰጪ ሰራተኞች ሲታዩ መልካም ገፅታ ይታይባቸዋል።					
ቲ/ኤን4	ከኤ/ቲ/ኤም እና የሞባይል ባንክ አገልግሎቶች ጋር ተያያዥ የሆኑ ቁሳቁሶችና ደረሰኞች ሙሉ በሙሉ ለተጠቃሚዎች ይቀርባሉ።					
አር/ኤል1	በየዕለቱ ለ24 ሰዓታት የኢ-ክፍያ አገልግሎት ይሰጣል					
አር/ኤል2	የኢ-ክፍያ ተጠቃሚዎች ችግር ሲገጥማቸው ባንኩ በርህራሄ እና በወገንተኝነት ችግራቸውን ለመቅረፍ ይጣጣራል።					
አር/ኤል3	ባንኩ በኢ-ክፍያ አገልግሎት ሊፈፀመው የገባውን ቃል በተባለው ጊዜ ይፈፀማል።					
አር/ኤል4	የባንኩ የኢ-ክፍያ መሳሪያዎች ችግር ሲጋጥም ቃል የገቡትን አገልግሎት ለደንቦች ያቀርባሉ።					
አር/ኤል5	የባንኩ የኢ-ክፍያ መሳሪያዎች ከስህተት ነፃ የሆኑ ትክክለኛ መረጃዎችን ይይዛሉ።					
አር/ኤስ1	የባንኩ የኢ-ክፍያ መሳሪያዎች ችግር ሲያጋጥም ለደንቦች ትክክለኛ መረጃ ይሰጣሉ።					
አር/ኤስ2	የባንኩ የኢ-ክፍያ መሳሪያዎች ፈጣን አገልግሎት ይሰጣሉ					
አር/ኤስ3	የባንኩ የኢ-ክፍያ አገልግሎት መስጫ መሳሪያዎች ሁልጊዜም አገልግሎት በመስጠት የተጨናነቁ አይደሉም።					
አር/ኤስ4	የባንኩ ሰራተኞች የኢ-ክፍያ አገልግሎት መስጫ መሳሪያዎች የሚሰሩበትን ሰዓት በትክክል ያሳውቃሉ።					
ኤ/ኤስ1	የኢ-ክፍያ አገልግሎት መስጫ ማሽኖች በውስጥም በባንኩ አገልግሎት ላይ መተማመንን እንዲፈጥሩ ያደርጋሉ።					
ኤ/ኤስ2	በእነዚህ የኢ-ክፍያ መሳሪያዎች ደንቦች ሲጠቀሙ ደህንነት ይሰማቸዋል					
ኤ/ኤስ3	የባንኩ ሰራተኞች ለእርሶዎ የማያቋርጥ ትህትና እና አገልግሎት የመስጠት ፍላጎት አላቸው።					
ኤ/ኤስ4	የባንኩ ኢ-ክፍያ አገልግሎት ድጋፍ ሰጪ ሰራተኞች ጥያቄዎትን ለመመለስ አስፈላጊው እውቀትና ክህሎት አላቸው።					
ኢ/ኤም1	ባንኩ ለደንቦች በግል ትኩረት ይሰጣሉ፤					
ኢ/ኤም2	የባንኩ የሥራ ሰዓት ለሁሉም የኢ-ክፍያ ደንቦች ምቹ ነው					

ኢ/ኤም3	ባንኩ ለኢ-ክፍያ ደንቦች የግል አገልግሎት የሚሰጡ ሰራተኞች አሉት					
ኢ/ኤም4	ባንኩ የደንቦችን ጥቅም ያገናዘበ የኢ-ክፍያ ስርዓት አለው					
ኢ/ኤም5	የባንኩ ሰራተኞች የኢ-ክፍያ ደንቦችን ልዩፍላጎት ይረዳሉ፤					

3.1. በአጠቃላይ ከባንኩ የኢ-ክፍያ ስርዓት ጋር በተያያዘ ያገኙትን እርካታ እንዴት ይገልፁታል? ሀ) እጅግ በጣም ጥሩ _____ ለ) በጣም ጥሩ _____ ሐ) ጥሩ _____ መ) ደካማ _____ ሰ) በጣም ደካማ _____

ክፍል IV: የኢ-ክፍያ ስርዓት ጋር በተያያዘ የሚታዩ ተግዳሮቶችን በተመለከተ

4.1 ከዚህ በታች በሚገኘው ሰንጠረዥ ውስጥ የኢ-ክፍያ ስርዓት በተመለከተ ሊከሰቱ የሚችሉ ተግዳሮቶች መካከል እባክዎ በአሁኑ ወቅት ከሚጠቀሙበት ባንክ ላይ የሚያደርሱትን የተጽዕኖ ደረጃ የሚያሳይ ስምዕን በማድረግ ያመልክቱ፤ 5=በጣም ከፍተኛ፣ 4=ከፍተኛ፣ 3= መካከለኛ፣ 2=ዝቅተኛ እና 1=በጣም ዝቅተኛ በማለት ያመልክቱ፤

ቁ.	ዝርዝሮች	5	4	3	2	1
1.	የኔትወርክ መቆራረጥ የኢ-ክፍያ ሲስተሙን ይጎዳል					
2.	የኤሌትሪክ ኃይል መቆራረጥ የኢ-ክፍያ መሳሪያዎች ላይ ትልቅ ተጽኖ አለው					
3.	በኤቲኤም ማሽን ላይ የገንዘብ እጥረት መኖር					
4.	ደረሰኝ አለመስጠት					
5.	ስህተቶችን ለማስተካከል አለመቻል					
6.	ግልጽ የሆነ መመሪያ አለመኖሩ ተጠቃሚውን ያምታታል					
7.	የይለፍ ቃል አስተማማኝነት አናሳነት					
8.	የአገልግሎቱን ቅደም ተከተል ቋንቋው ለመረዳት አስቸጋሪ መሆን					
9.	በየእለቱ በአገልግሎቱ የሚንቀሳቀሰውና መጠቀም የሚቻለው የገንዘብ መጠን ውስን መሆን					

4.2. እባክዎን ከላይ ከተዘረዘው በተጨማሪ ኤ/ቲ/ኤም እና ሞባይል ባንኪንግ አገልግሎት ጋር በተያያዘ ያጋጠመዎትን ችግሮች ቢገልፁልን?

4.4. እባክዎን የባንኩ አስተዳደር እነዚህን ከኢ-ክፍያ አገልግሎት ጋር የሚገናኙ ችግሮችን ለመፍታት ምን ማድረግ እንደሚገባዎት ያለዎትን የመፍትሔ ሀሳብ ቢገልፁልን?

ጊዜዎን ሰጥተው ይህንን መጠይቅ ስለሞሉልን እናመሰግናለን

Appendix-C:

Interview Questions

ST. MARY'S UNIVERSITY

SCHOOL OF GRADUTE STUDIES

DEPARTMENT OF BUSINESS ADMINISTRATION

Interview Guideline Questions

The purpose of this interview was to collect primary data from purposively selected respondents in Addis Ababa City West District Commercial Banks. The interview was conducted with Addis Ababa City West District E-payment Managers of Commercial Bank of Ethiopia, Awash Bank and Dashen Banks.

I. E-payment system service quality dimensions

1. What are type of Electronic payment service does your bank provide?
2. Which type of customer status (regarding Gender, Age, Educational background, and Occupation) predominantly uses e-payment products? Specifically ATM and Mobile banking
3. Is there any improvement regarding customers frequency of visiting the bank before and after the implementation of e-payment service?
4. What are the basic service quality dimensions that your bank considered more important for the customers? Specifically for ATM and Mobile banking users?
5. On which the mentioned SQDs do the bank give more emphasis? Why?

II. E-payment (ATM & Mobile banking) service delivery and customer satisfaction

1. Is your bank work on the appearance of the banks physical facilities, equipment, personnel and communication materials to be used in e-payment system?
2. Does your bank have ability to perform the promised e-payment service dependably and accurately?
3. In your opinion, how do you see this bank willingness to help customers and provide prompt e-payment service?

4. How do you see the knowledge and courtesy of the bank's employees and their ability to convey trust and confidence regarding e-payment system?
5. Is this bank pay attention for caring individual attention for e-payment customers?
6. As your opinion, does the e-payment customers of this bank are satisfied on the bank's service delivery?

III. Factors that Affect E-payment System

7. In your view, what are the factors that affect e-payment system?
8. In your opinion what are the major factors that hinder your bank to provide effective e-payment service?
9. Concerning the challenges that you have mentioned above, which one is more serious for your bank?
10. How does this bank put effort to eliminate challenges that constraints to deliver appropriate e-payment services?