



ST. MARY UNIVERSITY SCHOOL OF GRADUATE STUDIES

MASTERS OF BUSINESS ADMINISTRATION

IN GENERAL MANAGEMENT

**THE IMPACT OF MOBILE BANKING SERVICE QUALITY ON
CUSTOMERS SATISFACTION (THE CASE OF COMMERCIAL BANK OF
ETHIOPIA IN SELECTED BRANCH)**

BY:

MAHLET LEGESSE ADDISSE

FEB, 2020
ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF
BUSINESS, IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE IN
BUSINESS ADMINISTRATION (GENERAL MANAGEMENT)**

ADVISOR: ZEMENUE AYNADIS(ASS. PROF.)

FEB,2020

ADDIS ABABA, ETHIOPIA

DECLARATIONS

I, **Mahlet Legesse**, Registration I.D. Number **SGS/0213/2010A**, hereby declare that this thesis is my original work and that it has not been submitted partially or in full, for an award of a degree in any other university or institution.

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FEB, 2020

APPROVED BY BOARD OF EXAMINERS

We, the undersigned, members of the Advisor and Examiners of the final defense by Mahlet Legesse have read and evaluated his thesis entitled “**the impact of mobile banking service quality on customers satisfaction (the case of commercial bank of Ethiopia in selected branch).**” and examined the candidate. This is therefore to certify that the thesis has been accepted in partial fulfillment for the award of the degree of Master of Art in Business Administration.

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LIST OF TABLES

Table 3.1 Number of Customers.....	23
Table 3.2 Total Number of Customer Sample from Each Branch.....	24
Table 3.6 Test for Reliability.....	27
Table 4.1 Demographic Profile of Mobile-banking Customers.....	29
Table 4.2 Descriptive Statistics	31
Table 4.2 Regression Results: Main.....	32
Table 4.4 Independent sample t-test	36
Table 4.6 Test for Multi-collinearity	40
Table 4.7 Test for Normality	41
Table 4.8 Model Summary 1	42
Table 4.0 Model Summary 2	42
Table 4.10 Multi-collinearity analysis.....	43

LIST OF FIGURES

Figure 2.1 conceptual framework of customer satisfaction.....	21
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LIST OF ACRONYMS

ACC:	Accessibility
ANOVA:	Analysis of Variance
ATM:	Automatic Teller Machine
CBE:	Commercial Bank of Ethiopia
CSP:	Customer Support
CUS:	Customer Satisfaction
ICT:	Information and Communication Technology
MMS:	Multimedia Message Service
NBE:	National Bank of Ethiopia
PDA:	Personal Digital Assistant
POS:	Point of Sale
PSB:	Public Sector Banks
REL:	Reliability
SMS:	Short Message Service
SPSS:	Statistical Package for science
SSE:	Service Security
TOEM:	Technology Organization Environmental Model
TRE:	Transactional Efficiency
UTAUT:	Unified Theory of Acceptance and Use of Technology

ACKNOWLEDGEMENTS

All praise and thanks to GOD, the Lord of existence, the most Gracious, the most Merciful.

First, I would like to express my deepest gratitude to my advisor ZEMENUE AYNADIS (ASS. PROF.) for his friendly approach, immediate feedback and constructive comments on this study with his useful suggestions, fruitful support and invaluable comments.

I would like to thank to the all staffs and customers of commercial bank of Ethiopia for their response to research questionnaire

Last but not least; this paper has been made possible through the direct and indirect support and cooperation of various persons for whom I wish to express my appreciations and gratitude especially to my colleague Zemenu Aynadis (Ass. Prof.).

ABSTRACT

The purpose of the study is to investigate the impact of Mobile Banking on Satisfaction of Commercial Bank of Ethiopia Customers Selected Branches in Addis Ababa Districts. To address the research objective the study was used explanatory and descriptive research design. From four Addis Ababa districts eight grade four branches were selected using purposive sampling. 28,810 actively using mobile banking service customers being included in the sample and 380 sample customers were selected based on convenience sampling method in addition 5-point Likert -scale and open ended questionnaire was distributed. From which 320 sample respondents replied appropriately to the questionnaire. Data were analyzed using statistical techniques such as multiple liner regression were employed to find out the satisfaction of customer on mobile banking service on commercial bank of Ethiopia The study found out Accessibility, customer support, transactional efficiency and reliability positively affected customer satisfaction on mobile banking service provided by the bank. Accessibility followed by customer support had a highest positive effect on customer satisfaction. The effect of service security on customer satisfaction was insignificant. Therefore To keep customers satisfied the bank has to give emphasis for service security in such a way that customers should feel safe while using mobile banking. The bank shall design a mobile banking service that allows customers to transact among accounts found in different banks.

Key words: *Commercial Bank, Customer Satisfaction, Mobile Banking*

TABLE OF CONTENTS

CONTENTES	PAGE
DECLARATIONS.....	i
ENDORSEMENT	ii
LIST OF TABLE	iii
LIST OF FIGURES.....	iv
LIST OF ACRONYMS.....	v
ACKNOWLEDGEMENTS	vi
ABSTRACT	vii
DECLARATIONS.....	i
ENDORSEMENT	Error! Bookmark not defined.
LIST OF TABLES	iii
LIST OF FIGURES	iv
LIST OF ACRONYMS	v
ACKNOWLEDGEMENTS	vi
ABSTRACT	vii
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1. Background of the study	1
Background commercial bank of Ethiopia.....	3
1.2. Statement of the problem	4
1.3. Research questions	5
1.4. Objective of the study	5
1.4.1. General objectives	5
1.4.2. Specific objectives	5
1.5. Significance of the study	6
1.6. Scope of the study	6
1.7. Limitations of the study.....	6
1.8. Organization of the paper.....	7
CHAPTER TWO.....	8

2. REVIEW OF RELATED LITERATURE.....	8
2.1. Theoretical review.....	8
2.1.1. Evolution and definition of e-banking.....	8
2.1.2. Mobile banking.....	9
2.1.3. Impact and advantages of mobile banking.....	10
2.1.4. Mobile banking service quality.....	10
2.1.4.1. Reliability.....	10
2.1.4.2. Flexibility.....	11
2.1.4.3. Privacy.....	11
2.1.4.4. Accessibility.....	11
2.1.4.5. Transactional efficiency.....	12
2.1.4.6. Service security.....	12
2.1.4.7. Trust.....	13
2.1.4.8. Perceived cost.....	13
2.1.5. Service quality.....	13
2.1.6. Customer satisfaction.....	14
2.1.7. The main players of mobile banking.....	14
2.1.7.1. Banking sector represented by operating banking institutions.....	14
2.1.7.2. Mobile network providers operating in the country.....	14
2.1.7.3. Beneficiaries, businesses and private consumers.....	15
2.1.7.4. Regulating authorities (country's central bank).....	15
2.1.7.5. Information technology and the global market.....	15
2.1.7.5.1 Technologies employed to provide mobile banking services.....	16
2.1.7.5.2 Sms-short messaging service.....	16
2.1.7.5.3 Client-based.....	16

2.1.7.5.4	Browser-based.....	16
2.1.8.	Measuring service quality and customer satisfaction	17
2.2.	Empirical studies.....	18
2.3.	Conceptual framework.....	21
	Source: Adapted from Alice et al (2016)	21
CHAPTER THREE.....		22
3.	RESEARCH METHDOLOGY	22
3.1.	Research design.....	22
3.2.	Research approach.....	22
3.3.	Target population and sampling technique	22
3.3.1.	Sample size	23
3.4.	Data source and methods of collection	25
3.4.1.	Data type and source.....	25
3.4.1.1.	Primary source.....	25
3.4.1.2.	Secondary source.....	25
3.4.2.	Methods and tools for data collection.....	25
3.5.	Methods of data analysis	26
3.6.	Reliability and Validity of instruments	26
3.6.1.	Reliability.....	26
3.6.2.	Validity	27
3.7.	Ethical consideration	28
CHAPTER FOUR.....		29
4.	RESULTS AND DISCUSSIONS.....	29
4.1.	INTRODUCTION.....	29
4.2.	Results/empirical findings.....	31
4.2.1.	Descriptive statistics/results	31

4.3.	Discussion of results.....	33
4.3.1.	Model results	33
4.3.2.	Open ended questionnaire analysis.....	34
4.4.	Data testing.....	35
4.4.1.	Testing for non-response bias.....	35
4.5.	Assessing common method bias	37
4.5.1.	Assessing missing data	37
4.5.2.	Assessing outliers	37
4.6.	Model test.....	38
4.6.1.	Assessing linearity assumption.....	38
4.6.2.	Assessing multicollinearity assumption	39
4.7.	Assessing normality assumption	40
	Regression Results: Model Fit.....	42
	CHAPTER FIVE	44
	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	44
	5.2 Conclusion.....	45
	5.3 Recommendations	46
	Reference	47
	Appendix.....	54

CHAPTER ONE

INTRODUCTION

This research paper examines the impact of mobile banking on customer satisfaction with particular reference to Commercial Bank of Ethiopia selected branches in Addis Ababa districts. This chapter specifically provides background of the study and it is organized in seven sections. The first section deals with background of the study and followed by statement of the problem. Research questions and objectives of the study are present in the third and fourth section respectively. The fifth section describes the significance of the study. Section six will discuss scope of the study and the final section will present organization of the research.

1.1. Background of the study

Financial services industry has recently been open to historic transformation, it can call developments are emerging and advancing rapidly in all areas of financial intermediation and financial markets: e-finance, e-money, electronic banking (e-banking), e-brokering, e-insurance, e-exchanges, and even e-governance. The new information technology (IT) is turning into the most important factor in the future development of banking, influencing banks' marketing and business strategies. The driving forces behind the rapid transformation of banks are influential changes in the economic environment innovations in information technology, innovations in financial products, and the dynamic nature of customers demand, liberalization and consolidation of financial markets, deregulation of financial inter-mediation. These and other factors make it complicated to design a bank's strategy, which process is threatened by unforeseen developments and changes in the economic environment and therefore, strategies must be flexible to adjust to these changes. The financial services market is continuing to change rapidly, which brings into question whether traditional banks, as they are now structured, will actually continue to exist by the end of the decade or even survive through the next years (Olga lustsik, 2003).

A strong banking industry is important in every country and can have a significant effect in supporting economic development through efficient financial services. In Ethiopia, the role of the banking industry needs to change to keep up with the globalization movement, both at the procedural level and at the informational level. This change will include moving from traditional distribution channel banking to electronic distribution channel banking. In this regard, Mobile

technology, its introduction, and usage are used prolifically in the world today. The innovation has impacted positively on the lives of ordinary people more than any other technology. Their usage has presented opportunities with different dimensions to all groups of individuals and businesses. Mobile commerce (M-commerce) means all forms of interface between a consumer and a mobile device (Alex 2010), these may also include but not limited to the issuance of electronic coupons and shopping over the internet through a mobile device. Mobile financial services therefore fall under this umbrella such as mobile personal banking and payments.

According to (Petrova K. 2002) M-banking can be defined as the ability to conduct bank transactions via a mobile device, or more broadly to conduct financial transactions via a mobile terminal. This definition is a suitable working one as it includes not only basic services such as bank account statements and funds transfer but also electronic payment options as well as information based financial services (e.g. alerts on account limit or account balance, access to stock broking).

Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smart phone or tablet. Unlike the related internet banking it uses software, usually called an app, provided by the financial institution for the purpose. Mobile banking is usually available on a 24-hour basis. Some financial institutions have restrictions on which accounts may be accessed through mobile banking, as well as a limit on the amount that can be transacted.

Transactions through mobile banking may include obtaining account balances and lists of latest transactions, electronic bill payments, and funds transfers between a customer's or another's accounts. Some apps also enable copies of statements to be downloaded and sometimes printed at the customer's premises; and some banks charge a fee for mailing hardcopies of bank statements.

Today, almost all banks in Ethiopia are adopting electronic banking as a means of enhancing service quality of banking. It also increases customer satisfaction in banking services (Shittu, 2010). M-banking is an invaluable and powerful tool driving development, supporting growth, promoting innovation, and enhancing competitiveness (Nath, R. et al, 2001).

Background commercial bank of Ethiopia

The history of the Commercial Bank of Ethiopia (CBE) dates back to the establishment of the State Bank of Ethiopia in 1942. CBE was legally established as a share company in 1963. In 1974, CBE merged with the privately owned Addis Ababa Bank. Since then, it has been playing significant roles in the development of the country. Pioneer to introduce modern banking to the country. It has more than 1280 branches stretched across the country. The leading African bank with assets of 565.5 billion Birr as on June 30th 2018. It plays a catalytic role in the economic progress & development of the country. CBE is first bank in Ethiopia to introduce ATM service for local users. Currently CBE has more than 18.8 million account holders and the number of Mobile and Internet Banking users also reached more than 1,736,768 as of June 30th 2018. Active ATM card holders reached more than 4.4 million. As of June 30, 2018, 1708 ATM machine and 11,796 POS machines were available. It has strong correspondent relationship with more than 50 renowned foreign banks like Commercial Bank A.G., Royal Bank of Canada, City Bank, HSBC Bank, CBE has a SWIFT bilateral arrangement with more than 700 others banks across the world. CBE combines a wide capital base with more than 33,000 talented and committed employees. Pioneer to introduce Western Union Money Transfer Services in Ethiopia early 1990s and currently working with other 20 money transfer agents like Money Gram, Atlantic International (Bole), Xpress Money, CBE has opened four branches in South Sudan and has been in the business since June 2009. CBE has reliable and long-standing relationships with many internationally acclaimed banks throughout the world.

VISION

To become a world-class commercial bank by the year 2025.

MISSION

We are committed to best realize stakeholders' needs through enhanced financial intermediation globally and supporting national development priorities, by deploying highly motivated, skilled and disciplined employees as well as state-of-the-art technology. We strongly believe that winning the public confidence is the basis of our success.

CORE VALUES

Our core values detailed below are the operating principles that guide our internal conduct as well as our relationship with our customers, partners, and shareholders.

1.2. Statement of the problem

In this area of globalization, with increased competition around the globe in all sectors, a strong banking industry is important in every country and can have a significant effect in supporting economic development through efficient financial services; as a result many banks in the world are modifying their strategies to reach customers worldwide more easily and cheaply. Therefore, banks are developing the technologies that will help them deliver banking products and services by the most cost-effective channels and one of such channel is adoption of e-banking. E-banking is a way to keep existing customers and attract new ones to the bank. The transaction costs of providing these services are lower than the traditional approach. The rapidly growing information and communication technology is knocking the front door of every organization in the world (Booz & Hamilton, 1997). Banks in Ethiopia are involved in tough competition to attract customers by delivering various services. It is better for customers to have broad choices to select best bank for them to satisfy their needs. For banks as well, they have to find the ways to satisfy customers and keep competitive advantages above other banks. In pursuit of round the clock customer services and keep abreast with the developing global banking technology, almost all banks in Ethiopia are fast moving toward launching new technology based products and services such as Mobile Banking, Internet Banking, ATMS and POS.

Commercial bank of Ethiopia want to achieve a competitive position in the domestic and international market through building strong relationship with customers by provision of new service with good quality and high secure, so commercial bank has investing and updating his information technology to present a service to get confidence and satisfaction that customer to try to reach aspire through mobile banking service. Mobile banking not only offers facilitates like balance check, or do transactions they are also affecting customer behavior. Integration of banking with their personal mobile devices, customers are engaging themselves in apps more than ever. Reasons behind this is mobile apps allow customers to avail banking facilitates without physical presence in branch. Customers can also handle their money with a click. This facility is encouraging customers to use mobile banking and provide real life experience. They can carry out their key transactions on smart phones to save cost and time. Therefore, the number of mobile users is rising day to day and the banking sector is very vastly providing on-line banking facilities, especially mobile baking facilities.

Thus, the purpose of this paper is to study impact of mobile banking on customer satisfaction in Commercial Bank of Ethiopia Selected Branches in Addis Ababa districts and mobile banking service dimensions or independent variables which are (performance, transaction efficiency, service content, service security, reliability, ease to use, customer support) that have impact on customer satisfaction which is dependent variables.

Accordingly, the following research questions are drawn from the above discussed problems

1.3. Research questions

Based on the problem stated above, researcher addresses the following research questions.

- What are the major impacts of mobile banking service on customer satisfaction in commercial bank of Ethiopia?
- What measures should be taken to increase the satisfaction of mobile banking users in Commercial Bank of Ethiopia?
- What is/are the impact of mobile banking service in terms of accessibility on customer satisfaction in commercial bank of Ethiopia

1.4. Objective of the study

1.4.1. General objectives

The main objective of this study is to find out the impact of mobile banking dimensions on customer satisfaction in Commercial Bank of Ethiopia.

1.4.2. Specific objectives

Specifically the studies intendeds to:

- ✚ To identify the impact of mobile banking service quality on enhancing customer satisfaction in Commercial Bank of Ethiopia..
- ✚ To explain the measures to be taken to increase the satisfaction of mobile banking users.
- ✚ To explore the effect of accessibility of mobile banking service on customer satisfaction in commercial bank of Ethiopia.

1.5. Significance of the study

This research benefits:-

- Commercial bank of Ethiopia to take corrective measures on its network system and service quality in order to enhance its customers.
- Other bank and branches to learn from this research by taking preventive measures in order to preclude service practice problem not to happen.
- The study will lead branch manager, customer service manager, employees and customers to make effective decision.
- Finally, it gives a clue for other researchers to investigate more on the performance related to management practices.

1.6. Scope of the study

This research is limited in Commercial Bank of Ethiopia. The geographic scope of this study is therefore limited to the study of the impact of mobile banking on customer satisfaction in commercial bank of Ethiopia selected branches in Addis Ababa districts customers who are using mobile banking. Conceptually, this study focuses on independent and dependent variable customer satisfaction (reliability, transaction efficiency, customer support, service security, accessibility and its target population is 380 which is only limited to customers of CBE.

1.7. Limitations of the study

The study has encountered a number of limitations which also discount the authenticity and reliability of the findings of the study. Some of the limitations are as follows:

- a) Time constraint is the main limitation of the study. It was prescribed to submit the dissertation within a month. There should have sufficient time to conduct a study through a standard research protocol.
- b) Budget constraint is also a vital lacking of this study. Sufficient budget allocation is required for collection of data and information from the primary sources.
- c) In addition, explanatory survey method might be easy to apply and reliable that is way it will be employed for this research and may have disadvantages like many questions, shallow in depth, expensive in terms of time and money. However, the researcher will solve all this shortcomings by using the appropriate questions, time schedule and friendly

relationship with respondents. While conducting field survey, some respondents might be unable to understand some technical terms.

- d) There may be other explanatory variables, which affects the situation other than those explained on this study.
- e) Getting officials for interview will also be another problem. However, with frequent appeals and patience some of the problems will be minimized.

1.8. Organization of the paper

This paper is organize into five chapters, the first chapter deals with the introduction of the study that is, background, statement of the problem, research questions and objective, significance and scope of the study. The second chapter discusses the theoretical and empirical literatures about mobile banking. The third chapter is about the methodology of the research that is the research design, research approach, sampling size, sampling technique, method of data collection, data collection instruments, method of data analysis. The fourth chapter of the paper will presents the findings as well as the quantitative and qualitative data analysis. Finally the fifth chapter deals with conclusion and recommendations of the study.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

This chapter contains both the theoretical and empirical review of the study. The theoretical framework includes: Banking History in Ethiopia, Evolution and Definition of E-Banking, Mobile banking definition, Impact and Advantages of mobile banking, Definition of Mobile Banking dimensions and customer Satisfaction in banking sector respectively. In addition, it also includes empirical review of the study from different researchers in different countries.

2.1. Theoretical review

This section reviews theories that will guide the study. The theory govern evolution and definition of E-banking, mobile banking and service quality.

2.1.1. Evolution and definition of e-banking

According to Mohammed shamsuddoha (2008), electronic Banking is transforming the financial services industry through various innovations. The quantity of cross-border trading and other financial activities is increasing geometrically make possible by technology. It has been made possible by technology, particularly information technology to generate, collect and process information about bank operation and bank customers efficiently and effectively.

It is simply the use of electronic means to transfer funds directly from one account to another rather than by check or cash (Malak, 2007).

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. The definition of e-banking varies amongst researchers partially because electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). For example, Burr (1996) describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions.

E-banking can be also defined as a variety of platforms such as internet banking or (online banking), TV-based banking, mobile phone banking, and PC (personal computer) banking whereby customers access these services using an intelligent electronic device, like PC, personal digital assistant (PDA), automated teller machine (ATM), point of sale (POS), kiosk, or touch tone

telephone (Alagheband,2006) banking can be also defined as a variety of plat for such as internet banking or (online banking), based banking, mobile phone banking, and (personal computer) banking here by customers access these services using an intelligent electronic device, like, personal digital assistant, automated teller machine, point of sale, kiosk, or touch tone telephone (lagheband,2006).

2.1.2. Mobile banking

Mobile banking (also known as 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 banks can only be found in big cities, and customers have to travel several 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&Buse, 2007).Mobile banking is most often performed via SMS or the Mobile Internet but can also use special programs called clients downloaded to the mobile device. The standard package of activities that mobile banking covers are: mini-statements and checking recentaccounttransaction; alerts on account activity or passing of set thresholds; monitoring of term deposits; access to loan statements; access to card statements; mutual funds/equity statements; insurance policy management; pension plan management; status on cheque, stop payment on cheque; ordering check books; balance checking in the account; recent transactions; due date of payment (functionality for stop, change and deleting of payments); PIN provision, change of PIN and reminder over the internet; blocking of (lost/stolen) cards; domestic and international fund transfers; micro-payment handling; mobile recharging; commercial payment processing; bill payment processing; peer to peer payments; withdrawal at banking agent and deposit at banking agent (Rahman, 2006).

2.1.3. Impact and advantages of mobile banking

Mobile banking has lot of advantages for both providers .it has a multi beneficial, banks do not require much investment and they do not even have to modify their existing infrastructure. Banks can send the message in fewer efforts to huge number of people.

Mobile banking also helps Banks to form good relations with their customers; banks get valuable data about the customers, which help them in effective customer's relationship management practices. It facilities quick feedback and helps in customer retention and customer loyalty (Saleem&Rashid, 2011).

2.1.4. Mobile banking service quality

Minjoon Jun, Sergio Palacios,(2016) analysis reveals a total of 17 (Seventeen) dimensions of m-banking service quality: m-banking application quality (service content, accuracy, ease of use, speed, aesthetics, security, diverse mobile application service features, and mobile convenience), and m-banking customer service quality (reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, and continuous improvement). Of these, five dimensions, such as mobile convenience, accuracy, diverse mobile application service features, ease of use, and continuous improvement, are considered as the main sources of customer satisfaction/dissatisfaction.

Related to the study in mobile banking service the dimensions that are select are the following:

2.1.4.1. Reliability

Reliability is on time consideration, in the setting of the use of environmental conditions or time conditions, and product or service can reach the required functional standard. In short reliability is a product or services whether in life or cycle process is normal, will be influenced by the reliability of the level of satisfaction on the quality of good or service (Fang et al., 2013).

Internet information search elements reveal a perceptual dichotomy between consumer's "reliability of the information content and reliability control and use of technology". Information reliability is related with diversity, depth and actuality of information contents, the capacity of internet use and effects consumer's satisfaction (Alba et al., 1997).

Reliability means the stability of performance and delivery service properly and better than the first time and meets the bank of what has been promised to the client, and this includes:

- The accuracy of the accounts, files, and errors do not occur.
- Providing banking service properly

- Provide service in a timely manner and in time designer.
- The stability of the performance level of service (fang et al, 2013).

2.1.4.2. Flexibility

Issues related to organizational flexibility and speed of services delivery were found to be at the top of the importance list. Business processes and systems integration and enhanced customer services were next in the list of importance.

Flexibility is a critical component to decide to sue a new information technology application that show the degree to which a person believes that using a particular system would be free of effort, the easier it is for the customer to achieve customers' aim in higher chances that will use the application in the future(Behjati et al, 2012).

You can enable customers to pay for services or goods without having to write a check or swipe a credit or use cash. More powerful solutions can link you directly into the office network while working off-site to access such resources as your database or accounting systems (Saleem&Rashid, 2011).

2.1.4.3. Privacy

Privacy provide services to specific customers but not others in the context of privacy as services lending and cover the account in the event exposed the client, making it possible to provide personal service to customers, can improve customer satisfaction by providing personalized services to them, and customers will be reluctant to change to other companies if banks were able to verify that. And maintain information on participants in the banking services that the electronic banking service does not allow the use of personal information to clients and customers as well as banks do not allow the use of personal information must be characterized by secure electronic banking service in the authorized banking operations (El Kiki et al., 2012)

2.1.4.4. Accessibility

E-banking can bring about convenience and accessibility, which will have positive effects on customer satisfaction and loyalty (Pham 2010). It is totally possible for customers to manage their banking transactions whenever they want and to enjoy improved privacy in their interactions with the bank. In addition, customers can enjoy more benefits at lower cost levels by utilizing E-banking (Mols 1998).

Service accessibility as reflected in the number of banking offices per unit of market area, represents an important component of the overall level of service provided to financial consumers, the technology of internet has produced the internet banking that serves Bank's customers to do banking transaction anywhere as long as they can access to the internet(Gunther,1997) .Service accessibility as reflected in the number of banking offices per unit of market area that represents an important component of service provided to financial consumers where banking offices are relatively sparse (Gunther, 1997).

2.1.4.5. Transactional efficiency

It is obvious that cost savings, efficiency, gaining new segments of customers, improvement of the bank's reputation and better customer services and satisfaction are primary benefits to banks (Jayawardhena& Foley, 2000). Banks and other businesses alike are turning to Information Technology (IT) to improve business efficiency by delivering the service with minimum cost, service quality and attract new customers (Nath et al, 2001).

The process of using mobile banking services are very easy that people do not need any extra skills to use the application just need to install the application in their mobile and enter the PIN ;moreover, they can also pay electricity bills and credit bills through this(Sharma&Singh,2012).

Mobile commerce may help increase the productivity of the work force by increasing the efficiency of their daily routine. Time-pressured consumers (employees) can use “dead spot “for example: checking account or current transaction (Dmoor, Hani, 2005, P.444).

2.1.4.6. Service security

Security and trustworthiness of usage of service was mentioned to be the most important factor within target segments when deciding to choose mobile banking.

An issue involves the introduction of trust as a main factor in the analyst of m-banking /m-payment use. Nowadays evidence and intuition alike suggest that “trust” plays a main role in use for example; users feel more comfortable to deal face-to-face contact while using m-banking/m-payments system. It it was considered to be one of the greatest concerns in adoption of mobile banking services, as individuals may worry about security issues during mobile banking service transactions such as data input and output mechanisms loss of connection risk and personal performance mistakes. As a result, many people may decide not to use this service and ignore the extra benefits of using mobile banking (Yu, 2009).

2.1.4.7. Trust

In business studies, trust has been found to be important for building and maintaining long-term relationships. Electronic exchanges are believed to present numerous risks to customers while trust appears to be especially important for creating loyalty when the perceived level of risk is high. This has been identified as key to customer loyalty especially in the area of e-commerce, because it is crucial wherever risk, uncertainty and interdependence exist. The banking sector is strongly associated with high levels of trust related to security and privacy issues in the physical environment. Therefore, trust is an important consideration in the development and fostering of e-commerce relations in the context of knowledge-based economy. Lowering perceived risks associated with online transactions as well as maintaining transaction trust is vital keys to attracting and retaining customers (Benjamin, 2015).

2.1.4.8. Perceived cost

The degree to which an individual views that utilizing mobile banking will incur costs defined as perceived cost (Luarb and Lin 2005). These costs could typically include the cost of the mobile device, network charges, and transaction charges for bank costs as well as costs for data sent via the network infrastructure. The factor that had the least impact on mobile banking adoption in comparison to the other variables which includes perceived usefulness, perceived risk and compatibility, was perceived cost (wu and wang, 2005).

2.1.5. Service quality

Customers experience service quality and perceive the value of delivered service, and it also improves operational readiness for short time-to-market of new innovative services (Ma Zhiyong, TewodrosHailemeskel, Li Xiaojin, 2008).

It is now the most powerful competition weapon and organization's life giving blood. Perceived service quality refers to the consumer's global attitude or judgment of the overall excellence or superiority of the service. It is a result from comparisons by consumers of expectations with their perceptions of service (Caruana & Malta, 2002). That means it can be termed as the extent of matching or the degree of discrepancy to which the service delivered matches customer expectations (Parasuraman, Zeithmal, & Berry, 1988). Delivering quality service means conforming to customer expectations on a consistent basis (Thakur, 2011). Therefore services marketing researchers based their work on developing a service quality concept focused on consumer behavior instead of using manufacturing quality concepts (Dhandabani, 2010).

2.1.6. Customer satisfaction

According to Saha & Zhao (2005), customer satisfaction is defined as a collection of outcome of perception, evaluation, and psychological reactions to the consumption experience with a product/service. In other words, Saha and Zhao further defined customer satisfaction as a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. If the performance perceived is less than expected, customers will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, customer will be satisfied.

In a competitive market place where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy (Carl & McDaniel, 2005). It is seen as a key performance indicator within business and is often part of a Balanced Scorecard. Therefore, it is essential for organizations to effectively manage customer satisfaction. To be able do this, organizations need reliable and representative measures of satisfaction.

2.1.7. The main players of mobile banking

In order to analyze mobile banking we have to define the different players who participate in mobile banking. These players' actions and practice are important in developing mobile banking industry. Mobile banking is a collective participation of four parties that is:

2.1.7.1. Banking sector represented by operating banking institutions

The banking sector is composed of various financial institutions like Commercial bank of Ethiopia, Dashen bank, united bank and other banks operating in the Ethiopian economy. These banks provide a network for accessing mobile banking services. The banking institutions have realized that there is need to increase financial inclusion by providing a network that helps the unbanked people to access financial services even without bank accounts (Daniel, et.al, 2014).

2.1.7.2. Mobile network providers operating in the country

Network providers are the diverse companies that provide mobile banking services which include banks and telecommunication companies. An example of a Mobile Network provider is Ethiopian Telecommunication Corporation the Ethiopian people to send and receive money with or without an account or mobile phone. These network providers charge a fee for using their financial services and hence, the reason for being in business (Daniel, et.al, 2014).

2.1.7.3. Beneficiaries, businesses and private consumers

Beneficiaries of the mobile banking services are the local Ethiopian citizens or other people in Ethiopia using the mobile banking services and business people who intend to make their payments using mobile money. Businesses and private consumers always use mobile money services to send or receive money from different kinds of people who are either family members or business partners. Mobile banking improves these players' standards of living (Abdulatif, 2015).

2.1.7.4. Regulating authorities (country's central bank)

The regulating authority is the National Bank of Ethiopia which is the country's top most authority in banking matters. National Bank of Ethiopia regulates fiscal and monetary activities that take place in the country. To operate in the country, the financial service providers have to follow all the regulations and terms set by the regulatory authorities (Daniel, et.al, 2014).

The most vital factors are considered to make M-Banking successful are policy and regulations. Any profit making business usually takes into account the performance of all parties involved in the line of business (Abdulatif, 2015).

2.1.7.5. Information technology and the global market

The globe has more or less become a village; this is as a result of the internet and in fact the World Wide Web (www) whose impact has been felt by all sectors as well as all aspects of human endeavors. The ripple effect of globalization an offshoot of the internet and World Wide Web has breathed a new life into the way individuals and businesses communicate .It has also amalgamated various cultures as well as brought high level but stiff economic competition among various players in the global business arena. The banks and other financial institutions has leveraged the explosive powers of this super-high way and most banks now use it as the main vehicle of marketing, selling as well purchasing. The era of brick-and-mortar and high costs attached to its establishment are now gradually giving way to simple and lower cost form of business transactions simply over the internet and the worldwide-web mostly in the developed countries, and now creeping into the developing countries (Edwin, 2015).

2.1.7.5.1 Technologies employed to provide mobile banking services

Mobile banking services could be used through more than one channel such as short messaging service/messaging and application download (client-based) (Cudjoe et.al, 2015).

2.1.7.5.2 Sms-short messaging service

This is where the customers communicate with the bank through their mobile devices by sending an SMS (short messaging service) to the bank. The short messaging service (SMS) works in two ways, and it can be either a pull mode or a push mode. In the push mode, the mobile customer send a text message to the bank which contains a service command with a predefined request code to the bank's specific number. The bank also reply with SMS containing the specific information requested from the bank while the pull mode is when the banks sends a text message to the subscriber (customer) to inform the customer about certain transaction that have just taken place over the account. The message could be in the form of an MMS (multimedia message service) or SMS (short message service) they both work similarly even though the use of SMS is more popular) (Cudjoe et.al, 2015).

2.1.7.5.3 Client-based

This method requires the customers to use software installation, and this will serve as a user interface that can allow customers to use the mobile device while offline to access some basic transactions before going online. Typing details before connecting to the internet could reduce cost. This client based application is particularly useful because it allows customers to stay offline and while preparing transaction such as entry of account details and afterwards the transmission is made by sending out the data, this banking process conducted offline reduces online connection time and cost) (Cudjoe et.al, 2015).

2.1.7.5.4 Browser-based

Brower-based customer needs to be connected to the internet to use this service. The interface is generated from the server which is transported to mobile device, and this allows the content to be displayed through the browser. This method is extremely fast depending on the server that the customer is connected to but one its disadvantages is that, it requires the subscriber (customer) to stay online all through the transaction process and could lead to higher cost for the customers) (Cudjoe et.al, 2015).

2.1.8. Measuring service quality and customer satisfaction

For commodity like products, quality can be measured easily by its features. But quality of service depends heavily on the quality of the personnel of service provider or the provider himself. Studies on customers' switching from banks have found that they do so because they considered to be poorly serviced. Quality service improved customer satisfaction and reduced customer erosion (Thakur, 2011). Service quality is the key to measure e-banking user satisfaction. Researchers have paid much attention to the close relationship between service quality and customer satisfaction (Parasuraman 2002).

Quality customer service and satisfaction are recognized as the most important factors for bank customer acquisition and retention (Jamal, 2004; Armstrong and Seng, 2000; Lassar et al., 2000). Service quality is considered as one of the critical success factors that influence the competitiveness of an organization. A bank can differentiate itself from competitors by providing high quality service. Service quality is one of the most attractive areas for researchers over the last decade in the retail banking sector (Avkiran, 1994; Stafford, 1996; Johnston, 1997; Angur et al., 1999; Lassar et al., 2000).

According to (Tse and Wilton, 1988) customer satisfaction is the consumer's response to the evaluation of the perceived discrepancy between prior expectations and the actual performance of the product. The service quality variables identified by (Parasuraman et al., 1994) are reliability, responsiveness, competence, accessibility, courtesy, communication, credibility, security, understanding, and tangibility. Service quality leads to overall customer satisfaction. It is one of the service factors contributing to customers' satisfaction judgments and can be considered in multi-level and multi-Dimensional (Caruana and Malta, 2002).

Customer satisfaction is measured at the individual level, but it is almost always reported at an aggregate level. Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service. The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction behaviors such as return and recommend rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products (David, 2010).

According to (Hua, 2009) conducted an experiment to investigate how user's perception about online banking is affected by the perceived ease of use of website and the privacy policy provided by the online banking website. In this study, it also investigates the relative importance of

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

2.2. Empirical studies

Some related studies are conducted by different researchers in different parts of the world. However, there are limited numbers of studies conducted in Ethiopia on e-banking technology generally and M-banking specifically. Wondwossen and Tsegai (2005) studied on the challenges and opportunities of E-payments in Ethiopia; their objective was studying of E-payment practices in developing countries, Africa and Ethiopia. The authors employs interview and on site observation to investigate challenges to E-payment in Ethiopia and found that, the main obstacles to the development of E-payments are, lack of customers trust in the initiatives, Unavailability of payment laws and regulations particularly for E-payment, Lack of skilled manpower and Frequent power disruption.

On the other hand the study conducted by Daghfous and Toufaily (2007) on the success and critical factors in adoption of E-banking by Lebanese banks. The research was conducted on the factors that can lead to success the adoption of E-banking and the other factors that can constitute as barrier to its adoption, it focus on the organizational, structural and strategic factors which can accelerate or, on the contrary, slow the adoption of this electronic mode of distribution and communication by the banks, through analyzing the case of the Lebanese market. In order to test the validity of the theoretical framework, structured survey was used, interview questionnaire that was given to E-banking managers or to information technology managers of all the banks on the official list of institutions operating on the Lebanese market, with a total of 57 banks, 31 of them operate internationally and 26 are strictly local were used to gather data. The results of their study

shows that the organizational variables (bank size, functional divisions, technical staff, technical infrastructure, perceived risks, decision makers' international experience and mastery of innovation) are variables which exert significant impact on the adoption of E-banking, among the structural characteristics, the result revealed that internal technological environment of the bank is a very important factor in determining the adoption of E-banking, also the result shows that banks which are developing in the international scale are more likely to adopt E-banking innovations. Finally the result of the study indicated that extent of penetration of E-banking in the growth phase of an emerging market has an important correlation with the improvement of commercial performance.

The study of (Bultum, 2014) aims to identify factors that affect adoption of e-banking in the Ethiopian banking industry. The study was conducted based on the data gathered from four banks in Ethiopia; three private banks (Dashen bank, Zemen bank and Wegagen bank) and one state owned bank (commercial bank of Ethiopia). A mixed research approach was used to answer the research questions that emerge through the review of existing literature and the experiences of the researcher in respect of the e-banking system in Ethiopia. The study statistically analyzes data obtained from the survey questionnaire. A research framework developed based on technology-organization environment model (TOE) developed by Tornatzky and Fleischer.

The result of the study indicated that, the major barriers Ethiopian banking industry faces in the adoption of electronic banking are: security risk, lack of trust, lack of legal and regulatory framework, lack of ICT infrastructure and absence of competition between local and foreign banks. The study suggests a series of measures which could be taken by the banking industry and by government to address various challenges identified. These measures include establishing a clear set of legal framework on the use of technology in banking industry, supporting banking industry by investing on ICT infrastructure and banks needs to be focused on technological innovation competition rather than traditional bases of retail bank competition.

Furthermore (Assefa, 2013) conducted a study on the impact of e-banking on customer satisfaction in two private banks in Gondar city. The researcher employed descriptive and inferential statistics in analyzing this study and it was limited to customers of two private banks only. The results of the study implied that majority of users of e-banking are the young, the educated, salaried and students, business men and women are not actively using the service of e-banking, e-banking currently provided for saving and current accounts holders only, e-banking reduced frequency of

bank hall for banking service, reduced waiting time for customers, there are customers who don't know the fee charged for being e-banking users , the bank customers satisfaction increased after being e-banking users, enabled customers to control their account movements and there is high opportunity to expand e-banking service in the city.

The other descriptive case study analysis conducted by Khalfan *et al* (2006) on „Factors influencing the adoption of internet banking in Oman, aimed to identify the main potential factors or impediments that are currently inhibiting the incorporation or adoption of E-commerce applications in the Omani Banking sector. Data, used in their study were collected using semi structured interviews and survey questionnaire as well as reviewing some bank documents. The results of their study provide a Pragmatic picture about the adoption of E-Commerce applications in the core financial sector domain of Oman. One of the main findings is that security and data confidentiality issues have been a major barrier. The banking sector was reluctant to use E-commerce applications as they felt that transactions conducted electronically were open to hackers and viruses, which are beyond their control. Lack of top management support is the other inhibiting factor in the adoption of electronic commerce applications as per their finding. Similarly the study of Ghazi and Khalid (2012), found that, the most important barriers for E-business growth are technological issues, such as, security risk, quality of internet and cost of implementation to be the most prominent.

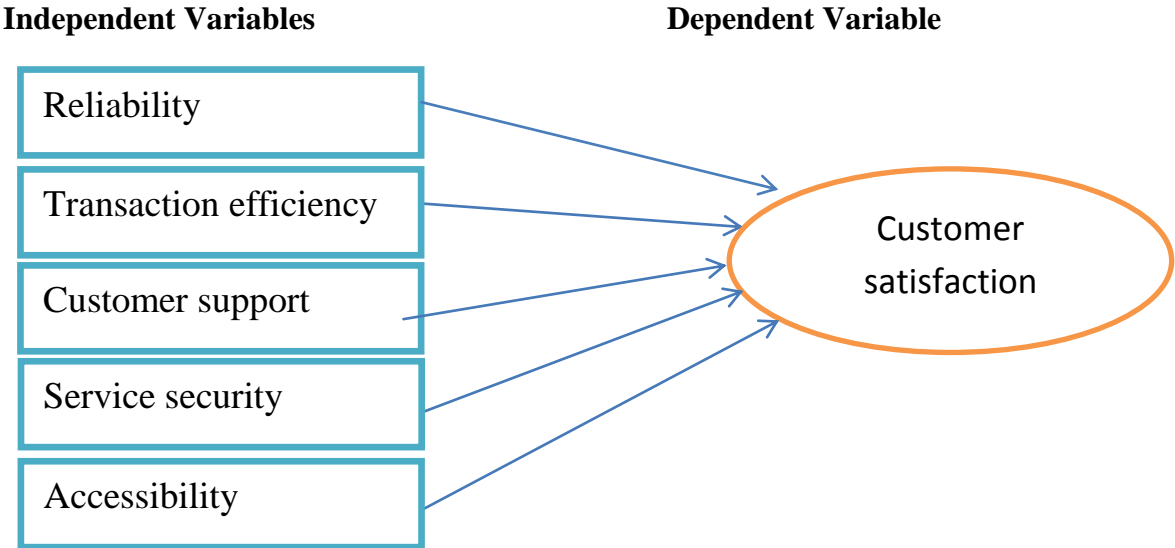
A research conducted by D'Souza (2002) on the comparative performance of public and private sector banks in the decade of the 1990s shows that though the turnover ratio rose in public sector banks (PSBs), the turnover per employee in private and foreign banks doubled relative to the ratio for PSBs. Also, this is not due to the presence of a large rural and semi-urban concentration of bank branches amongst PSBs but rather due to technological up gradation in the private and foreign banks. Private and foreign banks have changed the structure of their employment towards a higher skilled workforce by increasing the recruitment of officers and reducing clerical and subordinate staff. The combination of higher technology and higher skills have posted a higher turnover for these banks as they have been able to provide better customer support and have managed their assets well.

2.3. Conceptual framework

The picture below is drawn to show a diagrammatic relationship among the variables under the study.

As can be seen in the picture there are about five independent variables which are dimensions or factors affecting customer satisfaction and the dependent variable is customer satisfaction. Both variables are latent or unobserved which are measured in a five point Likert scale mode ranging from 1 to 5 (from strongly disagree to strongly agree). Each latent variable will be having observed items.

Figure 2.3 conceptual framework of customer satisfaction



Source: Adapted from Alice et al (2016)

CHAPTER THREE

3. RESEARCH METHDODOLOGY

3.1. Research design

The study adopted an explanatory research because it is suitable to explain the cause and effect relationship between variables as quoted in Mark, Philip, & Adrian (2009). Explanatory research use to describe the characteristics of the sample by using percentages.

3.2. Research approach

In order to attain the objective of the study and to answer the research questions, the researcher would uses mixed research approach, uses quantitative & qualitative approach. The researcher has used quantitative research and for open ended questioner also used qualitative research approach.

3.3. Target population and sampling technique

All customers at CBE included as a target population. Convenience sampling technique are selected the target population for this study that means all those branches that are currently providing the service. Currently there are 15 districts in Addis Ababa. The questionnaire administered to the managements of each responder by using convenience sampling technique. This selection of the respondent made in a way to get sufficient data regarding mobile banking who are using mobile banking service in commercial bank of Ethiopia from selected branches in Addis Ababa districts customers. Thus the study population's includes 28, 810 customers who were using mobile banking service in commercial bank of Ethiopia from selected branches in Addis Ababa districts customers were consider as populations for this particular study. Namely from North district Addis Ababa branch and Aradagiorgis branch, from South district Finfine branch and Nifassilk branch ,from East district andinet and Andinet branch from West MehalGebaye and Addis Ketema branch are select. The reason for selecting these grade four branches is they have large number of active mobile banking users and large number of mobile banking transactions in those branches (CBE MIS report as of September 30, 2018).

3.3.1. Sample size

Determining sample size is a very important issue because samples that are too large may waste time, resources and money, while samples that are too small may lead to inaccurate results. Sample size of customers from the districts of each branches of respondents-customer is determining using the following technique`s and the detail is presented as follows.

Table3.1 Number of Customers

Branches	Number of Customers
Addis Ababa	11,025
Aradagiorgis	2645
Andinet	1695
Bole	1230
Finfine	3678
Addis Ketema	2764
MehalGebaye	3879
Nifas Silk	1894
Total	28,810

CBE MIS monthly report as of September 30, 2018

In order to determine number of sample from the population would use (Cochran, 1963) formula.

The formula is:

$$N = \frac{z^2 pq}{e^2}$$

Which is valid where n is the sample size, Z is the abscissa of the normal curve that cuts off an area α at the tails (1 - α equals the desired confidence level, e.g., 95%) 1e is the desired level of precision, p is the estimated proportion of an attribute that is present in.

The population and q is 1-p. The value for Z is found in statistical tables which contain the area under the normal curve. Assume there is a large population but that we do not know the variability in the proportion that will adopt the practice; Therefore, assume p=.5 (maximum Variability). Furthermore, suppose we desire a 95% confidence level and ±5% precision.

$$n = \frac{z^2 pq}{e^2} n = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 385 \text{ customers}$$

But, when the population is small and finite we use the following formula to determine the sample size n:

$$n = \frac{\frac{no}{(no-1)}}{N} \quad n = \frac{385}{1+(385-1)} = 380 \text{ customers}$$

28,810

Where n is the sample size and N is the population Size

Using the above formula, from population of 28,810(CBE MIS monthly report as of September 30, 2018) mobile banking user customers sample size of 380 had been determined. Since the number of customers in each branches are not the same, the researcher had used proportional computation to the number of customer in each branches, that is to determine the number of respondents in each branches, the proportion of each branches customers in relation to the total number of customers are consider. Thus, the number of respondents from the respective branches is compute as follows:

Table 3.2 Total Number of Customer Sample from Each Branch

Branches	Total Number of customer	Percentage from Total Population	Total Number of customer sample
Addis Ababa	11,025	38.27%	145
Aradagiorgis	2645	9.18%	35
Andinet	1695	5.88%	22
Bole	1230	4.27%	16
Finfine	3678	12.77%	49
Addis Ketema	2764	9.59%	37
MehalGebaye	3879	13.46%	51
Nifas Silk	1894	6.57%	25
Total	28,810	100%	380

Source: Own Computation from primary data, 2018

After determined the number of sample from each branch, convenience sampling would be use to collected data from the sample respondents. This is a non-probability sampling technique in which a sample is drawn from that part of the population that is close to hand, readily available, or convenient. Thus, in the selected branches questionnaire would distributed to customers on a walk in basis i.e. questionnaire is given to customers who just arrive to get the service until the expected number of sample from the selected branch has been satisfies.

3.4. Data source and methods of collection

3.4.1. Data type and source

3.4.1.1. Primary source

The data from the primary sources have been gathered through field survey from the relevant respondents. Primary data is use to collect responses of customers by administering five point likert-scale questioner. The dimension of mobile banking and outcomes of customer satisfaction items are measured on 5- point Likert- scale ranging from 1 (strongly disagree) to 5 (strongly agree). The suggestion for achieving an effective management system for better operational performance also taken from the respondents.

3.4.1.2. Secondary source

Data can be obtained from existing sources or from surveys and experimental studies designed to collect new data (Anderson et al., 2011).

Secondary data has draw from Annual reports of Commercial Bank of Ethiopia, different reports and statistics on the bank have been used. And from journal articles, books and published literatures that can support the study from empirical & conceptual backgrounds.

3.4.2. Methods and tools for data collection

A survey method was adopted for collecting evidences from employees and management staff through;

a. Questionnaire

The questionnaire was administered on customers, which contains both close ended and open-ended questions. The questionnaire has structured to capture factual information on the research issue. The open-ended questions helps to get answers that reflect the customer's opinion on the issue under study. The dimension of mobile banking and outcomes of customer satisfaction items

are measured on 5- point Likert- scale ranging from 1 (strongly disagree) to 5 (strongly agree). Secondary data were draw from CBE itself, national bank of Ethiopia, journal articles, and books and published literatures that support the study from empirical studies.

b. Interview

A semi structured and pre-tested interview schedule was used to collect data. Necessary correction, modification and alterations have been done accordingly. Respondents was asked to indicate on a five-point scale ranging from 1 to 5 Interview was conducted with the organization management and customers. Interview was conducted with the organization management staff, and customer's perspective was collected.

3.5. Methods of data analysis

For the purpose of the study, the researcher will uses customers questionnaire response obtains from the sample as an input to analyze the data. The other thing is descriptive technique is applied to discuss the analysis and interpretation of the data.

SPSS software will be uses to analyze the data, Harri (2012) explains that SPSS is a statistical procedure for social science and is specifically designed to compute statistics. SPSS provides to an effective data management. Moreover, it helps to analyze the data quickly since the software locates the cases and variables. It also provides methods, complex graphs, contingency table and so on.

For analysis of qualitative part of the research, the researcher will uses answers of customers' opinion that are fill by questionnaire part of open-ended questions.

3.6. Reliability and Validity of instruments

3.6.1. Reliability

Golafshani (2003) defines reliability as the extent to which results of a study are consistent over time and there is an accurate representation of the total population under study. According to Toke, (2012), the aim of reliability analysis is to find the extent to which a measurement procedure produced the same result if the process is repeated over and over again under the same conditions. The most common technique used in the literature to assess the scales reliability and stability is use of the Chronbach Alpha Statistics. Chronbach Alpha should be above 0.70 to produce a reliable

scale and any scale with Chronbach Alpha less than this standard should be eliminated Sekaran (2005).

Table 3.6 Test for Reliability

Constructs	No. of items proposed	No. of items dropped	No. of items retained	Cronbach's alpha
Reliability (REL)	5	0	5	.84
Service Security (SSE)	5	1	4	.72
Transactional Efficiency (TRE)	7	1	6	.76
Accessibility (ACC)	7	0	7	.82
Customer Support (CSP)	6	1	5	.73
Total	30	3	27	

Source: Own Computation from primary data March, 2019

Prior to the actual data collection, pilot test was conducted by distributing sample questionnaires to respondents in the company to ensure the reliability of the instrument in this case of study and the researcher has tested the reliability using Cronbach's Alpha (α). Cronbach's Coefficient (α) is calculated to estimate the internal consistency of reliability of a measurement scale. Cronbach's Coefficient is a reasonable indicator of the internal consistency of instruments that do not have right or wrong marking schemes, thus can be used for questionnaires using scales such as rating (Black & Leslie, 1999). The reliability coefficient is acceptable if it is between 0 and 1 but if it is closer to 1 it is assumed to be better. Therefore, the research reliability values are greater than 0.7. Which means that closer to 1. This indicates that result obtained is reliable if the study is done repeatedly.

3.6.2. Validity

Validity is according to Kirk & Miller (1986) the measurements that the authors has taken to make sure that everything is relevant to the context, in other words, make sure that the research is valid. By doing so, the researcher was focused on the subject. Thus the instruments were carefully designed and then review by subject experts, who are knowledgeable in the area. In addition, the instruments were evaluated by the thesis advisor. Based on the feedback obtained from the subject experts and the thesis advisor, the instruments were modified and further enriched finalized in a form that they would be clear and easily understandable to the respondents of the study.

3.7. Ethical consideration

The research used the data from respondents which was collected through questionnaire and structured interview; permission was obtained from the respondents. To maintain the confidentiality of the information provided by the respondents, the respondents instructed not to write their name on the questionnaire and will be assured of that the responses was used only for academic purpose and kept confidential. Finally, respondents included in the study based on their free will.

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

4.1. INTRODUCTION

This chapter of the study comprises of descriptive statistics for demographic variables in the form of percentages and frequencies in tables, data testing, model fit tests, inferential statistics for the cause and effect or multiple linear regression results and analysis for the open ended questions. The study distributed 380 and actually collected 320 usable questionnaires (response rate of 84%).

Demographic Profile

Table 4.3 Demographic Profile of Mobile-banking Customers

No	Demographics	frequency	Percentage	
1	Gender	Female	134	42
		Male	186	58
		Total	320	100
2	Age(Years)	18-24	65	20
		25-35	150	47
		36-50	80	25
		51-60	19	6
		Above 60	6	2
	Total	320	100	
3	Academic Qualification	PHD	13	4
		Master's degree	64	20
		Bachelor degree	147	46
		Diploma	70	22
		High School	26	8
	Total	320	100	
4	Work Status	Self-Employee	57	18
		Student	55	17
		NGO Employee	48	15
		Government Employee	160	50
	Total	320	100	

Source: Own Computation from primary data March, 2019

As can be seen in the table 4.1, 5% of the respondents were male against 42% who were Female. The researcher found out that banks trust male employees in departments dealing with

technological approach to issues than female employees. Women still lack behind in banking industry thus CBE should narrow the gap between male and female mobile banking users. Selling different products for women's customer and advice use mobile banking service.

Close to half of the respondents see from table 4.1, are between 25-35 years of age numerically, 47 percent. Whereas 25 percent falls between the ages of 36-50 and 20 percent falls the age 18-24 that means more than 92 percent of the customers were within the age of 18- 50 years. The respondents between 51-60 years were 6 percent and with the 2 percent being above 50 years of age. The fact that the majority of the respondents were young and adult implies it is an opportunity for mobile banking adoption in the coming periods. Because the youth are often more adventurous and more fascinated by technology than the old.

Academically, 46 percent of the respondents were bachelors' degree holders with 54 % having gone beyond a bachelors' degree. Diploma 22 percent, Master degree 20 percent, high school 8 percent and also 4 percent of the respondents are PHD qualification. There were no respondents who were primary school and illiterate. This implies that most of mobile banking users or respondents had high literacy levels. So CBE should generating awareness about the use of mobile banking advantage for non-illiteracy by crating different promotional strategy.

The result in table 4.1, show that the work status of the respondents, most of them are government employed which is 50 percent of the total respondents. And 17 percent are student, 18 respondent's self-employee and 15 respondents are NGO employee. This is a good opportunity for to expand the use of mobile banking service customers because those who are employed have time constraint since most of them are at work place when the bank branches are operational (have less time freedom). Hence, mobile banking will give them time saving advantage by enabling customers to make banking transactions and payments such as payment of utilities and other bills, money transfer etc. without traveling to the bank branches. There was no respondent who used mobile banking in pensioner.

4.2. Results/empirical findings

4.2.1. Descriptive statistics/results

Descriptive statistics (mean and standard deviations) of the respondent scores were computed. Analysis has been done by comparing these mean scores and deviations among respondents. The reason for using descriptive statistics is to compare the different factors that affect the level of customer satisfaction of commercial bank of Ethiopia customers by using the means and standard deviations values. In below table shows respondents perception on the satisfaction of mobile banking service offered by CBE and ranking was done each variable.

Table 4.2 Descriptive Statistics

Descriptive Statistics			
Variables	N	Mean	Std. Deviation
CS	320	3.3400	.63154
REL	320	3.4440	.56170
TRE	320	3.1257	.62945
CSP	320	3.4900	.65564
SSE	320	3.0514	1.136
ACC	320	3.5560	.60390
Valid N (listwise)	320		

Source: Own Computation from primary data March, 2019

As can be seen in the table above, accessibility had highest mean value followed by customer support while service security has the smallest mean value. The standard deviation of variables shows that service security had the highest value followed by customer support which implies high variability among the respondents while reliability had the smallest standard deviation which shows high consistency. From the above table also suggests that all mobile banking dimensions except transactional efficiency and service security performance rated above moderate. As far as the mean values are concerned, out of the mobile banking service quality dimensions accessibility (mean of 3.556), customer support (3.49) and reliability (mean of 3.444) had relatively moderate

effect on customer satisfaction .Transactional efficiency and service security little effect on customer satisfaction with a mean score of 3.1257, and 3.0514

Table 4.4 Regression Results: Main

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.146	1.111		1.032	.308		
	Reliability	.475	.297	.253	2.927	.036	.537	1.862
	Transactional Efficiency	.505	.258	.303	2.020	.031	.549	1.821
	Customer Support	.580	.255	.341	2.884	.026	.659	1.517
	Service Security	.204	.258	.109	.791	.433	.775	1.291
	Accessibility	.820	.282	.406	2.910	.006	.751	1.331

Source: Own Computation from primary data March, 2019

As can be seen in the above table, the regression model equation can be presented as follows:

$$CS = \beta_0 + e + \beta_1REL + \beta_2TRE + \beta_3CSP + \beta_4SSE + \beta_5ACC$$

$$CS = 1.146 + 1.111 + .253REL + .303TRE + .341CSP - .109SSE + .406ACC$$

The results above indicate that all other factors (Reliability, Transactional efficiency, Customer support, service security and Accessibility) being constant at zero, the level of customer satisfaction would be 3.34. Furthermore, the results indicate that taking all other independent variables at zero, a unit increase in reliability would lead to a 0.253 increase in customer satisfaction; a unit increase in transactional efficiency would lead to a 0.303 increase in the customer satisfaction, a unit increase in customer support would lead to a 0.341 increase in the customer satisfaction. Further, the findings shows that a unit decrease in service security would lead to a 109 decrease in customer satisfaction while a unit increase in accessibility would lead to a 0.406 increase in the customer satisfaction. In terms of magnitude, the findings indicated that accessibility has the highest effect on customer satisfaction followed by customer support while service security had the least effect on customer satisfaction. Except service security the remaining variables were significant as their P-values were less than 0.05.

4.3. Discussion of results

This part discusses empirical findings of the study in two sections. Section one is based on the multiple linear regression model results and section two is based on open ended questionnaire.

4.3.1. Model results

Empirical findings of the study revealed that reliability had a statistically significant positive effect ($\beta = .253$, $P = 0.036$) on customer satisfaction. This indicates that users of mobile banking are dependable of the functionality of the service. This also shows that the level of trust customers had on the service in that they believe the system provides the services they demanded. The degree of reliability might also emanate from the banks image as its motto says “the bank you can always rely on”. The finding of the study is also consistent with other research findings for example (Parsurman et al, 1988; Jun et al, 1999; Lui and Amett, 2000, Jun and Peterson, 2004, Jannatul, 2009 and Yitbarek, 2015) who found that reliability has a positive effect on satisfaction on mobile banking.

Transactional Efficiency had a statistically significant positive effect on customer satisfaction with path coefficient of 0.303 and p value of 0.031. However, the degree of efficiency might not be as good as it is expected to be as can be shown on the result which implies that still there exist inefficiencies in processing the transactions. The inefficiency usually is expected to happen on the working-hours as many users access the network while the speed of transactional efficiency is expected to be better on off working hours due to limited users.

The result of the study supports findings of Jun et al, 1999; Jannatul, 2009; Parsurman et al, 1988; Yang, Jun and Peterson, 2004, Lui&Amett, 2000) who found that reliability had a positive effect on customer satisfaction. Also a study conducted by Alice et al (2016) also empirically found that mobile banking transaction efficiency and customer satisfaction have positive relationship.

Customer support had a statistically significant positive effect on customer satisfaction with path coefficient of 0.341 and p value of 0.026. This implies that the bank customer service officers and other staff are supportive enough to help customer’s requests and quests. However, based on the empirical findings, we cannot claim to say the effect of customer support on customer satisfaction is very good or excellent. This is may be due to negligence or knowledge gap from the bank side. The finding of the study is consistent with the findings of Sintayehu (2015) who found a positive relationship between customer support in mobile banking and customer satisfaction.

Service security had negative effect on customer satisfaction though it is not statistically significant ($\beta = -.109$, $P = 0.433$). This was occurred may be due to the fact that the mobile banking uses only one password which let them felt unsecured as someone who knows the password could do anything without disclosing who did that. On top of this, given the newness of the technology in the Ethiopian banking sector, there might be fear of feeling unsecured and resistance to change for the new technology. So it demands mentoring customers about how to use the mobile banking and its importance.

Compared to others, accessibility had the largest effect on customer satisfaction ($\beta = .406$, $P = 0.006$) which is positive and statistically significant. This is may be due to the fact that mobile banking service could be accessed at any time the customers wants to access without going to branch offices for the service. However, the network quality might not be the same throughout the day and night. Hence, the system might be slow or down.

And, this conclusion is in line with Parasuraman (2002) and Alice et al, (2016) who posited that the time of accessing and using mobile banking service is not limited to working hours but a customer can access the service 24 hours in a day.

The overall level of customer satisfaction of customers on the mobile banking service is more than average (mean 3.34 out of 5). This indicates that the mobile banking service provided by the bank didn't meet the customers' expectations as the level of satisfaction created didn't reach at least on the rank of "agree". To claim that the customers are satisfied at least on average they should agree.

4.3.2. Open ended questionnaire analysis

Open ended questions were forwarded for sampled customers of the bank to evaluate the service quality of mobile banking and forward their suggestions they felt. They were also asked to forward areas of improvement to enhance the level of service quality and ultimately bring customer satisfaction. Summary of their feedback are presented as follows.

In general the majority of the respondents said service quality of mobile banking is moderate. They also said that sometimes it is good to get more information about their account balance but there is no sufficient service because of network problems during making transaction needs some improvement.

Some of the respondents said that sometimes the mobile banking process send a failed notifications after certain steps while the transactions are actually done. Subsequent to receiving

failed notifications customers tried again which resulted double transactions. This created several problems as they couldn't easily get back the money transferred wrongly.

Respondents suggested that the bank shall increase the daily transaction limits allowed per an account. They also said that the service shall commence to help them operate the service among accounts held in different banks. Last but not least, they suggested that the bank shall assign competent or best performer employees to assist them on how to effectively use the service

4.4. Data testing

4.4.1. Testing for non-response bias

It is likely that data may not fully collect if the instrument is questionnaire. Test for non-response bias needs to be conducted if there are questionnaires distributed but not collected. The study distributed 380 by using convenience sampling and actually collected 320 usable questionnaires (response rate of 84%). Therefore, there is a need to test for non-response rate to check if there is any mean difference between late and early respondents using independent t-test in SPSS. There is common agreement as to how many respondents to take to test for non-response bias. There was no consensus around the number of items which should be tested. Armstrong and Overton, (1977) used 53 of the 112 items (47%); Lambert and Harrington (1990) chose 28 of 56 original questions; whilst Yaghi (2006) used 20 of the 74 items. This study used 50% of the collected data half of which are late respondents and half of them are early respondents. The t-tests results showed that for almost all of items (96.77%) there was no significant difference between the late and early respondents (sig. >.05) indicating that non-response bias was not a problem for the data as can be seen in the table below.

Table 4.4 Independent sample t-test

	Levene's Test for Equality of Variances	
	F	Sig.
Mobile banking complete a task accurately	.0211	.821
Mobile banking provides customers with the services exactly as promised	4.531	.038
Mobile banking perform the service right at the first trial	.720	.400
Mobile banking provides prompt response if the transactions are not well processed.	.440	.510
If there are transactional mistakes, customer care service is readily available to the customers	1.384	.245
Mobile banking provide complete help function	.029	.867
Transaction process is fast	3.999	.051
The customers know immediately when the transaction is performed	.028	.868
Mobile banking allows me to manage my finances more efficiently	.874	.355
The transaction amount limit allowed per day is enough	.009	.926
Mobile banking provide full day service	1.353	.251
Mobile banking allows to transact among other banks accounts	.016	.898
Customer service call center (951) is helpful to give information and to solve problem related with mobile banking	2.509	.120
The bank quickly resolves mobile banking related problems	.019	.890
The language in mobile banking displays is easy to understand	.677	.415
Information and text are clear & easy to understand	.195	.661
CBE provide knowledgeable staff to solve problem related with mobile banking	2.586	.114
The bank provide brochures to educate new mobile banking users	.784	.380
Mobile banking keep accurate record of transaction	.053	.819
Mobile banking provide security for transaction data and privacy	36.763	.800
Use of mobile banking service have a negative effect on your mobile data profile	2.216	.143
Information concerning my mobile banking transactions can be tampered with by others	.028	.868
You feel safe when using mobile banking	.884	.352
The mobile Banking registration process is simple	.129	.721
It is easy to navigate i.e. get anywhere on the mobile banking site.	1.061	.308
Mobile banking is available all the time.	2.430	.126
Using mobile banking does not require a lot of effort	.100	.753
You can check detailed past transactions every time	.028	.868
Use of mobile banking service is costly	.847	.362
Using mobile banking fits well with the way I like to manage my finances	.283	.597
In general, I am satisfied with the mobile banking service provided by the banking	.028	.868

Source: Own Computation from primary data March, 2019

Table 4.2 shows the sig. value is greater than 0.05 so, the variability in conditions is about the same. That the scores in one condition do not vary too much more than the scores in second condition.

4.5. Assessing common method bias

Common method bias assumes that a single factor explains the majority of variance. Researchers rely on the same respondent who provides information about all the variables (Podsakoff et al, 2012). Common method bias is a problem because it is considered to be a main source of measurement error which has a negative effect on the validity of the measure. Due to the method bias, correlations are inflated (Meade et al, 2007). This study investigated this method because of using one questionnaire to measure all constructs. The un-rotated factor analysis showed that the first factor accounted for 11.37% of the total variance. Therefore, the results suggested that there were no common variable since its value was not above 50% (Podsakoff et al, 2012) to threaten the data to be analyzed further.

4.5.1. Assessing missing data

In social science research, missing (or incomplete) pieces of data are a common problem. There are many reasons for the occurrence of missing data which, usually, are beyond the researcher's control. As example, the respondent forgot to answer some items in the questionnaire and he/she was absent on the day of data collection or some questions were sensitive for the respondent or missing data might occur because the questionnaire is too long. On the other hand, missing data may cause the following two negative effects on the research results: (1) it may produce biased estimates" and (2) it reduces the model's fit (Ahmed 2014). Hair et al, (2010) reported that variables or cases ought to be omitted if they had 50% or more missing data. Therefore, the researcher omitted 7 cases. The number of responses was reduced from 327 to 320 usable questionnaires.

4.5.2. Assessing outliers

Outliers are extreme values which are either on one or a set of variables (Tinsley and Brown, 2000). Outliers can cause negative effects on data analysis. For example, data can contain collinearities and non-normality which can lead to negative variance estimates (Brown, 2006). These effects can deform statistical results which cannot be generalized. Outliers can occur as "a

result of an error in the data file (e.g., entry of an incorrect value), a programming error (e.g., an error in recoding or transforming variables or a failure to identify missing data values correctly), or the presence of a valid but exceptional data point” (Tinsley and Brown, 2000). Outliers can be univariate related to cases with an extreme value on a single variable or these values exist in cases of two or more variables (multivariate outliers) (Kline, 2005). In order to find univariate outliers, the researcher used the frequency distributions of z scores. If the Z score is greater than 3.29 in absolute value with $p < .001$, it indicates that there is a univariate outlier (Tinsley and Brown, 2000). Accordingly, based on the previous rule, there were some outlier cases (2.62% of the data point) in this study.

There are two common techniques of dealing with outliers namely trimming and winsorizing. Trimming is eliminating data points from analysis usually done when data is out of range or entry error and winsorizing is assigning outlier the next highest or lowest value found in the sample that is not an outlier done when small amounts of scores are legitimate outliers. Trimming or winsorizing less than 5% of the data points will not likely affect the hypothesis testing outcome (Rocky Mountain University, 2015). In order to address these outliers the questionnaires were reviewed to ensure that the data of outliers' cases was entered correctly and there were no data entry errors and winsorizing techniques was applied because all the outliers were legitimate and after that all outliers were completely cleaned from the original data set.

4.6. Model test

4.6.1. Assessing linearity assumption

Linearity defines the dependent variable as a linear function of the predictor (independent) variables. Standard multiple regression can only accurately estimate the relationship between dependent and independent variables if the relationships are linear in nature. As there are many instances in the social sciences where non-linear relationships occur (e.g., anxiety), it is essential to examine analyses for non- linearity. If the relationship between independent variables and the dependent variable is not linear, the results of the regression analysis will under-estimate the true relationship. This under- estimation carries two risks: increased chance of a Type II error for that independent variables, and in the case of multiple regression, an increased risk of Type I errors (over- estimation) for other independent variables that share variance with that independent variables. If linearity is violated all the estimates of the regression including regression

coefficients, standard errors, and tests of statistical significance may be biased (Keith, 2006). The study conducted curve estimation for all the relationships in the model and all the relationships were sufficiently linear to be tested using a covariance based structural equation modeling algorithm.

4.6.2. Assessing multicollinearity assumption

Multicollinearity refers to the assumption that the independent variables are uncorrelated. The researcher is able to interpret regression coefficients as the effects of the independent variables on the dependent variables when collinearity is low. This means that we can make inferences about the causes and effects of variables reliably. Multicollinearity occurs when several independent variables correlate at high levels with one another, or when one independent variable is a near linear combination of other independent variables. The more variables overlap (correlate) the less able researchers can separate the effects of variables (Keith, 2006). If this assumption is not satisfied, autocorrelation is present. Multicollinearity can result in misleading and unusual results, inflated standard errors, reduced power of the regression coefficients that create a need for larger sample sizes (Jaccard et al., 2006; Keith, 2006).

Widely used technique of identifying the existence of multicollinearity is calculating variance inflation factor (VIF) between all independent variables. The VIF is an index of the amount that the variance of each regression coefficient is increased over that with uncorrelated independent variables (Keith, 2006). When a predictor variable has a strong linear association with other predictor variables, the associated VIF is large and is evidence of multicollinearity (Shieh, 2010). A rule of thumb of collinearity VIFs is 3.3 or lower to suggest no multicollinearity in the model (Kock, 2013). As can be seen in table below, the study calculated VIF for all independent variables in SPSS and the results revealed that all of the VIF results are below the threshold of 3.3 indicating there is no multicollinearity problem for the data.

Table 4.6 Test for Multicollinearity

No.	Independent Variable	VIF
1	Reliability	1.862
2	Service Security	1.291
3	Transactional Efficiency	1.821
4	Accessibility	1.331
5	Customer Support	1.517

Source: Own Computation from primary data March, 2019

4.7. Assessing normality assumption

Normality focuses on the extent to which the sample data distributes according to normal distribution (Hair et al., 2010). The researcher used skewness and kurtosis to evaluate the normality of the observed items. Skewness is “a measure of the asymmetry of the probability distribution of a real-valued random variable”. On the other hand, kurtosis refers to “the peaked or flatness of the distribution compared to the normal distribution” (Landau and Everitt, 2003). Values of skewness can be positive, negative, or zero. Skewness’s value, which is zero, indicates a perfectly symmetrical distribution, whilst a positive skewness value indicates that the tail on the right side is longer. On the contrary, a negative value refers to left-tailed. On the other hand, a kurtosis value is zero for normal distributions, whilst it is negative for flat distributions (low kurtosis) and a positive value for peaked distributions (high Kurtosis). As a rule of thumb, the values of skewness and kurtosis should be between -1 and +1 in order to obtain a reasonably normal distribution (Bachman, 2004). The study examined the indicators’ univariate kurtosis and skewness and the values of skewness and kurtosis were well within their respective rule-of-thumb ranges (between -1 and 1) which provided support for univariate normality as shown below.

Table 4.7 Test for Normality

Descriptive Statistics	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Mobile banking complete a task accurately	320	3.72	-1.077	.337	.571	.662
Mobile banking provides customers with the services exactly as promised	320	3.32	-.804	.337	-.434	.662
Mobile banking perform the service right at the first trial	320	3.22	-.464	.337	-.890	.662
Mobile banking provides prompt response if the transactions are not well processed.	320	3.62	-.143	.337	-.892	.662
If there are transactional mistakes, customer care service is readily available to the customers	320	3.34	-1.123	.337	.294	.662
Mobile banking provide complete help function	320	3.70	-.616	.337	-.385	.662
Transaction process is fast	320	3.04	-.077	.337	-1.247	.662
The customers know immediately when the transaction is performed	320	3.74	-.503	.337	-.342	.662
Mobile banking allows me to manage my finances more efficiently	320	3.66	-1.031	.337	.689	.662
The transaction amount limit allowed per day is enough	320	3.08	-.165	.337	-1.217	.662
Mobile banking provide full day service	320	3.02	-.038	.337	-1.173	.662
Mobile banking allows to transact among other banks accounts	320	1.64	.757	.337	-1.013	.662
Customer service call center (951) is helpful to give information and to solve problem related with mobile banking	320	3.56	-.661	.337	-.147	.662
The bank quickly resolves mobile banking related problems	320	3.36	-1.145	.337	.162	.662
The language in mobile banking displays is easy to understand	320	3.76	-.755	.337	-.305	.662
Information and text are clear & easy to understand	320	3.74	-.783	.337	.084	.662
CBE provide knowledgeable staff to solve problem related with mobile banking	320	3.36	-.815	.337	-.477	.662
The bank provide brochures to educate new mobile banking users	320	3.62	-.689	.337	-.310	.662
Mobile banking keep accurate record of transaction	320	4.10	-1.117	.337	1.864	.662
Mobile banking provide security for transaction data and privacy	320	3.60	-1.103	.337	.330	.662
Use of mobile banking service have a negative effect on your mobile data profile	320	2.54	.329	.337	-1.123	.662
Information concerning my mobile banking transactions can be tampered with by others	320	2.38	.509	.337	-.654	.662
You feel safe when using mobile banking	320	3.88	-1.266	.337	1.346	.662
The mobile Banking registration process is simple	320	3.56	-.473	.337	-1.124	.662
It is easy to navigate i.e. get anywhere on the mobile banking site.	320	2.84	-.369	.337	-1.164	.662
Mobile banking is available all the time.	320	2.52	.217	.337	-1.368	.662
Using mobile banking does not require a lot of effort	320	3.50	-.553	.337	-.797	.662
You can check detailed past transactions every time	320	2.84	-.171	.337	-1.470	.662
Use of mobile banking service is costly	320	2.38	.314	.337	-1.650	.662
Using mobile banking fits well with the way I like to manage my finances	320	3.72	-1.236	.337	1.162	.662
In general, I am satisfied with the mobile banking service provided by the banking	320	3.34	-.543	.337	-.817	.662
Valid N (listwise)	320					

Source: Own Computation from primary data March, 2019

Regression Results: Model Fit

Table 4.8 Model Summary 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.684	.468	.386	.961	.468	4.894	5	44	.001	1.476

a. Predictors: (Constant), Accessibility, Customer Support, Service Security, Transactional Efficiency, Reliability

b. Dependent Variable: Customer Satisfaction

Table 4.9 Model Summary 2 (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.593	5	4.519	4.894	.001 ^b
	Residual	33.627	44	.923		
	Total	63.220	49			

a. Customer Satisfaction

b. Predictors: (Constant), Accessibility, Customer Support, Service Security, Transactional Efficiency, Reliability

Source: Own Computation from primary data March, 2019

R-squared is a goodness-of-fit measure for linear regression models. This statistic indicates the percentage of the variance in the dependent variable that the independent variables explain collectively. R-squared measures the strength of the relationship between your model and the dependent variable on a convenient 0 – 100% scale. It was used to establish the predictive power of the study model and it was found to be 0.468 implying that 46.8% of the variations in customer satisfaction are explained by reliability transactional efficiency, customer support, service security and accessibility, leaving 53.2% unexplained.

$$R\text{-squared} = 1 - \frac{\text{sum of squared residual}}{\text{sum of squared total}} = 1 - \frac{33.627}{63.220} = .468 \text{ or } 46.8\%.$$

And this is assumed to be a good model fit.

The F-test (F =4.894) is found significant (p=0.001) indicating the regression model is fit.

Table 4.10 **Multi-collinearity analysis**

Coefficients			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Reliability	.554	1.804
	Transactional efficiency	.818	1.222
	Accessibility	.502	1.991
	Service security	.470	2.129

Dependent Variable: customer satisfaction

Table 4.8 above results also shows that the VIF values are less than 3.3 and the tolerance values are more than 0.2. This indicates that there is no multi-collinearity within the independent variables of the study.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

This research was conducted to find out the impact of mobile banking service quality on customers satisfaction (the case of commercial bank of Ethiopia in selected branch).

According to the data collected through questionnaires the major finds of the study are presented as follows

- Population of the study was 28,810 customers who are actively using mobile banking service and using Cochran (1963:75) sample size formula 380 customers were sampled using convenience sampling technique and 320 usable questionnaires were collected.
- With regard to accessibility followed by customer support had a highest positive effect on customer satisfaction. And network quality might not be the same throughout the day and night, the system might be slow or down.
- Reliability customer believes the system provides the services they demanded and positive effect on satisfaction on mobile banking.
- Most of the respondents do not believe Customer support for users was good negligence and knowledge gap from the bank side.

5.2 Conclusion

- Accessibility, customer support, transactional efficiency and reliability positively affected customer satisfaction on mobile banking service provided by the bank.
- Accessibility followed by customer support had a highest positive effect on customer satisfaction.
- Service security affected customer satisfaction negatively on mobile banking.
- Mobile banking not only offers facilitates like balance check, or do transactions they are also affecting customer behavior. Integration of banking with their personal mobile devices, customers are engaging themselves in apps more than ever

5.3 Recommendations

- To keep customers satisfied the bank should give emphasis for service security in such a way that customers could feel safe while using mobile banking. The bank's management should give launch a probe on why customers are not feeling safe while using mobile banking services and design a better system to keep customers feel safe as digital financial system is one of the main areas of competition in now a days banking service especially if Ethiopia joins world trade organization and foreign start operating in Ethiopia.
- The bank shall design a mobile banking service that allows customers to transact among accounts found in different banks.
- The bank should also strengthen mobile banking accessibility, customer support, transactional efficiency and reliability of the mobile banking service
- To strengthen the accessibility of the service, the bank shall work in close harmony with the telecom provider.

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Appendix

ST. MARY UNIVERSITY SCHOOL OF GRADUATE STUDIES MASTER OF BUSINESS ADMINISTRATION

Dear Respondents,

I am conducting research on the Effect of Mobile Banking on Customer Satisfaction with particular reference to commercial bank of Ethiopia as a partial fulfillment of the requirements for the degree in Master of business administration at **St. Mary University**

. The main objective of this research is to find out the Effect of Mobile Banking on Customer Satisfaction selected branches in Addis Ababa Districts. For the successful accomplishment of the study, your response will have a pivotal role by providing valuable input for the study. Thus, your genuine and honest response is very crucial for attaining the aim of the research and the researcher would like to thank you for your cooperation in advance. The information you provide will be held strictly confidential and used only for academic purpose. There is no need of writing your name.

Thank you in advance for your cooperation

MAHLET LEGESSE

Mob: +251943194520

Part one: Background Information

Dear respondents, please label a characteristic that correspondent to your background data by using “√” mark.

1. Gender: Male Female
2. Age : 18-24 25-35 36-50 51-60 above 60
3. Educational Level: Illiterate Primary High school Diploma
Bachelor Degree Master’s Degree Doctorate Degree

4. Occupation: Self-employed Student NGO employee

Government Employee Pensioner other

Part two

Questions related with Customers feelings about mobile banking, please put right mark (√) for response of you're feeling about the question provided

Variables	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5

1. Reliability

1.1 Mobile banking complete a task accurately

1.2 Mobile banking provides customers with the services exactly as promised

1.3 Mobile banking perform the service right at the first trial

1.4 Mobile banking provides prompt response if the transactions are not well processed.

1.5 If there are transactional mistakes, customer care service is readily available to the customers

2. Transaction Efficiency

2.1 Mobile banking provide complete help function

2.2 Transaction process is fast

2.3 The customers know immediately when the transaction is performed

2.4 Mobile banking allows me to manage my finances more efficiently

2.5 The transaction amount limit allowed per day is enough

2.6 Mobile banking provide full day service

2.7 Mobile banking allows to transact among other banks accounts

3. Customer Support

3.1 Customer service call center (951) is helpful to give information and to solve problem related with mobile banking

3.2 The bank quickly resolves mobile banking related problems

3.3 The language in mobile banking displays is easy to understand

3.4 Information and text are clear & easy to understand

3.5 CBE provide knowledgeable staff to solve problem related with mobile banking

3.6 The bank provide brochures to educate new mobile banking users

4 Service Security

4.1 Mobile banking keep accurate record of transaction

4.2 Mobile banking provide security for transaction data and privacy

4.3 Use of mobile banking service have a negative effect on your mobile data profile

4.4 Information concerning my mobile banking transactions can be tampered with by others

4.5 You feel safe when using mobile banking

5. Accessibility

5.1 The mobile Banking registration process is simple

5.2 It is easy to navigate i.e. get anywhere on the mobile banking site.

5.3 Mobile banking is available all the time.

5.4 Using mobile banking does not require a lot of effort

5.5 You can check detailed past transactions every time

5.6 Use of mobile banking service is costly

5.7 Using mobile banking fits well with the way I like to manage my finances

6. Customer Satisfaction

6.1 In general, I am satisfied with the mobile banking service provided by the banking	
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1. How do you evaluate quality of mobile banking service provided by the Bank?

2. What suggestions you can give to the improvement of mobile banking service to Commercial Bank of Ethiopia to enhance customer satisfaction?

Thank you