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ADDIS ABABA UNIVERSITY

SCHOOL OF COMMERCE

**MARKETING MANAGEMENT GRADUATE
PROGRAM**

**THE EFFECT OF MOBILE MONEY ON CUSTOMER'S
SATISFACTION: EMPIRICAL EVIDENCE FROM TELEBIRR**

BY: MEDINA ABAY

JULY 2023

ADDIS ABABA, ETHIOPIA

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*A THESIS PROPOSAL IS SUBMITTED TO ADDIS ABABA UNIVERSITY
GRADUATE PROGRAM IN PARTIAL FULFILLMENT FOR THE
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MANAGEMENT*

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Declaration

This is to notify that the thesis proposal entitled, “*The Effect of Mobile Money on Customer’s Satisfaction: Empirical Evidence from Telebirr*” is carried out by Medina Abay, under the supervision of Dr. Mulugeta Gebremedhin (Ph.D.), submitted in partial fulfillment of the requirements for the degree of Master of Arts (MA) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Approval of thesis

We, the undersigned certify that we have and hereby recommendation to Addis Ababa University to accept the thesis submitted by Medina Abay entitled, *“The Effect of Mobile Money on Customer’s Satisfaction: Empirical Evidence from Telebirr”* for the fulfillment of the requirement for the award of Master's Degree in Marketing Management.

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Abstract

The advent of telecommunications and banking services worldwide has opened up opportunities for the rise of mobile commerce. The banking industry has inevitably undergone changes to provide quick and high-quality customer services through modern technology-based banking facilities, including online and mobile money, This study aimed to assess the effect of mobile money on customer satisfaction and to use the study's findings as an input for Ethio telecom on how to enhance customer satisfaction.

Both qualitative and quantitative research approach was employed. The sources of data for this study were both primary and secondary. The primary data was collected from telebirr customers in Addis Ababa City. The instrument used for the collection of primary data was a questionnaire survey and also interview is applied for the Ethio telecom telebirr department staffs. Accordingly, 400 questionnaires were distributed to all computed sample respondents through online form and hard print questionnaires and the total of 367 responses were received. The secondary data was considered from related works of literature. Correlation analysis and multiple regression model were used to examine the relationship and to identify the effect of explanatory variables on customer satisfaction of telebirr mobile money service.

This study result shows, being other variables constant, reliability got negative effect on customer satisfaction of telebirr mobile money, the remaining explanatory variables, availability, perceived ease of use and responsiveness and prior technology knowledge have a positive effect and significant influence on the customer satisfaction of telebirr mobile money by having a different exponent of beta values.

The study recommends that based on the finding and conclusion, telebirr service provider, Ethio telecom, should work on making the service more reliable to enhance a rise in the customer satisfaction rate.

Keywords: customer satisfaction, telebirr service, mobile money, Ethio telecom, Addis Ababa.

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Acronyms

DFS: Digital Financial Service

Fintechs: Financial technologies

GSMA: Groupe Speciale Mobile Association. (Digital System for Mobile
communication Association)

MFIs: Micro Finance Institutions

MNOs: Mobile Network Operators

NBE: National Bank of Ethiopia

DPS: Digital Payment System

SPSS: Statistical Package for Social Science

ANOVA: Analysis of Variance

CHAPTER ONE

1. Introduction

1.1. Background

The advent of telecommunications and banking services worldwide has opened up opportunities for the rise of mobile commerce. The banking industry has inevitably undergone changes to provide quick and high-quality customer services through modern technology-based banking facilities, including online banking, ATM services, and mobile money. Mobile money refers to conducting banking transactions using a mobile device like a cell phone. Essentially, it involves a collaborative effort between mobile operators and the banking industry to integrate mobile communication and electronic money, enabling various bank-related activities to be carried out through a mobile phone. With technology advancing rapidly and the widespread use of mobile phones, mobile money services are gaining popularity not only in developed countries but also in developing countries like Ethiopia (Alemu et al., 2021).

In 2007, Africa witnessed the introduction of mobile money through the launch of the M-PESA service by Safaricom and Vodafone. The term "M-PESA" is derived from the combination of the letter "M" representing mobile, and "PESA," which means money in Swahili. Initially, M-PESA was created as a phone-based system primarily aimed at facilitating microfinance loan repayments, thereby reducing the expenses associated with cash handling. Following a successful pilot test, its scope expanded to encompass a broader money-transfer scheme. The introduction of the feature allowing users to purchase airtime using M-PESA further accelerated its popularity, leading to a rapid increase in transaction volume and widespread adoption across all demographic segments. Today, mobile money has gained significant popularity throughout the entire African continent (Alemu et al., 2021).

In Ethiopia, the introduction of the country's inaugural mobile money service took place in 2012 under the name M-Birr. This service was established through a collaboration between five Micro Finance Institutions (MFIs) operating in Addis Ababa and four regional states. M-Birr commenced its operations in 2013, marking a significant milestone in the availability of mobile money services in Ethiopia (Alemu et al., 2021).

After the successful launch of M-Birr, Ethiopia witnessed the introduction of another mobile money service called Hello Cash in February 2015. Lion International Bank and Somali

Micro Finance Institution partnered with Bel Cash to establish this service. In mid-December 2017, the Commercial Bank of Ethiopia (CBE) launched its own mobile phone-based money transfer platform named CBE-Birr. This platform offered customers a range of additional functionalities, including the ability to deposit, withdraw, transfer funds, make payments, purchase mobile airtime, and pay bills using their mobile phones. Subsequently, in July 2018, Dashen Bank introduced its own mobile phone-based money transfer platform called Amole (Alemu et al., 2021).

Until recently, Ethiopia's regulatory framework for digital financial services followed a bank-owned model. Only banks and Micro Finance Institutions (MFIs) had the authority to hold deposits, obtain licenses as payment service providers, and manage agent networks. This framework did not permit mobile network operators to offer digital financial services independently. However, there has been a recent development with the ratification of the payment instrument issuers' directive. This directive addresses the issue and allows for telecommunications and financial technology sectors to participate in digital financial services by operating as payment instrument issuers. This change opens up opportunities for greater involvement of telecommunication and fintech companies in providing digital financial services in Ethiopia (NBE, 2021).

Following this, Ethio telecom provides a new mobile money service named "Telebirr" Telebirr is the first telecommunication mobile money service which was launched by Ethio telecom in May 2021. The solution allows customers to deposit, receive and transfer money using mobile number in areas where mobile network is available. (Ethiotelecom, 2021)

According to Ethio telecom 2015 EFY (2021/22), the company has 27.7 million Telebirr customers. 98.8 thousand agents, 25.5 thousand merchants, 18 banks to Telebirr wallet integration and 16 Telebirr wallet to banks integration. This shows the rapid growth of Telebirr, and in this research, we will assess the satisfaction of the customers.

Customer satisfaction, as defined by Thomassen (2003), is the perception formed by customers when they compare their experiences with their expectations, whether consciously or unconsciously. Expanding on this definition, (Kotler & Keller, 2008) emphasizes that customer satisfaction is influenced by the level of happiness or disappointment a person experiences in relation to their initial expectations, specifically regarding the observed performance of a product.

When the performance of a product falls short of expectations, it results in customer dissatisfaction. Conversely, when the performance meets or exceeds expectations, it leads to customer satisfaction.

In contrast, while numerous studies have been conducted internationally to investigate the effect of mobile money on customer satisfaction, there is a dearth of adequate research in Ethiopia, specifically regarding the newly launched Telebirr mobile money service. Considering this research gap, the researcher expressed interest in conducting a study titled **"The effect of mobile money on customer's satisfaction, Empirical evidence from Telebirr"**

1.2. Statement of the problem

In recent businesses, customer-centered services and satisfying of their customers is one of the major missions for an organization. This is coming from high linkages of sustainability or competitiveness of business with satisfied customers. When customers are satisfied, organizations experience increased sales, profits, and market share. Conversely, dissatisfaction can have a negative impact on these factors. Additionally, customer satisfaction plays a vital role in fostering customer loyalty and helping organizations achieve their desired objectives. Therefore, it is crucial for organizations to promptly prioritize customer satisfaction in order to accomplish their goals. As a business organization, it is imperative to provide exceptional care to customers in order to attract, retain, and gain their loyalty (Prahalad & Ramaswamy, 2004).

Ethiopia's financial system is relatively underdeveloped, and the majority of economic transactions in the country still rely heavily on cash. Until recently, Ethiopia followed a bank-led model in its regulatory framework for digital financial services. This meant that only banks and Microfinance institutions (MFIs) had the privilege of holding deposits, obtaining licenses as payment service providers, and managing agent networks. But recently National Bank of Ethiopia open its service to the telecom sector (NBE, 2021). Following this, Ethio telecom introduces a new mobile money service named "Telebirr". Telebirr is an innovative mobile money service for Ethio telecom customers launched on May 11, 2021. The service allows customers to buy airtime, deposit, receive and transfer money and other services by using mobile numbers in areas where a mobile network is available (Ethiotelecom, 2022).

A research study conducted in Anambra, Nigeria focused on investigating the impact of mobile banking on customer satisfaction. Specifically, the study examined the influence of mobile banking service security and the proficiency of mobile banking technology on customer satisfaction, (Uwalaka & Eze, 2020).

Despite the existence of various studies worldwide on the impact of mobile money on customer satisfaction, the researcher found a lack of research specifically focused on the effect of mobile money on customer satisfaction, specifically pertaining to Telebirr. This study aims to bridge this gap by investigating the relationship between mobile money and customer satisfaction using a quantitative research approach. The study will collect data through surveys administered to Telebirr customers and employ statistical methods to analyze the data. The findings of this research will provide valuable insights for financial and non-financial institutions, including the telecom sector, involved in digital money services, enabling them to understand the impact of mobile money services on customer satisfaction and enhance the design of mobile money offerings to ensure customer satisfaction.

On the other hand, Telebirr mobile money is relatively new from other related mobile money services and also the overall banking system in Ethiopia. Hence, the researcher wants to investigate the effect of this mobile money of Telebirr on the customer's satisfaction. Also, the motivation that drives the researcher in to this title is the observation of the business and technical aspect of Telebirr in the work environment.

Therefore, by considering the above-mentioned factors as a research gap, the researcher proposed "The effect of mobile money on customer's satisfaction: empirical study on Telebirr". And the gaps are addressed in this study, within research questions below.

1.3. Research Question

1. *What is the effect of reliability of mobile money on customer satisfaction?*
2. *What is the effect of availability of mobile money on customer satisfaction?*
3. *What is the effect of perceived ease of use of mobile money on customer satisfaction?*
4. *What is the effect of responsiveness of mobile money on customer satisfaction?*
5. *What is the effect of prior technology knowledge of mobile money on customer satisfaction?*

1.4. Research Objectives

General Objective

The objective of this study is to examine the effect of mobile money on customer's satisfaction in the cause of Telebirr.

Specific Objective

The specific objectives of this study are: -

1. Assessing the effect of reliability of mobile money on customer satisfaction.
2. Assessing the effect of availability of mobile money on customer satisfaction.
3. Assessing the effect of perceived ease of use of mobile money on customer satisfaction.
4. Assessing the effect of responsiveness of mobile money customer satisfaction.
5. Assessing the effect of prior technology knowledge of mobile money on customer satisfaction.

1.5. Significance of the study

Practical Implications

This study would be very important for Ethio - telecom in identifying their real customer need and their satisfaction level which may help to position their service and generate a profit by achieving superior customer satisfaction. It would be important for customers to be well informed about the service. In addition, academicians/researchers can use the findings as a base to make a further study on the issue. Furthermore, the research can also assist policy makers of the telecom service in understanding the factors that affect the customer satisfaction of Telebirr.

1.6. Scope of the study

The study scope with concept, time and place, geographically, the scope of the study will limit the effect of mobile money (Telebirr) on customer's satisfaction in Addis Ababa. The researcher selects Telebirr purposively, because it's accessible to the researcher, which makes data collection processes much easier. In terms of concept; Its new and not much of researches are done yet on the assessing mobile money and its diminutions (availability, reliability, perceived ease of use, responsiveness, and prior technology knowledge) on customer satisfaction.

1.7. Limitation of the study

The first is the possibility of omitted variables. Perhaps considering some other variables which have not been included in this study may lead to more accurate prediction and understanding of the customer satisfaction of telebirr mobile money. Also, the topic covers only respondents of telebirr users over Addis Ababa only.

1.8. Organization of the study

The study is structured into five chapters. Chapter one encompasses the introduction, which includes the study's background, statement of the problem, objectives, scope or delimitation, and the significance of the research paper. Chapter two comprises the literature review, which explores the research area, establishes empirical and theoretical frameworks, and presents the conceptual framework and research hypotheses. Chapter three outlines the research methodology, encompassing the research approach, design, target population, data collection instruments, and the chosen data analysis method. Chapter four focuses on the research results and their discussion. Lastly, chapter five concludes the study and offers recommendations.

CHAPTER TWO

2. Review of Related Literature

In this chapter, issues related to the study obtained from different sources including articles, different books, thesis and websites are reviewed. Definition of terms related with the research topic is also in this section of the research. The literature draws upon theoretical definitions and empirical reviews of prior research endeavors, which enable the comprehensive construction of the study's conceptual framework, thereby elucidating the depth and breadth of the impact of mobile money utilization on customer satisfaction. The research will address the five main research variables; reliability, availability, perceived ease of use, responsiveness and prior technology knowledge.

2.1. Definition of Terms

Mobile money: refers to the range of financial transactions and services that can be conveniently conducted through a mobile device, such as a mobile phone or tablet. These services have the flexibility of being connected or not directly to a bank account (Vikas Choudhary, 2011)

Digital Financial Services (DFS): are a broad spectrum of financial services that heavily rely on digital technologies for their delivery and consumption by consumers. These services leverage the power of digital platforms, such as mobile devices, the internet, and other digital channels, to provide convenient, secure, and efficient financial solutions to individuals and businesses (Nayak et al., 2014)

Mobile banking: is the term used to describe the accessibility and utilization of banking and financial services through mobile telecommunication devices. It represents the latest addition to the array of channels available in the banking industry, offering a convenient method for conducting various banking transactions using mobile phones or other portable devices. Thanks to advancements in mobile technology, banks can now provide their customers with a wide range of services. For instance, individuals can transfer funds while on the go, receive real-time updates on stock prices online, or even engage in stock trading while stuck in traffic. The enhanced capabilities of smartphones and 3G connectivity have expanded the possibilities beyond what older, text message-only phones could offer (Shan & Hua, 2006) and (Nayak et al., 2014)

2.2. Mobile money development in the world

Today, the mobile money industry boasts a diverse group of experienced providers equipped with extensive operational capabilities, a comprehensive range of products, and a global presence. With 290 active services spanning across 95 countries and a staggering 372 million active accounts, mobile money has firmly established itself as a mainstream solution for achieving financial inclusion, particularly in low-income nations. The transition from cash-based transactions to digital transactions has witnessed a remarkable 50 percent increase since 2017, indicating that providers have taken significant strides in integrating digital transactions into the everyday lives of their customers. In 2019, the number of registered mobile money accounts reached an impressive milestone of 1.04 billion (Pénicaud & Katakam, 2019).

The advent of the mobile platform has revolutionized the way people worldwide access and utilize their finances. While mobile money services have been in existence for over a decade, it is since 2007 that numerous mobile money services, which enable users to conduct value transfers and payments using a mobile phone, even without requiring a bank account, have been introduced in countries across the globe (GSMA, 2017).

2.3. Mobile Money in Africa

In recent years, the mobile money services market in Africa has experienced remarkable growth, surpassing other regions in various aspects such as the total number of mobile money services, mobile money accounts, agents providing mobile money services, and mobile payment users. Africa has emerged as a frontrunner in the mobile banking revolution, with the mobile phone serving as a technological platform for delivering financial services. Moreover, there has been a notable increase in the number of mobile internet subscribers in Africa. This trend positions Africa as a global leader in mobile money services, driven by the willingness and capacity of its people to embrace innovations in the realm of mobile financial services. The impact of mobile money services is already evident in transforming domestic markets across African countries (Harasim & Mitreęa-Niestrój, 2018). In Africa, there are two primary models for mobile money services (Harasim & Mitreęa-Niestrój, 2018).

The first model is a bank-led approach, where additional services are offered to existing customers through a mobile banking application. Banks play a central role in this model by

handling account provision and settlement. Customers can access a range of financial services and perform transactions conveniently using their mobile devices.

The second model is a non-bank-led approach, specifically designed to reach unbanked populations. In this model, non-bank companies take charge of all essential functions, except for settlement. These non-bank organizations, such as mobile network operators (MNOs) or issuers of stored-value cards, facilitate the exchange of cash for electronic value, which is recorded in a virtual account on their servers. This model enables greater financial inclusion by providing services to those who do not have access to traditional banking services, thus transforming the financial landscape for underserved communities in Africa (Bank, 2013).

The African mobile money revolution originated in Kenya back in 2007 with the introduction of Safaricom's M-PESA platform for peer-to-peer money transfers. Prior to this groundbreaking development, sending money to relatives posed significant challenges due to limited banking access. Today, Kenya stands at the forefront not just within Africa but on a global scale when it comes to mobile money services. Among the country's 31 million mobile subscribers, an impressive 83% or approximately 26 million individuals actively utilize mobile money services (Ayiesia 2018).

2.4. Mobile Money in Ethiopia

In Ethiopia, financial system remains relatively underdeveloped, relying heavily on cash-based transactions, as the introduction of digital financial services (DFS) or mobile money is a recent development in the country. As of 2017, according to the World Bank, a significant 98.7% of the adult population paid for utilities in cash. Furthermore, while 59% of adults received payments for agricultural products, a mere 0.47% of these transactions were conducted through financial institution accounts. In comparison to the sub-Saharan African average, Ethiopia surpasses it in terms of the prevalence of cash usage instead of formal financial institutions for paying utility bills, receiving wages, and government payments (Alemu et al., 2021).

According to (Alemu et al., 2021), mobile money refers to an electronic account connected to a mobile phone number, eliminating the need for individuals to open a traditional bank account. This service enables users to deposit, withdraw, and transfer money, as well as make and receive payments. However, in Ethiopia, the digital payment service (DPS) is not integrated with Ethio Telecom, the state-owned mobile and Internet services provider.

Instead, these services are exclusively offered by financial institutions, predominantly commercial banks and microfinance institutions (MFIs). This limited integration may have hindered the growth and expansion of direct payment services in the country. Commercial banks have implemented an agent banking system, where authorized agents provide mobile money services on behalf of the bank branches. Additionally, MFIs also play a role in offering mobile money services.

In 2012, the first mobile money service in the country was introduced under the name M-Birr. This service was established through a collaboration between five microfinance institutions (MFIs) operating in Addis Ababa and four regional states. It officially commenced operations in 2013. M-Birr offers various financial services such as deposit and withdrawal facilities through authorized agents. Additionally, users can top up their mobile airtime, pay bills, purchase goods, repay loans, check balances, and obtain statements using their mobile phones. Notably, M-Birr facilitates seamless transfers across the five partnering MFIs by utilizing a unified switch system. These MFIs play a crucial role in extending financial access to individuals who have limited or no access to traditional banking services. An essential feature of M-Birr is its ability to function without an internet connection and operate effectively even in areas with low-quality mobile networks. This attribute is particularly significant for Ethiopia, where approximately 80% of the population resides in rural regions characterized by inadequate connectivity (Alemu et al., 2021).

According to the findings of Alemu et al. (2021), subsequent to the introduction of M-Birr, Lion International Bank and Somali Micro Finance Institution, in collaboration with Belfast, launched their own mobile money service called HelloCash in February 2015. HelloCash offers a range of services including deposits, withdrawals, transfers, and payments. The participating banks are responsible for selecting, training, and authorizing agents to provide mobile money services on their behalf.

In mid-December 2017, the Commercial Bank of Ethiopia (CBE) introduced a mobile phone-based money transfer platform known as CBE-Birr. Customers of CBE-Birr enjoy additional functionalities, enabling them to deposit, withdraw, transfer funds, make payments, purchase mobile airtime, and pay bills using their mobile phones.

Subsequently, in July 2018, Dashen Bank launched their mobile phone-based money transfer platform called Amole. This platform provides users with similar services for convenient

mobile money transactions.

The evolution of mobile money services in Ethiopia continued, leading to the establishment of Ethio Telecom's Telebirr platforms, which further contribute to the expansion and availability of mobile financial services in the country.

2.5. Practice of Telebirr in Ethiopia

Until recently, Ethiopia followed a bank-led model in its regulatory framework for digital financial services. This model granted exclusive rights to banks and Microfinances (MFIs) to hold deposits, obtain licenses as payment service providers, and manage agent networks. However, this approach prevented Mobile Network Operators (MNOs) and Financial Technology (Fintech) companies from offering independent digital financial services. MNOs and Fintechs play crucial roles in the sector. However, with the ratification of the payment instrument issuers' directive, MNOs and Fintechs are now allowed to operate as payment instrument issuers, addressing this limitation (NBE, 2021).

As mentioned above the government of Ethiopia recognized the problem, and aim to correct it, the regulatory authority issued two new directives that allow nonfinancial institutions like the telecommunication sector to engage in digital financial service (NBE, 2021).

Following this Ethio telecom provide a new mobile money service named "Telebirr. The name was coined by joining the name of Ethiopian currency, birr, with the word Tele. Telebirr is the first telecommunication mobile money service like M-PESA of Kenya which was launched by Ethio telecom in May 2021. According to Ethio telecom Telebirr.com, the solution allows customers to deposit cash, receive and transfer money, buy airtime, pay with Telebirr, withdraw cash, and pay for goods and services. Also the platform incorporates three newly added services, according to Ethio telecom, Mela, micro credit, Endekise overdraft disbursement, and Sanduq, micro saving.

The business performance report for the first half of 2015 EFY (2022/2023) by Ethio telecom revealed that the Telebirr mobile money services have successfully met the increasing demand for digital financial services in the country. Telebirr has surpassed the industry trend by acquiring more than 27.7 million subscribers and facilitating transactions worth ETB 245 billion within a short span of time. To ensure optimal service coverage and to benefit Ethio telecom partners with the tele birr service, over 98,800 agents and more than 25,500 merchants have been engaged thus far. Furthermore, integration with banks has been

completed, enabling money transfers from 18 banks to Telebirr and from Telebirr to 16 banks. CBE, Awash, Abyssinia, Abay, Birhan, Hibret, Enat, Debub Global, Oromiya, Wegagen, and Dashen bank are the first banks to have cooperated with Ethio telecom in providing Telebirr services (Ethiotelecom, 2022).

2.6. Definition of variables of the effect of mobile money on customer's satisfaction

Reliability: refers to the trustworthiness and precision of the service provider when it comes to delivering services, providing service assistance, resolving issues, and determining pricing.

Availability: refers to the accessibility and functionality of the physical facilities, equipment, infrastructure, and network system.

Perceived Ease of use: is an individual's perception of how effortlessly they can use a specific system. Previous studies indicate that Perceived Ease of Use has a substantial impact on the intention to use a system, either directly or indirectly through its influence on perceived usefulness. (Davis, 1989); (Venkatesh & Davis, 2000). A system that is perceived as user-friendly encourages increased system usage and is more likely to gain acceptance from users (Venkatesh et al., 2003).

Responsiveness: is the capacity and willingness of an organization to address customer needs by promptly attending to customer requests, inquiries, complaints, and problems. It also reflects the organization's capability to recognize and adapt to ongoing changes in their industry and the evolving preferences of their customers. Companies that demonstrate effective adaptability to change are more adept at managing disruptions and consistently meeting the expectations of their customers.

Prior Technology knowledge: refers to the extent of a customer's knowledge regarding the functionality and operation of existing technology and the applications associated with that technology.

2.7. Definition of Mobile money

The concept of "mobile money" encompasses a range of interconnected applications within the communication industry, leading to varying definitions. Venkatesh and Davis (2000) defined mobile money as an electronic money system. In general, mobile money refers to a diverse range of financial services that can be accessed using a mobile phone. Currently, the most prevalent uses of mobile money services include purchasing airtime, making bill

payments, and facilitating remittances.

Mobile money is a digital wallet service that operates through a dedicated app installed on a mobile phone. It functions when the phone is connected to the internet. This technology serves as a platform for storing and managing money within an account linked to a specific phone number. Mobile money enables individuals to receive, store, and make transactions with money using their mobile phones.

As per the Global System for Mobile Communications Association (Aranda et al., 2020), a service qualifies as a mobile money service when it meets the following criteria: (1) it facilitates money transfers, payments, and receipts through the use of mobile phones; (2) it is accessible to individuals who are unbanked, meaning those who lack access to a formal account at a financial institution; and (3) it provides a network of physical transactional points, including agents situated beyond bank branches and ATMs, to ensure widespread accessibility of the service for all (Aranda et al., 2020).

2.8. Theoretical Review

According to Thomassen's (2003) definition, customer satisfaction is the outcome of a conscious or unconscious comparison between customer experiences and expectations. This definition can be further elaborated by noting that customer satisfaction is dependent upon the level of contentment or dissatisfaction experienced by the customer in relation to their expectations of the product's performance.

Kotler and Keller (2003) state that the delivery of performance that falls short of expectations leads to customer dissatisfaction, whereas meeting or exceeding expectations results in customer satisfaction.

The definition is slightly different from that of Thomassen. They posit that The definition provided by (Zeithaml et al., 2006) differs slightly from that of Thomassen. In accordance with Zeithaml et al. (2006), satisfaction can be defined as the customer's response to the level of fulfillment experienced. It represents an evaluation of how well a product, service feature, or overall offering delivers satisfactory consumption-related fulfillment. Zeithaml and Bitner highlight the importance of attaining a specific level of satisfaction in the context of the purchasing process.

Thomassen's definition is particularly relevant to the objectives of this study, as it places great emphasis on unconscious perception. While Zeithaml and Bitner, like Thomassen, argue that customer satisfaction is a reaction to the experience gained, their definition does not distinguish between conscious and unconscious comparisons.

It follows that unconscious comparison will play a crucial role in the satisfaction of customers. Therefore, Thomassen's definition is more applicable to this study.

Thomassen asserts that the ultimate customer satisfaction is influenced by various factors, including the so-called "value proposition" and other external stimuli. Thomassen observes that customer needs and expectations are shaped by word-of-mouth, personal needs, past experiences, and marketing and public relations.

These factors are evaluated in relation to customers' experiences, with the dynamic interplay between expectations and experiences serving as determinants of customer satisfaction to this study as it enables us to assess the degree of customer satisfaction and develop the Hypothesis of the Study.

H1: Reliability of mobile money has statistically significant effect on customer satisfaction in Telebirr.

H2: Availability of mobile money has statistically significant effect on customer satisfaction in Telebirr.

H3: Perceived ease of use of mobile money has statistically significant effect on customer satisfaction in Telebirr.

H4: Responsiveness of mobile money has statistically significant effect on customer satisfaction in Telebirr.

H5: Prior technology knowledge of mobile money has statistically significant effect on customer satisfaction in Telebirr.

2.9. Conceptual Framework of the Study

The conceptual framework refers to the interconnection between the independent variables and the dependent variables. The researcher tries to identify the effect of mobile money on customer's satisfaction the conceptual framework is developed by showing the relationship of the independent variables against the dependent variable which customer satisfaction. The independent variables are the factors which affect the customer satisfaction money services like; reliability, availability, perceived ease of use, prior knowledge, and perceived risk. Based on the above information, the following conceptual framework is constructed.

Independent variables

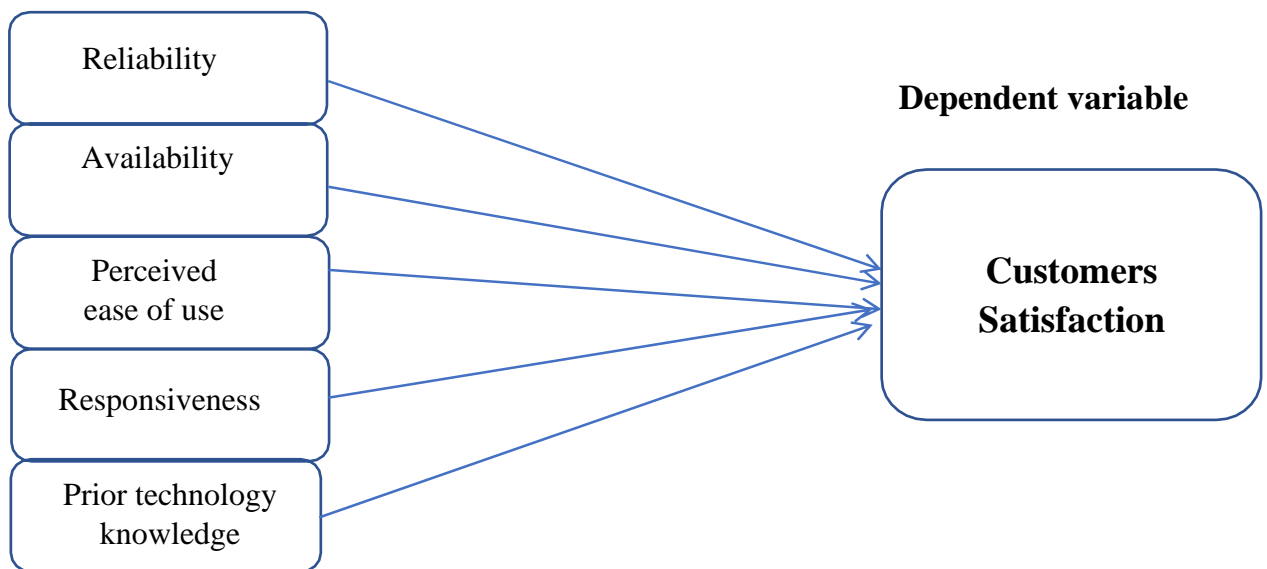


Figure 2. 1 Conceptual frameworks of the study Source: Adapted from (Yifred, 2017)

CHAPTER THREE

3. Research Methodology

3.1. Introduction

This chapter deals with the research methodology; it is a plan of action or a way to systematically solve the research problem. Under this topic, research design and approach, target population, sampling design and sample size, methods of data collection and analysis, ethical consideration are discussing in detail.

3.2. Research Approach

The researcher seeks to address specific inquiries that are crucial for analyzing the presented data. To ensure objectivity, both quantitative and qualitative research approaches have been employed. The process involves the collection and conversion of data into numerical form for statistical calculations and drawing conclusions. Data is gathered using various methodologies that adhere to strict protocols before being made ready for statistical analysis. Quantitative research enables the numerical analysis of variable cause-and-effect relationships using instruments, resulting in numerical data that can be subjected to statistical procedures (Sargeant, 2012). Given that the intention of this investigation is to scrutinize the impact of mobile money on customer contentment via an inferential statistical approach, it is imperative to comprehend the assumptions that extrapolate to the populace from a designated sample, along with the assumptions that extrapolate to the populace from a selected sample during the process of gathering and analyzing data through a quantitative approach (Linden et al., 2006).

3.3. Research design

Research design refers to a comprehensive plan or overarching research program which facilitates the researcher in acquiring solutions to the research inquiries according to (Kombo, 2014). In order to achieve the research objectives, the researcher conducted a comprehensive survey research method, coupled with a descriptive and explanatory research design based on the rationale that it facilitates the exploration of the effect of mobile money on customer's satisfaction in telebirr.

The explanatory research designed depicts determining causal relationship between mobile money and customer satisfaction the Descriptive research design method is a useful approach for

gathering data from multiple respondents, as it offers valuable insights into the reality of a given situation, including current practices, progresses and various aspects of the research. (Creswell, 2014).

3.4. Target Population and Sample size

This study examines the effect of mobile money on customer satisfaction in the case of Telebirr among active customers in Addis Ababa city. Sample size and sampling design were determined in the process of selecting samples. The researcher determined, the target population, the sample size, sampling technique and then picking the sample to examine the effect of mobile money on customer satisfaction, tele birr, in Addis Ababa city.

The target population of the study, according to a database report of Ethio telecom of Telebirr department (Ethiotelecom, 2022), active customer, from which who have at least one transaction throughout the year, of Telebirr in Addis Ababa is 3,269,907. And according to the sampling technique the researcher used in section 3.5 the sample size or potential respondent expected is narrowed to 400.

3.5. Methods of sampling and Sampling Technique

The researcher uses both probability and non- probability sampling techniques to conduct this study. By using non probability sampling the researcher select study area which is Addis Ababa city, which makes the data collection processes from customers convenient, through online google form and hard copy questioners.

On the other hand, the researcher uses probability (cluster) sampling technique to get information from target population total number of active, 3,269,907, Telebirr customers according to Ethio telecom database report December 2022.

According to (Kumar & Phrommathed, 2006), the selection of an appropriate sample size is contingent upon fulfilling the requirements of efficiency, representativeness, flexibility, and reliability, while taking into consideration the constraints of time and cost. Consequently, to determine the appropriate sample size, it is necessary to account for the acceptable confidence level and true representation of the sample. Hence, for the purposes of this study, the formula employed by (Yamane, 1967) with a 95% confidence level and a 5% margin of error is utilized.

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

N= target population (3,269,907)

n = sample size

e = sample error= (0.05)

$$n = \frac{3,269,907}{1+3,269,907(0.05)^2}$$

n=399.995 ~ the total number of sample size is 400

3.6. Data sources

To undertake this study, the researcher employed a combination of primary and secondary sources of data, in addition to employing a range of data collection methodologies.

3.7. Primary Data Sources

For the purpose of conducting the research, the researcher utilized a combination of closed and open-ended questionnaires, in addition to unstructured interviews from both customers and Ethio telecom specifically Telebirr business department staffs to assess the effect of mobile money on customer satisfaction in Addis Ababa.

3.8. Secondary Data Sources

To guarantee the intended objective of the study, the researcher collected pertinent secondary data from various published and unpublished sources, including scholarly journal articles, theses, reports, and online search results. This approach will enable the researcher to cross check the primary data results.

3.9. Methods of data Collection

For the purpose of data triangulation, the researcher utilized both primary and secondary data sources through the application of various data gathering tools and techniques. Primary data was acquired through the implementation of questionnaires, interviews, and document reviews, while secondary data was obtained through document reviews.

3.10. Questionnaire

For this research the researcher used questionnaire to get the needed information and also applied semi- structured (both an open- ended and closed end) type of questionnaire. The questionnaire has three main parts; the first part targets on demographic information of respondents, while the

second part is emphasizing on mobile money service and its customer satisfaction practices with five variables such as reliability, availability, perceived ease of use, responsiveness and prior technology knowledge and the third part is open-ended questions. The questionnaires are prepared in English and prepared questionnaires were distributed through online Google form, and hard prints when the online results wasn't enough, questionnaires to gather relevant data from Telebirr customers in Addis Ababa and analyze qualitatively and quantitatively to confirm its postulate.

3.11. Methods of Data Analysis

After collecting raw data, the researcher analyzed the data quantitatively (inferentially) and qualitatively (descriptively). The open-ended questionnaires, demographic of the respondents are discussed descriptively and present with words, frequencies, percentage, table, figure and means with the aid of the Statistical Package for Social Science (SPSS), the presentation of quantitative data is accomplished through the utilization of regression models. and Pearson correlation. To achieve this objective, the researcher employed a five-point Likert scale, encompassing a range of responses from "strongly disagree" to "strongly agree," and subsequently analyzed the data inferentially.

3.11.1. Descriptive analysis

The requisite demographic data was collated and synthesized into a conclusive document using statistical methods of central tendency, specifically frequency and frequency distribution, and a comparison of mean and standard deviation. The presentation of results was further augmented with the aid of SPSS software, which allowed for tabular explanations to be incorporated as a supplementary means of conveying the results.

3.11.2. Correlation analysis

The researcher uses Pearson correlation to identify relationship that exists between dimensions of mobile money and customer's satisfaction. The correlation (r) elucidates the degree and direction of a link between two variables. In this study, Pearson product moment correlation was used as all variables were assessed on an interval level. The resultant correlation coefficient " r " ranges from -1.0 to +1.0. A positive " r " indicates a positive connection between variables, whereas a negative " r " indicates a negative connection. The significance threshold for computing a correlation should be set at 95% with an alpha value of 0.05. Alternatively, a likelihood of occurrence of an unusual correlation should be 5 out of 100 observations.

3.11.3. Regression analysis

Multiple regression analysis serves as a fundamental statistical technique in the prediction of unknown variable values through the use of known variable values. Its core aim lies in the determination of variable relationships and the subsequent formulation of a model which used to indicate level or degree of mobile money service dimension on customer's satisfaction. When analyzing the data, mobile money dimensions considered as the independent variables whereas customer's satisfaction is the dependent variable, the study also depicted how dependent variables influenced with independent variables using multiple linear regression analysis. The regression model and its formulas denoted below.

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

Where Y= customer satisfaction'

β_0 is regression constant,

$\beta_0 - \beta_5$ is regression coefficients

X_1 is reliability,

X_2 is availability,

X_3 is responsiveness,

X_4 is perceived ease of use and

X_5 is prior technology knowledge

ε model's error term.

3.11.4. Ethical Consideration

During conducting this study, the researcher followed and carried out ethical protocols of scientific research and its procedure. The researcher demonstrates a profound respect for the privacy and willingness of all research participants, and fully aware of the research objectives and their contribution to its successful completion. In addition, the researcher upholds other ethical measures by treating the respondents with respect and empathy, thereby creating a comfortable atmosphere that encourages honest responses to the questionnaire. On the other hand, the information that gathers from the research participant were analyzed with its full confidentiality and were used for the intended purpose only. Moreover, all sources and scholar's property rights issued are properly acknowledged throughout the study.

CHAPTER FOUR

4. Result and Discussion

4.1. Introduction

This chapter divided into three parts that cover descriptive statistics as well as inferential statistical analysis. The descriptive statistics section summarizes the key characteristics of research variables such as frequency, percentage and mean. The correlation analysis revealed the degree of association between the study's independent and dependent variables. The output of the research regression models was presented in the third part of the chapter.

4.2. Reliability test and validity of instrument

Hair et al. (2007) define reliability as the degree to which variables or a set of variables consistently measure what they are intended to measure. The researcher ensured the reliability of the questionnaire by conducting a reliability analysis to assess its internal consistency. Incorporating feedback received from the research. Cronbach's Alpha reliability statistics were then employed to evaluate the instruments, according to George & Mallery (2003), a Cronbach's alpha coefficient value above 0.7 is considered acceptable for internal consistency and reliability. Accordingly, questionnaires of the variables are reliable. The table below illustrates the Cronbach alpha result.

Table 3. 1 Cronbach Alpha result

variables	Cronbach's Alpha result	Number of items
Reliability	0.710	4
Availability	0.763	3
Perceived Ease of Use	0.750	3
Responsiveness	0.733	3
Prior Technology Knowledge	0.774	3
Customer satisfaction of telebirr service	0.840	5

Source: own survey, 2023

Validity, on the other hand, focuses on the extent to which a question accurately measures its intended concept. To address validity concerns, the researcher carefully selected a data collection instrument based on relevant literature and adhered to scientific research

procedures. Additionally, the researcher sought input from an advisor and developed standardized questionnaires that emphasized the main variables and research objectives. Relevant data was collected from reliable sources, and appropriate data analysis tools were utilized to analyze the collected data.

4.3. Response Rate

The researcher provided questionnaires to respondents to achieve the research objectives. Of the planned responses of total samples of 400, 367 respondents answered and submitted (returned) the questionnaire, while 33 (8.25%) of the questionnaires remained uncollected. The result shows that the response rate is 91.75% per cent which was statistically significant to conclude about the population of the study area based on the sample of the respondent. Therefore, the responses collected from the respondents were sufficient to meet the study objectives.

Table 4. 1 Responded rate of the study

Item	Response Rate	
	No of questionnaires	Percent
Distributed (Planned) questionnaires	400	100%
Collected and used	367	91.75%
Non responded	33	8.25%

Source: own survey 2023

4.4. Demographic Characteristics of the Respondents

Demographic information provides insights to understand the characteristics of the respondents who were sampled during the study. This was considered necessary because it helps the study to understand the targeted group in detail. Therefore, the demographic variables of this study were gender, age, education level, occupation and the over all

Table 4. 2 Demographic Characteristics

Demographics	Category	Frequency	Percentage
Gender	Male	223	60.8
	Female	144	39.2
	Total	367	100
Age	18-29	152	41.4
	30-39	174	47.4
	40-50	40	10.9
	Above 50	1	0.3
	TOTAL	367	100
Education level	Primary	4	1.1
	Secondary	24	6.5
	Diploma	46	12.5
	Bachelor's Degree	205	55.9
	Master and above	88	24.0
	TOTAL	367	100
Occupation	Government employee	184	50.1
	Private employee	107	29.2
	NGO	20	5.4
	Student	20	5.4
	Merchant	27	7.4
	Other	9	2.5
	TOTAL	367	100

Source: Own survey, 2023

As shown above, in Table 4.2, the resulting gender consisted of 223 males and 144 females. The percentage of males was 60.8%, whereas females consisted of 39.2%, a difference of 21.6%. This implies that male telebirr users were higher than females. Concerning the age of the respondents, the highest percentage is between 30 and 39 years old (47.4%), while 41.4% and 10.9 % are aged between 18-29 and 40-50 years old respectively. On the other hand, above 50 years accounted for the least amount 1 (0.3%).

Hence, the result indicated that the majority of the respondents 326 (88.8%) were between the age of 18-39 years old. From this result, telebirr is highly used by the young generation. As regards the educational level, the Majority of respondents 55.9% are Bachelor degree holders and 24.0% obtain their master (and above) degree. Concerning the occupation of the respondents, 29.2% were private employee respondents and 50.1% were government employee respondents and both of them constituted a large number, 291 (79.3%). Then the result indicated the majority of telebirr users were employees of government and private sectors.

4.5. General information about respondents telebirr usage

Respondents were asked to give information about their general telebirr usage. Here below is the summarized table of their response.

Table 4. 3 General information about respondents telebirr usage

Questionnaire	Answers of respondent	Frequency	Percentage
Do you use Telebirr mobile money services continuously?	Yes	287	78.2
	No	80	21.8
	Total	367	100
How often do you use telebirr service?	Once a month	32	8.7
	Once A week	109	29.7
	Every day	178	48.5
	Stop using it	48	13.1
	TOTAL	367	100
Most of the time for which purpose do you use telebirr service?	Buy Airtime/Package	92	25.1
	Pay with telebirr	58	15.8
	Send money	57	15.5
	Receive payments	67	18.3
	Deposit cash	45	12.3
	Withdraw cash	15	4.1
	Pay for merchants	33	9.0
	TOTAL	367	100

Source: Own survey, 2023

According to table 4.3 the majority of the respondents or 78.2% were using telebirr service continuously and 80 (21.8%) don't use it continuously. About the frequency of respondent's usage of telebirr was once a month 32(8.7%), once a week 109 (29.7%), Every day 178 (48.5%) and stopping using it 48 (13.1%). This result indicated that the majority of the respondents uses telebirr service day to day.

Concerning the purpose of the telebirr usage, 92 respondents or 25.1% used to Buy Airtime/Package and it was the first, receive payments 67 (18.3%) the second and pay with telebirr 58 (15.8%) has third stage. On the other hand, send money 57, deposit cash 45, pay for merchants 33 and withdraw cash 15 respondents, which constitutes 15.5% and 12.3%, 9.0% and 4.1% respectively.

Hence, the findings indicated that 25.1% of respondents most of the time use telebirr service to buy Airtime/Package and receive payments 18.3% and to pay with telebirr 15.8%. This means 217 respondents or 59.2% mostly use telebirr for the above services and other services have the least percentage.

4.6. Descriptive Analysis

The mean and standard deviation of the respondent's scores were done using descriptive statistics and analysis has been done through this mean and standard deviation among respondents. The most popular measures of central tendency are the mean, which is calculated

By dividing the sum of all item values present within the sequence by the total number of items. According to (Demis, 2016), the mean scores range from 1.00-1.80 strongly Disagree, 1.80-2.60, Disagree, 2.60-3.40, Neutral, 3.40-4.20 Agree, 4.20-5.00 Strongly agree.

Table 4.4: Descriptive statistics of Independent and Dependent Variables

		Statistics					
		Reliability	Availability	Perceived EaseOfUs e	Responsiv eness	PriorTech nologyKn owledge	Customer Satisfactio nOfTelebi rr
N	Valid	367	367	367	367	367	367
	Missin g	0	0	0	0	0	0
Mean		3.3079	3.6131	4.3579	3.6276	4.0681	3.3864
Std. Deviation		.81391	.88080	.72450	.74860	.75420	.81591

Source: This study: Survey 2023

In terms of the mean of each independent variable, as shown in Table 4.4, reliability (3.3) availability (3.6), perceived ease of use (4.3), responsiveness (3.6) and prior technology knowledge (4.06) have a positive effect on customer's satisfaction of telebirr mobile money service. As indicated above, in Table 4.4, the mean value depicting the overall effect of

telebirr mobile money on customer's satisfaction is agreed on a level with the mean of 3.39 and the standard deviation value of 0.81 indicates that there is moderate variability in customers satisfaction of telebirr on a 5 - point Likert scale.

As indicated in Table 4.4, among all explanatory variables cited as the effect of mobile money on customer's satisfaction, Responsiveness ranked first followed by prior technology knowledge and perceived ease of use, and reliability ranked fourth and availability at the least levels. Thus, the presented table depicts the standard deviation of both responsiveness and perceived ease of use, which are 0.748 and 0.724, respectively. It is noteworthy that these values are in close proximity to the mean and are better satisfactory due to the importance of smaller value of standard deviation. Based on the aforementioned table, it can be inferred that the mean and standard deviation of each variable indicate the significance of respondents' agreement level towards the presented idea in the questionnaire. This, in turn, has a significant effect on the satisfaction of customers who are using telebirr mobile money service offered by ethiotelecom.

4.7. Inferential Analysis

In this section, correlation analysis between customer satisfaction and its determinant factors (independent variable) and the regression analysis including multi-collinearity as well as normality tests were presented.

4.7.1. Correlation of variables

Correlation analysis is employed to assess the connection between variables and confirm their association. To examine the strength (ranging from -1 to +1) and direction (positive or negative) of the relationships, the Pearson correlation coefficient was used (Mark et. al., 2009). Additionally, the significance level, referred to as "Sig." in the SPSS output, is used to determine the statistical significance of the findings. A relationship is considered statistically significant when the significance value is below 0.05 ($p < 0.05$). Conversely, if the p-value exceeds 0.05, the relationship is deemed not statistically significant.

Table 4. 5 Pearson Correlation

		Correlations					
		Reliability	Availability	Perceived EaseOfUse	Responsiveness	PriorTechnologyKnowledge	CustomerSatisfactionOfTelebirr
Reliability	Pearson Correlation	--					
	N	367					
Availability	Pearson Correlation	.467**	--				
	Sig. (2-tailed)	.001					
	N	367	367				
PerceivedEaseOfUse	Pearson Correlation	.463**	.287**	--			
	Sig. (2-tailed)	.001	.001				
	N	367	367	367			
Responsiveness	Pearson Correlation	.353**	.236**	.457**	--		
	Sig. (2-tailed)	.001	.001	.001			
	N	367	367	367	367		
PriorTechnologyKnowledge	Pearson Correlation	.507**	.281**	.433*	.324**	--	
	Sig. (2-tailed)	.001	.001	.001	.001		
	N	367	367	367	367	367	
CustomerSatisfactionOfTelebirr	Pearson Correlation	.642**	.734**	.542**	.516**	.307**	--
	Sig. (2-tailed)	.001	.001	.001	.001	.001	
	N	367	367	367	367	367	367

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: own survey, 2023

As depicted in Table 4.5 above, all correlation coefficients are statistically significant; however, the strength of the association between the dependent variable (Customer satisfaction n) and the independent variables varies. This suggests that there is a significant correlation between the independent variables and the customer satisfaction of telebirr. The table demonstrates that the customer satisfaction of telebirr mobile money service is positively correlated with reliability, availability, perceived ease of use, responsiveness and prior technology knowledge, with respective values of 0.642, 0.734, 0.542, 0.516, and 0.307. The p-value for these variables is less than 0.01, indicating their statistical significance.

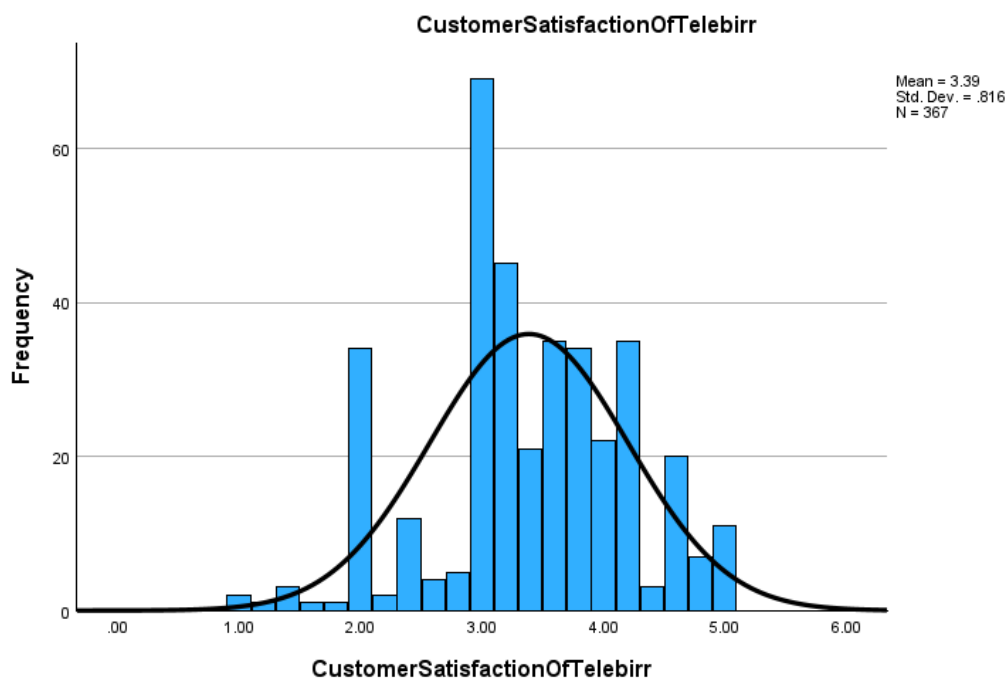
4.7.2. Multiple Regression assumption

In conducting a research multiple regressions depict the relationship between dependent and independent variable and its level of impacts/ influence within the relationship. However, multiple regressions result should be reliable certain assumptions are crucial and carryout before reached conclusion. These assumptions are not addressed; the results may not be trustworthy, resulting in an error, or over- or underestimation of significance or effect size. These important multiple regression assumptions and tests are shown below.

4.7.2.1. Normality Test

In order to assess the normality of data, various techniques were employed using SPSS software. These techniques included evaluating Skewness and Kurtosis values, and analyzing data through a histogram test. Assessing data normality is crucial for many statistical tests, as they rely on the assumption of normal distribution. There are two primary approaches to assessing normality: graphical and numerical. In the numerical assessment, the standardized Skewness distribution result and kurtosis result should fall within the range of ± 1 (Hair et al., 1998).

Figure 4. 1 Histogram regression of standardized residual dependent variable



Source: own survey (2023)

Table 4.6: Kurtosis and Skewness value of the dependent and independent variables

	N	Std. Deviation	Skewness		Kurtosis	
			Statistic	Std. Error	Statistic	Std. Error
Reliability	367	.81391	-.484	.127	.209	.254
Availability	367	.85196	-.656	.127	.430	.254
Perceived Ease Of Use	367	.72450	-2.911	.127	.351	.254
Responsiveness	367	.71483	-.413	.127	.200	.254
Prior Technology Knowledge	367	.72421	-1.697	.127	.774	.254
Customer Satisfaction Of Telebirr	367	.72774	-1.363	.127	.803	.254
Valid N (listwise)	367					

Source: own survey (2023)

Based on the statistics presented in Table 4.6, it can be observed that the Skewness and Kurtosis values for all variables fall within the range of +1 to -1. This suggests that the data is normally distributed and can be considered reliable for analysis. In regression models, it is important for the error term to follow a normal distribution. Figure 4.2 depicts the use of a histogram to examine the normal distribution of residuals. The histogram shows that while some standard residuals deviate slightly from the curve, a significant portion of residuals closely align with the curve, resulting in a bell-shaped distribution. This indicates that the majority of scores cluster around the central value, as evidenced by the largest bars on the histogram. Consequently, these findings suggest that the residuals adhere to a normal distribution.

4.7.2.2. Linearity Assumptions

Multiple regressions need to be a **linear relationship** between the dependent and predictor (independent) variables. As a result, The normality of residuals can be assessed by means of a normal p-p plot. Upon examination of the plot, it is apparent that the data points generally conform to the normal (diagonal) line without any significant deviation. This observation

leads to the conclusion that the residuals are normally distributed. Thus, as demonstrated in Figure 4.2 below, Normal P-P Plots provide evidence that this assumption has been met for this study.

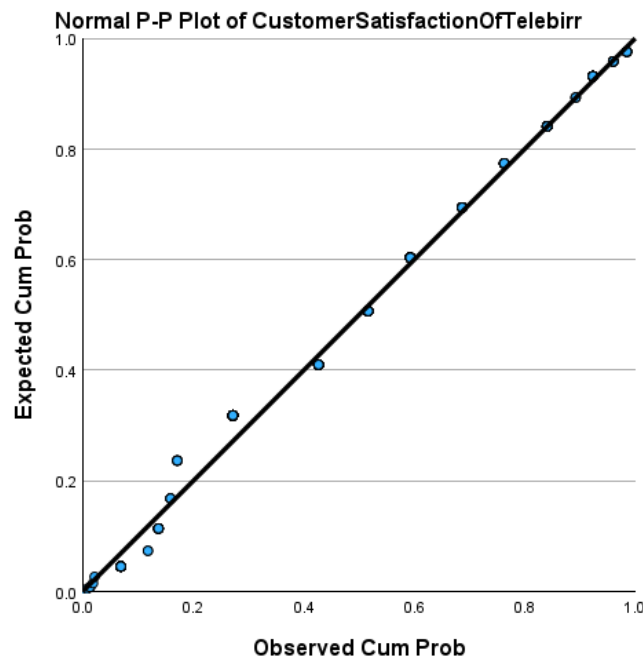


Figure 4.2 Normal P- P Plot of dependent variable customer satisfaction.

4.7.2.3. Multi-collinearity Test Assumption

The diagnostics variance inflation factor (VIF) and tolerance were used to test the multicollinearity of the independent variables. According to the rule of thumb, if the VIF of a variable exceeds 10 or tolerance of 0.1 or less, the variable is said to be highly collinear (Murray et al., 2012). Generally, when VIF is greater than 10 and tolerance is less than 0.10 indicates the presence of multicollinearity.

Table 4. 6 The Multicollinearity test result

Model	Collinearity Statistics	
	Tolerance	VIF
Reliability	.894	1.12
Availability	.815	1.23
Perceived Ease of Use	.892	1.12
Responsiveness	.822	1.22
Prior Technology Knowledge	.933	1.07

a. Dependent Variable: Customer satisfaction

Source: Own survey, 2023

As the result indicated above in Table 4.6, the tolerance and variance inflation factor (VIF) scores for each of the five independent variables were provided. Therefore, there is no multicollinearity problem since VIF is less than 10 and tolerance is greater than 0.1. Thus, the explanatory variables which have been incorporated in this study are valid factors affecting the satisfaction of customers of telebirr service.

4.8. Regression Analysis Result

A regression analysis was performed to examine the effect of independent variables on the dependent variable and determine the degree of significant effect of reliability, availability, perceived ease of use, responsiveness and prior knowledge of mobile money (telebirr) on the customer satisfaction. Therefore, the overall regression model and its ANOVA were summarized as follows in this study.

Table 4.7 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.370 ^a	.137	.125	.76337

a. Predictors: (Constant), PriorTechnologyKnowledge, PerceivedEaseOfUse, Reliability, Responsiveness, Availability

Source: Survey Result, 2023

The presented regression model shows the extent to which the diversification elements account for the variance in the measure of customer satisfaction. The predictor variables, namely Reliability Availability, Perceived Ease of Use, Responsiveness, and Prior Technology Knowledge, have been responsible for 13.7% of the adjusted R square, signifying that 37.0% of customer satisfaction was explicated by the variation of the aforementioned five predictor variables.

Table 4.8 Model ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	33.283	5	6.657	11.423	.001 ^b
Residual	210.368	361	.583		
Total	243.652	366			

The overall regression model was significant $F(5,361) = 11.42$. $P < 0.01$, $R^2 = 0.137$

Table 4.9 Regression analysis result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.789	.370		2.135	.033
	Reliability	-.003	.052	-.003	-.053	.958
	Availability	.131	.050	.141	2.603	.010
	PerceivedEaseOfUse	.168	.058	.150	2.887	.004
	Responsiveness	.190	.059	.175	3.235	.001
	PriorTechnologyKnowledge	.175	.055	.161	3.188	.002

a. Dependent Variable: CustomerSatisfactionOfTelebirr

The effect of independent variable over the dependent variable remains constant at 0.789, while the statistical analysis reveals that the independent variables, with the exception of reliability, have significance levels below 0.05. This finding suggests a robust positive correlation between the independent variables. (Availability, Perceived Ease of Use, Responsiveness and Prior Technology Knowledge). However, reliability issue is not statistically significant to customer satisfaction. Moreover, responsiveness has large coefficient (0.175) implies that which has a relatively strong degree of importance for customer overall satisfaction.

The regression equation for customer satisfaction based on the given results can be summarized as follows, according to the result of the regression analysis result in Table 4.8

above

The regression equation for customer satisfaction is:

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

Where Y= customer satisfaction'

β_0 is regression constant,

$\beta_0 - \beta_5$ is regression coefficients

X1 is reliability,

X2 is availability,

X3 is responsiveness,

X4 is perceived ease of use and

X5 is prior technology knowledge

ε model's error term.

Accordingly,

$$\text{Customer Satisfaction} = 0.789 + -0.003(\text{Reliability}) + 0.131 (\text{Availability}) + 0.168 (\text{Perceived Ease of Use}) + 0.190 (\text{Responsiveness}) + 0.175(\text{Prior Technology Knowledge}) + \varepsilon$$

Based on the standardized coefficients (Beta) provided in Table 4.8, the variables that have a significant impact on customer satisfaction are:

Availability (Beta = 0.141, t = 2.603, p = .010)

Perceived Ease of Use (Beta = 0.150, t = 2.887, p = .004)

Responsiveness (Beta = 0.175, t = 3.235, p = .001)

Prior Technology Knowledge (Beta = 0.161, t = 3.188, p = .002)

These variables indicate that the availability of Telebirr services, the perceived ease of use, the responsiveness of the service, and customers' prior technology knowledge significantly contribute to their satisfaction.

However, the reliability variable does not appear to have a significant impact on customer satisfaction (Beta = 0.03, t = -0.53, p = .958).

The model's constant term (β_0) is 0.789, indicating the expected level of customer satisfaction when all independent variables are zero or not considered.

Overall, the findings suggest that in the context of the study, factors such as availability, perceived ease of use, responsiveness, and prior technology knowledge play crucial roles in customer satisfaction with Telebirr's mobile money services whereas reliability variable, in other side, found out to be low in customer satisfaction.

4.10 Hypotheses Testing of the study

Based on the above finding four of the independent variables (availability, responsiveness, perceived ease of use and prior technology knowledge) has positive association with customer's satisfactions whereas reliability has a negative association with customers satisfaction. Given below is the summary table of the hypothesis testing result.

	Hypothesis	Tool	β -value and P- value	Result
H1	Reliability of mobile money has statistically negative significant effect on customer satisfaction in Telebirr.	Regression	$\beta = -0.03$ & $p = .958$	Rejected
H2	Availability of mobile money has statistically positive significant effect on customer satisfaction in Telebirr.	Regression	$\beta = 0.131$ & $p = .010$	Accepted
H3	Perceived ease of use of mobile money has statistically positive significant effect on customer satisfaction in Telebirr.	Regression	$\beta = 0.168$ & $p = .004$	Accepted
H4	Responsiveness of mobile money has statistically positive significant effect on customer satisfaction in Telebirr.	Regression	$\beta = 0.190$ & $p = .001$	Accepted
H5	Prior technology knowledge of mobile money has statistically positive significant effect on customer satisfaction in Telebirr.	Regression	$\beta = 0.175$ & $p = .002$	Accepted

Table 4.10 Hypotheses testing summary

4.11 Discussion of results

This study aims to examine the effect of five independent variables on customer satisfaction in relation to telebirr mobile money. The hypotheses pertaining to these variables are tested in order to achieve the study's objectives. This section provides a comprehensive analysis of the results for each independent variable and their effect on customer satisfaction in mobile money. Moreover, the discussion critically examines the statistical findings of the study in light of previous empirical evidence.

H1: Reliability of mobile money has statistically significant effect on customer satisfaction in Telebirr.

The table mentioned above provides the coefficient of reliability, computed as 0.168, along with a corresponding p-value of -0.03. These results indicate that, while controlling for other variables, reliability was determined to have a negative and statistically insignificant effect on customer satisfaction with telebirr mobile money, as the p-value surpasses the threshold of 0.05. As a result, the researcher refutes the null hypothesis, which proposed that reliability of telebirr has a negative and insignificant effect on customer satisfaction. In other terms, this outcome suggests that when customers utilize the telebirr, reliability has a negligible and adverse effect on their satisfaction levels. Thus, Ethio telecom should focus on improving customers' perception of reliability associated with the telebirr service.

This finding contradicts previous studies conducted by Yanet (2020) on the effect of core banking on customer satisfaction in CBE. Which states that reliability as a positive and significant effect on customer satisfaction.

The intended null hypothesis is rejected, hence there is a negative and insignificant effect of reliability on customer satisfaction of mobile money.

H2: Availability of mobile money has statistically significant effect on customer satisfaction in Telebirr.

The study shows that the coefficient of availability, which is computed as 0.131, alongside its corresponding p-value of 0.10. These findings indicate that, availability was found to have a positive and statistically significant impact on customer satisfaction with telebirr mobile money, as the p-value falls below the significance level of 0.05. Consequently, the researcher accepts the null hypothesis, which states that availability of telebirr system has a positive and significant effect on customer satisfaction.

Also, Jannat M, Ahmed I (2015) revealed, on the study on factors influencing customer satisfaction of mobile banking, that system availability has the most influential factors that have an influence on customer satisfaction of mobile banking. and the result is consistent with this study finding.

The intended null hypothesis is accepted, hence there is positive and significant effect of availability on customer satisfaction of mobile money.

H3: Perceived ease of use of mobile money has statistically significant effect on customer satisfaction in Telebirr.

The aforementioned table presents the coefficient of perceived ease of use, which is calculated as 0.168, with a corresponding p-value of 0.04. This indicates that, while keeping other explanatory variables constant, perceived ease of use was found to have a positive and

statistically significant impact on customer satisfaction with telebirr service, as the p-value is below the threshold of 0.05. Consequently, the researcher accepts the null hypothesis, which posited that perceived ease of use of telebirr has a positive and significant effect on customer satisfaction. In other words, this result suggests that when customers utilize the telebirr service, the ease of use significantly and positively influences their satisfaction levels.

This finding aligns with previous studies conducted on the relationship between mobile money services and ease of use, such as the work by Tesfaye (2019) and Ezeh and Nwankwo (2018). Thus, Ethio telecom can attract more customers to telebirr services by focusing on enhancing customers' perception of the ease of use associated with the telebirr service.

The intended null hypothesis is accepted, hence there is positive and significant effect of perceived ease of use on customer satisfaction of mobile money.

H4: Responsiveness of mobile money has statistically significant effect on customer satisfaction in Telebirr.

The provided table displays the coefficient of responsiveness, which is computed as 0.190, alongside its corresponding p-value of 0.01. These findings indicate that, when controlling for other variables, responsiveness was found to have a positive and statistically significant impact on customer satisfaction with telebirr mobile money, as the p-value falls below the significance level of 0.05. Consequently, the researcher accepts the null hypothesis, which posited that responsiveness of telebirr has a positive and significant effect on customer satisfaction.

This study's results are consistent with a research conducted by Amiri Aghdaie and Faghani (2012), where they employed the SERVQUAL model to examine the relationship between customer satisfaction and mobile banking services. The researchers found that responsiveness is positively correlated with customer satisfaction.

The intended null hypothesis is, hence there is positive and significant effect of responsiveness on customer satisfaction of mobile money.

H5: Prior technology knowledge of mobile money has statistically significant effect on customer satisfaction in Telebirr.

Based on the information provided in Table 4.9, it can be observed that the coefficient of Prior knowledge is positive and significant, specifically at $\beta = 0.1.75$, with a corresponding p-value of 0.02. This indicates that Prior knowledge has a statistically significant impact on customer satisfaction when using telebirr. In other words, when customers have prior

knowledge of the technology associated with telebirr, it affects their satisfaction levels. These findings are in line with the research conducted by Malhotra (2014), which demonstrated that prior knowledge has a statistically significant effect on customer satisfaction in the context of mobile money. Additionally, this result aligns with the previous study conducted by Sanjeewa and Yatigamma (2021), which indicated that Prior knowledge significantly influences customers' utilization of mobile money services.

The intended null hypothesis is accepted, hence there is positive and significant effect of prior technology knowledge on customer satisfaction of mobile money.

On the other hand, the qualitative (opened ended questionnaires and interview) finding shows that the majority of respondents expressed satisfaction with Telebirr services. Customers appreciated the convenience, ease of use, and time-saving features of the app. They also highlighted the accessibility and integration with different banks as positive aspects.

However, some customers mentioned challenges they faced while using Telebirr. The most common issue was network problems, which affected the smooth functioning of the app. Other challenges included limited transaction limits, difficulties with app compatibility on different devices, and language barriers.

To improve Telebirr services and increase customer satisfaction, the result shows following remedial measures can be taken:

Improve Network Coverage: Ethio Telecom should work on enhancing network infrastructure to provide better connectivity and reduce network-related issues.

Enhance Customer Service: Telebirr should focus on improving customer support by addressing queries and concerns promptly. Increasing the availability and efficiency of customer service representatives can help in resolving issues effectively.

Upgrade Technology: Regular updates and enhancements to the Telebirr app can improve its performance and address compatibility issues on various devices. Implementing user-friendly features and a simplified interface can enhance the overall user experience.

Conduct Customer Satisfaction Surveys: Telebirr should continue to gather feedback from customers through surveys and actively incorporate their suggestions and recommendations into future updates and improvements.

Increase Awareness and Education: Telebirr should invest in awareness campaigns to educate customers about the benefits and features of the app. Providing clear instructions and tutorials can help users understand the app's functionalities and navigate it more easily.

Collaborate with Banks and Financial Institutions: Strengthening partnerships with banks and financial institutions can help expand the services offered through Telebirr. This collaboration can lead to more diverse payment options and improved interoperability.

Continuous Monitoring and Improvement: Telebirr should regularly monitor its services, identify any potential issues, and address them promptly. This proactive approach will ensure a smoother user experience and increase customer satisfaction.

By implementing these remedial measures, Telebirr can enhance its services, address customer concerns, and further improve customer satisfaction levels.

CHAPTER FIVE

5. Summary, Conclusion and Recommendations

5.1 Introduction

In this chapter, the summary, conclusions and recommendation of the research findings that had been analyzed and discussed in the previous chapter are briefly presented. Furthermore, based on the findings of the study possible recommendations were made.

5.2 Summary of Main Findings

The main objective of this study was to identify the effect of mobile money on customers satisfaction in the case of telebirr and measure the extent to which those determinant factors (independent variables) affect the customer satisfaction.

The response rate for the survey was 91.75%, indicating that the collected responses were sufficient to meet the study objectives.

As of demographic Characteristics of the respondents the majority of respondents were male (60.8%), aged between 18-39 years (88.8%), and held a Bachelor's degree (55.9%). Government employees constituted the largest occupational group (50.1%).

And most respondents (78.2%) used Telebirr mobile money services continuously. The frequency of mobile money varied, with 48.5% using it every day. The primary purposes for using Telebirr were buying airtime/packages (25.1%), receiving payments (18.3%), and paying with Telebirr (15.8%).

The regression analysis examined the effect of the independent variables on customer satisfaction. The results showed that availability, perceived ease of use, responsiveness, and prior technology knowledge significantly influenced customer satisfaction positively with Telebirr mobile money services. Where as reliability examined to have negative effect.

Based on the standardized beta coefficients, responsiveness ($\beta = 0.190$) had the highest positive effect on customer satisfaction, followed by and prior knowledge ($\beta = 0.175$), and perceived ease of use ($\beta = 0.168$), availability ($\beta = 0.131$) has less effect and reliability ($\beta = - 0.03$) has the least effect (negative) on customer satisfaction.

On the other hand, the qualitative (opened ended questionnaires and interview) finding shows that the majority of respondents expressed satisfaction with Telebirr services. Customers appreciated the convenience, ease of use, and time-saving features of the app. They also highlighted the accessibility and integration with different banks as positive aspects.

However, some customers mentioned challenges they faced while using Telebirr. The most common issue was network problems, which affected the smooth functioning of the app. Other challenges included limited transaction limits, difficulties with app compatibility on different devices, and language barriers.

5.3 Recommendation

Now a day, mobile money services become a basic transaction to save time, cost, and energy and very important to create a cashless society in the market. Currently, there is a fast growth of mobile money technology. But having customers satisfaction is not easy. Therefore, in line with the above findings and conclusions, this investigation proposes the following potential suggestions as significant to Ethio Telecom in enhancing customer relationship marketing undertakings to assure a rise in the customer satisfaction rate.

Improve network coverage, enhance customer service, regular technology upgrade: Regular updates and enhancements to the Telebirr app can improve its performance and address compatibility issues on various devices, Ethio telecom should continue to gather feedback from customers through surveys and actively incorporate their suggestions and recommendations into future updates and improvements, strengthening partnerships with banks and financial institutions can help expand the services offered through Telebirr.

By implementing these remedial measures, Ethio telecom can enhance its services, address customer concerns, and further improve customer satisfaction levels.

5.4 Future research recommendation

This particular research paper focuses exclusively on Addis Ababa. Therefore, future studies could enhance their research by conducting a comparative analysis involving other cities in Ethiopia where the telebirr mobile money system is applicable i.e. by gathering data from a larger sample size, more precise and valuable findings can be obtained. The researcher also suggests further investigation to specifically examine the effect of mobile money on customer satisfaction, drawing comparisons with customer satisfaction levels in other mobile money systems.

REFERENCES

- Alemu, G., Ferede, T., & Fiorito, A. (2021). Identifying Binding Constraints on Digital Payment Services in Ethiopia: An Application of a Decision Tree Framework.
- Bank, A. D. (2013). *African Development Bank*.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
- Ethiotelecom. (2021). <https://www.ethiotelecom.et/>.
- Ethiotelecom. (2022). *ethiotelecom.et*.
- GSMA. (2017). *Groupe Speciale Mobile Association*.
- Harasim, J., & Mitreęa-Niestrój, K. (2018). FinTech–dylematy definicyjne i determinanty rozwoju. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*(531), 169-179.
- Kombo, D., & Tromp, D. (2014). Proposal and thesis writing: An Introduction Pauline’s publications.
- Kotler, P., & Keller, K. (2003). Marketing Management,(international version). In: Prentice Hall, Englewood Cliffs, NJ.
- Kotler, P., & Keller, K. L. (2008). Marketing strategy. London: London Business Forum,
- Kumar, S., & Phrommathed, P. (2006). *New product development: An empirical approach to study of the effects of innovation strategy, organization learning and market conditions* (Vol. 191). Springer Science & Business Media.
- Linden, A., Trochim, W. M., & Adams, J. L. (2006). Evaluating program effectiveness using the regression point displacement design. *Evaluation & the Health Professions*, 29(4), 407-423.
- Murray, L., Nguyen, H., Lee, Y.-F., Remmenga, M. D., & Smith, D. W. (2012). Variance inflation factors in regression models with dummy variables.
- Nayak, N., Nath, V., & Goel, N. (2014). A study of adoption behaviour of mobile banking services by Indian consumers. *International Journal of Research in Engineering & Technology*, 2(3), 2347-4599.
- Licensing and Authorization of Payment Instrument Issuers Directive, (2021).
- Pénicaud, C., & Katakam, A. (2019). State of the industry 2013: Mobile financial services for the unbanked. *Gates Open Res*, 3(1429), 1429.

- Pohlman, J. T., & Leitner, D. W. (2003). A comparison of ordinary least squares and logistic regression.
- Prahalad, C. K., & Ramaswamy, V. (2004). *The future of competition: Co-creating unique value with customers*. Harvard Business Press.
- Sargeant, J. (2012). Qualitative research part II: Participants, analysis, and quality assurance. In (Vol. 4, pp. 1-3): The Accreditation Council for Graduate Medical Education Suite 2000, 515
- Shan, T. C., & Hua, W. W. (2006). Service-Oriented solution framework for internet banking. *International Journal of Web Services Research (IJWSR)*, 3(1), 29-48.
- Thomassen, J.-P. (2003). Value of the Customer-fundamentals.
- Uwalaka, S. C., & Eze, P. (2020). Effect Of Mobile Banking On Customers Satisfaction In Commercial Banks In Anambra State. *International Journal of Innovative Social Sciences & Humanities Research*, 8(1), 101-109.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.
- Yamane, T. (1967). *Statistics: An Introductory Analysis. 2nd Edition*, Harper and Row, New York.
- Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2006). *Services marketing: Integrating customer focus across the firm*. McGraw-Hill/Irwin.

APPENDIX

Data Collection Instrument

Addis Ababa University

School of Commerce

Department of Marketing Management Graduate Program

Dear respondent: -

The intention of this research questionnaire is to collect data from the respondents in order to examine **the effect of mobile money on customers' satisfaction in the case Telebirr**. The quality of the result for this research will be based on the accuracy of the information you will provide. Eventually, the information you will provide is to be used purely for academic purposes. I would like to thank you very much for your cooperation in advance.

General Instructions: For your responses, please tick (√) mark your choice.

Part I - General Information of the Respondent

1. Gender: Male Female
2. Age: from 18-29 From 30-39 From 40-50 Above 50
3. Which is the highest level of education you' have completed?
Primary School High School Diploma/Certification
Bachelor's Degree Masters and above
4. Occupation: Government employee Private
Non-governmental organization Student Merchant Other

Part II Questions related to Telebirr

5. How often do you use Telebirr service?

Once a month Once A week Every day stopped using it

6. Most of a time for which purpose do you use Telebirr service?

Buy Airtime/Package Pay with Telebirr Send money

Receive payments Deposit cash With draw cash Pay for merchants

7. Do you use Telebirr mobile money service continuously? Yes No

Part III: Questions related to customer satisfaction

To what extent do you agree with the following statement relating to the effect of mobile money on customer satisfaction? (5 -Strongly agree, 4-Agree, 3- Neutral 2- Disagree, and 1- Strongly disagree)

No	Questionnaire Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
		5	4	3	2	1
1. Reliability						
1.1.	I have trust on the provision of Telebirr services					
1.2.	Telebirr service is error free					
1.3.	When customers faced problems, employees will solve the it quickly					
1.4.	Employees keep their promises					
2. Availability						
2.1.	Telebirr is convenient, 7 days a week and 24 hours					
2.2.	Telebirr provides customer service at all times					
2.3.	Telebirr is available in different language					
3. Perceived Ease of Use						
3.1.	Telebirr is easy to use					
3.2.	I can use Telebirr without anyone helping me					

No	Questionnaire Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
		5	4	3	2	1
3.3.	I consider Telebirr facilities simple to use on my mobile device					
4. Responsiveness						
4.1.	Employees gives updated information to Telebirr customers					
4.2.	Telebirr Facilitates delivery of different services for different customers					
4.3.	Commencement of Telebirr service encourages telecom customers to use mobile money					
5. Prior technology knowledge						
5.1.	I had a good experience how to use new technology					
5.2.	I think my previous experience help me how to use telebirr					
5.3.	My technology readiness helps me to use telebirr					
6. Customer satisfaction of Telebirr service						
6.1.	I am satisfied with Telebirr service					
6.2.	Telebirr is more accessible than other mobile money services					
6.3.	Using Telebirr makes my lifestyle more convenient					
6.4.	Commencement of Telebirr Service saves my time					
6.5.	Generally, customer satisfaction of Telebirr service is important to Ethio telecom					

Part IV: Open-Ended Questions

Please Answer the questions below by writing the appropriate answer in the space provided

Please explain in detail how satisfied you are with the Telebirr service from your expectations?

List the main challenges or problems you face while using Telebirr?

Explain in detail what remedial measures should be taken to improve Telebirr services and increase customer satisfaction?

