



COLLEGE OF BUSINESS AND ECONOMICS, SCHOOL OF COMMERCE

DEPARTMENT OF BUSINESS INFORMATION SYSTEM

**THE ROLE OF TELEBIRR SERVICE ON THE PERFORMANCE OF SELECTED
PRIVATE BANKS, ADDIS ABABA, ETHIOPIA**

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Certification

This certifies that Hannah Tamiru prepared the thesis, "The role of telebirr service on the performance of selected private bank Addis Ababa, Ethiopia," which was submitted in partial fulfillment of the requirements for a Master's degree in Business Information System in accordance with university regulations.

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Declaration

I, Hannah Tamiru declare that this thesis is my original work and that I have properly cited all of the sources for the information used in the research paper. This research paper's content has never before been submitted for a master's degree to be awarded.

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List of Abbreviations

ATM- Automatic teller machine

CBK- Central Bank of Kenya

CI- Confidence interval

G2P- Government-to-peer

GHC- Graham Holdings Company

GSMA - Global System for Mobile Communications Association

MMS- Mobile money service

MMT -Mobile money technology

MMT- Mobile money transfer

P2B- peer-to-business

P2P- Peer-to-peer

PIN- Personal identification number.

POS- Point of sale

SMS -Short message service

TPS- Transaction per second

USSD- Unstructured Supplementary Service Data

ABSTRACT

Ethio Telecom, the government-owned telecommunications provider in Ethiopia, launched the mobile money service called Telebirr, which facilitates cashless transactions and allows phone owners to deposit, transfer, and withdraw money without a bank account, distinguishing it from mobile banking. This study aimed to assess the role of telebirr on the performance of selected private banks. A cross-sectional analysis was conducted using purposive sampling and a questionnaire, with data analyzed through SPSS version 26. Descriptive statistics were used to examine socio-demographic characteristics, while linear regression analysis assessed the relationship between telebirr implementation and key performance indicators such as operational efficiency, financial inclusion, and transaction volumes. The findings revealed that telebirr had a significant positive impact on operational efficiency, financial inclusion, and increased transaction volumes within the banking sector.

Keywords: telebirr, financial inclusion, operational efficiency, Transaction volume and values
Bank performance

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Telebirr is a mobile money service created and launched by Ethio Telecom, Ethiopia's state-owned Telecommunications and Internet service provider. The entire service took five months to design. It makes it easier to do cashless transactions. The technology currently in use is capable of processing up to 100 transactions per second (TPS). The service is available via SMS, USSD, and smartphone apps. Telebirr is available in five languages (Telebirr, 2023).

Telebirr is the most important and popular innovation in adding services to mobile phones. Telebirr allows phone owners to deposit, transfer and withdraw money without a bank account. It is therefore different from mobile banking, which allows you to access your current bank account from a mobile phone. Telebirr is an app in the real sense because it works through the software installed on the SIM card, although traditional phones are typically used for this. Smartphone use is not necessarily required.

Mobile money technology allows for the sending and receiving of payments using mobile phones (MMT). It's a financial innovation that pays different service providers through a commission system by utilizing short messaging service (SMS) technology. Financial and banking operations including money transfers, airtime purchases, utility bill payments, tuition payments, savings accounts, and mobile banking can all be completed via MMT. In order to offer financial services to unbanked users in rural and remote places, MMT also makes use of special banking technologies. Due to the electronic nature of mobile money payments, they are completed more quickly. According to Akinyemi and Mushunje (2020), the widespread use of MMT has made it possible for those without bank accounts to obtain financial services and to access marketplaces, pricing, and weather information.

Electronic money accounts that may be accessed via a mobile device are known as mobile money services. Mobile money services provide simple and safe means for both banked and unbanked individuals to send and receive money using mobile phones both locally and internationally at any time. Mobile wallets, mobile transfers, mobile banking, and airtime transfers are some of its features. With a mobile wallet, a user can send, receive, store, and make payments from anywhere at any time. Similar to airtime transfer, that allows users to purchase

and transfer airtime to other users on the same network, money transfer options let users send money to other subscribers at any time and from any location using their mobile money accounts. Mobile banking works closely with mobile money providers to provide financial services to subscribers. To offer financial services to mobile money subscribers, mobile banking collaborates closely with banks (Kinyanjui, 2013).

A mobile money system is a kind of financial instrument that allows users to send and receive money instantaneously from a variety of locations using their mobile phones. For this to function, both the sender and the recipient must have virtual accounts on their phones with their respective service providers. One feature that adds to the service's appeal is the fact that service providers are usually located on every corner of the street, even in distant areas (Kulu et al., 2022).

Mobile money service is a part of a larger idea that is being developed in the banking and electronic payment sectors. The primary motivation for the development of technology-enabled financial transactions through mobile phones was to increase financial literacy among the poorer populations in developing nations, who either lacked access to formal banks or could not afford to open bank accounts due to the high interest rates charged by the banks (Mwange, 2022). Commercial banks have often offered people services and options for payments. Customers have always been able to make payments at various bank locations using bank teller services, ATMs, online banking, mobile banking, and video banking. However, over time, there have been evolutionary changes that have led to the development of new payment methods, from the usage of electronic cards to mobile money. These payments are meant to cover unanticipated expenses that must be transferred quickly, conveniently, and efficiently (Ndegwa, 2014).

1.2 Statement of the problem

According to study in Ghana, Problems with saving and depositing money have been eliminated since the advent of mobile money. People no longer must leave the comfort of their homes or offices to pay for their water, energy, school, and other bills and fees, which prevent them from becoming trapped in traffic jams or standing in lines in alleys, roads, and offices. Mobile money has lessened the security risk associated with having cash around (Richard *et al.*, 2016).

Mobile money has become a significant financial innovation in Sub-Saharan Africa, with mobile money transactions and account ownership increasing dramatically. Mobile money is easier to

use because it is an SMS-based money transfer and monetary storage mechanism. Mobile money transfers are convenient, especially given the inadequate banking infrastructure. Firms can utilize mobile money to receive and make payments from consumers and suppliers, respectively (Konte and Tetteh, 2023).

Ethiopia recently introduced telebirr, a new mobile wallet service, in collaboration with the bank. However, there is a lack of comprehensive research on the role of telebirr on the performance of the banking sector. The existing literature gap in this area calls for a study that explores the relationship between telebirr and the performance of selected private banks in Ethiopia.

1.3 Objectives of the study

1.3.1 General objectives

The general objective of this study is to assess the role of telebirr service on the performance of selected private banks.

1.3.2 Specific objectives

1. To assess the impact of telebirr service implementation on operational efficiency within selected private banks in Ethiopia.
2. To evaluate telebirr services to enhancing financial inclusion in the selected private banks.
3. To examine the effect of telebirr service on the transaction volumes and values processed by the selected private banks.

1.4 Hypothesis of the study

H1: The implementation of telebirr service leads to significant operational efficiency gains for selected private banks.

H2: Telebirr service significantly contributes to facilitating financial inclusion for selected private banks.

H3: Telebirr has significant impact on transaction volumes and values processed by the selected private banks.

1.5 Significance of the study

A large number of economic activities need the use of money. Regardless of location, business partners that exchange goods and services must rely on the use of money. This makes the cooperation of the financial industry essential. The conventional banking system facilitates the transfer of funds between individuals by providing a range of services, among other things. Customers' judgments regarding whether to do business with a bank are influenced by how dependable they are in delivering this service (Kulu et al., 2022).

The rapid spread of mobile money transfer was regarded as a potentially critical instrument for speeding financial transactions. This shows that the quick adoption of mobile phones was viewed to improve the financial functionality of this industry. A benefit of mobile phones is that mobile networks can reach remote locations at minimal cost, allowing financial transactions to be done easily and quickly from any location where there are mobile phone money service providers. It is simpler and less expensive to transact (Ngaruiya, 2014).

Understanding the role of telebirr on banks' performance is crucial for policymakers, bank managers, and researchers in Ethiopia. It will help them make informed decisions regarding the integration of telebirr into banking services, improve customer experience, and enhance the overall efficiency and effectiveness of the banking sector.

1.6 Scope

This study covered the role of telebirr services on the performance of selected private banks specifically Focuses on private banks located in Addis Ababa.

1.7 limitation of the study

This research is limited to assess the following:

- Due to constraints on time, money, and location, this study is limited to evaluating all banks in Ethiopia across all regions; hence, it is only conducted in Addis Ababa. In addition, for this research, only specified private banks in Addis Ababa were used.
- This research is limited to assess challenges faced by the selected private banks in integrating Telebirr and explore potential opportunities for further enhancement.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Reviewing previous research works helps us to analyze the existing knowledge in interest. The theoretical and empirical findings gave validation to carry out the study and help the researcher to set foundation for the prevailing study. The goal of this chapter is to discuss the theoretical literature review, empirical literature review, related literature, and conceptual framework of the study.

2.2 Theoretical review

Considering the continued explosion of mobile transactions and account ownership in sub-Saharan Africa, mobile money has emerged as a significant financial innovation in that region. Mobile users can access mobile money more easily because it is an SMS-based system for depositing and transferring money. Furthermore, as opposed to a bank branch, mobile money transfer stations—which serve as mobile cash registers, withdrawal points, and withdrawal service centers—are more prevalent. Customers can afford mobile phone services due to the ease of mobile phone transactions in situations when banking infrastructure is scarce. Companies can accept and send payments from suppliers and customers using mobile money. Additionally, companies can conduct financial transactions with mobile money, including paying employees' salaries and utility bills (Konte and Tetteh, 2023).

Due to its potential to leverage telecommunication infrastructure to provide financial services to both banked and unbanked individuals, mobile money—a low-cost financial innovation that enables people to conduct financial transactions using their mobile phones—has sparked interest in the literature. Businesses can gain from mobile money in at least two ways, and these advantages have a significant impact on employee productivity. Firstly, mobile money has the potential to reduce transaction costs, freeing up more of a business's limited funds for investment and corporate expansion. Second, mobile money can make trade credit and loans easier to get, which will increase the amount of cash available for business operations and contribute to the successful rollout of mobile money in Sub-Saharan Africa (Konte and Tetteh, 2023).

The rise of mobile money offers firms a number of advantages. First, companies may be able to reduce transaction costs by using mobile money. Increased company liquidity and investments may result from this. The use of mobile money lowers transaction costs, according to research

conducted in Kenya. There is more proof that companies can save a significant amount of money when they use mobile money to pay staff. Three East African countries' cross-country statistics demonstrate a positive correlation between firm-level investment and the use of mobile money. This advantage stems from using mobile money, which has fewer transaction costs, creditworthiness, and liquidity requirements. The study also found that the adoption of mobile money benefits small and medium-sized firms more (Konte and Tetteh, 2023).

In more than 80 nations worldwide, mobile money has been a new technology since 2005. A product called mobile money, or "m-money," enables users to transfer and move money between users by storing value in an account that can be accessed by a handheld device using text messaging (Aker and Mbiti, 2010). Mobile money drastically lowers money transfer costs when compared to conventional methods of sending and receiving money in many poor nations, like Western Union and MoneyGram, postal services, or delivery from friends or relatives (Jack and Suri, 2014).

2.21 The impact of mobile money

The World Bank claims that there is a 0.8% rise in economic development for every 100 mobile phone users in developing countries (Kimeu, 2018). The introduction of mobile money is particularly helpful in investing. Mobile money has come up with various services that can be used to benefit users in different ways. Mobile money services in Ghana allow users to benefit from various financial services as well business. Mobile Banking is a service available through mobile phones that can bring bankers to electronic services without cash. Mobile phones are now recognized as a tool for economic development. They can improve the welfare of consumers and producers and promote the economic development of developing countries (Richard *et al.*, 2016).

2.22 Transaction cost of using mobile money.

When comparing the fees for sending money via mobile payment technology to those of banks and other money transfer companies, it becomes evident that mobile money transfer is more cost-effective. Mobile payments are considered up to 19% cheaper than banks by international standards (Aker *et al.*, 2016). The cost of payment transaction is directly linked to customer adoption. For those in need, especially those living in rural areas without access to financial services, mobile money lowers the cost of financial service.

Transaction costs must be low for trading costs to be economic. Mobile payment fees should be affordable for most small business customers and lower than what banks typically charge for bank transactions (Richard *et al.*, 2016).

2.3 Operational Efficiency, Financial Inclusion and Transaction volume and value Theory

2.31 Operational Efficiency theory

The concept of organizational efficiency explains how a complex transaction will be managed and structured to minimize waste. The goal of efficiency is to determine the optimal organizational strategy in order to choose the best possible option that offers the most suitable transactional features (Kimeu, 2018).

According to (Talom and Tengeh, 2020) the operational efficiency of commercial banks was shown to be positively impacted by mobile banking, according to a study done on all Kenyan banks to determine the relationship between mobile banking and operations. "This was attributed to the fact that the as funds were moved using mobile money services it improved the operational performance of the banks."

The world of technology is evolving quickly nowadays. Numerous business opportunities have emerged as a result of systems built by mobile network providers, which the banking sector can take, use of to increase revenues and reduce expenses. Relevant are the mobile money services, which have made a wide range of banking goods and services available to billions of people worldwide. Because of this, a large geographic area can now get financial services with little to no investment from the institutions (Mbiti and Weil, 2016). When mobile money technologies are used, fewer travels to the banking hall are necessary. The banks can focus more on their core business operations, cut back on paperwork, and still service more clients throughout an area by downsizing their workforce.

2.32 Financial inclusion theory

The prompt and affordable provision of financial services to underprivileged and low-income populations is known as financial inclusion. It addresses the affordability and accessibility of a wide range of official financial services. The criterion used to assess how formal financial services are accessible to the entire population in the economy is called financial inclusion. It is a

term frequently used to characterize the deliberate effort to include the underprivileged, the impoverished, and those who are liable to low economic power in formal economic processes through regular ownership and usage of formal financial services (Aina and Oluyombo, 2014).

The goal of financial inclusion is to give all economic actors, particularly those with lower incomes, affordable access to financial resources and services. An alternate definition of it would be the provision of financial services to the under banked and low-income segments of society at fair rates. It is the opposite of financial exclusion, which occurs when some groups of economic actors typically low-income members of society cannot access or purchase certain services. According to Nalini and Mariappan (2012), the purpose of financial inclusion is to connect individuals with banks so they can benefit from their connections. This makes it possible for formal financial institutions to support economic progress, which is a major obstacle for a lot of developing countries. Access to low and safe financial services is vital for achieving equitable economic growth. Financial exclusion brought on by poverty frequently keeps people from using the official financial system. People who are financially excluded are forced to rely on unofficial funding sources, which can be expensive, disorganized, and prone to theft (Aina and Oluyombo, 2014).

Financial inclusion is a top priority for the United Nations, particularly among nations with shaky economies. Study on financial inclusion and banking in the European Union concluded that increasing the number of accounts and digital payments reduces bank default risk significantly (Mwange, 2022). Financial inclusion, which led to a 1% rise in digital payments, reduced the financial system and bank default risk by 1.2%. In their extension of the thesis, they said that a 1% rise in digital payments resulted in a 1.5% reduction in leverage risk and a 0.8% drop in portfolio risk for commercial banks. Research suggests that financial inclusion has a greater impact on an economy's financial stability, particularly for poor people who are more difficult to screen. Effective screening through account ownership and digital payment history can add value to information processing (Tweneboah Senzu, 2022).

Economic growth is one of the objectives of financial inclusion, which combines social, political, and economic inclusion. Any individual or group of individuals excluded from any one of these characteristics will experience financial exclusion since the political, economic, and social spheres are linked and the three dimensions are necessary to achieve financial inclusion. When

the majority is excluded from the financial system and as a result, not everyone has benefited equally from economic advancement, inequality arises. Therefore, inclusive growth—which may be a fantasy in situations where the majority of people are not involved in the financial system—is necessary in an economy in order to distribute the benefits of economic growth fairly among all segments of society. A nation's degree of banking development is a strong indicator of its potential for economic growth, capital accumulation, and productivity growth, per World Bank study. Hence, expanding financial inclusion in any economy directly multiplies the process of economic growth. Poverty rates decline more quickly in nations with more advanced financial systems (Aina and Oluyombo, 2014).

2.33 Transaction volume and value theory

The significant impact of mobile money services on transaction volumes and values has been shown in a number of researches. An experiment carried out in Niger by Aker et al. (2016) showed that mobile money made cash transfers easier and resulted in higher transaction volumes and economic activity among receivers.

According to Jack and Suri's (2014) thorough investigation, mobile money services in Kenya have a significant impact on financial behaviors by lowering transaction costs and increasing transaction volumes. Empirical evidence was presented by Mbiti and Weil (2016), demonstrating that the implementation of M-Pesa resulted in significant increases in the volume and value of transactions that banks executed.

Additionally, Suri and Jack (2016) talked about how mobile money affects transaction patterns over the long run, highlighting how it can help reduce poverty and provide wider economic advantages. Together, these investigations demonstrate how mobile money can significantly increase transaction volumes and values

In the investigation of mobile money's effects in Cambodia, Ky, Suzuki, and Okamoto (2021) discovered that the number and value of transactions grew dramatically. Their findings demonstrated that by facilitating simpler access to financial services, mobile money increased economic involvement.

2.4 Related literature review

For those who have signed up to use it, M-Pesa is a technical invention that has made life better. Users must register with Safaricom in order for their mobile phone to be assigned a unique number. Money transfer services have undergone a transformation because to M-Pesa, banking

service that uses mobile money technology. Its popularity stems from features like speed, security, and wide-area network dependability in addition to its affordable cost in comparison to other options. Safaricom stated in its annual report covering the year 2020 that M-Pesa offers more than only peer-to-peer (P2P) money transfers and withdrawals. The technology also accepts payment methods that facilitate customers' access to credit services and traditional banking. The innovation to facilitate international transactions has enabled deepening of financial inclusion within the country (Akoya, 2022).

Compared to other consumer technologies, mobile phone adoption has perhaps happened at the quickest rate and greatest depth in history. First mobile payments and money transfer service MPESA was introduced by Safaricom (the Kenyan affiliate of Vodafone), which registered 111,000 service users in the first three months following its commercial introduction. This trend started on its own and quickly gained traction, reaching 18.9 million users in March 2012 and 45,861 agents in the network during that time (Binyanya, 2014).

With the introduction of M-PESA, an SMS-based money transfer system that enables users to deposit, transmit, and withdraw money using their phones, Safaricom, the top mobile phone provider in Kenya, formalized that procedure in March 2007. M-PESA has developed rapidly, reaching roughly 65 percent of Kenyan homes by the end of 2009, and is widely recognized as a success story to follow in the developing world (Jack and Suri, 2011).

Upon examining the global mobile phone penetration rates, it is evident that nations with higher rates of adoption tend to have more developed economies than those with lower penetration rates (Fragó and Miklósi, 2012). Kenya is regarded as one of Africa's most technologically advanced nations as a result. It is impossible to discuss mobile phones among Kenyans without bringing up M-Pesa, the mobile money banking service that Safaricom introduced in 2007. Kenya's financial development has benefited greatly from the use of M-Pesa for payment purposes. You can use withdrawals and transfers of funds to pay for products and services. (Akoya, 2022).

When M-Pesa was first introduced, it faced competition from other long-standing money transfer services like Western Union, MoneyGram, Post-pay, etc. It was obvious that there would be competition, and as M-Pesa outpaced its competitors, their profit margins started to drop (Mbiti and Weil, 2015). In fact, M-Pesa's vast network, speed, security, and dependability are what draw in users and subscribers. M-Pesa now makes it simple for people without bank accounts to

keep and transfer money. Due to M-Pesa's security, speed, and affordability, businesses can also use it to expedite transactions (Akoya, 2022).

2.5 Empirical literature review

Six billion mobile phones are owned by seven billion individuals worldwide, according to Gupta's (2012) research. However, the fact that there are only 2 billion bank accounts globally makes a significant impact. The difference between mobile phones and bank accounts is exemplified by specific countries such as Bangladesh, where out of its 150 million residents, 50% possess mobile phones while just 13% have bank accounts. With 1.2 billion people living there, India has a record-breaking 900 million mobile phone owners. Governments in various economies, including those in emerging nations, consider mobile technology as a tool to help their inhabitants become financially integrated, particularly in rural regions (Mbiti and Weil, 2015).

Over the previous five years, mobile money availability has expanded from practically 0% to 29%, according to Inter Media (2020), and the number of suppliers has increased in pace. In Ghana, there are typically 24 million individual accounts and 44,000 registered shops that process mobile money transactions each month, totaling GHC3.4 billion in cash transactions. This illustrates, visually, why MMT services are appealing. Only a small percentage of Ghanaians, according to data from the Bank of Ghana (2020), hold bank accounts. With the use of mobile money technologies, Ghana's telecom sector has a big untapped market and can continue to push the nation toward a cashless economy (Bawelle, Luke, and Adaobi, 2020).

Mobile Telephony has been on the rise in Africa for decades, making it 10 times more used than landlines. This means a population coverage rate of over 60%, making a mobile phone a necessary device to own. Sub-Saharan Africa has the most number of mobile money accounts globally, according to research on mobile penetration in the continent. In Ghana, 20 million people owned mobile phones in 2016 compared to 10 million people who had bank accounts. This indicates that the number of people with mobile phones and bank accounts is double.

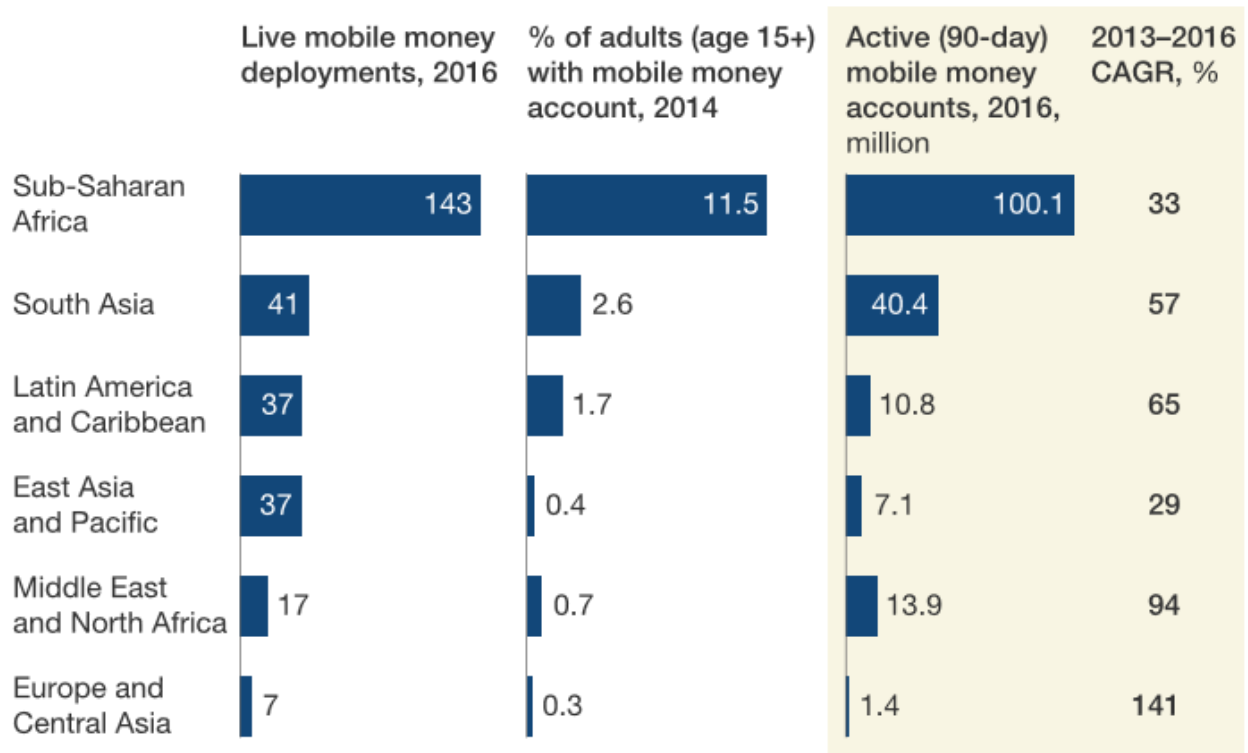
This is due to technological advances in mobile Telephony, providing mobile money services quickly, flexibly, affordably, conveniently, and directly accessible areas. A mobile phone user visits a mobile network provider to register for a mobile money service in order to create a wallet account. According to a study, mobile money was first available in Uganda in 2009, and as the

country's population grew, the number of users increased until it reached approximately 21.6 million in 2016, accounting for almost 60% of the country's 35 million inhabitants. In comparison, 5.2 million people, or around 15% of the population, have commercial bank accounts. This indicates that for Ugandans, mobile money offers a greater degree of financial inclusion than banking services (Kinyanjui, 2013).

In 2013, 66.7% of adults accessed financial services from any kind of official financial provider, up from 41.3% in 2009 and 27.4% in 2006, according to the Fin Access Report (2013). In contrast, the proportion of those without access to financial resources has decreased. From 39.3% in 2006 to 31.4% in 2009, the percentage of adults who are adults has consistently decreased; as of 2014, it is 25.4% (Binyanya, 2014).

With 100 million active mobile money accounts, more than half of mobile service providers are in Africa. South Asia comes in second with 40 million users, or 2.6% of the adult population, and more than half of mobile service providers are in that region (GSMA, 2017). Between 2013 and 2016, the proportion of persons who regularly used a mobile phone rose by almost 30%. In order to improve the usefulness and sustainability of their services and improve the financial circumstances of marginalized people, the GSMA works with mobile carriers to create a robust mobile money system (GSMA, 2017).

Africa is the world leader in mobile money.



Source: GSMA Mobile Money Deployment Tracker; GSMA State of Industry Report 2016; World Bank Global Findex

McKinsey&Company

Figure 1 GSMA Mobile Money Deployment Tracker; GSMA State of Industry Report 2016; Source: World Bank

2.6 Conceptual framework

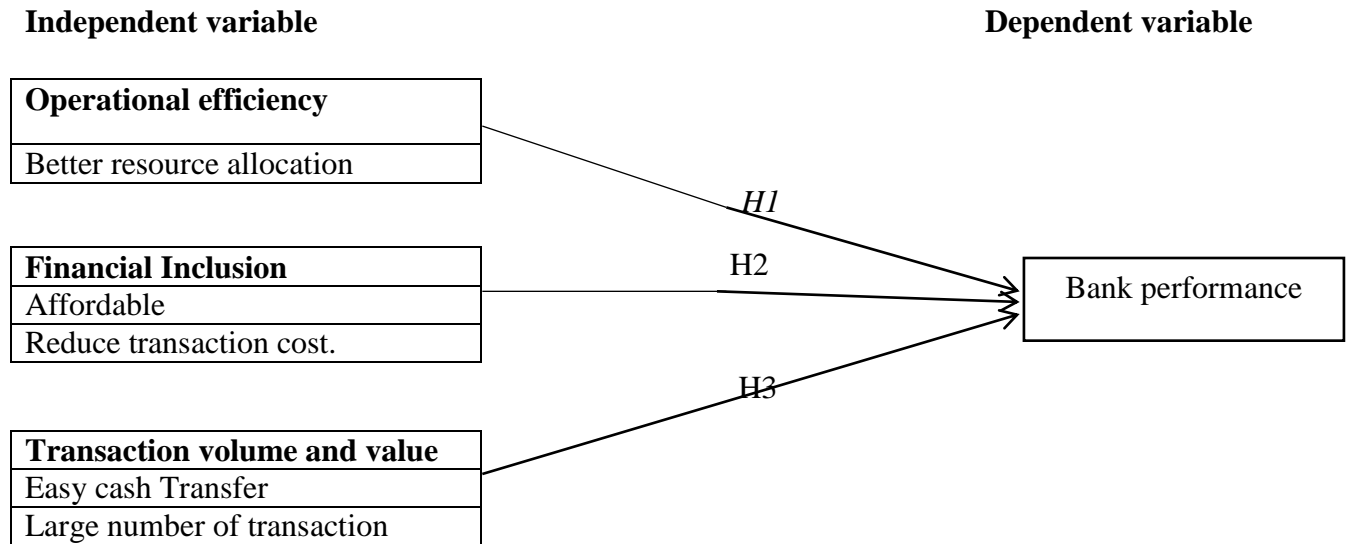


Figure 2 Conceptual Framework on the role of telebirr service on the performance selected private banks.

Based on the Theory framework discussed above, the following hypothesis is proposed:

H1: The implementation of telebirr service leads to significant operational efficiency gains for selected private banks.

H2: Telebirr service significantly contributes to facilitating financial inclusion for selected private banks.

H3: Telebirr has significant impact on transaction volumes and values processed by the selected private banks.

CHAPTER THREE: RESEARCH METHODOLOGY

The purpose of this chapter is to present the methodological approach, research design, data collection method selected for this research and explaining why these particular methods have been chosen. Then, the sampling and data analysis method will be discussed.

3.1 Research approach

This study thoroughly assessed the role of the Telebirr service on the performance of selected private banks using a quantitative methodology. In order to measure the performance of the chosen private banks and the telebirr service at a certain point in time, a cross-sectional research design was employed in this research. A cross-sectional research design is a kind of observational research methodology that collects data from a population or representative subset at one specific time, according to (Bryman, 2017).

3.2 Research design

The study employed a combination of descriptive and linear regression analysis to achieve a thorough comprehension of the topic. Descriptive studies is employed to obtain a thorough comprehension of a particular population, phenomena, or circumstance. This research utilizes a descriptive study approach to examine the impact of telebirr on the performance of banks. Descriptive research is chosen for its ability to provide a detailed and systematic description of the current state of affairs without manipulating variables, making it suitable for this study's objectives. According to Babbie (2020), descriptive research helps create comprehensive profiles of phenomena, enabling the capture of essential details about how Telebirr affects banking operations. This study also employed linear regression analysis to examine the relationships between independent variables (Operational Efficiency, Financial Inclusion, and Transaction Volume and value) and the dependent variable (Bank Performance). Linear regression is selected for its ability to model and predict outcomes based on observed data.

3.3 Data sources and Type

This study used primary data. The data obtained from the chosen sample of respondents through a questionnaire. The respondents in the sample that was chosen were from private banks of Ethiopia.

3.4 Population and sample size

3.4.1 Source population

Defining the source population's demographic factors, geographic boundaries, and inclusion/exclusion criteria is crucial. According to Trochim and Donnelly (2008), in order to ensure that the study's findings are applicable and relevant, the source population must accurately reflect the greater population of interest. When investigating how telebirr impacts bank performance, the target population consists of all Ethiopian private banks offering telebirr services. This careful definition assists in offering a thorough analysis of telebirr's role in the private banking industry in Ethiopia.

3.4.2 Study population

The Ethiopian private bank serves as the study population for this investigation. Ethiopia banking sector consists thirty-one private banks, according to NBE statistics. Five peer banks are selected for the study among these private banks. Because of their substantial market representation, technological leadership, wide branch networks, and solid financial stability, these banks are categorized as peer banks. These banks are prominent players in the Ethiopian banking sector, known for their early adoption of digital innovations, which aligns with the research focus on digital payment systems. Additionally, their competitive strategies and customer-centric initiatives make them ideal subjects for examining the role of telebirr on banking performance.

The five peer banks are chosen using a purposive sampling technique. Hibret Bank, Awash Bank, Dashen Bank, Bank of Abisiniya, and Nib Bank are the names of these peer banks.

3.4.3 Sampling techniques and Sample size

A purposive sample technique has been used in this study to select the peer private banks that work with the telebirr service. The study population was chosen from the digital marketing department's business development team in order to ensure that the respondents had the required training, expertise, and background in the field of study. Purposive sampling is appropriate for this research as it allows for the selection of key informants who can provide in-depth insights into the impact of Telebirr on bank performance. This staff member is stationed in the bank's head office and has been specifically assigned to handle telebirr-related tasks. Additionally, by focusing on a sample that closely matches the goals of the study, (Sharon, 2010) highlights out that purposive sampling can enable more detailed analyses.

3.4.4 Sample Size Determination

To appropriately examine the relationships between the independent and dependent variables, there is a general guideline for the minimum sample size needed. According to Mooi & Sarstedt (2011), the recommended formula is that the number of observations should be at least 50 plus 8 times the number of independent variables (k). In this study with 3 predictor variables, using the formula of $50 + 8k$, the threshold sample size required to conduct regression analysis is $50 + 8 \times 3 = 74$ observations. Thus, in this research 105 observations were collected. Therefore, the current sample size meets and exceeds this rule-of-thumb benchmark for linear regressions testing with 3 independent variables.

3.5 Data collection procedure

This study utilized questionnaires as the primary method for data collection. The questionnaires consisted of closed-ended questions, and a 5-point Likert scale was selected to measure attitudes. The Likert scale was chosen as it provided a balanced number of response options, ensuring reliable measurement and minimizing respondent confusion or indifference, as suggested by Likert (1932) and supported by subsequent research (Preston & Colman, 2000; Jaber, 2017).

This study collected quantitative data from a total of 105 Digital marketing professionals across Dashen Bank (14 professionals), Hibret Bank (23 professionals), Bank of Abisiniya (25 professionals), Awash Bank (21 professionals) and Nib Bank (22 professionals). The questionnaires encompassed two sections, with the first section collecting demographic data and the second section addressing the core research questions in an objective and detailed manner

through closed-ended questions. After receiving the required number of responses, the full dataset underwent statistical analysis to determine key relationships.

3.6 Data analysis

A questionnaire that was given to employees of peer private banks' digital marketing departments was used in this study to gather quantitative data. Descriptive statistics including frequency counts, percentages, and mean scores were used to assess the data that had been gathered. Furthermore, to investigate the link between the dependent and independent variables, linear regression analyses were used. The results were presented using means, standard deviation, percentages, tables, graphs, and charts. The researcher used the Statistical Package for the Social Sciences (SPSS) version 26 software to make the analysis easier. This software enables the researcher to run both descriptive and linear regression analyses, offering a thorough comprehension of the acquired data.

3.7 Validity and reliability

3.7.1 Validity

The validity of this research was ensured through the implementation of pilot testing, which assess the research instruments and eliminate potential sources of error. Pilot tests help in evaluating the clarity and reliability of the research instruments, ensuring that questions are interpreted correctly by participants. They can reveal unexpected challenges and provide insights that enhance the main study's design (Van Teijlingen & Hundley, 2001).

3.7.2 Reliability

Data was gathered via a questionnaire. Throughout data collection and processing, cross-checks were carried out to ensure completeness, consistency, and an honest and accurate response while maintaining the confidentiality of the study units. The Cronbach alpha was used to assess the data's dependability. This study's Cronbach Alpha value is 0.893.

3.8 Ethical consideration

It was important to follow ethical rules to make sure the study was valid, reliable, and honest. Before involving participants, their permission was obtained. The purpose, steps, benefits, and privacy details of the study were clearly explained to them. They could choose to join freely, and their consent was recorded in writing. Participants' privacy was protected, and any personal

information collected was made anonymous and kept secure. Respecting their right to choose meant they could decide whether or not to participate after being fully informed.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents the findings from a survey given to Digital marketing professionals from five peer private banks in Ethiopia. The responses were analyzed using the Statistical Package for the Social Sciences (SPSS) software version 26. Both descriptive and linear regression analyses are presented in this chapter.

4.2 Data screening and data cleaning

Before analysis, data cleaning and screening were done. While data cleaning refers to finding incomplete, erroneous, or inaccurate records and then replacing, amending, or deleting the unclean or coarse data, data screening is the act of examining data for mistakes and fixing them (Wu, 2013).

4.3 Reliability Test

A measurement instrument's uniformity and stability throughout time are referred to as reliability. Cronbach's alpha, which evaluates the internal consistency of a group of survey or test items, is the most often used indicator of reliability. According to Tavakol and Dennick (2011), a Cronbach's alpha score of 0.70 or above is generally regarded as satisfactory, indicating that the items assess the same underlying construct reliably. This study's Cronbach Alpha value is 0.893.

Table 1 Cronbach's Alpha coefficients (Reliability test)

		N	%
Cases	Valid	105	100.0
	Excluded	0	0
	Total	105	100.0

Cronbach's Alpha	No of Items
0.893	19

4.4 Demographic Characteristics of Respondents

A total of 105 employees participated in this study; with 100% response rate Male respondents represented the majority (58.1%) of the sample. Of the respondents, 35.2% were employed and belongs to the age range of 26 to 35. 55.2% of the population obtained a bachelor's degree, and 44.8% had seven to ten years of banking industry experience.

Table 2 socio-demographic characteristics of study participant on the role of tele birr on the performance of banks in selected private bank, Addis Ababa, Ethiopia 2024 (n=105).

Characteristic		Frequency	Percent (%)
Gender	Male	61	58.1
	Female	44	41.9
	Total	105	100.0
Age	18-25 year	26	24.8
	26-35 year	37	35.2
	36-44 year	27	25.7
	45 and above	15	14.3
	Total	105	100.0
Educational status	Diploma	1	1.0
	Bachelor Degree	58	55.2
	Masters	46	43.8
	Total	105	100.0
Work experience in bank industry	1-3 year	4	3.8
	4-6 year	42	40.0
	7-10 year	47	44.8
	Above 10 years	12	11.4
	Total	105	100.0

4.5 Descriptive analysis

An essential step in the research process, descriptive analysis offers a clear presentation of the information gathered for a study. It focuses on using metrics like mean, median, mode, and standard deviation to describe a dataset's key characteristics. Descriptive analysis arranges and makes sense of the data so that researchers can find trends, patterns, and possible anomalies Trochim, W. M. K. (2021).

Table 3 demonstrates that the banking sector participants perceive Telebirr as having a substantial positive impact on various aspects of operational efficiency, including time savings, cost reductions, process improvements, and enhanced accuracy and reliability.

Table 3 the role of telebirr-Operational Efficiency (N= 105)

No	Operational Efficiency items	Mean	Std. deviation
1	The integration of Telebirr has reduced the time required to process transactions.	4.3524	1.00939
2	Using Telebirr has lowered the operational costs of handling financial transactions.	4.3714	1.01202
3	The technical integration of Telebirr with existing banking systems is smooth and efficient.	4.3619	1.01075
4	Telebirr has increased the overall speed of banking operations.	4.3524	1.06501
5	The integration of Telebirr has enhanced the accuracy and reliability of transaction records within the bank.	4.3524	1.00939
6	The implementation of telebirr has reduced the possibility of errors or inconsistencies in the bank's transaction processing operations.	4.3905	1.01428

Table 4 demonstrates that the banking sector participants perceive Telebirr as a valuable tool for improving access to financial services, making them more affordable, and supporting the inclusion of underserved individuals in the formal financial system, ultimately contributing to the overall financial performance of banks.

Table 4 the role of telebirr-Financial inclusion (N= 105)

No	Financial Inclusion items	Mean	Std. deviation
1	Low-income people and households now have access to financial services due to telebirr service.	4.3619	1.10178
2	Telebirr has made financial services more affordable for customers, especially in terms of transaction fees and service charges.	4.3524	1.10053
3	The integration of Telebirr has supported the inclusion of individuals with limited or no access to traditional banking services in the formal financial system.	4.3810	1.10402
4	Telebirr service helped banks to improve its financial performance by increasing payment transactions.	4.3333	1.09778

Table 5 demonstrates that the banking sector participants perceive Telebirr as a valuable tool that has enhanced the bank's transactional capacity, increased the average value of transactions,

improved the bank's competitiveness, facilitated a wider range of financial activities, and ultimately led to an increase in the total number of transactions processed by the bank.

Table 5 the role of telebirr- transaction volumes and values (N= 105)

No	Transaction volume and value items	Mean	Std. deviation
1	The implementation of Telebirr has enhanced the bank's capacity to manage and process a larger number of financial transactions.	4.4857	.88919
2	The implementation of Telebirr has contributed to a significant rise in the average value of transactions conducted within the bank.	4.4952	.88929
3	The adoption of Telebirr has improved our bank's competitiveness in the market.	4.4952	.88929
4	The introduction of Telebirr has effectively facilitated a wider variety of financial transactions, including payments, transfers, and other banking activities.	4.5143	.88919
5	The integration of Telebirr has increased the total number of transactions processed by our bank.	4.5143	.84483

4.6 Multiple linear regression Analysis

There are some assumptions that are required to provide valid results in linear regression analysis. These assumptions must be met in order to develop a multiple regression model that accurately predicts relationships between independent and dependent variables.

4.61 Testing Multicollinearity

A popular method to assess collinearity is to compute tolerance or the Variance Inflation Factor (VIF). Potential problems with collinearity, either between two variables or multicollinearity among several variables, are indicated by a tolerance level less than 0.10. Since the VIF is simply the reciprocal of tolerance, it is also possible that collinearity is an issue if the value is more than 10. This tolerance and VIF statistical checks can identify whether collinearity exists between predictor variables in a regression model, according to Mooi and Sarstedt (2011). Table 7 demonstrates that no variable has a tolerance less than 0.10 or a VIF more than 10. As a result, it does not indicate that the variables considered in the analysis show any alarming multicollinearity.

Table 6 Collinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
Operational Efficiency	0.959	1.043
Financial Inclusion	0.669	1.495
Transaction volume and value	0.646	1.548

4.62 Testing Homoscedasticity

This scatterplot diagram shows the relationship between the regression standardized predicted values and the regression standardized residual values for the dependent variable "Bank Performance".

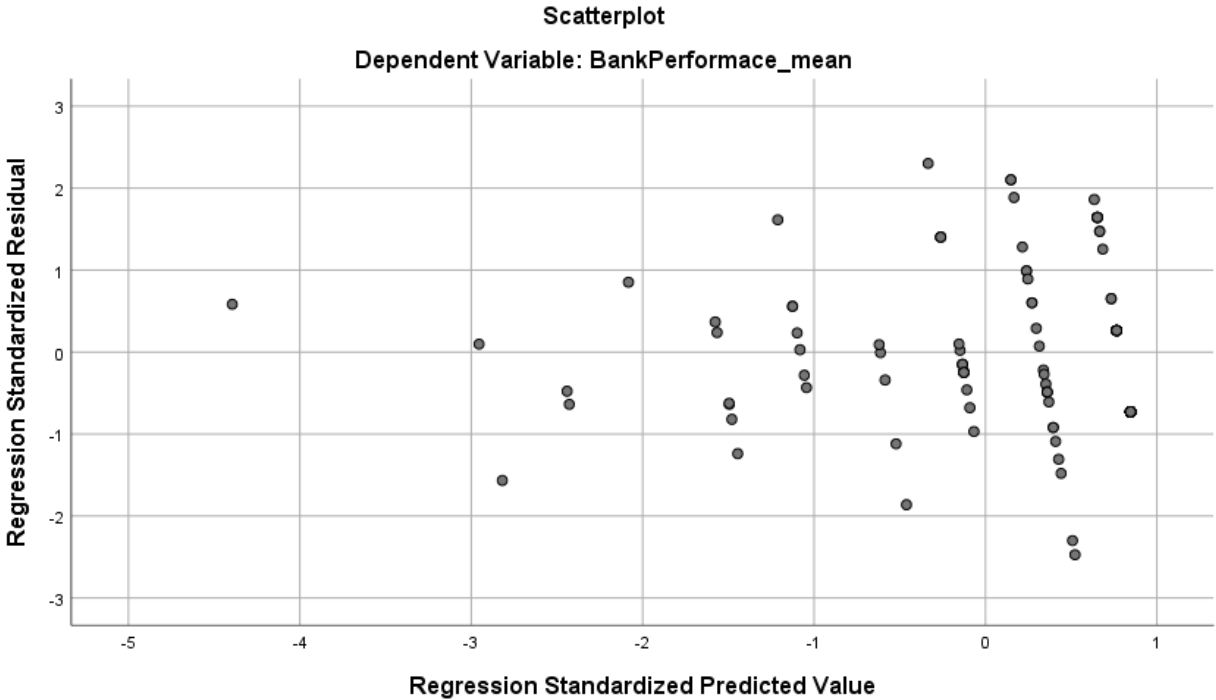


Figure 3 the scatter plot of Homoscedasticity

The scatterplot analysis shows that the data points are randomly and evenly distributed around the horizontal zero line, indicating constant variance of the residuals (homoscedasticity), which meets a key assumption of linear regression. Additionally, the scatterplot suggests a generally linear relationship between the predicted values and residuals, confirming that the linear regression model is appropriate for modeling the relationship between the independent and dependent variables.

4.63 Checking Outliers

Studentized Deleted Residual plot is a valuable diagnostic tool in SPSS linear regression analysis, as it helps the analyst identify and assess the impact of influential observations on the model's performance and validity.

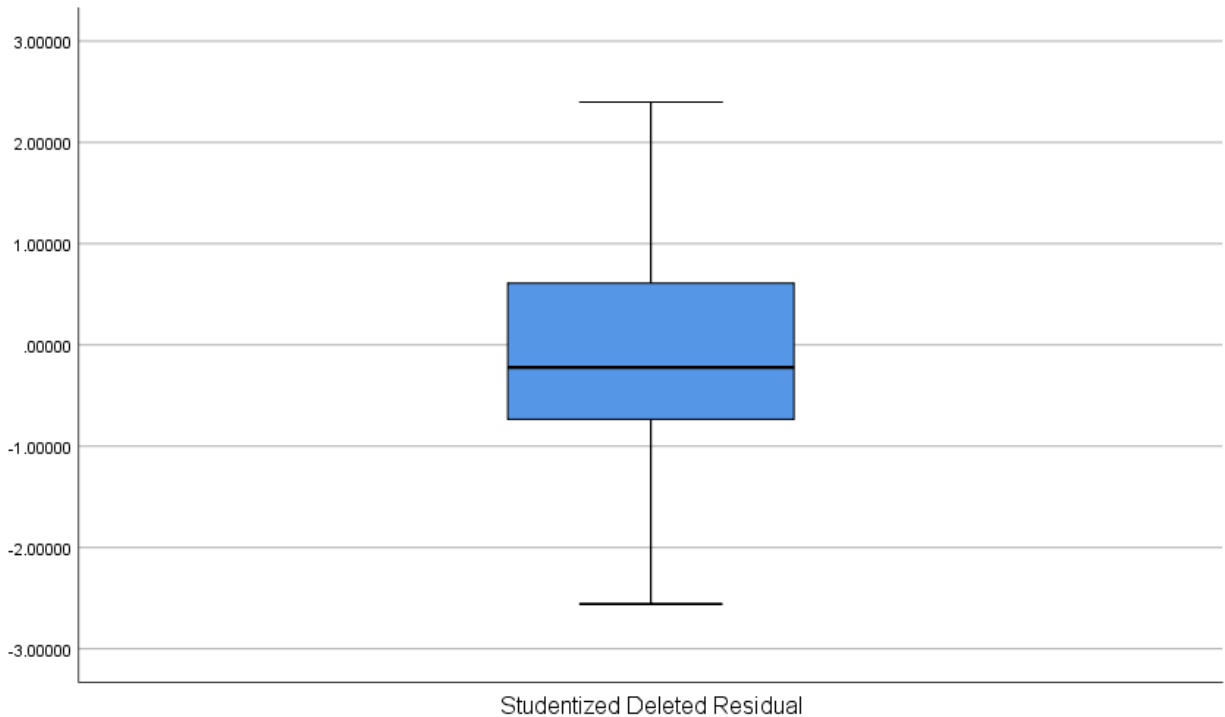


Figure 4 Checking Outliers

The absence of circles or asterisks on either end of the box plot indicates the absence of outliers.

4.64 Checking Normality

The histogram provides a visual representation of the distribution of the residuals and allows the analyst to assess the normality assumption. The close-to-normal distribution of the residuals implies that the linear regression model is appropriate for this dataset and that the parameter estimates and statistical tests can be considered reliable.

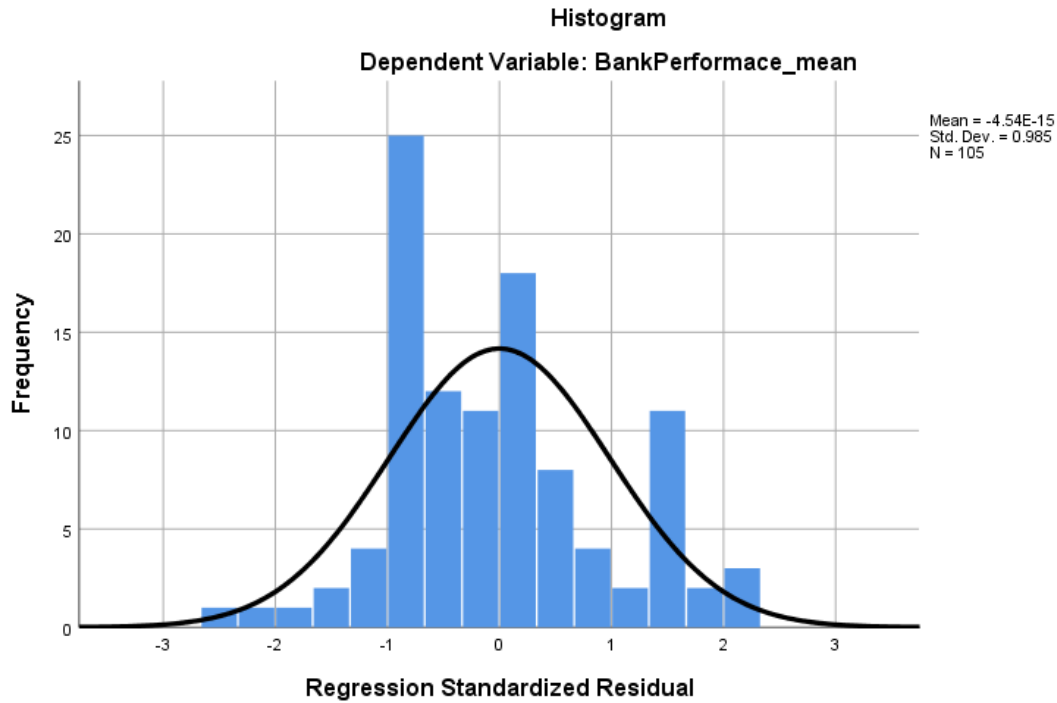


Figure 5 checking Normality

Figure 4 shows a bell-shaped curve resembling a normal distribution for the regression standardized residuals of Bank performance. It is symmetrical and centered around zero, indicating normality and aligning with the researcher's assumption. This suggests that the regression model is suitable for the data.

4.7 Linear regression Analysis

Linear regression analysis is a powerful statistical approach extensively employed in research to analyze the relationship between one dependent variable and one or more independent variables. Researchers can forecast results and comprehend the kind and strength of connections between variables by modeling and evaluating the factors that impact a result (Frost, 2019). In this research the dependent variable is bank performance while the independent variables are operational Efficiency, financial inclusion and transaction volume and values.

Table 7 Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Operational efficiency Financial inclusion, Transaction volume and value		Enter

a. Dependent Variable: Bank Performance

b. All requested variables entered.

A high multiple correlation coefficient ($R = 0.995$) indicates that the independent variables (Transaction volume and value, Operational efficiency, and Financial inclusion) and the dependent variable (Bank performance) have a very strong relationship, according to the multiple linear regression analysis. With a R Square of 0.991 and an adjusted R Square of 0.990, the model shows a great explanatory power, explaining 99.1% of the variance in Bank performance, indicating an outstanding fit even after controlling for the number of factors. The correctness of the model is further supported by the low standard error of the estimate (0.0721), which shows that the observed and projected values are closely aligned.

Table 8 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.995 ^a	.991	.990	.07021
a. Predictors: (Constant), Operational efficiency, Financial inclusion, Transaction volume and value b. Dependent variable: Bank performance				

In multiple regression analysis, a high multiple correlation coefficient (R), a high coefficient of determination (R Square), and a low standard error of the estimate are crucial markers of a well-fitting model. According to Cohen et al. (2003), a R value close to 1 denotes a strong linear relationship between the dependent and independent variables, while a R Square value approaching 1 indicates that the model explains a considerable percentage of the variance in the dependent variable. By taking into consideration the total number of predictors in the model, adjusted R Square further validates the model's resilience. Accuracy of the model is shown by values that are near to R Square. Furthermore, a low standard error highlights how closely the observed data points match the expected values, demonstrating the accuracy of the model's predictions.

The ANOVA table provides significant insight on the regression model's overall significance. A statistically significant model is one that has a significance value of less than $p < 0.05$ at 0.000.

This indicates that the combined predictors (Operational efficiency, financial inclusion and Transaction volume and value) have a significant influence on Bank performance.

Table 9 ANOVA Table

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	53.041	3	17.680	3586.649	.000 ^b
	Residual	.498	101	.005		
	Total	53.539	104			
a. Dependent Variable: Bank performance						
b. Predictors: (Constant), Operational Efficiency , Financial Inclusion and Transaction volume and value						

By using the regression model equation, one may quantify the link between the independent and dependent variables and forecast the dependent variable's value based on the independent variable's values. Based on the known constant and beta values presented in the table, the regression model can be formulated

The model for this regression is: $\text{performance} = a + b_1X_1 + b_2X_2 + b_3X_3 + e$

Performance = -.036+ .337X1+.317X2+.362X3+0.05

According to table 10 Beta values from the regression analysis indicate that Operational Efficiency and Financial Inclusion are the most significant factors in explaining the impact of telebirr on bank performance. Both variables have nearly identical beta values (0.476 and 0.478 respectively). While Transaction Volumes and Value also contribute positively to performance, their relative importance is slightly lower, with a beta value of 0.432.

The significance (Sig.) values of 0.000 for all three variables confirm that these factors are statistically significant in influencing the performance of banks

Table 10 Coefficients

Coefficients							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
		B	Std. Error	Beta			
1	(Constant)	-.036	.044		-.818	.415	
	Operational Efficiency	.337	.007	.476	48.559	.000	Pass
	Financial Inclusion	.317	.008	.478	40.773	.000	Pass
	Transaction volumes and value	.362	.010	.432	36.213	.000	Pass

a. Dependent Variable: Bank performance

4.8 Discussion

The regression analysis strongly supports the role of Telebirr in enhancing the performance of private banks across several key dimensions. First, the implementation of Telebirr significantly improves operational efficiency, as evidenced by a beta value of 0.476 and a highly significant p-value (0.000). This finding suggests that Telebirr is an effective tool for streamlining banking operations, likely by reducing transaction times and enhancing customer service processes. The improvement in operational efficiency underscores the importance of integrating mobile payment systems like Telebirr to optimize banking operations. Research by Journal of Banking & Finance (2019) highlights how mobile payment systems enhance bank efficiency by reducing transaction costs and streamlining operational processes. Similarly, International Journal of Financial Studies (2021) discusses how the adoption of digital payment systems contributes to improved operational efficiency in banks, reinforcing the observed gains from Telebirr.

Moreover, Telebirr plays a crucial role in facilitating financial inclusion, with a beta value of 0.478 and a significance level of 0.000. This indicates that telebirr is instrumental in expanding access to financial services, particularly for under banked populations. By providing a convenient and accessible platform, telebirr helps bridge the gap for individuals who might otherwise be excluded from formal banking services. This contribution to financial inclusion aligns with broader economic goals and emphasizes the strategic importance of mobile payment systems in enhancing financial access and literacy. World Development (2018) provides evidence on how mobile payment platforms like M-Pesa have significantly improved financial inclusion by extending banking services to underbanked populations. Additionally, Journal of Financial Inclusion (2020) emphasizes the broader impact of digital financial services, including mobile payments, on enhancing financial inclusion, aligning with the findings related to Telebirr.

In addition, Telebirr positively impacts transaction volumes and values, as reflected by a beta value of 0.432 and a p-value of 0.000. Although this contribution is slightly lower than that of operational efficiency and financial inclusion, it remains a significant factor in overall bank performance. The increase in transaction volumes and values facilitated by Telebirr suggests a growing adoption and trust in mobile payment systems, which are essential for driving revenue growth and expanding the customer base. According to *Electronic Commerce Research and Applications* (2019), mobile banking systems positively influence transaction volumes and values, reflecting a similar trend observed with Telebirr. Moreover, *Journal of Payments Strategy & Systems* (2020) examines how digital payment systems lead to increases in transaction activity, supporting the significant impact of Telebirr on transaction volumes and values.

Chapter Five

CONCLUSION AND RECOMMENDATION

This chapter presents a summary of the key findings from the data analysis, draws conclusions in relation to the research objectives and offers recommendations for practice and future research.

5.1 Conclusion

The study's conclusions clearly show that Telebirr is essential to improving Ethiopia's private banks' performance. Within the banking industry, the introduction of Telebirr has led to a notable rise in transaction volumes and values, enhanced financial inclusion, and improved operational efficiency. In a financial market where competition is fierce, each of these factors is essential to the overall prosperity and long-term viability of banks.

The study comes to the conclusion that telebirr is a strategic asset that promotes long-term growth and competitiveness in addition to being a tool for enhancing banking performance right now. Effective use of telebirr by banks should result in ongoing gains in productivity, customer base, and transaction volume, placing them favorably in the changing financial scene. The study emphasizes how crucial it is to keep funding and promoting mobile payment options as a major factor in Ethiopian banks' success.

5.2 Recommendation

Based on the findings of this study, several recommendations can be made to enhance the effectiveness of Telebirr and its impact on bank performance in Ethiopia:

1. Sustained Investment in telebirr Integration: To optimize the noted advantages in transaction volumes, financial inclusion, and operational efficiency, banks should keep investing in the integration of telebirr into their operations. This can entail improving staff training, promoting the service to clients more successfully, and updating technology.
2. Targeted Financial Inclusion Strategies: Banks should use telebirr to create tailored strategies that are directed at under banked and underserved communities in order to further improve financial inclusion. This can involve customized financial services and products that suit to the unique requirements of these populations.
3. Improvement of Customer Experience: In order to boost client happiness, banks should concentrate on enhancing the telebirr user experience. This can entail making the UI simpler,

delivering more individualized services, and offering strong customer support to handle any problems consumers could run across.

4. Cooperation with Regulatory Authorities: To make sure that Telebirr's expansion complies with legal and regulatory requirements, banks should maintain constant coordination with regulatory authorities. Working together could aid in creating regulations that support innovation while safeguarding consumers and preserving the stability of the financial system.

5. Promotion of Digital Literacy: Banks should encourage users to be digitally literate, especially in underprivileged and rural areas, in collaboration with other stakeholders. Customers can optimize telebirr's advantages and encourage wider adoption by receiving training on how to use it securely and effectively.

6. Monitoring and Evaluation: Banks must to conduct continuous monitoring and assessment of telebirr's effectiveness and influence. Banks will be able to respond to new market problems and trends, make data-driven decisions, and improve their strategy with regular assessments.

5.3 Area of future study

Additional research may concentrate on several domains to enhance the outcomes of this analysis. Comparative research between other financial institutions could offer more comprehensive insights, while longitudinal studies could evaluate the long-term effect of telebirr on bank performance. A more comprehensive assessment of Telebirr's total impact would be provided by looking into its customer experience and satisfaction, integration with other digital financial services, and impact on financial literacy and behavior.

Furthermore, investigating the policy and regulatory aspects of mobile payment systems such as Telebirr could contribute to the development of plans for enhancing the expansion and efficiency of these systems in improving bank performance.

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Appendices

Appendix I

Research Questionnaire

Dear respondent,

I am a graduate student at Addis Ababa University College of Business and Economics. I am conducting a research study on the role of telebirr service on the performance of selected private banks.

The aim of the study is to provide valuable insights into the role of digital financial services in the banking sector. I am curious to read your thoughts and responses on a few questions regarding this topic. The response you give is very valuable!

Thank you in advance for your time and feedback! **Please note:**

- Your participation is voluntary and you are not required to provide your name
- All responses will be kept strictly confidential and used only for academic purposes
- Please mark ✓ in the boxes available for your responses.

If you have queries regarding to questionnaire, you can reach me using the following number +251910768687 and email address hannahtamiru7@gmail.com

Thank you!

Hannah Tamiru

SECTION A: Background Information

Here general questions regarding the participant's profile are given. Please indicate your choice by marking (X) against your choice.

1. Gender:

Female Male

2. Age:

18-25 yrs 26-35yrs

36-44 yrs above 45yrs

3. Highest educational level obtained:

Diploma Master's Degree

Bachelor Degree Doctoral degree

4. Work experience in Banking Industry

1-3 6-10

3-6 Above 10

SECTION B: The role of telebirr service on bank performance

This section's goals are to evaluate telebirr's transaction volumes and values, operational efficiency and financial inclusion towards banks.

Please answer the following questions using this 5-points scale.

1 = Strongly Disagree **2 = Disagree** **3 = Neither agree nor disagree** **4 = Agree** **5 = Strongly Agree**

Operational efficiency of banks through the implementation Telebirr service						
No.	Items	1	2	3	4	5
1	The integration of Telebirr has reduced the time required to process transactions.					
2	Using Telebirr has lowered the operational costs of handling financial transactions.					
3	The technical integration of Telebirr with existing banking systems is smooth and efficient.					
4	Telebirr has increased the overall speed of banking operations.					
5	The integration of Telebirr has enhanced the accuracy and reliability of transaction records within the bank.					
6	The implementation of telebirr has reduced the possibility of errors or inconsistencies in the bank's transaction processing operations.					
Financial inclusion of banks through the implementation Telebirr service						
No.	Items	1	2	3	4	5
7	Low-income people and households now have access to financial services due to telebirr service.					
8	Telebirr has made financial services more affordable for customers, especially in terms of transaction fees and service charges.					
9	The integration of Telebirr has supported the inclusion of individuals with limited or no access to traditional banking services in the formal financial system.					
10	Telebirr service helped banks to improve its financial performance by increasing payment transactions.					

Role of Telebirr on the transaction volumes and values processed by the banks.

No.	Items	1	2	3	4	5
11	The implementation of Telebirr has enhanced the bank's capacity to manage and process a larger number of financial transactions.					
12	The implementation of Telebirr has contributed to a significant rise in the average value of transactions conducted within the bank.					
13	The adoption of Telebirr has improved our bank's competitiveness in the market.					
14	The introduction of Telebirr has effectively facilitated a wider variety of financial transactions, including payments, transfers, and other banking activities.					
15	The integration of Telebirr has increased the total number of transactions processed by our bank.					

Bank performance

No.	Items	1	2	3	4	5
16	Telebirr has enhanced the efficiency of bank's operations.					
17	The value of transactions conducted via has increased over time.					
18	The bank has effectively utilized Telebirr to promote financial inclusion and access to banking services.					

Thank you

