ANALYSIS OF THE DETERMINANTS OF BANKING AGENTS' PERFORMANCE: THE CASE OF COMMERCIAL BANK OF ETHIOPIA BOLE DISTRICT

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE, GRADUATE STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF SCIENCE IN CORPORATE FINANCE WITH A SPECIALIZATION IN INVESTMENT MANAGEMENT

BY: SENAIT KEBEDE

ADVISER: TINKER SEIFU (PHD)

ADDIS ABABA UNIVERSITY
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MAY ,2025
ADDIS ABABA, ETHIOPIA

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DECLARATION

I declared that this thesis, which I submit to Addis Ababa University on consideration of the award of a higher degree in Masters of science in Corporate Finance with a specialization in Investment Management, is my own personal effort. This work has not been submitted for any other degree or processional qualification in any university or other tertiary institution except as specified. In addition, to the best of my knowledge and belief, it contains no material previously published or written by another person, except where due reference has been made in the text. Furthermore, I took reasonable care to ensure that the work is original.

By: Senait Kebede Bayabile

Signature _____

Date _____

THESIS SUBMISSION APPROVAL FORM

This is to certify that the thesis entitled "Analysis of the determinants of banking agents' performance: the case of commercial bank of Ethiopia bole district" has been carried out by Senait Kebede Bayabile under my supervision. This thesis is submitted for the fulfillment of the requirements for the Master of science in Corporate Finance with a specialization in Investment Management, program at Addis Ababa University. I confirm that the candidate has met the necessary academic requirements and recommend the thesis for submission and defense.

Name of Advisor: Tinker Seifu (PhD)

Signature:_____

Date:_____

STATEMENT OF CERTIFICATION

This is to certify that the thesis prepared by Senait Kebede Bayabile, entitled Analysis of the determinants of banking agents' performance: the case of commercial bank of Ethiopia, Bole district, was submitted in partial fulfillment of the requirements for the degree of Master of science in Corporate Finance with a specialization in Investment Management, it complies with the regulations of the University and meets the accepted standards of with respect to originality and quality.

Signed by the Examining Committee:

Internal Examiner - Mengistu Bogale (PhD) Signature _____Date_____

External Examiner - Abebaw Kassie (PhD) Signature  Date_____

Advisor - Tinker Seifu (PhD) Signature_____Date_____

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Chair of Department or Graduate Program Coordinator

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ACRONYMS

CBE – Commercial Bank of Ethiopia

CBE-birr – Mobile Money (one of commercial Bank of Ethiopia Product)

CBK – Central Bank of Kenya

ICT – Internet Communication Technology

NBE – National Bank of Ethiopia

SPSS – Statistical Package for Social Science

FDIC - Federal Deposit Insurance Corporation

VIF - Variance Inflation Factor

AFS - Agency Financial Services

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ABSTRACT

This study examined the determinants of banking agent performance for the Commercial Bank of Ethiopia (CBE) within the Bole District of Addis Ababa. The research identified key factors influencing agent success, drown up on a theoretical framework encompassing Innovation Theory, Agency Theory, Perceived Risk Theory, Transaction Cost Theory, and Bank-Led Theory. A quantitative methodology was employed, utilizing structured questionnaires to collected data from a sample of CBE banking agents selected through stratified sampling. The study examined the impact of agents' banking knowledge, infrastructure, financial costs, and bank-to-agent location on agent performance. By analyzed this data using SPSS, the research seeks to provide insights into how CBE can optimize its agent banking model to enhance agent effectiveness and contribute to broader financial inclusion goals within Ethiopia. The findings indicated that agent performance is positively impacted by infrastructure and agents' knowledge, and negatively by transaction cost and bank-to-agent distance. The research was expected to inform policy recommendations aimed at improving agent training, strengthening network infrastructure, reducing financial burdens on agents, and enhancing awareness creation measures. The study acknowledges the limitations of sampling and calls for further research to validate the findings and explore the issue of agent banking in diverse contexts.

Key Words: Infrastructure, Transaction cost, Agency banking, Bank-to-agent distance

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The banking sector plays a crucial role in economic development by providing financial inter mediation, mobilizing savings, and allocating funds to productive investments. Bank agency performance is a key indicator of the efficiency and effectiveness of the banking system. In other words, the financial performance of banks has critical implications for economic growth of countries. Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. In contrast to this, poor banking performance can lead to banking failure and crisis which have negative repercussions on the economic growth (Gemechu Berhanu Kusa, 2013)

Offering financial services to bank customers through engaged agents in accordance with a legitimate agency arrangement, as opposed to a teller or cashier, is known as an agency bank. According to Ferdous, Mosharrafa, and Farzana (2015), the person who handles banking transactions on behalf of the relevant bank is the outlet's owner. Saat, Karbhari, Heravi, and Nassir (2011) state that the only people who provide services to clients are the agency bank's owner or a retail outlet employee. These people enable clients to pay their bills, check the balances of their accounts, transfer funds, and even obtain government benefits. Financial institutions can provide financial services outside the typical bank premises thanks to agency banking, a branchless banking model based on internet communication technologies (Mas & Siedek, 2008).

These days, on an international level, banking agents often operate through various distribution channels, including retailers, fuel stations, shopping malls, pharmacies, grocery stores, convenience shops, lottery outlets, post offices, and many more. Banking is now no longer confined to the branches where one has to approach the branch, to withdraw cash or deposit a request a statement of accounts rather deliver their service through agents (Berger, 2003). Brazil is well known in developing of the first agency banking in 1999 and advanced by covering 1600 municipalities in 2000 and all 5500 municipalities in 2010 through 170,000 agents and also 12 million accounts are opened at agents (McKay, 2011).

In case of Africa, agency banking is well-practiced in different countries of the continent. In South Africa, the first agency banking was opened in 2005 (Ivantury & Mas, 2008).

The Commercial Bank of Kenya released the guidelines for agent banking in May 2010 (Guideline on Agent Banking - Commercial Bank of Kenya /PG/15, 2010), and these regulations are now highly experienced and extensively distributed in both Kenya and other countries in Africa. The Kenyan parliament approved bank-based agent banking models in June 2009.

Ethiopia's financial sector and policies have evolved through three traditional phases: financial inclusion in the second half of the 1990s, which allowed private banks and other institutions; financial repression during the socialist regime, which was followed by market-led development through deregulation and liberalization (post-1991). With the issuance of Proclamation No. 40/1996 in 1996, Ethiopia's financial industry entered a new era and was given the chance to develop an inclusive financial sector that is now known as mobile money service. The Ethiopian private sector is allowed to operate in the banking and insurance industries under Proclamation No. 84/1994.

The National Bank of Ethiopia introduced the Regulation of Mobile and Agent Banking Services Directive No. FIS/01/2012. According to the mode of business conduct, only financial institutions licensed by the National Bank are allowed to engage in mobile banking services. These directives became effective on January 1, 2013(NBE website).

The National Bank of Ethiopia amended the agent banking directive with the announcement of the 'Use of Agent Banking Directive No. FIS/02/2020' on March 31, 2020. The directive became effective on April 1, 2020 (NBE website).

After obtaining written approval from the National Bank of Ethiopia (NBE) for agency banking services, the Council of Ministries approved the CBE Birr procedure on January 16, 2017. Subsequently, the Commercial Bank of Ethiopia (CBE) began implementation on June 16, 2017. CBE Birr, the bank's mobile money service, was launched to provide digital financial solutions, enabling users to send and receive money, pay bills, and make purchases using their mobile phones. (CBE, CBE Birr Procured, June 2017)

CBE Birr is a mobile money service streamed by Commercial Bank of Ethiopia through a network of mobile money agents. Customers with mobile phone and SIM can register and open CBE Birr account (Wallet Account) at authorized agents or CBE branches. Customers can also make online self-registration for the service (level 01 registration) using CBE Birr app by providing ID and Photo. Once customers are registered for CBE Birr service, they can deposit cash at the agents or CBE Branches in exchange for electronic money or can transfer money from their bank account to their CBE Birr wallet using mobile banking service. Sending and receiving money, bill payments, fuel payment, condominium loan repayment, airtime top-up, flight ticket payment, school fee payment, tax payment are the few services among many more services provided by CBE Birr. (https://combanketh.et/en.cbe-birr/)

Commercial banks use agent banking operations as a competitive tactic, according to McKay (2011). Bank customers can now obtain financing, pay less for physical presence and value transactions, enjoy extended opening hours, shorter wait times than in branches, and, for the very poor who might feel intimidated in branches, shorter lines thanks to agency banking. Regretfully, in the process, the agents run into a number of difficulties, including credit risk, operational risk, liquidity risk, and high operating expenses (chiteli, 2013; Girma, 2017). Comprehending the factors that influence bank agency performance is crucial for financial growth and economic development in developing nations such as Ethiopia. As a result, the focus of this study was primarily on analyzing the determinant factors that impact banking agents' performance.

1.2 Statement of the problem

Currently there are many private and state banks in Ethiopia. The economic liberalization of the financial sector, which began in 1991, established the groundwork for the establishment and growth of private banks in the nation (Hanson (1995). The most prominent bank in Ethiopia is Commercial Bank of Ethiopia (CBE), which was founded in 1942. This bank pioneered contemporary banking in the nation by excelling in customer service, leading the sector in digitalization, maintaining cost-effectiveness, and being the most secure bank in Ethiopia (CBE company profile, 2024). It serves as a catalyst for the nation's economic growth and development and was the first bank in Ethiopia to offer Automatic Tailor Machine services to both domestic and foreign customers.

The bank continued recruiting agents and merchants for its CBE Birr mobile money service in the fiscal year to enhance the availability of its services through digital banking. Therefore, it could work with 43,622 agents and 56,831 merchants as of 30 June 2023. 10.2 million CBE-Birr mobile money service users. (CBE, annual report 2022/23).

The banking industry is adapting to a dynamic business environment, offering services through agents or mobile money, potentially improving access to formal financial services for underprivileged communities (Wambari, 2009). In many developing nations, the branchless banking model of agency banking has proven to be highly effective in enhancing the performance of banks. Successful agency banking performances were recorded in Colombia, Brazil, Peru, and India (Bold, 2011).

The concept and adoption of agent banking is at an infant stage in Ethiopia in terms of the employees, end users and banking agents. According to the United Nations population estimates and projection the total population of Ethiopia is 132,060,000 distributed across 1,104,300 square kilometers of land as of July, 2024. In addition to this 76.8 percent of the populations are living in the rural areas (CIA-USA report, July, 2024).

As of June 30, 2023, the ratio of bank branches to population was still 1 to 14,000 people. Additionally, only a small number of banking agents were employed, with 34.5 % of branches located in Addis Ababa. These factors have prevented financial institutions from reaching the bulk of the population (NBE report, 2022/2023).

According to financial brand forum which is the most elite annual conference in the banking world undertaken in January, 2018 commercial banks like Colombia, Brazil, Kenya, Mexico, Argentina fand India considering agent banking commercially viable and they increase their revenue and accelerating financial inclusion among marginalized section of society. Transparency, training, cash supply, customer complaints, software malfunctions, internet, and agent mishandling of cash problems are issues that exist in these and other countries as well. According to 2017 World Bank research, 33% of adults in Rwanda, 68% in Kenya, and 17% in Ethiopia receive their pay through bank accounts. According to data from the Federal Deposit Insurance Corporation (FDIC) in the United States in 2017, 93.5% of all Americans have a bank account, and of those, 63% utilize digital banks. Accenture conducted a poll in 2014 titled "The

Digital Disruption in Banking," which involved 4000 retail banks in the USA and Canada. This all shows the agency banking technological advancement in the developed nation and their contribution to an economy, despite this very few empirical studies that has been undertaken in Africa to establish determinants of performance of agent banking.

Agency banking, is a crucial component of financial inclusion, has gained significant traction in Ethiopia and globally. Here's a breakdown of key research findings on the factors influencing its performance: According to Tilahun (2017), the primary obstacles faced by banking agents in Ethiopia are the telecom and interbank networks, as well as the need to enhance criminal regulations and managerial skills. The study did not highlight or suggest ways to improve an agent's status level within the current network, how an agent's performance relates to bringing in new unbanked customers and enabling digital benefits for current bank customers, or how to improve an agent's knowledge and mindset regarding branchless banking as a means of supporting their business and making money in addition to creating new job opportunities. Nelius (2017) emphasized agent to bank distance, security and infrastructure power of influence in the growth of banking agent in rural area of Ethiopia. The researcher however did not conduct the study in urban area which is still unbanked or under banked society live. According to the Study that conducted on the title of "Assessing the Performance of Agency Banking in Ethiopia: The Case of Hawassa City", Agent characteristics, including education, experience, and entrepreneurial spirit are significantly influences the performance of Agency Banking (Abebe, B. S., & Tadesse, M., 2022). Mekonnen, B., & Admasu, T. 2021, in their work"Challenges and Opportunities of Agency Banking in Ethiopia: A Case Study of Oromia Region" have stated that Limited financial literacy among agents, poor infrastructure, and lack of proper training hinder performance of agent banking. According to the Study on the title of "Agent Banking in Ethiopia: A Review of the Literature and an Assessment of the Regulatory Framework" that was conducted by (Gebreyesus, A.2019), has concluded that access to technology, strong regulatory frameworks, and efficient agent training are essential for successful agency banking implementation.

Khan, M. A., & Ahmed, S. 2022), on their Study of "Agency Banking: A Review of the Literature and Research Directions", have stated that Factors like agent selection, incentives, technology infrastructure, and regulatory environment are influencing agency banking success

globally. On the Study "Agent Banking: A New Frontier for Financial Inclusion in Emerging Markets" by World Bank (2015), the finding revealed that, Strong partnerships between banks and agent networks are crucial for effective agent banking operations.

To the best of researcher's knowledge, there is limited research on the factors that influence bank agency performance despite the growing importance of the agency banking in Ethiopia. Because in the most of findings in the researches that publicized: network, knowledge; transaction cost and bank to agent distance have not studied deeply as a direct effect on agent banking performance. And also, there is time gap between my work and the previous literature because most of them are conducted before 2019 in relation to my area. This research gap hinders the development of the effective policies and strategies to improve the performance of bank agencies and the banking sectors as a whole. By conducting this study, the researcher aims to fill the gap by analyzing key determinants of banking agents' performance in the city.

1.3 Objective of the study

1.3.1 General Objective:

The general objectives of the study were to analyze the determinants of bank agency performance in the case of the commercial Bank of Ethiopia, Bole district.

1.3.2 Specific Objectives:

To assess how banking agents' performance is impacted by their knowledge.

To evaluate the impact of infrastructure on the performance of agent banking.

To investigate how banking agents' performance is affected by the distance of bank-to-bank agents.

To examine the impact of transaction cost on bank agency performance.

1.4. Research Questions:

How the banking agents' knowledge effect on their performance

To what extent infrastructures determine performance of banking agents?

How bank agent distance has effect on banking agent's performance?

How costs of transaction cost affect performance of banking agents?

1.5. Hypotheses Development

Hypothesis is the tentative statement of fact that is yet to be verified by the researcher. To address the research questions, the study is designed to investigate factors that could explain determinants of agent banking service in commercial bank of Ethiopia as dependent variables and independent variables at an assumed 95% level of interval confidence. The description of both dependent and independent variables with related hypothesis is discussed below.

H1: Infrastructure has a relationship and significant effect on agents' performance

H2 Agents' knowledge has a relationship and significant effect on banking agent's performance

H3: Transaction cost has a relationship and significant effect on agents' performance

H4: Agent to bank Distance has a relationship and significant effect on agents' performance

1.6 Significance of the study

This study contributes to the existing body of knowledge on bank agency performance in developing countries. The finding of the study is useful for policymakers, bank managers, and researchers in designing and implementing strategies to improve bank agency performance and promote financial inclusion in Ethiopia. Specifically, this study can help commercial banks of Ethiopia decision makers to examine the major factors that may determine performance of banking agents.

1.7 Scope and Limitations

This research assesses the determinants of banking agents' performance in case of Commercial Bank of Ethiopia in Addis Ababa, Bole district. The study is confined itself to surveying, observing and document analysis of the purposely selected district (Bole district in Addis Ababa) it excluded other financial institutions to explore the intent of the study. The district selected, based on large number of customers of banking and huge transaction volume. The procedure decreases the generalize-ability of the findings, and this study might not be applicable to all areas of financial institutions. Additionally, the study's time frame is restricted to 2018 to 2024.

1.8 Organization of the study

There are five chapters in the research paper. The background of the study, problem statement, study objectives, research questions, study scope and constraints, and research paper importance are all included in the first chapter, which serves as the introduction. The theoretical frameworks for the research are outlined in Chapter 2 along with a survey of the literature pertaining to the paper's research topic. The research methodology is covered in Chapter 3, which is divided into four main sections: the introduction of the research aim; the study's research approach; the research strategy; and the research method itself. The findings and analysis of the research is presented in Chapter 4. The paper's conclusion and a summary of the results are covered in the last section of chapter five.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of agent banking and its justification, as well as a discussion of the major ideas and concepts pertinent to the field. The determinant factors of the performance of agent banking are examined. It discusses, examines, and critically evaluates prior research on the topic as well as pertinent literature in this field. The empirical investigation and conceptual frame work into the factors influencing the performance of banking agents are also covered in this chapter.

2.2 Theoretical Review of agent bank.

Agent-banking is an arrangement by which licensed institutions engage third parties to offer certain banking services on their behalf (Tarazi & Breloff, 2010). Agent banking is a branchless banking model that offers a cheaper alternative to traditional banking, allowing financial institutions to offer services outside traditional bank premises. This technology, known as "branchless banking," enables customers to conduct basic financial transactions at retail stores using cards or mobile phones for security and authorization (Hassen, et al, 2011, Lyman, et al, 2006).

Branchless banking allows customers to conduct basic financial transactions such as deposits and withdrawals at everyday retail stores, using technology readily available to both customers and store clerks in the form of cards or mobile phones to properly secure and authorize the transactions. Alexandre, Claire, Mas, and Radcliffe (2011) prefer the term “banking beyond branches” in recognition of the fact that bank branches still play a fundamental role in supporting the liquidity of the cash-in/cash-out network in branchless banking schemes: “In the new cash ecosystem, retail outlets handle the last mile, but banks still do the long haul. While the key innovation of agent banking is the use of everyday stores to capture customers’ cash transactions, the key enabling factor is the existence of ubiquitous communications networks that permit financial service providers to transact securely through these third-party outlets (Ivatury, 2006; Lyman et al., 2006). Agent banking expands banks' reach beyond traditional branch networks; overcoming costs associated with branch building and affiliated setup. This approach, leveraging third-party agents' infrastructure and manpower, is expected to help banks rapidly expand (Veniard, 2010).

2.2.1 Innovation theory

Innovation theory also called diffusion theory, it explains how advancements gain control and over time spread thorough a specific population and it concerned with how something new moves from creation to use (Rogers, 1962). The innovation theory suggests that society members adopt new ideas or products at different timelines and through different decision processes, with innovation decisions heavily influenced by other members of the social system (Rogers, 1995). These theories specify in to five categories of innovativeness, the innovativeness is the degree to which and individual is relatively earlier in adopting of new ideas than other members of a system (Rogers, 1995). This are: innovators (those adopt new product at first); early adopters (opinion leaders who believe change is necessary; early majority (adopt the new product before average people); late majority (adopt after majority of their peers accept the product) and the last is laggards are conservatism, traditional, suspicious of the innovation and isolate form social system.

According to Berger (2003) Technological innovation directly impacts performance improvement. Commercial banks have adopted internet, agency, visa cards, and mobile banking for efficient resource utilization and increased profits. This shift to remote banking services is necessary due to rapid growth in electronic banking services and increased competition. Banking agents play a crucial role in enabling unbanked societies to access bankable money.

In the recent past, innovation has been used by the commercial banks as a leading strategy to ensure survival and enhance profitability. Mbobua et al. (2013) notes some innovative initiatives which have been used by commercial banks include mobile phone banking, tele-banking, internet banking and fax. As indicated by Kwan (2001), while it is difficult to predict how the financial services sector in general, and the banking industry in particular, will evolve over time, financial regulators and policymakers are keenly interested in the course of financial modernization.

2.2.2 Agency Theory

Agency theory, in its modern form, largely originates from the work of Mitnick (1973) and Ross (1973), and embraces the areas of political science and economics. Following Mitnick's (1973) and Ross's (1973) lead, agency theory was subsequently adapted and used in a variety of other disciplines such as sociology, management and in work involving the theory of the firm. In

agency relationships, one party (the principal) delegates work to another party (the agent) (Jensen & Meckling, 1976; Ross, 1973; Eisenhardt, 1989). When the agent is acting for the principal, it resembles behaviour's such as performing for the benefit of the principal or acting as the principal's representative or employee (Mitnick, 1973). As Eisenhardt (1989) points out, while the profit maximization approach and self-interest persist, the focus of agency theory centers on determining the most efficient contract governing the principal-agent relationship. The notion of the contract is used here as a metaphor to describe the agency relationships (Jensen & Meckling, 1976) and it is designed based on the outcome (e.g. commissions) or behaviour (e.g. salaries) of the agent (Eisenhardt, 1989) Developments in agency theory are largely based on two important streams of inquiry, namely, principal-agent research and positivist agency theory.

The classical approach to understanding agency theory has historically followed the principal agent relationships route, which assumes that the principal and agent will attempt to maximize their positions through individual interpretation of the contract. Positivist agency theory (PAT) has largely evolved in order to overcome many of the shortcomings found in principal-agent research, in particular, the issue of complexity surrounding real world relationship dilemmas (Eisenhardt, 1989). Therefore, Agency theory emphasizes the crucial relationship between banks and agents, emphasizing the need for supervision and monitoring procedures to prevent losses. However, unscrupulous agents may deviate from established procedures, such as splitting deposit transactions for commissions. This can lead to increased surveillance and a cycle of administration costs. The simple agency model assumes no agents are trustworthy, ignoring the possibility that some agents may be trustworthy and work in the principal's interests.

2.2.3 Perceived Risk Theory

Perceived risk is the level of uncertainty and potential negative consequences that individuals associate with a decision, particularly in the context of purchasing, where they anticipate possible losses (Bauer, 1967). Perceived risk plays a significant role in the adoption of information systems, especially when users experience uncertainty, discomfort, or anxiety about the system. When concerns arise regarding security, reliability, or usability, individuals may hesitate to embrace the technology. Issues such as data privacy, potential financial risks, and system malfunctions amplify this hesitation, making perceived risk a crucial factor in decision-

making processes (Dowling & Staelin, 1994). It also comes in if conflict is aroused in the consumer, there is general concern about product safety and psychological discomfort making the consumer feel uncertain, pain due to anxiety and cognitive dissonance (Germunden, 1985). Perceived risk refers to the potential for loss in pursuing a desired outcome of a product or platform. In agency banking, consumer perceived risk significantly influences user acceptance of platforms and services, including security of systems, fraud risk, financial information security, and network capability.

2.2.4 Transaction cost theory

The transaction cost theory also called social cost theory or real cost theory is a contractual concept developed by British economist Ronald Coase in 1937 and refined by American economist Oliver Williamson in 1975. In economics and business, Transaction costs refer to the expenses incurred during economic exchanges, including communication, legal fees, contracting, coordination, and search costs, primarily relating to market participation (Nasiri, 2006).

In short transaction cost is a cost in making any economic trade when participating in a market. The model suggests that institutions and markets can coordinate economic transactions, with growth occurring when external transaction costs exceed internal costs, and downsizing through outsourcing. The agency model in the banking sector considers the cost of traditional branches and contracts, and the willingness of agent entrepreneurs to direct resources to enhance performance (Coase, 1937).

Agent banking drastically reduces the cost of setting up points of contact with customers, allowing MFIs, banks and other providers to reach out into areas where building branches would be too expensive. Muriungi (2012), reports that banks expansion is usually limited due to the high initial cost of opening a branch and in many areas due to the low economic status of the people living in these areas. Banks can expand their branches by partnering with businesses across the country, reducing transaction costs and increasing coverage. This leads to a larger customer base, market share, and revenue. However, barriers include high transaction costs, infrastructure constraints, and insufficient information. Lack of data on financial inclusion also hinders progress and policy evaluation (AFI, 2012).

2.2.5 Bank - led Theory

This model provides a unique approach to banking by allowing customers to carry out financial transactions through various retail agents, rather than relying on traditional bank branches or direct interactions with bank employees (Lyman, Ivatury & Staschen, 2006). Lyman et al. (2006) make two distinctions of m-banking: 1. Bank led and 2. non-bank led actors. In the bank-based model, customers have a direct contractual relationship with a prudentially licensed and supervised bank or a financial institution. In the non-bank model customers have no direct contractual relationship with a fully prudentially licensed and supervised financial institution. This virtual account is stored on the server of a non-bank. Whatever be the models, there is presence of all the players even in non-bank led model where banks hold excess cash deposit to affect the mobile transactions (Russel, 2009). In bank led theory, a bank develops financial products and services, but distributes them through retail agents who handle all or most customer interaction (Lyman, Ivatury, & Staschen, 2006). Retail agents have face-to-face interaction with customers and perform cash in/ cash-out functions, much as a branch-based teller would take deposits and process withdrawals (Owens, 2006). In our case National Bank of Ethiopia clearly state lawful activities of banking agents through mobile and agent banking Directive No. FIS/01/2012 (NBE, 2013) in the exception of granting loan facilities to customer by agents. Therefore, the agents can make transaction with mobile phone or point of sales terminals (POS) but ultimate mandate power is in the hands of banks.

2.3. Determinants of agent bank performance

2.3.1 Infrastructure

Networking capability refers to the capacity of a network at the individual, company, or overall level (network-level capability). Every business engages in networking by proposing, demanding, executing, and adjusting activities that are concurrently social and economic processes that help people and organizations form enduring bonds with specific groups of stakeholders in order to obtain support and enable the exchange of resources and an independent actors' transformation process into a more closely knit configuration of a (supply) network (Detmar.set.al, 2004).

2.3.2 Agency Banking Knowledge

In the United States, there are still many people without bank accounts for a variety of reasons, such as ignorance of the banking industry, unrealistic expectations regarding bank account ownership, and a lack of supporting documentation (Anderson, 2007). Information can be

processed more quickly and accurately by those with higher business intelligence than by others. Furthermore, in contrast to people who lack the professional skills required to run a firm, these people are also capable of taking in new information and coming up with creative ideas (Mizruchi et al., 2011). This indicates that the banking system will change from being based on branches to being branchless (mobile money) as a result of the strong education campaign about electronic banking in society. It will also improve the performance of banking agents.

2.3.3 Financial cost/Transaction cost/

The advancement of technology has given service providers the chance to expand their offerings and give clients greater freedom. Consequently, banks have introduced several methods of service access through new channels of delivery, such as ATMs, the internet, mobile phones, and banking representatives (Laukkanen & Pasanen, 2007). Providing lucrative services to underprivileged clients through traditional channels is a difficulty faced by financial firms. However, as a type of "branchless banking," agency financial services (AFS) reduce client service expenses (Ivatury & Mas, 2008). Low-cost banking can bring into its fold a considerable group of consumers who formerly could be served only at too high a cost (Datta, Pasa, & Schnitker, 2001). According to Nah, Siau and Sheng (2005) the cost of mobile devices and mobile services was identified as an investment concern. Luarn & Lin, (2005), argued that financial cost was one of the greatest concerns in adoption of Agency banking services. Additionally, Rajanish and Sujoy (2011) found that the cost of using Agency Financial Services (AFS) was a major concern among the interviewed villagers. Many were eager to understand whether they could conduct transactions through AFS and were particularly interested in the associated costs. Therefore, the affordability of AFS plays a crucial role in its adoption.

2.3.4 Bank to agent location or Distance

According to Habbash, Salama and Dixon (2010) location is choice of where a business is to be located, be it small, medium and large cities or urban or rural locations. In (2013), Bedman cites that the major reason for the high proportion of the unbanked is the lack of proximity between the banks and the banked. Many researchers consult agent banking performance will be affected by distance from bank. They contend that when an agent installs their business remotely from bank branches, they will earn handsomely. That is, the area where the majority of people lack or have inadequate banking. Even if using an informal option would be riskier than actually having a traditional bank account, people may turn to it as the best option when the poor are unable to

access formal banking services. There is hope for a day when financial services are no longer geographically exclusive to residents of the world's most isolated locations. Individuals won't have to spend a lot of money or drive far to visit bank branches.

2.4 Empirical Review

Analyzing the factors influencing bank agent performance is crucial for expanding financial inclusion and achieving development goals. This empirical review provides a starting point for understanding the determinants of bank agent performance, highlighting the importance of tailoring interventions to local contexts, addressing specific challenges, and leveraging data and technology to optimize agent banking strategies. While research on this topic is growing, particularly in emerging markets like Ethiopia, the literature offers valuable insights for the Commercial Bank of Ethiopia (CBE). Here's a breakdown of key findings:

Studies consistently highlight the positive impact of education (knowledge) and experience on agent performance. For instance, according to Khan & Ahmed, 2022; Beck, Demirguc-Kunt, & Honohan, 2018), Agents with higher education and relevant business experience tend to be more effective in attracting customers, managing transactions, and achieving financial targets. Ethiopian studies emphasize the importance of local knowledge and understanding of the target market for effective agent performance (Abebe & Tadesse, 2022). Agents who are familiar with the community and its financial needs tend to be more successful. Research in Ethiopia has highlighted challenges like limited financial literacy among agents and the population, infrastructure constraints, and regulatory complexities (Mekonnen & Admasu, 2021).

Khan & Ahmed, (2022) on their work have stated that, access to technology, including mobile banking platforms, point-of-sale devices, and reliable internet connectivity, is essential for efficient operations and improved customer experience. As World Bank, (2015), Agents need to be proficient in using digital tools and platforms to fully leverage the potential of technology in agent banking.

Ndome's (2011) study on agent banking adoption in Nairobi's Kawangware area found high utilization of services, indicating a level of exclusion. However, the study focused on adoption rather than financial inclusion, highlighting the need for attention to this issue.

Wambari (2009) in his study on mobile banking in developing countries, particularly Kenya, highlights the growing interest in providing financial services through mobile network operators.

Concerns include access, attitudes towards mobile banking, and challenges. Mobile banking, as the backbone of agent banking, shows growth and positive adoption, potentially reducing transaction costs and operational costs.

Schmidt and Walter's (2009) study on the banking industry found that operational costs incurred in diversifying agency portfolios significantly affect the performance of contracted banks. The study examined the effects of earnings volatility, portfolio diversification losses, bank size, and standard deviation of bank equity returns.

As observed by Schmid and Walter (2009) from a typical banking regulator's perspective, entrusting retail customer contact to the types of retail agents used in both the bank-led and non-bank-led models would seem riskier than these same functions in the hands of bank tellers in a conventional bank branch. These retail agents may operate in hard to reach or dangerous areas, they lack physical security systems and specially trained personnel. This greatly affects the performance of the agents. A study Conducted by Bold (2011) in Brazil found that some countries restrict the location of agents, though such restrictions are sometimes eased when regulators recognize that the regulations create obstacles to financial inclusion.

Jayakumar and Anbalaga (2012) found that many banking agents struggle with handling large cash transactions and under spending on security measures, negatively impacting their performance and customer confidence. This leads to reluctance in engaging with agents, ultimately affecting commercial banks' financial performance. Lilian, James, and Felix (2018) conducted a study to examine the factors affecting the adoption of agency banking services among customers in rural Kenya, focusing on Narok. The research also aimed to determine how fraud, skill level, location, and confidentiality influenced the uptake of agency banking by both customers and agents in Kenya. Their finding reveals there is positive relationship between up taking of agency banking and skill, location and confidentiality but there is negative relationship with fraud. Andrew (2015) examined the factors influencing the performance of banking agents in Kenya, focusing on fraud, network capability, financial literacy, and service cost. The study analyzed a sample of 98 branch staff and agents, revealing that service cost and financial literacy were key determinants. Additionally, network strength played a role in security.

According to Peter (2016) examined the perception and exploitation of entrepreneurial opportunities in agency banking in Kenya. The study, which involved fifty Equity Bank agents, identified various opportunities in agency banking, including money transfer services, multi-

agency banking, and the sale of prepaid services. Capital constraints and human resource challenges influenced exploitation, while physical risks and fraud were the main risks.

Research work by Beck, Demirguc-Kunt, & Honohan, (2018), has demonstrate that a strong correlation between distance and agent usage. Shorter distances lead to higher transaction volumes and customer satisfaction. Ethiopia's vast geography and uneven distribution of agents present significant challenges. Reaching remote areas remains difficult, limiting access to financial services. Commercial Bank of Ethiopia (CBE) needs to focus on expanding its agent network in under-served regions and developing mobile banking solutions to overcome distance limitations.

Khan & Ahmed, (2022), on their study revealed that adequate infrastructure, including reliable internet connectivity, electricity supply, and secure communication networks, is crucial for agent performance. Infrastructure deficiencies in Ethiopia pose significant barriers, particularly in rural areas. Limited access to electricity and internet hampers agent operations and customer experience. Commercial Bank of Ethiopia (CBE) should invest in improving infrastructure, explore alternative energy solutions, and collaborate with telecommunication companies to expand connectivity.

According to the World Bank, (2015), Technology is transforming agent banking, enabling mobile money, remote transactions, and personalized services. Ethiopia has a high mobile phone penetration rate, creating opportunities for mobile banking and digital financial services. However, limited digital literacy and infrastructure remain barriers. Hence, Commercial Bank of Ethiopia (CBE) can leverage technology to enhance agent performance through mobile banking apps, agent on-boarding platforms, and digital payment solutions. According to Honohan and Beck (2018), excessive transaction costs can discourage customer usage and hinder financial inclusion. In Ethiopia, transaction fees often combined with additional charges, can place a financial burden on low-income customers. To enhance affordability, the Commercial Bank of Ethiopia (CBE) should focus on transparent pricing, explore cost-effective solutions, and consider subsidizing transactions cost.

2.5 Gaps in Literature Review

This section highlights the gap that has emerged from both theoretical and empirical research on the factors influencing the performance of bank agents in Ethiopia. Based on previously

discussed concepts, agency businesses involve third parties, and their effectiveness can be affected by various factors, including fraud, infrastructure, transaction costs, the distance between banks and agents, financial inclusion, and the supply of electricity.

Customers using banking services have direct contractual relationships with regulated financial institutions through transaction accounts, such as savings accounts, loans, or a combination of both. However, agency banking has broadened access to financial services across wider geographic areas, significantly improving financial inclusion and accessibility especially for lower-income individuals who previously had limited access to traditional banking services. Previous research has shown that Training, security, incentive, operating costs, and experience all have an impact on an agent's bank performance. As a result, it's critical to understand the variables that significantly affect an agent's performance, especially in Ethiopia. This study aims to fill or address this gap by examining more variables.

2.6 Overview of Agency Banking

A banking agent is a retail or postal outlet contracted by a financial institution or a mobile network operator to process clients' transactions. Rather than a branch teller, it is the owner or an employee of the retail outlet who conducts the transaction and lets clients deposit, withdraw, and transfer funds, pay their bills, inquire about an account balance, or receive government benefits or a direct deposit from their employer (Tarazi, 2010). Banking agents, such as pharmacies, supermarkets, convenience stores, and lottery outlets, are increasingly used as a distribution channel for financial institutions worldwide. They offer various services, from bill payment to social payments. Agents use a combination of POS card readers, mobile phones, bar code scanners, PIN pads, and personal computers to facilitate transactions. Clients access their accounts using a magnetic-stripe card or mobile phone, with identification typically through PIN or bio-metrics. Banking agents assist financial institutions in attracting customers from crowded branches, providing a convenient alternative. They also help reach additional client segments, particularly in developing markets, by leveraging existing retail infrastructure and reducing costs, thus providing low-income clients with first-time access to financial services (Tarazi, 2010).

2.7 Rationale for Banking Agents

Banking agents help financial institutions to divert existing customers from crowded branches providing a complementary and often more convenient channel. Other financial institutions, especially in developing markets use agents to reach an additional client segment or geography.

Reaching poor clients in rural areas is often prohibitively expensive for financial institutions since transaction numbers and volumes do not cover the cost of a branch (Ignacio, 2009). In such environments banking agents that piggy back on existing retail infrastructure and lower set up and running cost can play a vital role in offering many low-income people their first-time access to a range of financial services. Also, low-income clients often feel more comfortable banking at their local store than walking into a marble branch. Banking agents are the backbone of mobile banking, i.e., performing transactions over a mobile device, most often a mobile phone. To enable clients to convert cash into electronic money and vice versa which send can be sent over their mobile phone, clients will have to visit a branch, automated teller machine (ATM), or banking agent.

2.8 Trends in Mobile Banking

Over the last few years, the mobile and wireless market has been one of the fastest growing markets in the world and it is still growing at a rapid pace. Mobile banking is used in many parts of the world with little or no infrastructure, especially remote and rural area (Sirken, 2009). Mobile commerce is popular in countries with unbanked populations, where banks are scarce. By 2012, 1.7 billion people with mobile phones could benefit from agent networked banking, reaching 364 million unbanked people, according to a World Bank report.

A study in Brazil, Peru, and Colombia shows slow implementation of agent banking in the first two years, followed by an increase in the third or fourth year. Mexico's new regulations, allowing more financial institutions and savings account opening, will significantly impact financial inclusion (Celina, 2012). In Brazil in 2008, agents transacted 75% of the volume (agents made 1.6 billion transactions) and 70% of the value (agents transacted a total of US $ 105 billion) of total bill payments (Banco in CGAP, 2010). Again, in Brazil, rural agents transact more deposits and withdrawals as a percentage of total transactions (38%) than their urban counterparts (8%) (CGAP, 2010).

In Peru, agents handle 3-8 million monthly transactions, with less than 50% of total financial system transactions conducted through traditional bank branches. In Colombia, agency banking made up the majority of transactions, with collections of utility bill payments and mandatory payments like loan repayment and tax accounting for over $800,000 in July 2011. In India, FINO agents processed 8.4 deposits and 3.1 withdrawals daily, with an average deposit size of USD 3.5

and withdrawal size of USD 7.39 per agency (CGAP, 2010f). In Kenya, Combined total transactions through mobile network operators (MNO) amounted to Kshs 2.45 billion (US $ 24 million) per day (CBK, 2011). again, in Kenya so far Equity bank, Post bank, Co-operative bank and Kenya commercial bank have launched forays into the agency banking segment, with some already claiming that identifying agencies that are able to provide cash to customers is becoming an industry challenge. Recent data from CBK reveals that over 10,000 agencies have been licensed, with Equity claiming 50% market share (CBK 2011).

As recently as 2009, only 23% of Kenyan adults had access to formal financial services. However, financial inclusion has increased with the expansion of Kenyan banks, with over 1,300 retail bank branches. Factors driving service expansion include the recovery of the economy, technological advancements, and the spread of mobile money services. Safaricom's M-PESA agent network focuses on consistent customer experience (Sirken, 2009). Tilahun (2017) concluded in his research that the main challenges faced by banking agents in Ethiopia include Tele-com network issues, inter-bank network limitations, the need for strengthened criminal regulatory frameworks, and managerial skill development. Nelius (2017) emphasized that factors such as the distance between agents and banks, security concerns, and infrastructure significantly influence the growth of banking agents in rural areas.

As outlined in the CBE profile, the Commercial Bank of Ethiopia (CBE) originated as the State Bank of Ethiopia in 1942. It was officially established as a share company in 1963 and has since played a significant role in the country's development. As a pioneer in modern banking, the Commercial Bank of Ethiopia (CBE) operates over 1,940 branches, holds assets exceeding 1.3 trillion Birr, and maintains an equity position of 74.6 billion Birr, significantly contributing to Ethiopia's economic growth. Agency banking began operations after being approved by the National Bank of Ethiopia in June 2017. It was officially launched in December 2017 following a successful six-month functionality test. Currently, the Commercial Bank of Ethiopia serves more than 18.8 million customers and operates 28,333 active agents across the country.

In Addis Ababa, the Commercial Bank of Ethiopia has more than 392 branches, categorized under different districts. Among them, the Bole district has 48 active branches engaged in normal operations and 329 active agents (Commercial Bank of Ethiopia company profile, 2024). The researcher has used the facts, figures and data of the company in undertaking of this study. In this

study, different variables from different literature are considered to know the determent of banking agent's performance working within the above organization, commercial bank of Ethiopia.

2.9 Challenges of Agency Banking for Banks

Banks face challenges in maintaining customer relationships and avoiding losing customers. These include maintaining confidentiality, auditing security measures in high-risk areas, and ensuring high-quality customer service. Banks must continuously train and retrain agents to uphold high service standards while actively addressing fraud concerns. Agents may be targets by fraudsters, making it difficult to identify fraudulent transactions and maintain originality in documents (Harun Mwangi Waihenya,2009). In the developing world, challenges to branchless banking are more logistical, empowering clients to take up service, achieving symbiosis between bank branches and branchless services and answering operational questions including support in the field all stand in the way of branchless banking (CGAP, 2013).

Mas, et al (2008) stated that financial institutions face challenges in managing their structure for Mobile and Agent Banking, which can be direct, indirect, or hybrid. Direct relationships involve identifying and evaluating agents, contracting and managing them, while indirect relationships involve external management companies. Hybrid approaches involve the institution handling selection and contracting. Building an agent network requires establishing effective agents with trained staff, trusted customers, strategically located, and properly motivated to follow procedures. Agents must maintain adequate cash and e-money float balances to meet customer needs, avoid running out of e-float, and ensure a secure mechanism for transporting cash needs. Ensuring customer satisfaction is crucial for successful agent network building (Flaming et. el 2011).

The Agent Banking business faces challenges in infrastructure availability and quality due to technical and nontechnical issues, network congestion, and inconsistent power supply. Disaster recovery planning is crucial for business continuity and service continuity in case of catastrophic events or natural disasters. Identifying agents capable of handling cash transactions efficiently is also a challenge, as cash is often scarce and concerns about security arise. Entrusting retail customer interactions to these agents may pose greater risks compared to bank-led models, as they operate in remote areas and often lack physical security systems (Lyman et al., 2006).

ICT can help overcome challenges in financial inclusion, as highlighted by Anita et al.'s 2011 survey. The study identifies the need for dialogue and action to reduce financial exclusion by 2020. Financial education and literacy play a crucial role in empowering the working poor and empowering individuals to control their finances. Wolela A., 2014, The researcher argue that the challenges revolve around on: having competitive price with the traditional banking offerings, improper articulation of organizational structure, infrastructure issues like Telecom, Power and road, failure to realize interoperability among financial institutions and financial literacy level of the society. Moreover, the research identified that the strangest regulatory framework drafted by NBE has missing and ambiguous articles which casted shadow on the provision of Mobile and Agent Banking in Ethiopia.

Henok A., 2015, in his study identified major challenges in Ethiopia's mobile banking service, including regulatory issues, lack of interoperability, and a small mobile money limit. Poor network quality, low financial literacy, and lack of local language customization also pose challenges. However, the potential of m-banking in Ethiopia is significant, as the sector remains untapped and the nation's per capital income increases.

2.10 Disadvantages of Agent Banking.

Agency banking is not without its fair share of challenges. Mwangi and Mwangi (2014), reports that the level of liquidity that bank agents maintain influences the use of agency banks. Agents do not always maintain enough cash demanded by customers and this discourages repeat business. They also highlight that lack of security, malfunctioning equipment and errors also discourage the uptake of agent banking. Atandi (2013) shows that network problems also deter the use of agent banks by customers as they sometimes suffer from connectivity problems. As already mentioned before, agents are already existing businesses with a different line of business from the banking services that they are required to offer. This possesses a challenge because agents may not always prioritize agent banking transactions. Preference will most likely be given to their existing business transactions. This validates the agency theory by (Jensen and Meckling, 1976). This situation may frustrate agent banking customers and some may stop use these facilities altogether. Another challenge emanates from the fact that agent bank operators are not employees of the financial institution. This means the corporate culture of the financial institution may ordinarily not be ingrained in them. Many banks due to excessive competition in their industry are concerned about customer services and experience. They endeavor to give

positive customer experiences to their customers. On the other hand, the retailers engaged to offer agent banking services may not value customer experiences. This may result in them being rude or harsh to customers, discouraging customers from using the facilities.

2.11 Agent Banking Risks.

The use of agents by banks exposes banks to various risks which can be operational, technological, legal and reputation risks (Lauer, Dias and Tarazi, 2011). Banks use agents to perform transactions, exposing them to operational, technological, legal, and reputational risks due to inadequate capacity, poor training, and inadequate tools. Operational risks include agent fraud, theft, unauthorized fees, and abusive services. Technical risks involve system or hardware failures, causing service availability and informational loss. Legal and compliance risks arise when customers sue banks due to agent failures.

2.12 Agent Banking Risk Mitigation.

Lauer et al (2011), postulate that the risks triggered by the use of agents can be mitigated through various policies and procedures. The approach that a bank takes in trying to mitigate agent banking risks depends on the services performed by the bank's agents.

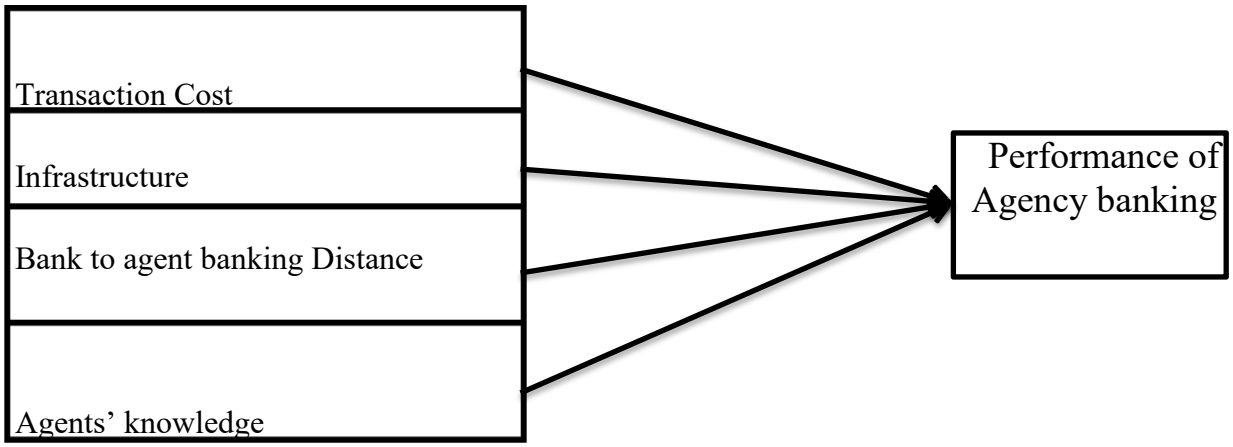
Agent banking risks can be mitigated by hiring suitable, qualified and reputable agents. Principal Banks may also manage agent banking risks through agent training where agents are trained on the bank's operating manuals and internal guidelines.

Agent bank activities must also be monitored continuously to ensure that they perform the mandated services adequately. Lauer et al (2011) also propose that principal banks periodically review their agent networks to distinguish the performers from non-performers and risky agents from low-risk agents and the results should be communicated to the agent banks. Banks can purchase insurance coverage that will protect the bank from certain agent losses.

2.13 Conceptual Framework of the study

According to Mugenda (2003), a conceptual framework helps the reader to quickly see the proposed relationships between the variables in the study. The conceptual framework attempts to examine and explain factors that determine the performance of agent banks. It is conceptualized that this is influenced directly by finance factors, operational factors and management factors. This framework attempted to establish and explain factors that affect and hence influence provision of agency banking service in Ethiopia. These factors include the cost of agency transactions cost, location to the agent bank and knowledge/awareness/. The study determined the effects of independent variables on the dependent variable in order to assess the effect of agency banking performance in Ethiopia. The agency banking services depends on the infrastructure, fraud. Network capability, banking knowledge, cost of financial services, location and the accessibility of the services by customers and challenges encountered by customers in utilizing the facility. The conceptual framework for the study is presented in figure 1:

Independent variables Vs Dependent variables



Picture 1 Conceptual Framework of the study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research methodology used in this study. It presents definitions and measurements of variables, along with details of the research methodology. This includes the research design, research approach, sampling design, data sources and collection methods, data collection procedures, data analysis methods, validity and reliability of the research instrument, and ethical considerations. The chapter also provides the overall framework of the research.

3.2 Research design

A research design is the conceptual structure within which research is conducted. According to Mugenda et al., (2003), this design is a systematic inquiry into which the researcher does not have direct control of the independent variables because their manifestation has already occurred. Research design is the general plan of how the research questions are answered. In order to capture the logical structure of the study, the researcher has used descriptive research design. Descriptive analysis is used in this study to characterize the factors influencing banking agents' performance. Additionally, descriptive research allows for an investigation of the study's issue by examining the problem through the perspectives of various groups of respondents (Geoffrey et al., 2005). To provide a detailed description of the results presented in tables, a descriptive research approach was used. Therefore, this study employed a descriptive method to examine the influence of knowledge, infrastructure, transaction cost, and agent-bank distance on the performance of agent banking in the CBE Bole district, Addis Ababa.

3.3 Research approach/methodology/

To address the study questions, this research employed a quantitative approach, which offers a deeper understanding of the study problem. The procedures for gathering, evaluating, and integrating quantitative data were conducted within a single study or through a multi-phase series analysis (Creswell, 2012). By using this quantitative approach, the researcher ensured that the findings were more objective and generalizable to the full community. The study was conducted across the Commercial Bank of Ethiopia Bole District branches in the city, utilizing descriptive and inferential statistics to explain, understand, predict, and control cause-and-effect relationships between variables. Therefore, the research design is appropriate for this study as it explores all the necessary information with regard to the research objectives.

3.4 Target Population

According to Singh (2006), the term 'population' or 'universe' refers to the entire mass of observations, serving as the parent group from which a sample is drawn. Sample observations provide only an estimate of the population's characteristics. Within this context, the population of this study comprises all active agents in the Bole district of the Commercial Bank of Ethiopia in Addis Ababa. There is a total of 50 branches in Bole District, out of which 48 operate under conventional procedures, while the remaining 2 do not. From these 48 branches, there are 3739 registered bank agents. Of these agents, 329 are active, 1651 are dormant, and 1759 have closed, according to bank data collected from July 2018 to December 2024. For this study, the researcher selected the total number of active agents, which is 329. The rest are either dormant or closed. The reason for selecting agents from the Bole district of the Commercial Bank of Ethiopia is due to time and financial constraints, and transaction volume; resulting in the research focusing on a sample of 329 active agents from the Commercial Bank of Ethiopia in Addis Ababa, Bole district. The selection of agents from the Bole district was due to the district's high transaction volume, relatively more active agent's user as well as time and financial constraints.

3.5. Sampling Technique

Stratified random sampling is a useful method for data collection when the population is heterogeneous. In this method, the entire heterogeneous population is divided into a number of homogeneous groups, usually known as strata. Each of these groups is homogeneous within itself, and then units are sampled at random from each of these strata." (Singh, A., & Masuku, M. B., 2014).

The sample size in each stratum varies according to the relative importance of the stratum in the population. The technique of the drawing this stratified sample is known as Stratified Sampling. In other words, stratification is the technique by which the population is divided into subgroup/strata. Sampling will then be conducted separately in each stratum. Strata or Subgroup are chosen because evidence is available that they are related to outcome. The selection of strata will vary by area and local conditions (Singh, A., & Masuku, M. B., 2014).

Sampling is the selection of a group from a large population to make generalized statements, ensuring that the selected part represents the total group (Leedy, 1989). As discussed above, the target population of the study consisted of agents working in the Bole district of the Commercial

Bank of Ethiopia in Addis Ababa. The researcher employed a stratified random sampling method to select samples from this target population. As mentioned in Kothari (2004), stratified sampling results more reliable and detailed information, enabling the selection of more representative samples. According to Janet (2006), stratified sampling is a widely used technique for obtaining a representative sample from diverse geographical areas. It helps reduce sampling error by ensuring all relevant portions of the population are included. Therefore, the four strata designed for this research depend on the grade of the branches, and the researcher used these branch grades as strata for data collection. Once the four different strata were identified, a simple random sampling technique was adopted. This resulted in everyone having an equal probability of participating in the study.

3.6 Sample Size

Sampling is the process of selecting a group from a much larger population, about which generalized statements are made, ensuring the chosen subset represents the total population (Leedy, 1989). According to Glenn (1992), the sample size is crucial for ensuring representativeness of the population, ultimately enabling the drawing of generalizable conclusions from selected sample members. The population for this study was bank agents in Bole district of CBE (Addis Ababa). Individual agents are selected using convenient sampling techniques. The sample size is determined using Slovin's formula, which was formulated by Slovin in 1960 (James, 2012) to calculate the sample size at a 95% confidence level. Given that 100% - 95% = 10%, the level of precision, or sampling error, is 5%.

$$n = \frac{N}{1+N(\varepsilon 2)}$$

Where; n = number of samples,

N= total population

e= is the error term, which is 5 % (i.e. at 95 % confidence level)

Active Agent (population) = 329

$$n = \frac{N}{1+N(\varepsilon 2)} \quad = n = \frac{329}{1+329(0.05^{2})} = n = \frac{329}{1.8225} \approx \underline{181}$$

Total population (N) = 329

Total sample size (n) = 181

The proportion formula for sample size allocation in stratified sampling is based on the proportion of each stratum in the total population. The sample size for each stratum is

determined by multiplying the proportion of each stratum by the total sample size. Here's how you can calculate it: Determine the total population size; Population sizes for each stratum N=N1+N2+N3+N4;

Total population size (N): Ni=82+94+51+102= 329

Calculate the proportion of each stratum (Pi): Pi=Ni/N

Multiply the proportion of each stratum by the total sample size (ni): ni =Pi × n

- Grade I branch (17) = Stratum 1 (number of Agents) = 82
  = 82/329=0.249 sample size for stratum 1 = 0.249×181=45
- Grade II branch (11) = Stratum 2 (number of Agents) = 94
  = 94/329=0.285 sample size for stratum 2 = 0.285×181=52
- Grade III branch (8) = Stratum 3 (number of Agents) =51
  =51/329=0.155 sample size for stratum 1 = 0.155×181=28
- Grade IV branch (12) = Stratum 4 (number of Agent) = 102
  =102/329=0.31 sample size for stratum 4 = 0.31×181=56
  Total sample size= stratum1(45) + stratum2(52) + stratum3(28) + stratum4(56) = 181

3.7 Source of data collection

A structured questionnaire with closed-ended questions was used to collect primary data. Using a questionnaire (particularly closed-ended questions) reduces the possibility of collecting biased data as the respondent is limited towards making certain choices (Mathers et al. 2009). The secondary data were collected from various published and unpublished materials, including files, company manuals, brushers, reference books, company reports, annual reports, and National Bank reports. Additionally, journal articles were reviewed to help bridge the knowledge gap and enhance understanding of concepts, definitions, theories and empirical results through reviewing various relevant journals articles from internet access also used as a secondary data sources.

3.8 Instrument of data collection

The questionnaires, adapted from previous empirical literature, enable participants to express their views without researcher influence. Their consistency is assessed using Cronbach's Alpha. The questionnaire included closed-ended questions measured using a five-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

The researcher ensured the reliability and validity of the research instrument before distributing the questionnaires to participants. After careful completion, the researcher collected and

organized the completed questionnaires for data discussion and analysis. The collected data was analyzed using SPSS, and the results were summarized, interpreted, and conclusions and recommendations were forwarded. The researcher collects data from primary and secondary sources to obtain pertinent information. Primary data will be gathered using questionnaires based on the aforementioned study questions. Questionnaires offer cost and time savings, as well as the ability to be distributed to multiple individuals simultaneously (Henok, 2017). The primary technique for collecting pertinent data in this study involved distributing a structured questionnaire consisting of closed-ended questions to agents providing CBE Birr services. The closed-ended questions will use a 5-point Likert scale, with 1 representing 'strongly disagree' and 5 representing 'strongly agree.

3.9 Method of Data Analysis

The researcher used SPSS version 27 software for data analysis and tables for easy data interpretation, performed different data analysis methods to ensure consistency, and analyzed the data quantitatively. The data presented included frequency distribution, percentages, descriptive statistics, correlation, and multiple linear regression analysis. Descriptive statistics assessed respondents' demographics, correlation analysis showed relationship between dependent and independent variables, and multiple linear regression analysis explained dependent variable variation based on independent variables, determining research objective. To ensure the validity of the regression model, tests for multicollinearity and normality were conducted using the variance inflation factor (VIF). VIF quantifies the increase in coefficient estimates due to multicollinearity (Allison, 1999: 48-50). Fritz Scholz (2007) suggests that tolerance statistics in regression reflect the variability of independent variables within a model. A tolerance value less than 1 or VIF greater than 10 suggests significant multicollinearity. This study found no multicollinearity problem in the data.

In this regression model, the dependent variable is the performance of agent banking, while the independent variables represent various attributes of agency banking. This indicate that the financial performance of agent banking (dependent variable) can be expressed as a liner function composed of one or more independent variables and a random measurement error which accounts for other factors not discussed. Proper tests will be carried out to ensure the model complies with the assumptions of a classical linear regression. These assumptions include test for homoscedasticity and multicollinearity (Gujarati, 2004).

3.10 Validity of the research instrument.

3.10.1 Validity

The degree to which a measurement tool truly measures what it is supposed to measure is referred to as validity. It is employed to recommend assessing the findings' accuracy from the perspective of the participant, the researcher, or the readers' narrative (Creswel, 2003). Validity is the accuracy and meaningfulness of data according to the objectives of given research (Mugenda & Mugenda, 2003). Validity features two major forms: external and internal validity. To ensure validity, the researcher used a closed ended questionnaire where respondents were to choose from a list of choices.

3.10.2 RELIABILITY

A measurement procedure's accuracy and precision are related to its reliability. Cronbach alpha is a reliability coefficient. It is frequently employed as a gauge of the instrument's dependability or internal consistency. According to statistical interpretation, internal consistency reliability increases with Cronbach's Alpha readings that are closer to digit 1. Reliability is often categorized as bad if it is less than 0.60, acceptable if it is between 0.70 and 0.80, and good if it is greater than 0.80. Therefore, Cronbach's Alpha was used and computed to assess the study instrument's accuracy, dependability, or as we typically refer to it, reliability (George & Mallery, 2003).

3.11 Ethical Consideration

The research ensured that respondents did not encounter any harm, and the questionnaires and interviews did not include any sensitive questions that might cause distress. The identity of the respondents was carefully considered, and anonymity was maintained by ensuring that respondents could not be identified by their responses or names. The researcher also ensured that survey results that could identify the subjects were not disclosed. The purpose of the research was communicated to all respondents, and it was explained that the results of the study would be used in a dissertation. Hence informants' privacy has maintained. Their personal information was kept confidential. Respondents were not asked to provide their names, telephone numbers, or specific addresses to ensure their privacy remained protected.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

The objective of this research was to analyze the factors influencing the performance of banking agents. The study was conducted among agents in the Bole District of the Commercial Bank of Ethiopia, located in Addis Ababa. Data analysis was based on survey results obtained through questionnaires. This chapter discusses the final findings and the methodology used to achieve them. Additionally, it provides background information about the respondents. The statistical methods of analysis include descriptive analysis, correlation analysis, and regression analysis using SPSS version 27.

4.1 RESPONSE RATE

A total of 181 questionnaires were distributed, and the response rate is indicated in the table below.

Table 1: Response Rate

Items	Response Rate	
Sample Size	181	100%
Collected	173	95.60%
Remain Uncollected	8	4.40%

According to Table 1, a total of 181 questionnaires were distributed. Of these, 173 (95.5%) were collected, while 8 (4.4%) remained uncollected. This indicates that non-response bias is minimal.

4.2 DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Table 2: Gender Distribution

Gender		Frequency	Percent
1	Male	106	61.3
	Female	67	38.7
	Total	173	100

Table 2 shows the gender distribution among the 173 respondents. Out of the total, 67 respondents (38.7%) were female, while 106 respondents (61.3%) were male. This indicates that the majority of agents were male.

Table 3: Age Distribution

Age		Frequency	Percent	Valid Percent	Cumulative Percent
2	Below 25	25	14.5	14.5	14.5
	26 - 30	82	47.4	47.4	61.8
	31 - 35	38	22	22	83.8
	Above36	28	16.2	16.2	100
	Total	173	100	100	

Table 3 presents the age distribution of the respondents. It shows that 25 respondents (14.5%) were below 25 years old, 82 respondents (47.4%) were between 26 and 30 years old, 38 respondents (22.0%) were between 31 and 45 years old, and 28 respondents (16.2%) were over 46 years old. This suggests that the majority of the respondents were young.

Table 4: Marital status

Marital Status		Frequency	Percent	Valid Percent	Cumulative Percent
3	Single	87	50.3	50.3	50.3
	Married	81	46.8	46.8	97.1
	Divorce	1	0.6	0.6	97.7
	Widow	4	2.3	2.3	100
	Total	173	100	100	

According to Table 4, 87 respondents (50.3%) were single, 81 respondents (46.8%) were married, 1 respondent (0.6%) was divorced, and 4 respondents (2.3%) were widowed. This suggests that the majority of respondents were single, with the smallest proportion being those who were divorced.

Table 5: Education Level

Education Level		Frequency	Percent	Valid Percent	Cumulative Percent
4	Bellow Grade 12	47	27.2	27.2	27.2
	First Degree	76	43.9	43.9	71.1
	Master's Degree	47	27.2	27.2	98.3
	PhD and above	3	1.7	1.7	100
	Total	173	100	100	

Table 5 present educational levels of the respondents. Among them, 47 respondents (27.2%) had an education level of 12^{th} grade or below. 76 respondents (43.9%) held a first degree, 47 respondents (27.2%) had a master's degree, and 3 respondents (1.7%) had a PhD. This indicates that the majority of the respondents possessed either 12^{th} grade or below or first degree, or a master's degree.

4.3 DATA RELIABILITY TEST

The reliability analysis using Cronbach's Alpha indicate that all the variables (Infrastructure, Agents' Knowledge, Transaction Cost, Distance, and Total Independent Variables) have acceptable to excellent internal consistency. This suggests that the items used in the

questionnaire are reliable measures of their respective constructs, ensuring the strength and trustworthiness of the data collected.

Table 6: Cronbach's Alpha

Reliability Statistics		
Variable	N of Items	Cronbach's Alpha
Infrastructure	8	0.735
Agents' Knowledge	8	0.91
Transaction cost	7	0.841
Distance	9	0.832
Total Independent Variable	33	0.93

Cronbach's alpha reliability test was run on the data collected to determine the reliability of the data. Results showed that all the values were above 0.70 indicating acceptable reliability (Bryman and Bell, 2003). According to Hair, et al., (2006), if α is greater than 0.7, it means that it has high reliability and if α is smaller than 0.3, then it implies that there is low reliability. Reliability scale of the overall variables is high as indicated above which is (93 percent).

4.4 DESCRIPTIVE STATISTICS ANALYSIS

Table 7: Descriptive statistics

Descriptive Statistics				
	N	Mean		Std. Deviation
Item	Statistic	Statistic	Std. Error	Statistic
Infrastructure	173	3.7905	0.04445	0.58459
Agents' Knowledge	173	3.9884	0.06665	0.87658
Transaction cost	173	4.109	0.05949	0.78241
Distance	173	4.0803	0.05383	0.70805

As shown in Table 7, Infrastructure (mean = 3.79) and Agents' Knowledge (mean = 3.99) have fairly high mean values. However, Transaction Cost (mean = 4.11) and Distance (mean = 4.08) have the highest mean values, suggesting strong agreement among respondents.

4.4.1 Infrastructure Effect on Agent Performance

Table 8: Infrastructure Effect on Agent Performance

No	Items	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
1	Poor signal strength affects your Cbe-birr transaction	7	4	24	13.9	14	8.1	59	34.1	69	39.9	3.92
2	Lack of internet connection in the area leads to poor connectivity	12	6.9	15	8.7	18	10.4	66	38.2	62	35.8	3.87
3	Have you faced any technical issues while using agent banking services	65	37.6	31	17.9	28	16.2	33	19.1	16	9.2	4.21
4	Is frequently experience downtime or service interruptions	69	39.9	39	22.5	26	15	22	12.7	17	9.8	4.25
5	Accessing the service using any types of mobile-based device is easy	7	4	7	4	12	6.9	63	36.4	84	48.6	4.18
6	Strong network capabilities can attract new agents	6	3.5	10	5.3	8	4.6	59	34.1	90	52	2.45
7	Stronger networking capabilities improve agent performance	9	5.2	9	5.2	9	5.2	61	35.3	85	49.1	2.3
8	Faced a Network problem most of the time	57	32.9	28	16.2	36	20.8	26	15	26	15	2.65
	Mean of infrastructure effect on agents											3.5

According to Table 8 Item one, the majority of respondents agreed that poor signal strength significantly affects their Cbe-birr transactions. When evaluating the agents' performance in terms of signal problem, 4 percent of respondents strongly disagreed, 13.9 percent disagreed, 8.1 percent were neutral, 34.1 percent agreed, and 39.9 percent strongly agreed. Therefore, it can be concluded that most respondents believe poor signal strength is a problem.

Item two, highlights that the lack of internet connection in the area leads to poor connectivity, which negatively impacts transactions through CBE-Birr. According to the survey data, 6.9 percent of respondents strongly disagreed, 8.7 percent disagreed, 10.4 percent were neutral, 32.8 percent agreed, and 35.8 percent strongly agreed. Consequently, the majority of respondents

agreed that poor internet connectivity is an issue and they are affected by it. Item three Have you faced any technical issues while using agent banking services," 37.6 percent of respondents strongly disagreed, 17.9 percent disagreed, 16.2 percent were neutral, 19.1 percent agreed, and 9.2 percent strongly agreed. Therefore, the majority of respondents did not agree, indicating that they have not faced technical issues with Cbe-birr usage.

In item four, is frequently experience downtime or service interruptions 39.9 percent of the respondents were strongly disagree, 22.5 percent of the respondent were disagreed, 15.0 percent f the respondents were neutral, 27.7 percent of the respondents were agreed and 9.8 were strongly agreed. The respondent didn't face frequently services interruptions.

In item five, Accessing the service using any type of mobile-based device is easy; 4 percent of respondents strongly disagreed, 4 percent disagreed, 6.9 percent were neutral, 36.4 percent agreed, and 48.6 percent strongly agreed. Therefore, the majority of respondents agreed that Cbe-birr is accessible on any device.

In item six, Strong network capabilities can attract new agents; 3.5 percent of the respondents were strongly disagreed, 5.8 percent of were disagree, 4.6 percent the respondents were neutral, 34.9 percent of the respondents were agreed on greater networking and 52 percent of the respondents preferred strongly agree. The major respondents selected were strongly agree which is strong network attract new Agents in the market.

In item seven, Stronger networking capabilities improve agent performance; 5.2 percent of respondents strongly disagreed, 5.2 percent disagreed, 5.2 percent were neutral, 35.3 percent agreed, and 49.1 percent strongly agreed. Consequently, the majority of respondents agreed that strong network capabilities improve agents' performance.

4.4.2 Effect of bank agents' knowledge on performance of Agents;

Table 9: *Effect of bank agents' knowledge on performance of Agents;*

No	Items	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	
1	The bank provides training for the agents	11	6.4	24	13.9	18	10.4	64	37	56	32.4	3.75
2	The Training provided by the bank helps to build my knowledge and skills	5	2.9	15	8.7	13	7.5	72	41.6	68	39.3	4.06
3	I feel confident in the agents' ability to handle complex transactions.	11	6.4	26	15	22	12.7	54	31.2	60	34.7	3.73
4	My level of education helps me effectively deliver Cbe-birr services	6	3.5	8	4.6	19	11	64	37	76	43.9	4.13
5	The agents provide Cbe-birr services to their customers in a clear and accurate manner.	5	2.9	18	10.4	19	11	55	31.8	76	43.9	4.03
6	Agents with more experience in agent banking perform better	4	2.3	13	7.5	14	8.1	52	30.1	90	52	4.22
7	Sufficient awareness has been created about agent banking.	7	4	23	13.3	10	5.8	61	35.3	72	41.6	3.97
8	The bank's training center and trainers are convenient for agent banking training.	3	1.7	19	11	22	12.7	58	33.5	71	41	4.01
	Mean of bank agents' knowledge effect on agents											3.98

According to Table 9, Item 1, regarding the training provided by the bank to agents, 6.4% of respondents strongly disagreed, 13.9% disagreed, 10.4% remained neutral, 37.0% agreed, and 32.4% strongly agreed. Therefore, the majority of respondents acknowledged that the bank is working to improve agents' financial literacy.

In Item 2, the training provided by the bank helps build knowledge and skills. Among the respondents, 2.9% strongly disagreed, 8.7% disagreed, 7.5% were neutral, 41.6% agreed, and 39.3% strongly agreed.

In Item 3, respondents expressed their confidence in agents' ability to handle complex transactions. Among them, 6.4% strongly disagreed, 15.0% disagreed, 12.7% were neutral,

31.2% agreed on agents' ability to perform CBE-Birr complex transactions, and 34.7% strongly agreed.

In Item 4, respondents shared their views on whether their level of education helps them effectively deliver CBE-Birr services. Among them, 3.5% strongly disagreed, 4.6% disagreed, 11.0% were neutral, 37.0% agreed, and 43.9% strongly agreed.

In Item 5, agents provide CBE-Birr services to their customers in a clear and accurate manner. Among the respondents, 2.9% strongly disagreed, 10.4% disagreed, 11.0% were neutral, 31.8% agreed, and 43.9% strongly agreed. The majority of respondents agreed that the services were delivered clearly.

In Item 6, agents with more experience in agent banking tend to perform better. Among the respondents, 2.3% strongly disagreed, 7.5% disagreed, 8.1% were neutral, 30.1% agreed, and 52.0% strongly agreed.

In item seven, Sufficient awareness has been created about agent banking; 4.0 percent of the respondents were strongly disagreed, 13.3 percent of respondent were disagreed, 5.8 percent the respondents were neutral, 35.3 percent of the respondents were agreed and 41.6 percent of the respondents strongly agree.

In Item 8, the bank’s training center and trainers are convenient for agent banking training. Among the respondents, 1.7% strongly disagreed, 11.0% disagreed, 12.7% were neutral, 33.5% agreed, and 41.0% strongly agreed.

4.4.3 Effect of transaction cost on performance of Agents

No	Items	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
1	The operation cost of agent banking is lower than the cost of conventional banking	2	1.2	13	7.5	17	9.8	65	37.6	76	43.9	4.16
2	Sales in my business increased while providing cbe-birr service to customers	4	2.3	9	5.2	20	11.6	55	31.8	85	49.1	4.2
3	The Cost of transacting in agency banking is lower compared to conventional banking services	3	1.7	12	6.9	20	11.6	57	32.9	81	46.8	4.16
4	There is no Cost for accessing Cbe-birr through mobile-based devices	8	4.6	18	10.4	18	10.4	52	30.1	77	44.5	3.99
5	I have experienced unexpected charges while using agent banking services	103	59.5	19	110	24	13.9	24	13.9	3	1.7	1.87
6	Accessing Cbe-Birr through computer-based devices is more costly than using mobile based devices.	89	51.4	31	17.9	20	11.6	17	9.8	16	9.2	2.08
7	It is possible to use computer and mobile device interchangeably for accessing Cbe-birr.	2	1.2	5	2.9	27	15.6	62	35.8	77	44.5	4.2
	Mean of transaction cost effect on agents' performance											3.52

Table 10: Effect of transaction cost on performance of Agents;

According to Table 10, Item 1, the operational cost of agent banking is lower than that of conventional banking. Among the respondents, 1.2% strongly disagreed, 7.5% disagreed, 9.8% were neutral, 37.6% agreed, and 43.9% strongly agreed. Therefore, the majority of respondents acknowledged that the operational cost of agent banking is lower than the cost of conventional banking.

In item two, Sales in my business increased while providing cbe-birr service to customers; 2.3 percent of the respondents strongly disagreed, 5.2 percent of the respondents were disagreed, 11.6 percent of the respondents were neutral, 31.8 percent of respondent agree and 49.1 percent of respondents were said strongly agreed. Consequently, most respondents strongly agreed that sales in their business increased when Cbe-birr services are available.

In item three, The Cost of transacting in agency banking is lower compared to conventional banking services; 1.7 percent of the respondents were strongly disagreed, 6.9 percent of respondent were disagreed, 11.6 the respondents were neutral, 32.9 percent of the respondents were agreed and 46.8 percent of the respondents were strongly agreed with it.

In Item 4, there is no cost for accessing CBE-Birr through mobile-based devices. Among the respondents, 4.6% strongly disagreed, 10.4% disagreed, 10.4% were neutral, 30.1% agreed, and 44.5% strongly agreed.

In item five, I have experienced unexpected charges while using agent banking services; 59.5 percent of were strongly disagree, 11.0 percent of the respondents were disagreed, 13.9 percent of the respondent were neutral, 13.9 of the respondents were agreed on it. And 1.7 percent of the respondents preferred strongly agree. Therefore, the majority of respondents strongly disagreed, indicating that they have not experienced unexpected charges while using the services.

In Item 6, accessing CBE-Birr through computer-based devices is considered more costly than using mobile-based devices. Among the respondents, 51.4% strongly disagreed, 17.9% disagreed, 11.6% were neutral, 9.8% agreed, and 9.2% strongly agreed. Therefore, the majority of respondents disagreed that accessing CBE-Birr through computer-based devices is more costly the using mobile-based devices.

In Item 7, it is possible to use a computer and mobile device interchangeably for accessing CBE-Birr. Among the respondents, 1.2% strongly disagreed, 2.9% disagreed, 15.6% were neutral, 35.8% agreed, and 44.5% strongly agreed.

4.4.4 Effect of bank to agent distance on performance of agents

Table 11: Effect of bank to agent distance on performance of agents;

No	Items	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	
1	The nearest agent banking services is conveniently located from my residence or workplace?	8	4.6	23	13.3	17	9.8	57	32.9	68	39.9	3.89
2	Banking agents help minimize the bank's expenses by reaching a large number of clients in untapped area.	5	2.9	6	3.5	9	5.2	73	42.2	80	46.2	4.25
3	The distance to the agent banking location affects my decision to use the services.	2	1.2	20	11.6	17	9.8	54	31.2	80	46.2	4.1
4	customers minimize their time, cost and effort by using banking agents instead of visiting bank branches	2	1.2	11	6.4	11	6.4	55	31.8	94	54.3	4.32
5	The location of agent banking services is convenient for customer	3	1.7	21	12.1	12	6.9	61	35.3	76	43.9	4.08
6	The location of the bank agent affects the performance of agency banking services.	8	4.6	11	6.4	14	8.1	58	33.5	82	47.4	4.13
7	Agent bank performance decreases as the distance from the conventional banking increases	62	35.8	25	14.5	39	22.5	25	14.5	22	12.7	2.54
8	Agent bank performance improves when the distance between them is shorter.	5	2.9	15	8.7	15	8.7	55	31.8	83	48	4.13
9	Customer uses bank agents because of the proximity to their business	1	0.6	7	4	16	9.2	53	30.6	96	55.5	4.36
	Mean of bank to agent distance effect on agents' performance											3.98

In the above table 11, item 1, The nearest agent banking services is conveniently located from my residence or workplace; 4.6 percent of respondents strongly disagreed, 13.3 percent of respondent were disagreed, 9.8 percent were neutral, 32.9 percent of respondent agreed, and 39.3 percent of respondent strongly agreed. Therefore, the majority of respondents agreed that the location of agents convenient.

In item two, Banking agents help minimize the bank's expenses by reaching a large number of clients in untapped area.; 2.9 percent of the respondents strongly disagreed, 3.5 percent of the respondents were disagreed, 5.2 percent of the respondents were neutral, 42.2 percent of respondent agree and 46.2 percent of respondents were said strongly agreed. Consequently, most respondents strongly agreed that Cbe-birr agents minimize the expenses and they reaching numbers of clients.

In Item 3, the distance to the agent banking location influences my decision to use the services. Among the respondents, 1.2% strongly disagreed, 11.6% disagreed, 9.8% were neutral, 31.2% agreed, and 46.2% strongly agreed.

In Item 4, customers minimize their time, cost, and effort by using banking agents instead of visiting bank branches. Among the respondents, 1.2% strongly disagreed, 6.4% disagreed, 6.4% were neutral, 31.8% agreed, and 54.3% strongly agreed.

In item five, the location of agent banking services is convenient for customers; 1.7 percent of were strongly disagree, 12.1 percent of the respondents were disagreed, 6.9 percent of the respondent were neutral, 35.3 of the respondents were agreed on it. And 43.9 percent of the respondents preferred strongly agree. Therefore, the majority of respondents strongly agreed on the location of agent is convenient for customers.

In Item 6, the location of the bank agent affects the performance of agency banking services. Among the respondents, 4.6% strongly disagreed, 6.4% disagreed, 8.1% were neutral, 33.5% agreed, and 47.4% strongly agreed. The majority of respondents indicated that the location of the agent impacts the performance of agency banking.

In Item 7, agent bank performance decreases as the distance from conventional banking increases. Among the respondents, 35.8% strongly disagreed, 14.5% disagreed, 22.5% were neutral, 14.5% agreed, and 12.7% strongly agreed.

In Item 8, agent bank performance improves when the distance between them is shorter. Among the respondents, 2.9% strongly disagreed, 8.7% disagreed, 8.7% were neutral, 31.8% agreed, and 48.0% strongly agreed.

In Item 9, customers use bank agents due to their proximity to their business. Among the respondents, 0.6% strongly disagreed, 4.0% disagreed, 9.2% were neutral, 30.6% agreed, and 55.5% strongly agreed.

4.4.5 Mean and Standard Deviation of Independent Variables

Table 12: Mean and standard deviation for the independent variables

Statistics		Infrastructure	Agents Knowledge	Transaction Cost	Distance
N	Valid	173	173	173	173
	Missing	0	0	0	0
Mean		3.7905	3.9884	4.109	4.0803
Std, Deviation		0.58459	0.87658	0.78241	0.70805

In the above table, the data indicates that the effect of infrastructure has a mean value of 3.79, while the effect of agents' banking knowledge has a mean value of 3.98. Transaction cost has a mean value of 4.1090, and the bank-to-agent distance has a mean value of 4.0803. The standard deviations reflect the variability in the responses for each variable.

4.5 INFERENTIAL STATISTICS ANALYSIS

4.5.1 t- test on the factor affecting agent performance

A t-test is a statistical method used to determine whether there's a significant difference between the means of two groups. In this context, t-tests are used to examine whether male and female respondents perceive factors such as infrastructure, transaction cost, or agent knowledge differently.

Table 13: t-test result showing sex difference on independent variables

Variables	Gender	N	Mean	Std. Deviation	Std. Error Mean
Infrastructure	Male	106	3.8337	0.54955	0.05338
	Female	67	3.722	0.63433	0.0775
Agents Knowledge	Male	106	4.0083	0.87903	0.08538
	Female	67	3.9571	0.87839	0.10731
Transaction Cost	Male	106	1.8221	0.76406	0.07421
	Female	67	2	0.80429	0.09826
Distance	Male	106	1.8512	0.67558	0.06562
	Female	67	2.0282	0.74895	0.0915

The descriptive statistics reveal slight variations in how male and female respondents perceive factors influencing agent performance. Across all four variables Infrastructure, Agents' Knowledge, Transaction Cost, and Distance male respondents slightly more favorable perceptions than their female respondents. Infrastructure: Male respondents rated infrastructure higher (M = 3.83, SD = 0.55) than female respondents (M = 3.72, SD = 0.63), suggesting that men may perceive the physical or digital infrastructure supporting agent operations as more adequate or reliable. Agents' Knowledge: Both groups gave relatively high ratings males (M = 4.01, SD = 0.88) and females (M = 3.96, SD = 0.88) indicating a shared belief in the importance of agent knowledge in enhancing performance. Males demonstrated a slightly stronger level of agreement. Transaction Cost: Female respondents perceived transaction costs to be higher (M = 2.00, SD = 0.80) than their male respondents (M = 1.82, SD = 0.76), possibly reflecting differing experiences with fee structures or perceptions of cost-efficiency in service delivery. Distance: Females expressed greater concern about agent proximity (M = 2.03, SD = 0.75) compared to males (M = 1.85, SD = 0.68), suggesting that geographic barriers may be felt more acutely by women. However, across all four independent variables analyzed, gender-based differences were present descriptively but were not statistically significant. This indicates that male and female respondents perceive agent performance factors in largely similar ways, and gender is unlikely to be a determining factor in shaping these views.

4.2.2 A one-way ANOVA

One-Way ANOVA is a statistical technique used to determine whether there are significant differences between the means of three or more independent groups on a single continuous

dependent variable. It assesses the impact of a categorical independent variable with multiple levels (e.g., education level, marital status, income bracket) on the outcome of interest.

The test compares the between-group variability (differences among group means) to the within-group variability (variation within each group) (Ross & Willson, 2017).

4.2.2.1 A one-way ANOVA results on the factors affecting agent performance based on age group

Table 14: one-way ANOVA results on the factors affecting agent performance based on age group

Descriptives					ANOVA	
		Mean	Std. Deviation	Std. Error	F	Sig.
Infrastructure	Below 25	3.9	0.42081	0.08416	0.447	0.719
	26 – 30	3.75	0.71981	0.07949		
	31 – 35	3.7829	0.4471	0.07253		
	Above 36	3.8214	0.41726	0.07886		
	Total	3.7905	0.58459	0.04445		
Agents Knowledge	Below 25	4.3	0.57848	0.1157	2.5	0.061
	26 – 30	4.0473	0.96017	0.10603		
	31 – 35	3.8717	0.77082	0.12504		
	Above 36	3.6964	0.89974	0.17003		
	Total	3.9884	0.87658	0.06665		
Transaction Cost	Below 25	1.6514	0.51356	0.10271	2.474	0.063
	26 – 30	1.8101	0.8318	0.09186		
	31 – 35	2.0602	0.80719	0.13094		
	Above 36	2.1122	0.72984	0.13793		
	Total	1.891	0.78241	0.05949		
Distance	Below 25	1.6578	0.42784	0.08557	2.152	0.096
	26 – 30	1.9472	0.80696	0.08911		
	31 – 35	2.0965	0.68209	0.11065		
	Above 36	1.8333	0.56777	0.1073		
	Total	1.9197	0.70805	0.05383		

Infrastructure: All age groups show relatively high mean scores (around 3.75–3.90), with minimal variation in standard deviation. In terms of the ANOVA result, the F-value is 0.447 and Sig. = 0.719, indicating no statistically significant difference across age groups regarding perceptions of infrastructure. Therefore, age does not appear to influence respondents' views on infrastructure.

Agents' Knowledge: Notably, mean scores steadily decline with age, from 4.30 (Below 25) to 3.69 (Above 36), suggesting that younger participants perceive agents as not knowledgeable. According to the ANOVA result, the F-value is 2.500, with Sig. = 0.061, which is not statistically significant at the 0.05 level. Transaction Cost: In contrast, older age groups report higher mean values, from 1.65 (Below 25) to 2.11 (Above 36). The ANOVA result reveals an F-value of 2.474 and Sig. = 0.063, which, although not statistically significant, again nears the threshold. Consequently, there is a trend indicating that perceived transaction costs increase with age, possibly due to differences in financial literacy, usage patterns, or exposure to service fees.
Distance: Similarly, mean scores increase from 1.66 (Below 25) to 2.10 (31–35), followed by a slight drop in the oldest group. As reported in the ANOVA result, the F-value is 2.152 and Sig. = 0.096. While this is not statistically significant, older age groups tend to perceive greater barriers related to geographic distance. Overall, the ANOVA results suggest that while perceptions vary slightly by age group, none of the dimensions show statistically significant differences at the 0.05 level. However, Agents' Knowledge and Transaction Cost display patterns approaching significance, indicating potential age-related perception trends worth exploring in future research.

4.2.2.2 A one-way ANOVA results on the factors affecting agent performance based on marital status

Table 15: one-way ANOVA results on the factors affecting agent performance based on marital status

Descriptives					ANOVA	
		Mean	Std. Deviation	Std. Error	F	Sig.
Infrastructure	Single	3.7543	0.57644	0.0618	0.54	0.655
	Married	3.8117	0.606	0.06733		
	Divorce	4.125				
	Widow	4.0625	0.29756	0.14878		
	Total	3.7905	0.58459	0.04445		
Agents Knowledge	Single	3.9885	0.82159	0.08808	0.696	0.556
	Married	3.9722	0.94538	0.10504		
	Divorce	3.25				
	Widow	4.5	0.57735	0.28868		
	Total	3.9884	0.87658	0.06665		
Transaction Cost	Single	1.9113	0.77338	0.08292	0.751	0.523
	Married	1.8536	0.80843	0.08983		
	Divorce	1.2857				
	Widow	2.3571	0.24744	0.12372		
	Total	1.891	0.78241	0.05949		
Distance	Single	1.9055	0.66592	0.07139	0.69	0.559
	Married	1.9575	0.76529	0.08503		
	Divorce	1.1111				
	Widow	1.6667	0.2566	0.1283		
	Total	1.9197	0.70805	0.05383		

Infrastructure: Across marital groups, perceptions of infrastructure appear relatively consistent, with mean scores ranging from 3.75 for single respondents to 4.13 for divorced individuals. Although divorced and widowed participants report slightly higher scores, the ANOVA results ($F = 0.540$, Sig. = 0.655) indicate that these differences are not statistically significant. Consequently, marital status does not seem to influence how participants evaluate infrastructure. Agents' Knowledge: When examining agents' knowledge, mean scores range from 3.25 for divorced respondents to 4.50 for widowed ones, suggesting a noticeable variation in perception. However, the ANOVA result ($F = 0.696$, Sig. = 0.556) confirms that this variation is not statistically significant. Transaction Cost: Similarly, reported mean values for transaction cost vary from 1.29 among divorced respondents to 2.36 among widowed participants. Despite this

spread, the ANOVA result (F = 0.751, Sig. = 0.523) shows no statistically significant difference across marital groups. Distance: In terms of geographic distance, perceived barriers range from a mean score of 1.11 among divorced respondents to 1.96 among married individuals. Although this variation exists, the ANOVA result (F = 0.690, Sig. = 0.559) indicates it is not statistically significant. the ANOVA results suggest that marital status does not significantly affect respondents' perceptions across the dimensions of infrastructure, agents' knowledge, transaction cost, and distance. Although some differences in mean scores are evident particularly among divorced and widowed groups these are not statistically significant at the 0.05 level.

4.2.2.3 A one-way ANOVA results on the factors affecting agent performance based on education level

Table 16: one-way ANOVA results on the factors affecting agent performance based on education level

Descriptives					**ANOVA**	
		Mean	Std. Deviation	Std. Error	F	Sig.
Infrastructure	Below Grade 12	4.1303	0.34574	0.05043	12.241	0
	First Degree	3.7862	0.64737	0.07426		
	Master's Degree	3.492	0.49687	0.07248		
	PhD and above	3.25	0	0		
	Total	3.7905	0.58459	0.04445		
Agents Knowledge	Below Grade 12	4.4282	0.62268	0.09083	11.897	0
	First Degree	4.0576	0.85109	0.09763		
	Master's Degree	3.484	0.85442	0.12463		
	PhD and above	3.25	1.29904	0.75		
	Total	3.9884	0.87658	0.06665		
Transaction Cost	Below Grade 12	1.3556	0.39165	0.05713	21.048	0
	First Degree	1.8628	0.72934	0.08366		
	Master's Degree	2.4529	0.78094	0.11391		
	PhD and above	2.1905	0.90726	0.52381		
	Total	1.891	0.78241	0.05949		
Distance	Below Grade 12	1.4728	0.36002	0.05251	13.825	0
	First Degree	1.9401	0.71491	0.08201		
	Master's Degree	2.3097	0.73042	0.10654		
	PhD and above	2.2963	0.44905	0.25926		
	Total	1.9197	0.70805	0.05383		

As shown in the table infrastructure, respondents with lower educational attainment (Below Grade 12) report the highest mean score (4.13) for infrastructure, followed by First Degree holders (3.79), Master's degree holders (3.49), and those with PhD or above (3.25). The ANOVA results (F = 12.241, Sig. = 0.000) reveal a statistically significant difference across education levels. Therefore, it can be inferred that educational background significantly influences how infrastructure is perceived, with less-educated individuals holding more favorable views. Agents' Knowledge: Similarly, mean scores for agents' knowledge decline as education level increases from 4.43 (Below Grade 12) to 3.25 (PhD and Above). The ANOVA result (F = 11.897, Sig. = 0.000) indicates a statistically significant variation among the groups. This finding suggests that individuals with lower education levels tend to view agents as not knowledgeable. Transaction Cost: In contrast, perceptions of transaction cost rise with education level. Respondents Below Grade 12 report the lowest mean score (1.36), while Master's degree holders indicate the highest (2.45), with PhD respondents slightly lower (2.19). The ANOVA results (F = 21.048, Sig. = 0.000) confirm significant differences in perception. These results imply that individuals with higher education levels are more sensitive to or aware of transaction-related costs, possibly due to broader financial exposure or greater service expectations. Distance: Likewise, perceived barriers related to geographic distance increase with education level. Mean scores move from 1.47 (Below Grade 12) to 2.31 (Master's Degree) and 2.30 (PhD and Above). The ANOVA result (F = 13.825, Sig. = 0.000) again shows statistically significant differences. Thus, it can be concluded that higher-educated respondents are more likely to experience or report challenges related to physical access. Finally, the ANOVA results demonstrate statistically significant differences across all four variables infrastructure, Agents' Knowledge, Transaction Cost, and Distance. based on educational status. These findings highlight that educational background plays a substantial role in shaping perceptions of service systems, cost burden, and accessibility.

4.5.3 CORRELATION ANALYSIS

Correlation analysis is used to measure the degree of association between different variables in the study. Correlation is a statistical measure that explains the strength of the relationship between two variables. Pearson correlation is the most widely used statistical method for measuring the strength of the linear relationship between two variables (Hair et al., 2007). Accordingly, Pearson correlation was applied in this study to determine the relationship between the variables under investigation.

Table 17: The relationship between dependent and independent variable

Correlations					
		Infrastructure	Agents Knowledge	Transaction Cost	Distance
Infrastructure	Pearson Correlation	1	.571**	-.652**	-.549**
	Sig. (2-tailed)		0	0	0
	N	173	173	173	173
Agents Knowledge	Pearson Correlation	.571**	1	-.592**	-.549**
	Sig. (2-tailed)	0		0	0
	N	173	173	173	173
Transaction Cost	Pearson Correlation	-.652**	-.592**	1	.772**
	Sig. (2-tailed)	0	0		0
	N	173	173	173	173
Distance	Pearson Correlation	-.549**	-.549**	.772**	1
	Sig. (2-tailed)	0	0	0	
	N	173	173	173	173
**. Correlation is significant at the 0.01 level (2-tailed).					

Interpretation: Infrastructure and Agents Knowledge according to Pearson correlation; 0.571 with a significance level of 0.000. This indicates a moderate positive relationship between Infrastructure and Agents Knowledge. As infrastructure improves, agents' knowledge tends to increase. Infrastructure and Transaction Cost: Pearson correlation is -0.652 with a significance level of 0.000. This indicates a strong negative relationship between Infrastructure and Transaction Cost. Better infrastructure is associated with lower transaction costs. Infrastructure and Distance: Pearson correlation is -0.549 with a significance level of 0.000. This indicates a moderate negative relationship between Infrastructure and Distance. Better infrastructure is associated with shorter distances.

Agents Knowledge and Transaction Cost: Pearson correlation is -0.592 with a significance level of 0.000. This indicates a moderate negative relationship between Agents Knowledge and Transaction Cost. Higher agents' knowledge is associated with lower transaction costs. Agents Knowledge and Distance: Pearson correlation is -0.549 with a significance level of 0.000. This indicates a moderate negative relationship between Agents Knowledge and Distance. Higher

agents' knowledge is associated with shorter distances. Transaction Cost and Distance: Pearson correlation is 0.772 with a significance level of 0.000. This indicates a strong positive relationship between Transaction Cost and Distance. Higher transaction costs are associated with greater distances.

There is a strong negative correlation between Infrastructure and Transaction Cost (-0.652). There is a strong positive correlation between Transaction Cost and Distance (0.772). There is a moderate positive correlation between Infrastructure and Agents Knowledge (0.571). There are moderate negative correlations between Infrastructure and Distance (-0.549), and Agents Knowledge and Transaction Cost (-0.592). Most variables do not show a significant relationship. However, transaction cost and distance exhibit a fairly strong correlation, with a correlation coefficient of 0.772, which is statistically significant at the 0.01 level. The correlation statistics indicate that there are no serious correlation issues among the three predictors.

4.6 REGRESSION ANALYSIS

A regression model was applied to examine the extent to which the determinants of agents' performance influenced banking agents.

4.6.1 Assumptions in Multiple Regression

Prior to conducting a regression analysis, the basic assumption tests for the model must be carried out. This is an essential precondition for explaining the relationships between dependent and explanatory variables. Five major assumptions normality, linearity, multicollinearity, homoscedasticity, and autocorrelation must be checked and proven to be reasonably met. Each test is explained below.

4.6.1.1 Normality Distribution Test

Multiple regression requires that the independent variables follow a normal distribution. This means that errors should be normally distributed, and a plot of residual values should approximate a normal curve (Keith, 2006).

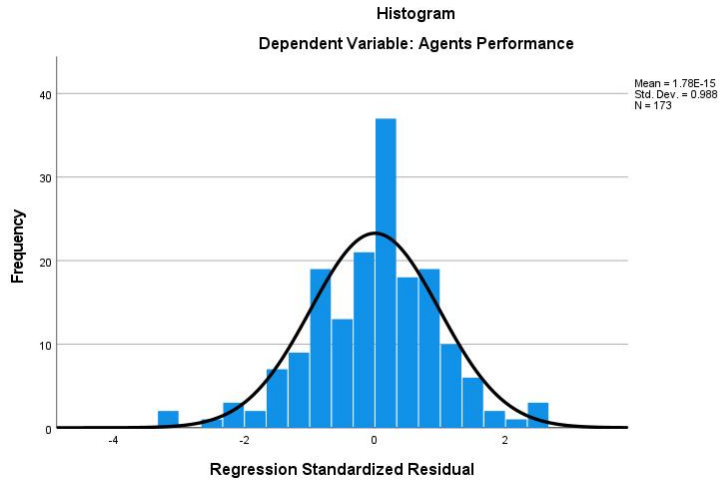


Figure 3 Histogram

This figure shows that assumption of normality has been met.

4.6.1.2 Auto-correlation Test

Auto-correlation in SPSS can be tested using the Durbin-Watson test, which examines whether residuals in a regression model are correlated over time (Durbin & Watson, 1951).

Table 18: Model Summary

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.807[a]	0.652	0.644	0.39028	0.652	78.665	4	168	0	2.269
a. Predictors: (Constant), Distance, Agents Knowledge, Infrastructure, Transaction Cost										
b. Dependent Variable: Agents Performance										

Interpretation: The model summary indicates that the regression model has a strong explanatory power (R Square = .652), and the predictors collectively have a significant effect on agent performance (Sig. F Change = .000). The Durbin-Watson statistic suggests minimal auto-correlation in the residuals.

4.6.1.3 Multicollinearity analysis

Some scholar recommends to use collinearity in test of regression model. The collinearity is a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from others with a substantial degree of accuracy (Hair et. al., 2014). According to

Hair et al (2014) multi-collinearity also means a situation in which two or more explanatory variables in a multiple regression model are highly linearly related but it not may give valid results about any individual predictor, or about which predictor is redundant with respect to others.

Multicollinearity occurs when independent variables in a regression model are correlated and also the main goal of regression analysis is to isolate the relationships between each independent variables and the dependent variable and to measure the mean change in the dependent variable for each change in an independent being other independent variables constant. This make collinearity challenge for regression analysis but it can be fix by the variance inflation factor (VIF). VIF can be calculated for each independent variable and lie between 1 and 10 (Freund, 1998).

According to Freund (1998) VIF of 1 indicate that there is no correlation between the independent variable, VIF between 1 to 5 indicated that there is a moderate correlation between independent variables and whenever VIF greater than 5 indicate that there is a strong correlation between independent variables and also difficult for the model to estimate the relationship between each independent variable and the dependent variables are analyzed independently in this context because the independent variables tend to change simultaneously. Generally, VIF is a good measurement of collinearity in regression.

Table: 19 collinearity statistics

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Infrastructure	0.521	1.918
	Agents Knowledge	0.575	1.74
	Transaction Cost	0.319	3.131
	Distance	0.391	2.559
a. Dependent Variable: Agents Performance			

The collinearity statistics reveal that the independent variables in regression model; Infrastructure, Agents' Knowledge, Transaction Cost, and Distance do not exhibit significant multicollinearity. Specifically, the Tolerance values for all variables are well above the threshold of 0.1, with Infrastructure at 0.521, Agents' Knowledge at 0.575, Transaction Cost at 0.319, and Distance at 0.391. Additionally, the Variance Inflation Factor (VIF) values are comfortably

below the critical value of 10, with Infrastructure at 1.918, Agents' Knowledge at 1.740, Transaction Cost at 3.131, and Distance at 2.559. These results indicate that each variable independently contributes to the model, and multicollinearity is not a concern, ensuring the reliability of the regression analysis.

The researcher of this study suggests as per statistics results of the research that the independent variables can be confidently used to predict agents' performance without the risk of multicollinearity distorting the results. The Tolerance and VIF values indicate that the variables do not overly correlate, and each one adds unique information to the model. This allows for a clear understanding of how each predictor; Infrastructure, Agents' Knowledge, Transaction Cost, and Distance individually impacts agents' performance.

The information in the above table also allows for the examination of multicollinearity in the multiple linear regression model. For all variables, the tolerance values should be between 0.1 and 10, indicating acceptable levels of multicollinearity, which is satisfied in this model. The plot reveals that the points generally adhere to the normal (diagonal) line with no significant deviations. This observation indicates that the residuals are normally distributed.

4.6.1.4 Linearity Test

The linearity of associations between the dependent and independent variables can be tested by examining the P-P plot for the model. The closer the data points are to the diagonal line, the more normally distributed the residuals tend to be.

In this study, at the figure below, the researcher aimed to explain the SPSS results of the multiple linear regression analysis between the dependent and independent variables. The results indicate that, out of the four independent variables, all variables have a statistically significant relationship with the dependent variable. From the four variable infrastructure and Agents' Knowledge have direct relationship with the Agent Performance and transaction cost and Bank to Agent distance have inverse relationship with the dependent variable. The magnitude of the beta coefficients shows a positive relationship with the four independent variables.

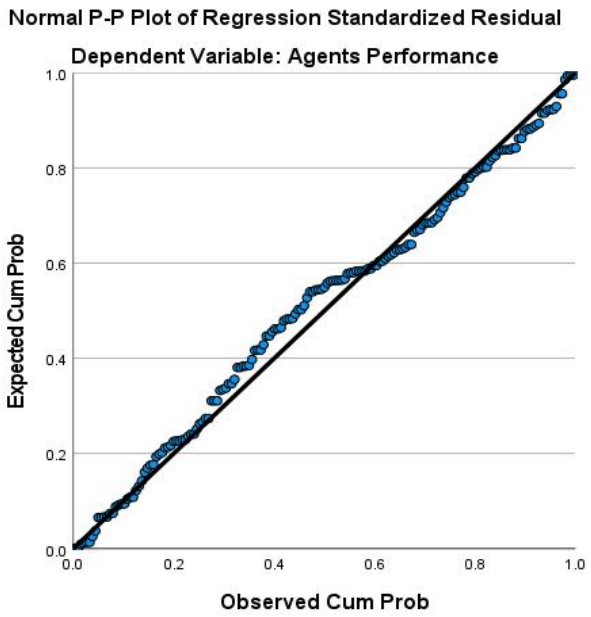


Figure 2. Normality Distribution Plot

The above normality graph shows that the residuals are approximately normally distributed. This is important because the assumption of normally distributed residuals helps validate the results of our regression model, ensuring that the conclusions drawn about the independent variables' impact on agent performance are reliable.

For agent performance, if the residuals are normally distributed, it means that the deviations from the predicted performance values are random and not systematically biased. This supports the accuracy of our model in predicting agent performance based on the independent variables. Similarly, for each independent variable (Infrastructure, Agents' Knowledge, Transaction Cost, and Bank-to-Agent Distance), normality in their residuals indicates that the relationship between these variables and agent performance is well captured by the model, without significant distortions due to non-normal residuals.

By ensuring that the residuals are normally distributed, we can confidently interpret the coefficients of the independent variables, knowing that the assumptions underlying the regression analysis are met. This means that Infrastructure and Agents' Knowledge positively impact agent performance, while Transaction Cost and Bank-to-Agent Distance have negative effects, as previously described. The normality of residuals affirms that these relationships are statistically valid and reliable.

4.6.1.5 Homoscedasticity

The assumption of homoscedasticity refers to the equal variance of errors across all levels of the independent variables (Osborne & Waters, 2002). This implies that the residual terms should be evenly distributed, ensuring homogeneity of error terms throughout the data. The scatter plot in Fig. 4 shows that the standardized residuals in this research are evenly distributed, indicating no significant violation of homoscedasticity.

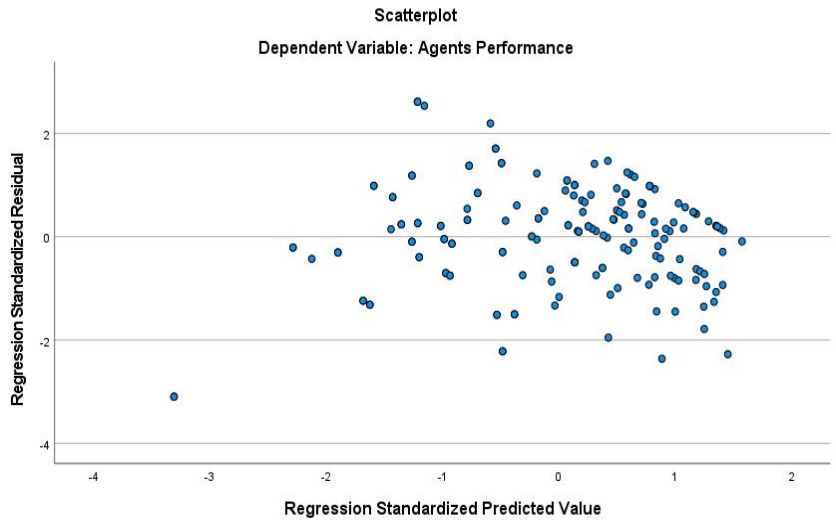


Figure 4: scatter plot of standardized residuals

4.6.2 Multiple Regression Result

Multiple regression analysis was employed to examine the effect of the independent variable on banking agents' performance, considering its determinant coefficients. The coefficient of determination (R^2) measures the proportion of the variance in the dependent variable that is explained by the independent or predictor variables (Hair et al., 1995). A higher R^2 value indicates greater explanatory power of the regression equation in identifying the factors affecting the overall performance of banking agents at the Commercial Bank of Ethiopia. To assess the impact of individual factors on banking agents' performance, multiple regression analysis was conducted, and the model is as follows:

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

Where:

Y - Financial performance (agency banking performance)

β0- The regression constant,

β1 – β5 - Regression coefficient indicating the various Variable.

X1– infrastructure

X2– agents' knowledge

X3– transaction cost

X4– distance to agent banking

ε - Error term. Represent another independent variable not included in the model.

4.6.2.1 Model Summary

Table 20: Model Summary

Model Summary[b]				
Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	.807[a]	0.652	0.644	0.39028
a. Predictors: (Constant), Transaction Cost, Agents Knowledge, Infrastructure, Distance				
b. Dependent Variable: Agents Performance				

The regression model has a strong explanatory power with a high R^2 value, meaning the predictors collectively explain a significant portion of the variation in Agents' Performance. R (.807) represents the correlation coefficient, indicating a strong positive relationship between the predictors and the dependent variable (Agents' Performance). R^2 (0.652) shows that 65.2% of the variance in Agents' Performance is explained by the independent variables (Transaction Cost, Agents' Knowledge, Infrastructure, and Distance). Adjusted R^2 (0.644) accounts for the number of predictors and indicates that 64.4% of the variability in the dependent variable is explained after adjusting for the predictors. Standard Error of the Estimate (0.39028) measures the accuracy of the regression predictions, where a lower value suggests a better model fit.

4.6.2.2 Analysis of Variance

Table 21: Analysis of Variance

ANOVA[a]						
MODEL		Sum of Square	Df	Mean Square	F	Sig.
	Regression	47.930	4	11.982	78.665	.000[b]
	Residual	25.590	168	.152		
	Total	73.520	172			
a. Dependent Variable: Agents Performance						
b. Predictors: (Constant), Distance, Agents Knowledge, Infrastructure, Transaction Cost						

Interpretation: The ANOVA results show that the regression model is statistically significant ($p < .05$), meaning that the predictors (Bank to Agent Distance, Infrastructure, Agent's Knowledge, and Transaction Cost) collectively have a significant effect on Agent Performance. This confirms that the independent variables have a meaningful impact on Agents' Performance.

4.6.2.3 Regression Coefficients

Table12: Regression on Banking Agents' Performance with its Determinants Coefficients[a]

Model		Unstan. Coeffi.		Stand Coeffi.	T	Sig.	Correlations		Collinearity Statistics		
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.851	0.363		7.853	0					
	Infrastructure	0.35	0.07	0.313	4.963	0	0.696	0.358	0.226	0.521	1.918
	Agents Knowledge	0.176	0.045	0.236	3.936	0	0.649	0.291	0.179	0.575	1.74
	Transaction Cost	-0.201	0.067	-0.24	-2.984	0.003	-0.713	-0.224	-0.136	0.319	3.131
	Distance	-0.154	0.067	-0.167	-2.296	0.023	-0.654	-0.174	-0.105	0.391	2.559

a. Dependent Variable: Agents Performance

Interpretation: As the output shows us the constant value of agent performance is 2.851. This is the intercept, meaning the expected value of Agents Performance when all predictors are zero. Infrastructure has a positive and statistically significant effect on agents' performance. As infrastructure improves, agents' performance tends to increase in a corresponding direction, while holding all other variables constant. Agents' Knowledge: Agents' knowledge also exhibits a significant positive relationship with performance. As the level of knowledge increases, agents' performance rises in the same direction, assuming other factors remain unchanged. In contrast, transaction cost shows a significant inverse relationship with agents' performance. As transaction costs rise, agents' performance moves in the opposite direction, decreasing when other variables are held constant. Similarly, distance has a negative and statistically significant effect. As the distance increases, agents' performance declines in the opposite direction, assuming all other factors are constant. This equation summarizes the directional relationships between the independent variables Infrastructure, Agents' Knowledge, Transaction Cost, and Distance and the dependent variable, Agents' Performance. It highlights which factors enhance performance

and which ones hinder it, offering valuable insight for service optimization and policy improvement.

Agent Performance = 2.851 + 0.350 (Infrastructure) + 0.176 (Agents Knowledge) − 0.201 (Transaction Cost) − 0.154(Distance) + ε

Y= 2.851 + 0.35X1 + 0.176X2 - 0.201X3 - 0.154X4 + ε

The regression model indicates that agent performance is significantly influenced by infrastructure, agent's knowledge, transaction cost and bank-to-agent distance. They have a statistically significant effect on agent performance. The collinearity statistics suggest that there are no serious multicollinearity issues among the predictors.

4.6.3 Hypothesis Testing

The researcher aimed to address the study's objectives by identifying and analyzing various factors influencing banking agents' performance. Based on the results obtained, the researcher evaluated the hypotheses by analyzing standardized coefficients (beta) and p-values to decide whether to accept or reject the hypothesis.

Hypothesis 1:

Ho1: Infrastructure has no relationship and significant effect on agents' performance.

Ha1: Infrastructure has a relationship and significant effect on agents' performance.

The table's results indicated that the standardized coefficient beta and p-value for infrastructure were both positive and statistically significant (beta = 0.350, sig = .000, at a 95% confidence level, $p < 0.05$). Consequently, the researcher rejects the null hypothesis and accepts the alternative hypothesis, concluding that infrastructure has a positive relationship and significant effect on agents' performance. This result indicates that improvements in infrastructure (specifically network capability) are positively associated with agent performance. A stronger network capability boosts agent performance, assuming other independent variables remain constant.

Hypothesis 2

Ho2: agent knowledge has no relationship and significant effect on agents' performance.

Ha2: agent knowledge has relationship and significant effect on agents' performance.

According to the table, the p-value indicates statistical significance ($p < 0.05$), and the beta value for agent banking knowledge is positive (beta = 0.176, sig = .000 at a 95% confidence level). As a result, the researcher rejects the null hypothesis and accepts the alternative hypothesis, concluding that agent knowledge has a relationship and significant effect on agents' performance. This finding suggests that as agent knowledge improves, agent performance also increases. Specifically, higher levels of knowledge are positively associated with performance, while other variables are held constant.

Hypothesis 3

Ho3: transaction cost has no relationship and significant effect on agents' performance.

Ha3: transaction cost has a relationship and significant effect on agents' performance

The result indicates that financial cost has a significant negative impact on agents' performance, with a beta value of -0.201 and a significance level of .000 at a 95% confidence level ($p < 0.05$). Consequently, the researcher rejects the null hypothesis and accepts the alternative hypothesis. Additionally, the beta value indicates that an increase in transaction cost is associated with a decrease in agent performance, assuming other independent variables remain constant. this is statistically significant ($p = .000$).

Hypothesis 4

Ho4: bank to agent distance has no relationship and significant effect on agents' performance.

Ha4: bank to agent distance has relationship and significant effect on agents' performance

The table data also indicates that the standardized beta is negative (beta = 0.154, sig = .000) and significant at the 95% confidence level ($p < 0.05$). As a result, the researcher rejects the null hypothesis and accepts the alternative hypothesis. Therefore, bank-to-agent distance has a negative and significant effect on agents' performance. The analysis reveals that longer distances between banks and agents tend to reduce agent performance. Specifically, as bank-to-agent distance increases, agent performance declines, holding other factors constant.

4.7 Analysis from open-ended question:

Question: Any other issue with agent banking:

Most of the respondent suggests that; agency banking should target small markets in daily transactions. The focus should be on buying and selling goods and services through Cbe-birr, although there are many other functions in the system. Deploying agents in nearby village areas, such as small shops, would make life easier. However, there are currently not enough agents to meet customer demand. Therefore, it is recommended that the bank increase the number of agents and provide fast support when problems occur.

As they suggested that the bank should implement uniform charges for its products, emphasizing the need for consistency and adequate customer awareness. points out that commissions are not created on time and there is a lack of support facilities, indicating a need for better administrative processes and support systems. It is believed that banking agent services will improve over time with better knowledge and incentives for users, as well as improved network infrastructure. The importance of government intervention and enforcement also plays an irreplaceable role in this process. some of the agent suggests that the bank should allow the system to check financial activities' details and give employees access to detailed transactions. The agent admits that most agents, including themselves, lack knowledge of all the system functions and only use the sales part. This indicates a need for better training and support for agents.

It is suggested that agent banking often relies on mobile devices, with access highly dependent on internet connectivity. This product targets low-income communities and rural customers. However, there are issues with the Cbe-birr mobile app, such as it not functioning at times and its complexity. Additionally, network problems or technical glitches in the banking platform can disrupt customers’ accessing the services.

5. CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study aimed to examine the factors influencing banking agents' performance, with a specific focus on the Commercial Bank of Ethiopia. The research was conducted among agents operating in the Bole district of Addis Ababa and utilized a Likert-scale questionnaire to collect quantitative data. Responses formed the basis for the study's findings, conclusions, and recommendations. The analysis focused on four independent variables Infrastructure, Agents' Knowledge, Transaction Cost, and Distance and one dependent variable: Agents' Performance. Data were processed using SPSS version 27, employing both descriptive statistics and multiple regression techniques to assess relationships among the variables.

The demographic characteristics of the respondents indicate that the majority (61.3%) are male, with the predominant age group being 26–30 years (47.4%). In terms of educational qualifications, 43.9% hold a first degree. Regarding marital status, 50.3% of respondents are single, while 46.8% are married. The study examined four independent variables Infrastructure, Agents' Knowledge, Transaction Cost, and Distance and their influence on agents' performance using SPSS version 27. ANOVA results revealed no statistically significant perceptual differences across sex, age, or marital status. However, educational level showed a strong and consistent impact. Specifically, significant variation was observed across all four dimensions, suggesting that respondents' educational background substantially shapes their perceptions of agent performance, infrastructure quality, agent competence, financial cost, and accessibility in terms of distance from banking institutions.

This thesis examined the factors influencing banking agents' performance in the Bole District of Addis Ababa within the Commercial Bank of Ethiopia. The study employed quantitative methods, utilizing structured questionnaires for data collection. The study's analysis of factors such as agency banking knowledge, financial costs, bank-to-agent location, and infrastructure, as emphasized in the literature review, highlights on the key drivers of agent success. While convenience sampling limits the generalizability of the findings, the study provides valuable insights into the factors influencing agent success in this specific context. Agent Banking Knowledge was the most significant positive determinant; the analysis suggests that Agent Banking Knowledge plays a critical role in driving agent performance. The analysis also

emphasized the significant impact of Infrastructure capability on agent performance, indicating that unreliable network connectivity presents a major challenge for agents. Financial cost has negative impact. Furthermore, the analysis found transaction costs were a significant impact on agents' performance. These findings shows that the importance of targeted interventions to enhance agent knowledge, improve network infrastructure, and address financial cost problems for maximizing the effectiveness of the commercial bank of Ethiopia agents' performance. Therefore, by identifying these critical determinants, this research offers insights into how CBE can optimize its agency banking model to enhance agent performance and contribute to broader financial inclusion goals within Ethiopia. In addition, investigation into the relative importance and interdependent of these factors would further refine strategies for maximizing the effectiveness of the agents. The results of the linear regression analysis indicated that agents' performance was mainly determined by infrastructure, agents' knowledge, transaction cost, and bank-to-agent distance. Infrastructure and agent banking knowledge have a positive impact on agents' performance. However, Transaction cost and bank to Agent distance negatively impacted Agent performance.

The model demonstrates strong predictive power, with an R^2 of 0.652, confirming that these variables explain a substantial portion of the variation in performance. Additionally, the high F-statistic (78.665) and significant p-values support the reliability of these results, reinforcing the validity of the relationships identified in this analysis. This study examined the factors influencing banking agents' performance, specifically within the Commercial Bank of Ethiopia. Conducted among agents operating in the Bole district of Addis Ababa, the research employed a structured Likert-scale questionnaire to collect quantitative data. The analysis focused on four independent variables Infrastructure, Agents' Knowledge, Transaction Cost, and Distance and one dependent variable: Agents' Performance. Data were processed using SPSS version 27, with both descriptive statistics and multiple regression techniques applied to explore variable relationships. Demographic analysis showed that the majority of respondents (61.3%) were male, with the predominant age group being 26–30 years (47.4%). Regarding education, 43.9% held a first degree. Marital status data revealed that 50.3% were single and 46.8% married. ANOVA results indicated no significant perceptual differences across sex, age, or marital status. However, educational level had a marked influence on perceptions across all four variables, suggesting that

respondents' educational background significantly shaped their views on agent performance, infrastructure quality, agent competence, financial costs, and accessibility.

Drawing from the literature review, the study highlighted key drivers of agent success including agency banking knowledge, financial costs, location accessibility, and infrastructure reliability. Agent Banking Knowledge emerged as the most significant positive determinant, underscoring its critical role in driving performance. Infrastructure capability also had a notable impact, with unreliable network connectivity identified as a major challenge. In contrast, Financial Cost and Transaction Cost both showed negative effects, indicating a need for strategic intervention.

Despite limitations due to convenience sampling, the study offers valuable insights for optimizing CBE's agency banking model. The regression model demonstrated strong predictive power ($R^2 = 0.652$), while a high F-statistic (78.665) and significant p-values affirmed the reliability of the results. These findings emphasize the importance of targeted efforts to enhance agent knowledge, improve infrastructure, and reduce cost-related barriers.

5.2 Recommendation

Based on the findings and conclusions of the study, the researcher forwards the following recommendations to the stakeholders of the agency banks.

- ✧ Advocate for Network Infrastructure Improvements: CBE should actively collaborate with telecommunications providers and advocate for infrastructure improvements to enhance network connectivity and reliability, and other areas where connectivity challenges hinder agent performance. Exploring the use of alternative technologies (e.g., satellite connectivity) in areas with poor terrestrial coverage. Providing agents with backup power solutions to mitigate disruptions caused by power outages. Invest in Agent Training and Knowledge Enhancement: Based on the findings, CBE should prioritize comprehensive training programs for banking agents, focusing on product knowledge, transaction procedures, and customer service skills. This investment in human capital will directly translate into improved agent performance and customer satisfaction.
- ✧ CBE should review and optimize the agent compensation structure to ensure it is competitive and incentivizes high performance. Explore strategies to reduce financial costs for agents, such as providing access to affordable transaction technology and reducing fees. to reduce the burden of the financial cost agents were facing, CBE should implement policies that enhance financial accessibility, such as offering discounted service fees, facilitating low-interest loans for operational expenses, and providing subsidies for essential banking equipment. Additionally, the bank should simplify transaction processes and improve digital banking infrastructure to reduce operational costs and enhance efficiency for agents.
- ✧ Agent Placement Conduct a detailed analysis of customer demographics and market potential to strategically locate new banking agents in underserved areas. Evaluate the optimal distance between agents and bank branches to maximize coverage.

- ✧ Infrastructure has a strong positive effect on agents' performance. The bank should prioritize the development of simple, fast, and accessible infrastructure to serve both individual customers and agents effectively. Additionally, support and strengthen the agents to bring the unbanked society into the banking system and mobilize the untouched funds from the unbanked society. It is also essential to develop a new platform that boosts the speed and

accessibility for users compared to the old one. A lack of high-quality infrastructure or inadequate network capability is one of the major challenges in agency banking. The bank should work in collaboration with developmental partners, the government, other financial sectors, and Ethio-telecom to improve the banking system throughout the country. This includes both traditional and branchless banking systems. Such improvements will help create a cashless society in the country.

- ✧ Agent performance is highly positively impacted by agents' knowledge. Furthermore, the bank must provide intensive training for bank managers, bankers, customers, and agents. Especially, the bank should create awareness among all stakeholders to increase Cbe-birr users and view agency banking as an opportunity for the growth of the bank. Developing agents' skills and talents can significantly contribute to the bank's growth and advancement. It is advisable to provide training to agents who meet the bank's quality and performance expectations. This allows them to gain experience in different responsibilities and develop new skills in selling the product.
- ✧ Transaction costs or financial service costs negatively impact agents' performance when operational costs are high. Agents tend to refuse to use it under these circumstances. Minimum operation costs and high commissions attract most agents. The bank should ensure that agency banking operations do not require expensive devices; otherwise, agents may refuse and switch to competitors.
- ✧ Bank to agent banking distance negatively affected the performance of agents. Agents experienced numerous challenges when they were located far from the branch; they didn’t get urgent support due to network or power problems. Transaction interaction and settlement of the transaction was also an issue when system errors occurred for payment through Cbe-birr. The bank created options to address agents far from their main branches.
- ✧ In general, banks should enhance all aspects of agents' banking services to improve their performance. This will help the bank maintain strong competitiveness in the industry and contribute to the advancement of a cashless society.

Future Research

This study primarily explored factors influencing agent performance from the service providers' perspective. Future research could expand by incorporating the customers' viewpoint, particularly exploring public awareness of agent banking and how it shapes agent effectiveness. Further investigations could also examine the broader role of agent banking in advancing financial inclusion in Ethiopia. Moreover, since this research was limited to agents in the Bole District of the Commercial Bank of Ethiopia, subsequent studies should consider including agents from other banks and regions, employing larger and more diverse samples to enhance the generalizability of findings.

Moreover, future studies are warranted given that the National Bank of Ethiopia has issued regulations governing agent banking activities across financial and non-financial sectors. However, the limited practical application of these regulations may account for the relatively low participation of agents in the business. Research could explore current mobile money usage patterns, evaluate the level and practices of agent banking across institutions, and compare performance among different bank agents. Including additional variables beyond those analyzed in this study would also enrich understanding and support more targeted policy and operational interventions.

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Appendix

I am a graduate student at Addis Ababa University. This questionnaire is intended to serve as primary data for my Master's thesis in Corporate Finance at Addis Ababa University, focusing on the analysis of agent banking performance in the CBE Bole district of Addis Ababa. Your participation in this study is highly valuable and greatly appreciated. I assure you that all information gathered will be treated with the utmost confidentiality and will be used solely for the purposes of this research.

General Instructions

- There is no need for writing your name.
- In all cases where answer options are available, please make tick mark (√) in the appropriate box where the choice is appropriate for you.

PART I: Demographic characteristics

1. Gender: 1. Male ☐ 2. Female ☐

2. Age: 1. Below 25 ☐ 2. 26 - 30 ☐ 3. 31 - 35 ☐ 4. above 36 ☐

3. Marital status: 1. Single ☐ 2. married ☐ 3. Divorce ☐ 4. Widow ☐

4. Education level: 1. Bellow Grade 12 ☐ 2. Fist degree 3 Diplo ☐ ma

3. Master's degree ☐ 4. PhD and above ☐

PART II: Research Related Questions

Branch _____

The following questions are presented on a five-point Likert scale.

5 (Strongly Agree), 4 (Agree), 3 (Neutral), 2 (Disagree), 1 (Strongly Disagree).

		1	2	3	4	5
Agent performance						
1	I frequently use formal financial services					
2	I regularly access formal or conventional financial services					
3	I am satisfied with the accessibility of financial serveries					
4	CBE-birr is flexible for you					
5	Cbe-birr is fast for user					
6	Cbe-birr is accessible for you					
7	Using Cbe-birr requires expensive device					
8	NBE has effective policy and strategies to address agent banking					
9	CBE has clear and understandable procurers to effectively implement agent banking					
10	CBE provide agent banking services same as conventional banking services?					
11	My customer are well-informed about agent banking or CBE-birr services?					
12	I am able to perform all key activities in CBE-birr, such as cash out, cash in, Bill payment and account opening, etc...)					
Infrastructure						
13	Poor signal strength affects your cbebirr transaction					
14	Lack of internet connection in the area leads to poor connectivity					
15	Have you faced any technical issues while using agent banking services?					
16	Is frequently experience downtime or service interruptions?					
17	Accessing the service using any types of mobile-based device is easy.					
18	Strong network capabilities can attract new agents.					
19	Stronger networking capabilities improve agent performance					
20	Faced a Network problem most of the time					
Banking agents' knowledge						
21	The bank provides training for the agents					
22	The Training provided by the bank helps to build my knowledge and skills					
23	I feel confident in the agents' ability to handle complex transactions.					

24	My level of education helps me effectively deliver Cbe-birr services					
25	The agents provide Cbe-birr services to their customers in a clear and accurate manner.					
26	Agents with more experience in agent banking perform better					
27	Sufficient awareness has been created about agent banking.					
28	The bank's training center and trainers are convenient for agent banking training.					
	Cost of financial services or transaction cost					
29	The operation cost of agent banking is lower than the cost of conventional banking.					
30	Sales in my business increased while providing cbe-birr service to customers.					
31	The Cost of transacting in agency banking is lower compared to conventional banking services					
32	There is no Cost for accessing Cbebirr through mobile-based devices.					
33	I have experienced unexpected charges while using agent banking services.					
34	Accessing cbe-birr through computer-based devices is more costly than using mobile-based devices.					
35	It is possible to use computer and mobile device interchangeably for accessing Cbebirr.					
	Bank to agent distance					
36	The nearest agent banking services is conveniently located from my residence or workplace?					
37	Banking agents help minimize the bank's expenses by reaching a large number of clients in untapped area.					
38	The distance to the agent banking location affects my decision to use the services.					
39	customers minimize their time, cost and effort by using banking agents instead of visiting bank branches.					
40	The location of agent banking services is convenient for customers					

41	The location of the bank agent affects the performance of agency banking services.					
42	Agent bank performance decreases as the distance from the conventional banking increases					
43	Agent bank performance improves when the distance between them is shorter.					
44	Customer uses bank agents because of the proximity to their business					

Other open-ended questions

Any other issue with agent banking services _____

_____

_____

_____

_____

"I thank you in Advance for Your Cooperation"

MANAGEMENT

INFORMATION

SYSTEMS

Agent status Performance

Summary

Between

07/01/2018,12z/31/2024

NO_AGENT	STATUS	No_of_Txn	Total_Amount	No_of_Txn	Total_Amount
28,333.00	Active	62,974,567.00	148,628,914,632.72	62,974,567.00	148,628,914,632.72
6,925.00	Closed	14,878,467.00	3,520,795,469.53	14,878,467.00	3,520,795,469.53
30,696.00	Dormant	12,834,874.00	2,632,671,220.63	12,834,874.00	2,632,671,220.63
45.00	Frozen	54,967.00	3,974,041.56	54,967.00	3,974,041.56
911.00	Suspended	5,384,987.00	1,640,763,676.19	5,384,987.00	1,640,763,676.19
Grand Total		96,127,862.00	156,427,119,040.63	96,127,862.00	156,427,119,040.63

MANAGEMENT

INFORMATION SYSTEMS

CBE Birr Agent status report

Between 07/01/2018,12/31/2024

		Active
DISTRICTNAME	BRANCHNAME	No_of_Agent
BOLE	ABEBECH GOBENA BRANCH	2.00
	ADWA PARK BRANCH	14.00
	ASSEFA TSEGAYE BRANCH	14.00
	AYER AMBA MICAEL BRANC	21.00
	Africa Avenue Branch	9.00
	Agoza Gebeya Branch	4.00
	Air Port Branch	4.00
	Andinet Branch	9.00
	BAMBIS BRANCH	7.00
	BILAL BRANCH	8.00
	BOLE ATLAS	10.00
	BOLE BRASS BRANCH	9.00
	BOLE BULBULA BRANCH	15.00
	BOLE CARGO BRANCH	5.00
	BOLE DILDIY BRANCH	
	BOLE GORGORIOS BRANCH	9.00
	BOLE JAPAN BRANCH	6.00
	BOLE KELEBET BRANCH	8.00
	BOLE ROAD BRANCH	7.00
	BULBULA 93 MAZORIA BRA	6.00
	BULBULA CONDOMINIUM BR	16.00
	BULBULA MARIAM BRANCH	
	Bole Branch	8.00
	Bole Medhanialem	6.00
	Bole Michael Branch	6.00

	CONGO ROAD BRANCH	1.00
	Cargo Terminal Branch	
	China Africa Square Br	10.00
	DERARTU TULU BRANCH	3.00
	Debebe HABTE Yohannes	5.00
	EDNA MALL AKABABI BR	6.00
	ENDERASE BRANCH	14.00
	ETHIO CHINA ROAD BRANC	7.00
	GAZEBO SQUARE BRANCH	1.00
	Gotera Branch	4.00
	JAFAR BRANCH	5.00
	KAZANCHIS BRANCH	12.00
	KAZANCHIS MEBRAT BR	1.00
	LEYIKUN BIRHANU BRANCH	4.00
	MESERET DEFAR BRANCH	4.00
	Meskel flower Branch	7.00
	Olympia Branch	3.00
	Peacock Menafesha	5.00
	Tele Medehanialem Br	3.00
	Urael Branch	7.00
	WUHALIMAT BRANCH	12.00
	Wolo sefer Branch	9.00
	YIDENEKACHEW TESEMA BR	3.00
	Total	329