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ANALYZING DETERMINANT OF DEPOSIT MOBILIZATION IN ETHIOPIA

Aberham Deffersha

BACHELOR'S THESIS

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ABSTRACT

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
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Analyzing Determinant of deposit mobilization in Ethiopia
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The oversight of this project falls under Tsehay Bank SC, established on July 23, 2022. Given the novelty of the bank in the industry, the primary goal of this study was to examine the factors impacting deposit mobilization in Ethiopia and their ramifications for banks aspiring to establish a competitive position in the financial sector. The outcomes of this research would guide the overseeing commissioner company in formulating an efficient deposit mobilization strategy.

In this thesis, quantitative research methodologies were applied to analyze both primary and secondary data sources. Descriptive analysis, specifically employing a frequency measure, was utilized to draw conclusions about data distribution. Additionally, the thesis employed ordinary least square regression analysis to explore the relationship between dependent and independent variables, providing insights into the extent of this relationship.

The study identified nine explanatory variables influencing the mobilization of deposits by banks. Secondary data for these variables were collected from financial statements of private commercial banks, the National Bank of Ethiopia, the Central Statistical Authority, and other pertinent sources. Additionally, primary data were gathered through questionnaires as part of a survey conducted in a specific geographic area and banks, covering the period from 2015/16 to 2021/22.

Regression analysis revealed that banks' return on assets (profitability) has a positive and significant effect on deposit mobilization in Ethiopia. Deposit interest rate, branch expansion, customer relationship management, GDP growth rate, and population growth rate all have a positive and insignificant effect on bank deposit mobilization in Ethiopia. Loan to deposit ratio, inflation rate, and conflict and political instability have a negative and significant impact on deposit mobilization of banks in Ethiopia. In general, four of the nine findings from microeconomic variables and macroeconomic variables have a significant impact on the deposit mobilization of banks in Ethiopia.

Key words: macroeconomic, microeconomics, deposit mobilization.

CONTENTS

ABBREVIATIONS AND TERMS

IRAs	Individual retirement accounts
CDs	Certificates of deposit
CRM	Customer relationship management
DM	Deposit mobilization
NOBE	Number of branch expansion
CRM	Customer relationship management
SIR	Saving interest rate.
ROA	Return on asset.
LTDR	Loan to deposit ratio
INR	Inflation rate
GDP	Growth domestic product
PGR	Population growth rate
CAPI	Conflict and political instability
ROE	Return on equity
DMB	Deposit mobilization of banks
CSA	Central Statistics Authority
NBE	National bank if Ethiopia
VIF	Variance Inflation Factor
OLS	Ordinary least square
H0	Null hypothesis
H1	Hypothesis
CLRM	Classical linear regression model.
IRAs	Individual retirement accounts
CDs	Certificates of deposit
TPLF	Tigray people liberation front

1 INTRODUCTION

The entity responsible for overseeing this project is Tsehay Bank SC, founded on July 23, 2022. Tsehay Bank is a privately held financial establishment that possesses the authorization to receive both checking and savings deposits, as well as extend loans. Furthermore, the bank offers associated services, encompassing offerings like individual retirement accounts (IRAs), certificates of deposit (CDs), currency exchange, and secure deposit boxes, among others.

Long-term economic growth and the cultivation of a dynamic economy depend significantly on the presence of an effective financial system. Countries endowed with well-established financial institutions generally experience accelerated growth. In emerging nations like Ethiopia, where the banking industry holds sway over the financial sector, commercial banks emerge as the primary orchestrators of the financial system. The proficient and effective functioning of these banks plays a pivotal role in expediting economic growth. Consequently, the banking system serves as the backbone of financial intermediation by mobilizing and allocating financial resources to the economy. (Banke & Yitayaw, 2022.)

The banking sector serves as the foundation of Ethiopia's economy, representing a vital financial pillar within the broader financial institution. It provides essential financial inputs necessary to produce goods and services, thereby contributing to the well-being and standard of living for the people. The sector plays a pivotal role in fostering economic development and advancement, facilitating the transfer of resources from savers to investors.

According to Banson et al, (2012), "deposit mobilization for a bank is as necessary as air for a human being." Deposit mobilization is one of the key activities of the banking industry and hence an essential source of working capital for the bank. Deposit mobilization is the gathering of cash or funds from the public by a financial institution through its current, savings, fixed, recurring

accounts, and other bank specialty programs. The government has also urged banks to make every effort to mobilize new deposits, which can only accelerate banks' lending activities from surplus to deficit units for the economy's development. Because a deposit is a low-cost source of operating capital, the bank's capacity to lend more and its success are heavily dependent on deposit mobilization.

Although deposits are the most important source of operating capital for banks, it is impossible to mobilize appropriate deposits without first knowing and regulating the factors that influence them. As a result, the topic of bank deposit growth and the factors influencing it is essential to the financial sector of developing countries like Ethiopia.

There are two types of factors that impact deposit mobilization: bank-specific (internal) and macroeconomic (external) variables. Bank-specific variables include the number of branches, customer relationship management, deposit interest rate, return on assets, and loan-to-deposit ratio. These internal factors are unique to banks and can be effectively managed to achieve the goal of increased deposit mobilization. On the other hand, macroeconomic variables such as inflation, GDP, population growth, political stability, and war are external factors that are beyond the control of the bank and can only be managed by the government and regulatory agencies.

One challenge in deposit mobilization is that banking activities in developing nations are restricted to legally sanctioned marketing initiatives. People in these countries are not well-acquainted with all banking services, especially when it comes to savings. They lack sufficient understanding or knowledge about the financial system.

The functions of Ethiopian commercial banks are clearly outlined in Art 2 sub-Art 2 of the Banking Business Proclamation No 592/2000. Accepting deposits is one of the key duties of Ethiopian commercial banks. Customers' deposits are accepted by commercial banks. Customers deposit money at commercial

banks to keep it safe and secure against theft and robbery. (Karuhanga & Patric, 2021.).

Scholars have made research on determinant of deposit mobilization and showed that the main determinant of deposit mobilizations are CRM, loan to deposit ratio, deposit interest rate, economic growth, inflation, population growth, and political stability Zwede et al. (2018), and Banke & Yitayaw (2022) but those studies do not consider the recent incidence of war(conflict) in Ethiopia, such incident may affect the determinant of deposit mobilization itself. The current study considers the impact of war on deposit mobilization and determinant of deposit mobilization.

The overall objective of this study is to identify the factors that determine deposit mobilization in Ethiopia. The data will cover the period from 2016-2022 for the sample of one public commercial bank and seven private banks in Ethiopia.

Since Tsehay bank SC is new to the financial industry, this study will help to see the strength and weaknesses of the evaluated banks' practices, and to design and implement effective deposit mobilization strategies. The findings of this study can provide a clear understanding and awareness of deposit mobilization practices and activities for bank managers. Besides, the study will also be helpful to researchers since it may serve as a stepping-stone for them when they want to address issues related to deposit mobilization.

1.2 Background of commercial bank in Ethiopia

In the Ethiopian context, the financial institution system began with traditional and informal financial institutions known as Equip and Iddir, which were structured with a feeling of collaboration and risk sharing, allowing Ethiopians to practice saving and financial management (Ayele, 2015). These two tradi-

tional financial institution systems prepared the foundation for the establishment of a modern banking system in Ethiopia named Abyssinia Bank in 1906, which was later officially superseded by the Bank of Ethiopia by Emperor Haile Selassie in 1931 (Ayele, 2015).

Private commercial banks were operational in the economy before the Dergue era, during the imperial period. However, when the Dergue took overpower, private commercial banks were nationalized and amalgamated with state-owned banks, resulting in the dominance of state-owned banks in the Ethiopian economy. During the Dergue regime, not only were banks prohibited, but the existence of any other private sector was also prohibited. The regime strictly adhered to a command economy. These private commercial banks came into existence almost three decades ago, following the downfall of the Dergue regime.

According to Ferezer (2022), the number of banks has increased from 18 to 30, with 8,944 branches as of June 30, 2022, up from 3,187 in June 2016. With the expansion of bank branches, the branch-to-population ratio reached 1: 11, 516. (One bank branch serves 11, 516 people). Furthermore, total deposits have increased over the last seven years, rising from 438 billion Birr in 2019 to 1.7 trillion Birr in 2022.The following table indicates the growth rate of number of branches and deposit growth from 2016 – 2022.

TABLE 1. Growth rate of number of branches and deposit growth.

Year	**Number of branches**	**Number of branches growth rate**	**Total deposit In Trillion**	**Total deposit growth rate**
2015/16	3,187	-	0.44	
2016/17	4,257	33.6	0.57	29.8
2017/18	4,757	11.7	0.73	28.2

2018/19	5,564	17	0.9	23.2
2019/20	6,511	17	1	11.2
2020/21	7,096	9	1.3	30
2021/22	8,944	26	1.7	30.7

From the above table we can easily understand that the average number of branch growth rate of commercial bank of Ethiopia in the last subsequent seven years was growing by 19 percent with the maximum value of 33.6 in 2015/16 and minimum 9 percent in 2020/21 and the average growth rate of total deposit was growing by 25.5 percent.

1.3 Study objective and scope

1.3.1 Objective and purpose

The primary objective of this study is to systematically analyse the determinants influencing deposit mobilization in Ethiopia. The research aims to identify and assess the key factors that impact the process of deposit mobilization within the Ethiopian banking sector. Through a comprehensive examination of economic, regulatory, and behavioural determinants, the study seeks to provide a nuanced understanding of the dynamics influencing deposit mobilization in the Ethiopian financial landscape.

The purpose of this study is to contribute valuable insights to the field of banking and finance in Ethiopia by shedding light on the determinants of deposit mobilization. By identifying the factors that influence individuals and entities in depositing funds, the research aims to inform policymakers, financial institutions, and stakeholders about the critical drivers shaping deposit mobilization trends. Ultimately, the purpose of this study is to facilitate informed decision-

making, improve strategic planning for financial institutions, and contribute to the overall development and stability of the Ethiopian banking sector.

1.3.2 Research questions

The research question in this thesis will help to attain the objective and purpose in a simplified way. This paper will focus on the following questions.

1. How can banks generate and increase their deposit resources?
2. what are the impact of the factors on deposit mobilization?
3. What are the factors that affect resource(deposit)mobilization?

The primary research question of this thesis is " How can banks generate and increase their deposit resources?" and the other sub questions are used to answer the first question. For instance, responding to the second question aims to identify the factors influencing deposits, while addressing the third question provides insights that enable banks to undertake appropriate actions in response to the observed impact.

1.3.3 Scope of the study.

The effectiveness of resource mobilization in the banking sector is closely tied to the quality of customer relationship management (CRM) within banks. It's important to note that this study had specific limitations. Specifically, the research was restricted to the branches and various departments of selected banks, despite the presence of over thirty private banks in Ethiopia. Additionally, it's essential to acknowledge that this research exclusively focused on deposit mobilization. These identified limitations should be taken into consideration when interpreting the research findings.

1. Budget constraints are a significant consideration, as research inherently requires financial resources to cover various expenses associated with research activities.

2. Time is another critical factor to consider, as the breadth of the topic necessitates an extended duration to conduct the research comprehensively and in-depth.

3. Despite the ceasefire agreement signed in November 2022 between the federal government and the Tigray People's Liberation Front (TPLF), there is no transportation access to the Tigray region for data collection.

1.4 Significant of the study

A number of studies had been conducted on the factors influencing deposit mobilization in Ethiopia, such as: Andinet (2016); Ferede (2021); Hibret (2015); Ketema (2017), but the literature on deposit mobilization determinants did not identify the effect of Ethiopia's internal conflict that lasted from 3 November 2020 to 3 November 2022 on deposit mobilization trends. This study attempted to fill this critical information gap and all literatures attempted to identify only five to six independent variables that influence deposit mobilization. The study will attempt to examine the impact of the internal conflict on deposit mobilization in Ethiopia in depth, as well as the impact of nine independent factors on deposit mobilization in Ethiopia at the same time.

2 LITERATURE

2.1 Conceptual Review

Deposit mobilization is defined as the process by which financial institutions transfer funds from surplus to deficit units to create more opportunities for productive investment. (Banke &Yitayaw, 2022.)

Attracting financial resources is critical in a bank's operations since success in this area can be a determinant of success in other areas. According to Habibi-pour (2008), "Factors Affecting Banking Resource Mobilization," internal factors have a greater influence on resource mobilization than the typical bank. He conducted research to uncover elements that influence banking resource mobilization.

In company, detailed consumer information is essential. Customers can be holders of current and savings accounts, debtors, guarantors, and so on. Mobilization of resources from customers is critical to the development of a com-any, and various elements influence mobilization of resources from client de-posits. According to Khezra (2006), "Factors Affecting Financial Resource Mobilization," information technology and communications skills of bank employees, as well as diversification of bank service quality, customer satisfaction, acceptance of indoor environment, and branch locations in modern banking, are important tools that are used efficiently to absorb funds.

Deposits in commercial banks are significant liabilities for commercial banks. According to Kelvin (2001), commercial bank deposits account for approximately 75% of commercial bank liabilities. Because commercial banks use this obligation to lend and earn a return on their deposits, they use them to do business. Commercial banks collect deposits from customers and make loans to them; in this way, commercial banks mobilize resources. As a result, banks will do better if they mobilize more consumer deposits of various types. Customers' income in the bank should be appealing enough for banks to deploy resources. As a result, savers are more likely to preserve a portion of

their savings in the form of deposits (V. V. Bhatt, 1970.). Individual investors and governments rely heavily on bank deposits to fund their investments and/or development projects. In general, the banking system can only be viable if de-posits can be mobilized at the appropriate rate. This can only be accomplished by making a bank deposit more appealing. The capacity of a bank's management and staff to attract checking and savings accounts from businesses and people is an important indicator of client acceptance.

Habibipour (2008), Khezra (2006), Kelvin (2001), and V. V. Bhatt (1970) all of those scholars give similar explanations and attention for how much deposit mobilization is important for the existence of the bank and its factors that affect efficient generation of deposit.

2.2 Internal factors

Internal factors are those that are related to a bank's internal efficiencies and managerial decisions.

2.2.1 Number of branch expansion

Branch expansion involves the creation of new branches or service outlets, both domestically and internationally. As noted by Carlson and Mitchener (2005), Ethiopian commercial banks allocate a substantial budget annually for expanding branches, both within and outside Addis Ababa. This emphasis on branch expansion is driven by its significance in mobilizing resources and attracting customers (Terefe, 2021).

A correlation exists between the deposits held by commercial banks and the expansion of their branches. The act of increasing the number of branches and extending services to previously unbanked yet financially viable areas directly influence the bank's ability to mobilize deposits. The location of a bank's branch is critical for increasing deposit mobilization (Eyob, 2019). Branch expansion dimensions (government policy, population growth,

branch location, and branch office rent) are important for the bank's growth because they influence deposit mobilization. In addition, there was a significant increase in bank branch expansion and deposit growth. There was a significant relationship between these financial performance indicators and branch expansion dimensions. This means that bank deposit growth is strongly related to branch expansion dimensions (Kumar et.al, 2022). As Yoseph sighted Andinet (2016) investigated the factors influencing deposit mobilization in Ethiopian private commercial banks by explaining variables such as the number of bank branches, deposit interest rate, liquid asset to deposit ratio, lagged value of bank deposits, net interest margin, inflation rate, and economic growth (GDP). He demonstrated that the number of bank branches was significantly and positively related to total deposit (Yoseph, 2019).

2.2.2 Customer Relationship Management (CRM)

The goal of customer relationship management is to achieve not only customer happiness but also customer delight. When you lose a customer, you lose more than simply a single sale. It entails losing the full stream of purchases that the customer would make throughout a lifetime of patronage, as well as the image losses that customers may express if the company fails to meet expectations. Unhappy customers are likely to influence others not to buy from the under-delivering company. (Kotler & Armstrong 2008.)

In recent years, scholars and practitioners have paid close attention to effective and well-implemented customer relationship management practices. Despite the extensive literature on CRM, studies on how CRM practices influence customer deposit culture in the banking industry are very limited.

CRM practices help banks to increase their deposit mobilization. CRM practices that significantly improve bank deposit levels include effective employee-customer communication and proper complaint handling (Evelyn, 2018). Cus-

tomer relationship management has a significant positive impact on the organizational resilience of Nigerian deposit money banks. This is consistent with the findings of Peyman et al. (2011), who discovered that information sharing, customer involvement, long-term partnership, joint problem solving, and technology-based have a significant relationship with Melli bank of Iran's innovation capabilities (Edeh et al., 2019). Customer relationship management is statistically significant in deposit money bank performance (DMBs). This implies that customer relationship management proxies such as customer attraction, satisfaction, retention, and relationship management have a significant and positive impact on the performance of Deposit Money Banks (DMBs). The study supports the findings of Tolulope (2013), Adiele and Justin (2013), Robson (2013), and Okeji (2015), who discovered a significant relationship between customer relationship management and organizational performance. (Bello, 2019) stated in his study that customer attraction has a significant impact on deposit mobilization of banks (DMB) performance.

2.2.3 Saving Interest Rate

Bank deposit volumes are significantly influenced by interest rates. According to theoretical perspectives, the interest rate and deposit amount have a positive relationship. That is, as the interest rate on deposits rises, so will the number of deposits held by banks, and vice versa (Panthee, 2010). Deposit Interest rate has directly relationship with deposit growth (Terefe, 2021). The deposit rate is the interest rate that a bank pays a depositor for the use of their money while it is on deposit. People may be encouraged to put their money in the bank as deposit interest rates rise. As a result, deposit interest had a positive impact on deposit mobilization (Hibret, 2015).

Interest rates that are prohibited in Islam have a significant positive impact on bank deposits in non-Muslim countries in both the long and short run; however, in Muslim countries, people do not care about interest rate increases or decreases when depositing in banks because of religious re-

strictions on interest rates in both the long and short run. This finding is similar to that of Hassan et al. (2016), who concluded that interest rates have no effect on commercial bank deposits, and Mushtaq and Siddiqui (2016), who concluded that interest rates have no effect on saving in Islamic countries but have a significant positive impact on saving in non-Islamic countries (Future Business Journal, v3) but In Ethiopian context the maximum and minimum deposit interest rate is seated by the national bank of Ethiopia so the current study does not expect to find out significant effect of interest rate on deposit mobilization.

Mustafa and Sayera (2009) said that low deposit rates are discouraging saving mobilization, while (Getachew 2017) states that deposit interest rate is not a major factor in explaining the commercial banks deposit growth in Ethiopia.

2.2.4 Return on Asset (Profitability)

Profitability is the ability of any business to earn profit for its owners (Singh, 2015). Profitability is the bottom line of efficiency of banks (Worede, 2016).

Over time, the known measures of bank deposit performance have been based on either return on assets or return on equity However, when it comes to measuring, many researchers have argued for the return on assets (ROA) as a measure of performance in comparison to return on equity (ROE) (Osei, 2015). ROA demonstrates the profit earned per dollar of assets and, more importantly, it reflects management's ability to profitably utilize the bank's financial and real investment resources (Hassan & Bashir,2003).

Higher profit is regarded as a positive signal of the bank's soundness, making it easier for such banks to attract new deposits (Banke & Yitayaw, 2022). The proxy of profitability which is return on asset (ROA) statistically and positively related with deposit mobilization (Alemu, 2021). (Bhalla 2006) defines ROA as a ratio used to measure a company's efficiency in the use of its assets to generate profit. That is, a more efficient company will generate more profit from a given level of total asset than a less efficient competitor. Thus, Return on Asset profitability has a significant positive impact on commercial bank

deposit growth. Higher bank profits would tend to signal improved bank soundness, making it easier for these institutions to attract deposits. If the bank is profitable and has an adequate asset return, depositor confidence will rise (Getachew, 2017).

2.2.5 Loan to deposit ratio (Bank's liquidity)

The loan to deposit ratio (LTDR) evaluates a bank's liquidity by comparing total loans to total deposits within a specific period, expressed as a percentage. An excessively high ratio may indicate inadequate liquidity to fulfil customer withdrawals, potentially discouraging future deposits. Conversely, a too low ratio may imply the bank is not maximizing its earnings. Thus, for the sake of maintaining public trust and ensuring regular customer deposits, it is imperative for a bank to strike a balance between liquidity and profitability (Azolibe, 2019).

The LTDR, signifying the proportion of customer deposits disbursed as loans, influences bank liquidity. A higher LTDR reflects lower liquidity, potentially resulting in reduced client deposits due to the bank's limited ability to repay depositors, thereby negatively affecting deposit mobilization (Banke & Yitayaw, 2022). However, Gebre (2019) contends that the loan-to-deposit ratio may not be a decisive factor in determining the growth of private commercial bank deposits in Ethiopia. This perspective stems from the inverse relationship between the loans-to-deposit ratio and liquidity—higher ratios correlate with lower liquidity, and vice versa (Devinga, 2010). Alemu (2021) adds that, at a significant level, the loan-to-deposit ratio exhibits a negative and statistically significant impact on bank deposits. This is because an increase in banks' lending relative to deposits leads to a decline in deposit levels.

2.3 Macroeconomic (external) variables

External factors are variables that are outside of the control of bank management but reflect the economic and legal environment that affects bank operations and deposit positions.

2.3.1 Inflation

Inflation is characterized as a sustained and widespread increase in the prices of goods and services over the long term (European Parliament, 2022). Its impact on bank deposits is twofold, as outlined by Banke and Yitayaw (2022). Firstly, it diminishes the purchasing power of money, prompting households to expend most or all of their income on goods and services, leaving little room for saving in banks. Secondly, in cases of hyperinflation, characterized by rapid, excessive, and uncontrolled price increases in an economy, the value of savings in banks becomes negligible, especially when the inflation rate surpasses the deposit interest rate. Consequently, individuals may opt to convert their deposits and cash into commodities with a stable value, anticipating future price hikes and the uncertainty of being able to deposit money in banks (Banke & Yitayaw, 2022).

Inflation exerts a negative impact on the deposit mobilization of Nigerian banks, and reducing the country's inflation rate is anticipated to lead to an upswing in deposit mobilization. Finally, interest rates, as indicated by Oroko (2018), emerge as a valuable monetary policy tool with a positive influence on the growth of deposit mobilization in the Nigerian banking sector. The statistical analysis by Alemu (2021) affirms the significance of the inflation rate in this context, establishing a statistically significant but negative association with deposit mobilization.

2.3.2 Growth Domestic Product (GDP)

Gross Domestic Product (GDP) is the total market value of all goods and services produced within a country over a one-year period, serving as a key indicator to evaluate a nation's economic performance. There exists a positive correlation between the GDP growth rate and deposit mobilization. During periods of robust

economic growth, there is an uptick in the demand for goods and services, leading producers to deposit a greater portion of their surplus earnings in banks, consequently driving an increase in deposits. Conversely, in times of economic downturn, reduced earnings on investments are likely to diminish bank deposits (Azolibe, 2019).

The positive relationship between income and deposits is affirmed, indicating that as the overall income of society rises, so do the deposits in commercial banks (Banke & Yitayaw, 2022). However, Bikker & Gerritson (2017), as well as Yakubu & Abokor (2020), argue that GDP has a negative impact on bank deposit mobilization. Terefe (2021) further contends that the growth rate of Gross Domestic Product exerts a negative and statistically insignificant influence on the mobilization of deposits by banks.

2.3.3 Population growth

Population growth would result in an increase in the functional labour force, which would attract investment, create wealth, and positively affect overall economic growth. As a result, the deposit would grow because larger populations tend to have more income generators and savers. Thus, population growth had a positive and significant impact on deposits (Hibert 2015). Teshome (2017) also found that a positive relationship between population growth and deposit mobilization; Whereas Legass et al (2021), stated that the country's population growth has a negative and significant impact on the deposit growth of Ethiopian commercial banks. This result shows that as the population grows rapidly, so does consumption, and deposits in banks may decline.

2.3.4 Conflict and political instability

Conflict often results in runs on deposits, crashes in asset markets, and capital flight. Additionally, worsening financial conditions, declining economic activity, plummeting collateral values, and compromised security pose threats to banks' capacity to maintain financial intermediation and payment systems. In the case of Syria, the onset of conflict led to a sharp and rapid contraction of bank assets,

with the proportion of nonperforming loans surging to an estimated 35% by the end of 2013, up from less than 5% in 2010 (Sab and Hegazy, 2014). Consequently, conflict has a detrimental impact on deposit mobilization.

Political stability, on the other hand, cultivates an environment conducive to investment and growth. Economic growth enhances the sustainability of businesses (Shabbir et al., 2016). In democratic regimes, political stability is crucial as indicators of economic freedom are positively linked to greater investment and economic growth (Georgiou et al., 2015). Political stability positively influences deposit mobilization. However, conflicts and political instability heighten the risk of systemic banking crises and diminish bank deposits. (Banke & Yitayaw, 2022.)

Political unrest disrupts economic activities and generates uncertainty, potentially prompting depositors to withdraw funds in anticipation of the actions of others. (Attila, 2022.)

2.4 Conceptual framework

There is a clear consensus from the above theoretical reviews that there are a number of factors that can affect commercial banks' deposits positively or negatively. The independent factors are classified as internal or external. This conceptual framework describes the relationship among the dependent variable with the independent variables involved in by using the following (FIGURE 1).

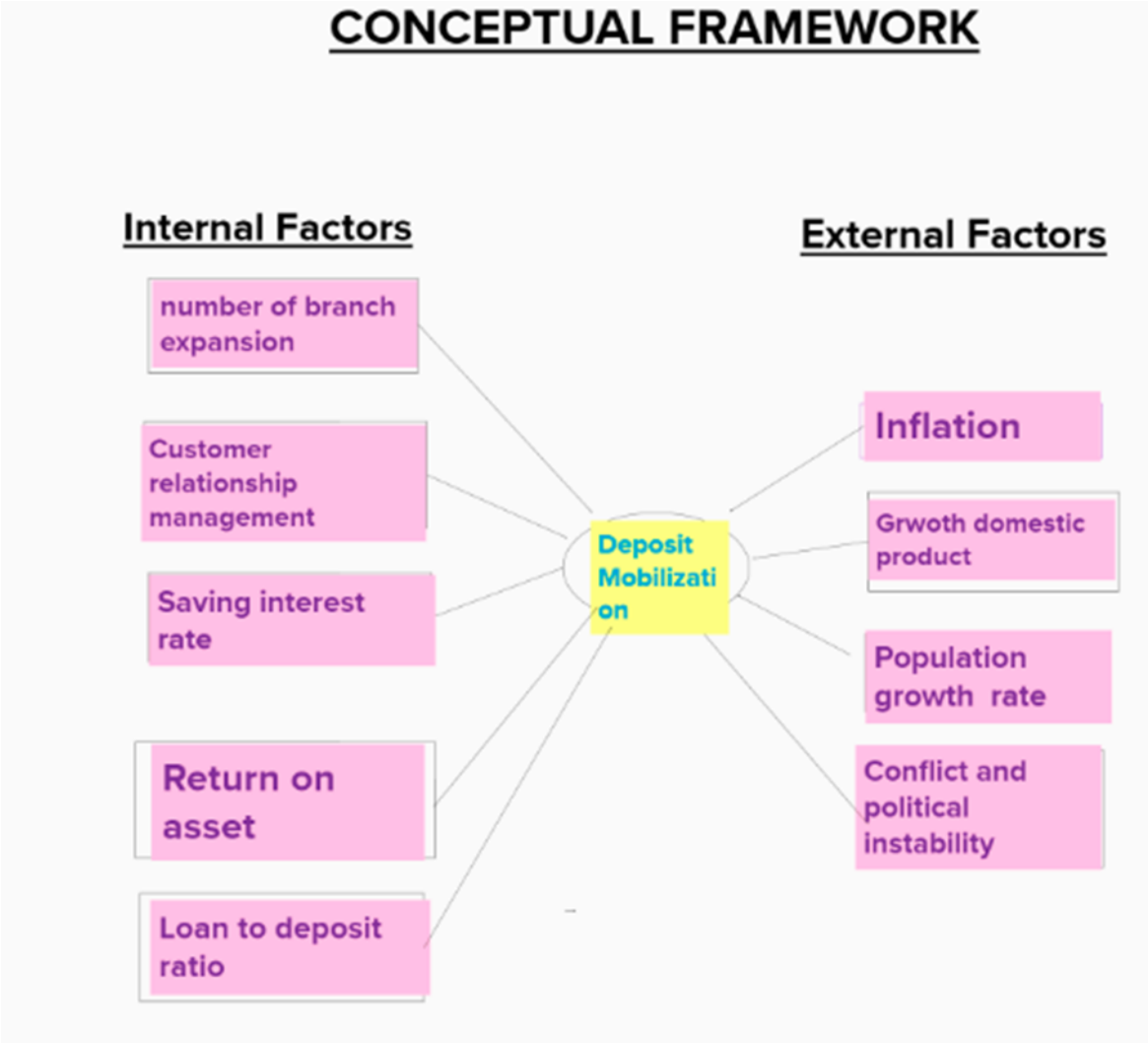


FIGURE1. Conceptual framework of the study.

3 RESEARCH METHODOLOGY

3.1 Introduction

The research methodology describes the method and process used in all aspects of the study. It is the process of arriving at a solution to a problem through the systematic collection, analysis, and interpretation of facts and figures. So, this chapter summarizes the research methodology used in this study. The chapter's sections describe the research approach and design, sampling methods, and data collection tools. It also describes the variables used in the research.

3.2 Research Design

Even though the subject of the study is multidimensional responses, a quantitative approach is regarded as an appropriate methodology which focuses on the critical interpretation of quantifiable empirical data.

The researcher has chosen a quantitative research design for several reasons:

1. Focus on Quantifiable Empirical Data: The study deals with multidimensional responses, but the researcher chooses a quantitative approach because it allows for the critical interpretation of quantifiable empirical data. This means that the researcher aims to use numerical data to draw conclusions and make interpretations.

2. Efficiency and Generalization: Quantitative methods often allow for more efficient data collection, analysis, and interpretation. The use of statistical tools like regression analysis enables the researcher to generalize findings to a larger population, providing broader insights beyond the sampled data.

3. Objective Measurement: Quantitative research aims for objectivity in measurement. By using numerical data and statistical analysis, the researcher aims to minimize bias and subjectivity, providing a more objective understanding of the relationships between variables.

4. Comparison and Trends: The researcher collects data from both primary and secondary sources over a six-year period. This longitudinal approach enables the examination of trends over time and facilitates comparisons between different variables and their impact on deposit mobilization.

This research employed descriptive analysis, specifically utilizing a measure of frequency. This approach facilitated the researcher in drawing conclusions regarding the distribution of the data. Additionally, the thesis utilized ordinary least square regression analysis to examine the relationship between the dependent and independent variables. Furthermore, this analysis provided insights into the extent of the relationship.

3.3 Data collection methods

Data collection is the process of gathering and measuring reliability of source of data that fits the purpose of the study. So, data collection methods used by the researcher was considered as vital component of the research which could enable to answer relevant questions and evaluate outcomes.

The information for this study was gathered from both primary and secondary sources. Information was gathered from seven Ethiopian private and one public commercial bank in the capital city of Ethiopia (Addis Ababa) and in Amhara region (Gonder, Bahir Dar, and Debre Brehan) in order to obtain new and first-hand data sources. The primary data was collected using a questionnaire in this case. Secondary data sources included annual reports from selected Ethiopian commercial banks, data from the National Bank of Ethiopia (NBE), data from the Central Statistical Authority (CSA) and other concerned parties. Data from six years, ranging from 2015/16 to 2021/22, were collected and used in the study.

3.4 Sampling Techniques

Sampling is the process of selecting a small number of elements from a larger target group of population. The information gathered from the small group allows judgments to the larger groups. While making sampling analysis, the researcher had taken maximum care to save time, to avoid high cost of collecting the data, and the cost of an incorrect inference or conclusion resulting from the data. However, the researcher used optimum number of samplings to make representative sample size, and which minimizes the sampling error.

The target population of this research is the selected seven private and one public Ethiopian commercial bank. Based on this fact, the selected Ethiopian commercial Banks were included in this research. The questionnaires were distributed to the managers or Marketing officers of the selected city branches based on judgmental (purposive) nonprobability sampling. The cities have selected because those are the area exposed to the recent conflict in Ethiopia and branches from the selected cities are selected by using random sampling techniques. The rationale for this selection was the larger proportion of bank deposits and the number of city branches. The numbers of questionnaires distributed were 95 filled and returned 80.

3.5 Data analysis

This part is the very difficult for the researcher while conducting the research, was not much significant but some time constraint, cost, lack of quick accessibility of some information sources, and delay in collection of distributed questionnaires were observed.

Descriptive analysis is used prior to multiple liner regression to describe the behaviour of the individual variables over the time under consideration. A brief situation of the Internal and external variables was also included in the descriptive analysis. The collected data was compiled and edited and coded to eliminate all errors. It was then synthesized and analysed using STATA to draw valid conclusions and inferences using quantitative analytical techniques. To highlight all

interrelated inferences, cross tabulations were used. In the case of the quantitative technique, tables and figures were used.

3.6 Justification of variables and Model specification

3.6.1Justification of variables

Various articles and master's theses were also reviewed for assessment, validation, and useful conclusions. Deposit, branch expansion, saving interest rate, return on asset, customer relationship management, loan to deposit ratio, inflation, GDP growth, population growth, and conflict and political instability were the variables studied. Table 2. shows the variables, their units of measurement, and their representation.

TABLE 2. Variable definitions and Measurement

Variables	Definition	units
DM	Deposit Mobilization	In millions of birr
NOBE	Number of Branch Expansion	In number
SIR	Saving Interest Rate	percentage
CRM	Customer Relationship management	Number of customers
ROA	Return on Asset	Percentage
LTDR	Loan to Deposit Ratio	percentage
INR	Inflation rate	percentage
GDP	Growth Domestic Product	Percentage
PGR	Population Growth Rate	Percentage
CAPI	Conflict and Political Instability	Peace

3.6.1.1 Dependent variable

The researcher used deposit mobilization as the dependent variable in this study. Deposit mobilization is a critical function of the banking industry because it is a critical source of working capital for the bank. The number of deposits mobilized from the public through current, savings, fixed, and recurring accounts, as well as other specialized schemes, is critical to the bank's fruitful operation.

3.6.1.2 Independent Variables.

Number of Branch expansion (NoBE): Branch expansion refers to the establishment of new branches or service outlets both within and outside of the country. Not only are deposits influenced by bank branches, but the expansion of bank branches is also influenced by the level of deposits in any area (Baqui et.al, 1987). bank deposit growth is strongly related to branch expansion dimensions (government policy, population growth, branch location, and branch office rent) (Kumar et.al, 2022).

H1(hypothesis**). NoBE** has a significant positive effect on deposit mobilization

Customer relationship management (CRM): the goal of customer relationship management is to achieve not only customer happiness but also customer delight. It entails losing the full stream of purchases that the customer would make throughout a lifetime of patronage, as well as the image losses that customers may express if the company fails to meet expectations. Unhappy customers are likely to influence others not to buy from the under-delivering company. (Kotler & Armstrong 2008.). Customer relationship management has a significant positive impact on the organizational resilience of Nigerian deposit money banks (Evelyn, 2018).

H1(hypothesis**). CRM** has a significant positive effect on deposit mobilization

Saving Interest Rate (SIR): Bank deposit volumes are significantly influenced by interest rates. the interest rate on deposits rises, so will the number of deposits held by banks, and vice versa (Panthee, 2010). The deposit rate is the interest rate that a bank pays a depositor for the use of their money while it is on deposit. People may be encouraged to put their money in the bank as deposit interest rates rise. As a result, deposit interest had a positive impact on deposit mobilization (Hibret 2015). But In Ethiopian context the maximum and minimum deposit interest rate is seated by the national bank of Ethiopia, so the current study does not expect to find out significant effect.

H1(hypothesis). **SIR** has positive and insignificant effect on deposit mobilization.

Return on asset (Profitability)(ROA): Profitability is the bottom line of efficiency of banks (Worede,2016). Higher bank profits would tend to signal improved bank soundness, making it easier for these institutions to attract deposits. If the bank is profitable and has an adequate asset return, depositor confidence will rise (Getachew, 2017).

H1(hypothesis). **ROA** has a positive and significant effect on deposit mobilization

Loan to deposit ratio (LTDR): The loan to deposit ratio (LTDR) is a measure of bank liquidity that reflects the proportion of customer deposits that have been disbursed in the form of loans. in order to maintain public trust and ensure the regularity of customer deposits, a bank must strike a balance between liquidity and profitability (Azolibe, 2019). If the ratio is too high, the bank may not have enough liquidity to meet customer withdrawals and may discourage people from depositing money in the future. In contrast, if the ratio is too low, the bank may be earning less than it could. Thus, in order to maintain public trust and ensure the regularity of customer deposits, a bank must strike a balance between liquidity and profitability. (Azolibe, 2019.)

H1(hypothesis). **LTDR** has a negative and significant impact on deposit mobilization

Inflation rate (INR): Inflation is defined as a long-term general or broad-based increase in the price of goods and services (European parliament, 2022). As to Carroll (2006), inflation can influence saving through its impact on real wealth. As inflation accelerates, deposits become less attractive, depending on the interest rate. According to Oroko (2018), Inflation has a negative impact on Nigerian banks' deposit mobilization. As a result, lowering the country's inflation rate would result in increased deposit mobilization. Finally, the interest rate in this case demonstrates that it is a useful monetary policy measure that has a positive impact on the growth of deposit mobilization in the Nigerian banking industry.

H1(hypothesis)**. INR** has a negative and significant effect on deposit mobilization

Growth domestic products (GDP): GDP is the market value of all goods and services produced in a country over a one-year period and is one of the primary indicators used to assess a country's economic performance. GDP growth rate and deposit mobilization have a positive relationship. During a period of high economic growth, there is an increase in demand for goods and services, which means that producers will deposit more of their surplus earnings in the bank, and deposits are bound to rise; whereas a period of depression is associated with lower earnings on investments, which will invariably reduce bank deposits (Azolibe, 2019). The relationship between income and deposits is positive, which means that as society's income rises, so do commercial banks' deposits. (Banke & Yitayaw, 2022.)

H1(hypothesis). **GDP** has a positive and significant effect on deposit mobilization

Population growth rate (PGR): Population growth would result in an increase in the functional labour force, which would attract investment, create wealth, and positively affect overall economic growth. population growth had a positive and significant impact on deposits (Hibert 2015). Whereas Legass et al (2021), stated that the country's population growth has a negative and significant impact on the deposit growth of Ethiopian commercial banks. this study believes that since Ethiopia is developing country the growth rate of the economy may not overcome with the population growth rate this may lead the dependence ratio larger.

H1(hypothesis). **PGR** has a positive and insignificant effect on deposit mobilization

Conflict and political instability (CAPI): conflicts and political instability can lead to a greater risk of systemic banking crisis and low bank deposits (Banke & Yitayaw 2022). Political unrest disrupts economic activity and creates uncertainty, which is likely to encourage runs from depositors anticipating withdrawals from others (Attila, 2022). conflict and political instability affect the overall growth rate of the country in two ways first; by decreasing the productivity of the nation because people will displace from their places where they were productive. second; In the case of conflict productive labour force may involve in the conflict either voluntarily or forcefully as a result productivity would be imped.

H1(hypothesis). **CAPI** have a negative and significant effect on deposit mobilization

3.6.2 Model specification

The previous chapter's literature review identified the various internal and external factors influencing deposit mobilization (DM) in various countries such as number of branch expansion (NOBE), customer relationship management (CRM), saving interest rate (SIR), return on asset (ROA), loan to deposit ratio (LTDR), inflation rate (INR), growth domestic product (GDP), population growth rate (PGR), and conflict and political instability (CAPI). This section presents an analysis framework based on these studies, and it includes the use of a model to demonstrate the responsiveness of certain key variables that influence bank deposit growth in Ethiopia.

The study uses multivariate linear regression models with one dependent variable and nine independent variables comprises the model. Based on the above explanation, the models are formulated as follows:

DM= the function of the independent variable

DM= f(NOBE, CRM,SIR,ROA,LTDR,INR,GDP,PGR,CAPI)……eq. 4.1

The model of multivariate linear regressions is presented below:

Y= α+β1X1+β2X2+β3X3+β4X4 + β5X5…. + εt……eq.4.2

Where ‘y’ is the dependent variable.

‘α’ is the constant term.

‘β’ is coefficient of each of the independent variables.

‘X1, X2, X3, X4……Xn are the independent variables.

‘εt - the error term.

When we apply this multiple linear regression model our model for this study can simply put as follows:

DM= α + β1NOBE + β2CRM + β3SIR + β4ROA + β5LTDR + β6INR + β7GDP + β8PGR + β9CAPI ……. eq. 4.3.

Where, εt is the random error term in time t and α is the constant term, β1, β2, β3, β4 and βn are slope coefficients. Regression Coefficients (to be estimated) measures how much units of deposit (DM) would be changed with a unit change in the independent variables.

3.7 Diagnostic test methods

The assumptions relating to the classical multivariate linear regression model were made (CLRM). These were required to demonstrate that the estimation technique, ordinary least squares (OLS), had a number of desirable properties, as well as that hypothesis tests on coefficient estimates could be conducted validly. The researcher's method for testing these assumptions is described below:

3.7.1 The average value of error is Zero.

The researcher made the first assumption that the average value of the errors is zero. This assumption is never violated if a constant term is included in the regression equation. However, if the regression did not include an intercept and the average value of the errors was greater than zero, several undesirable outcomes could occur. Brooks (2008).

3.7.2 Test for Heteroscedasticity

As per Brooks (2008), the assumption of homoscedasticity has been maintained thus far, where the variance of the errors is considered constant. Heteroscedasticity occurs when the variance of the errors deviates from constancy. In the presence of heteroscedasticity, the standard errors for the intercept in ordinary least square (OLS) analysis become inflated. The impact on the standard errors of the slope is contingent on the specific form of heteroscedasticity. For example, if the error variance is proportionate to the square of an explanatory variable, the OLS standard error for the slope will be underestimated. Conversely, if the error variance is inversely related to an explanatory variable, the OLS slope standard errors will be overestimated.

3.7.3 Multivariate Normality taste

One of the most applied tests for normality is the Shapiro-Wilk W test for normal data. The Shapiro–Wilk test statistic (Calc W) is basically a measure of how well the ordered and standardized sample quantiles fit the standard normal quantiles. The Shapiro-Wilk test is only intended for relatively small samples. Stata's swilk taste is useful for 2,000 or less sample. The two versions will also return different but similar W statistics. Since our sample is low the researcher uses this taste. If the p value is less than 0.05, will reject the null hypothesis.

3.7.4 multicollinearity taste

The Variance Inflation Factor (VIF) is employed to identify the extent of multicollinearity within ordinary least square (OLS) regression analysis. Multicollinearity exists in ordinary least squares regression analysis when two or more independent variables have a linear relationship. Generally, a VIF above 4 or tolerance below 0.25 indicates that multicollinearity might exist, and further investigation is required. When VIF is greater than 10 or tolerance is lower than 0.1, there is significant multicollinearity that needs to be corrected (CFI Team, 2022).

4 FINDINGS AND REGRESSION ANALYSIS

This segment of the research is bifurcated into two distinct components: firstly, a descriptive analysis of secondary data sourced from various outlets, and secondly, the employment of the multiple regression method.

4.1 Taste results of the assumption of the models

4.1.1 Taste for heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: The assumption that there exists homoscedasticity (error variance are equal)

H1: There is no homoscedasticity (there is Heteroskedasticity) (error variance are not equal).

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Table 3. Test for Heteroskedasticity

```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of depvar

         chi2(1)      =     0.92
         Prob > chi2  =   0.3373

.
```

In this study as shown in table 3, Prob > chi2: This is the p-value that corresponds to the Chi-Square test statistic. In this case, it is 0.3373. We do not reject the null hypothesis and conclude that heteroscedasticity does not exists in the data because this value is greater than 0.05.

4.1.2 Taste for multivariate Normality

Ho: The residuals are normally distributed.
H1: The residuals are not normally distributed.

The Shapiro-Wilk test is one of the common normality tastes, which only intended for relatively small samples. Stata's wilk taste is useful for 2,000 or less sample. Since our sample is less than 2000 the researcher used this taste.

TABLE 4. Test for multivariate Normality

Variable	Obs	W	V	z	Prob>z
res_std	80	0.90874	6.264	4.020	0.00003

In this study as shown in table 4.1, as we see from the above table the W is 0.90874 which is associated with the p value of 0.00003, since $p \leq 0.05$: then the null hypothesis can be rejected, and it indicates that there is no evidence for the normality distribution of the data. The researcher will try to transform or normalize it to make it more normal in his future career.

4.1.3 Taste multicollinearity

As shown in table 5, below, the mean Variance Inflation Factor (VIF) is 1.11 implying that correlation is very low and no multicollinearity. As a rule of thumb, VIF values less than 10 indicates no multicollinearity between the variables. Generally, a VIF above 4 or tolerance below 0.25 indicates that multicollinearity might exist, and further investigation is required. When VIF is greater than 10 or tolerance is lower than 0.1, there is significant multicollinearity that needs to be corrected. Here in this case, since the VIF result is less than four (4) the null hypothesis has been rejected.

H0: There is multicollinearity.

H1: There is no multicollinearity.

TABLE 5. Multicollinearity taste

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
   question9 |      1.22    0.820399
  question23 |      1.18    0.849524
  question18 |      1.10    0.909501
  question26 |      1.10    0.910301
  question21 |      1.10    0.912462
  question28 |      1.09    0.916471
  question31 |      1.09    0.918375
  question14 |      1.08    0.922506
   question8 |      1.07    0.935782
-------------+----------------------
    Mean VIF |      1.11

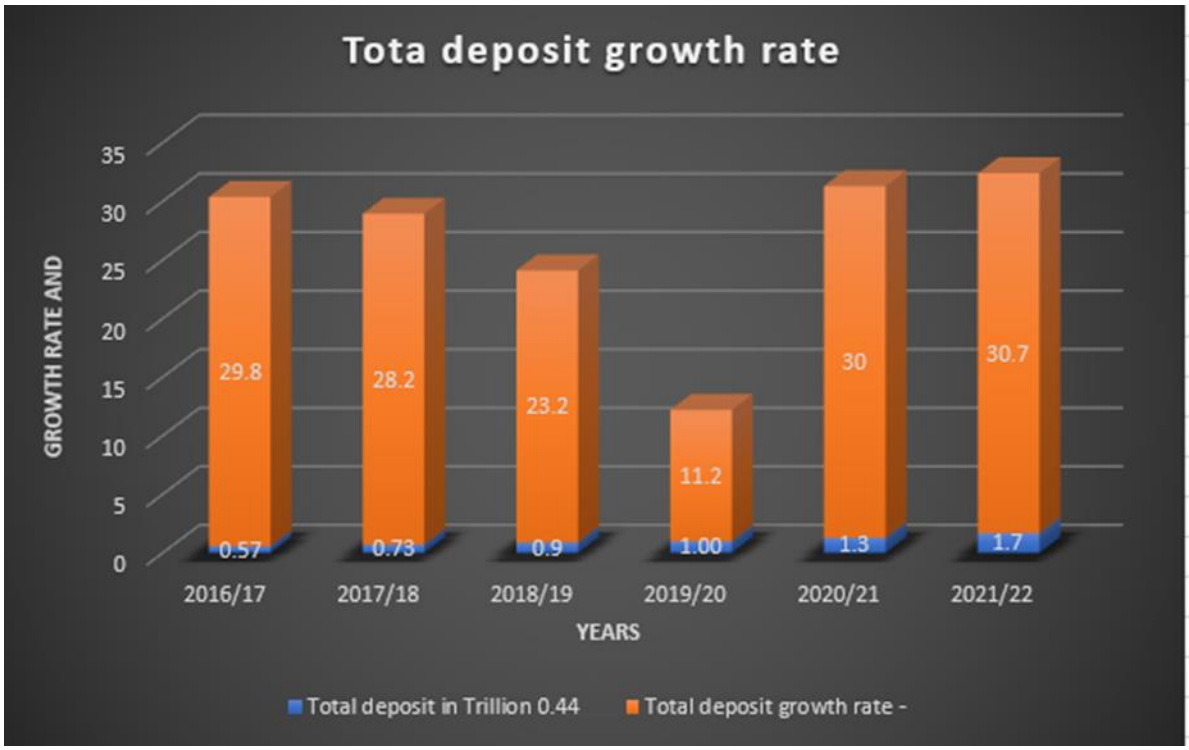
.
```

4.2 Descriptive analysis of secondary data

Having employed both primary and secondary data, this study involved the analysis of quantitative data derived from the primary source, obtained through the survey, and secondary data collected from the annual reports of the National Bank of Ethiopia, selected banks, and other relevant entities for the period spanning from 2015/16 to 2021/22.

4.2.1 Deposit mobilization growth rate in Ethiopia

The following figure shows deposit growth rate of banks in Ethiopia for the period 2016/17 to 2021/22.



FGURE 2. Deposit growth rate in the bank of Ethiopia for the period 2016/17-2021/22.

According to the above Figure 2, Ethiopia's total deposit mobilization increased at an increasing rate, reaching 0.57 trillion in 2016/17 from 0.44 trillion in 2015/16, indicating that the deposit increased at a rate of 29.8%, which continued until 2018/2019; however, because of the covid-19 and the country's internal conflict, the deposit growth rate changed to increase at a decreasing rate of 11.2% in 2019/20. This condition existed only in 2019/20 before changing dramatically and increasing at a rate of 30.35% on average for the next two years.

4.2.2 Number of branch expansion.

The number of branches had been increased from 2016/2017 continuously until 2021/2022, it described in the following figure.

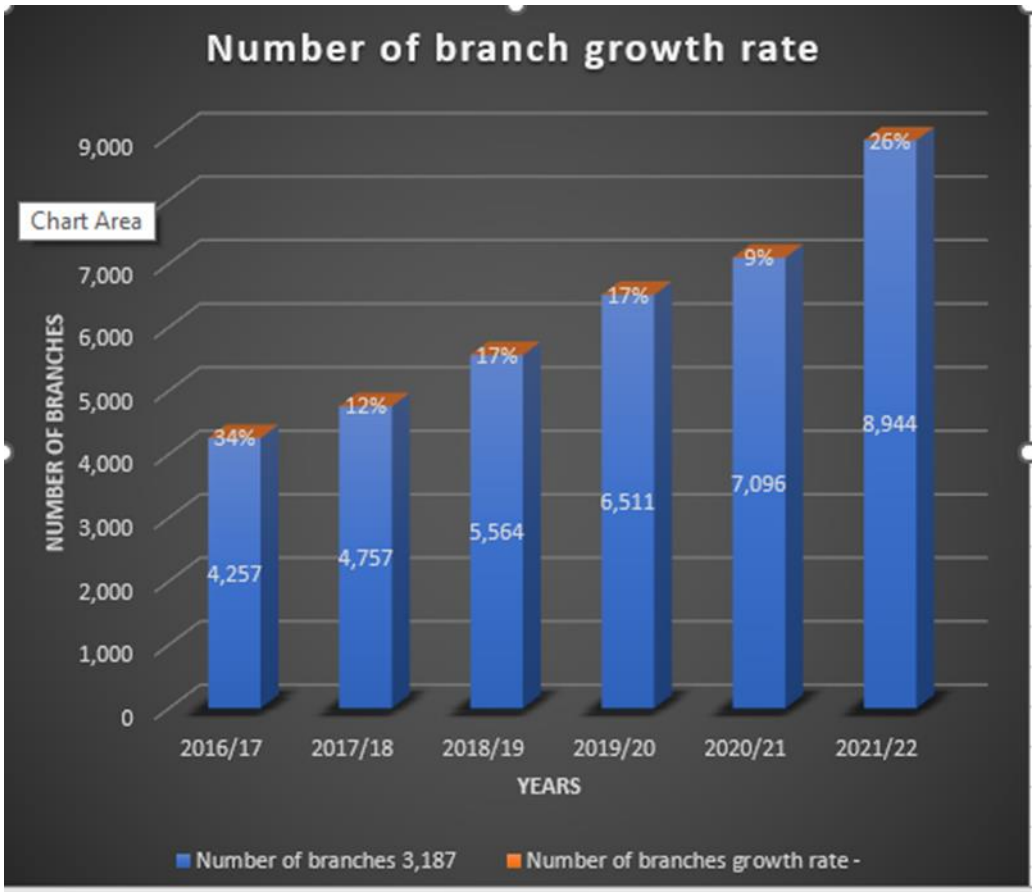


FIGURE 3. Number of branch growth rate of banks in Ethiopia for the period 2016/17-2021/22.

the above Figure 3, shows that the number of branch expansion in Ethiopia increased with an increasing rate from 3,187 in 2015/16 to 4,257 in 2016/17 with the growth rate of 34%, and then it increased with a decreasing rate of 13.75% on average till 2020/21 and then it increased with an increasing rate of 26% and reaches 8944 in 2021/22.

4.2.3 Inflation growth rate

The following figure shows that inflation growth rate of Ethiopia for the period 2016 to 2022.

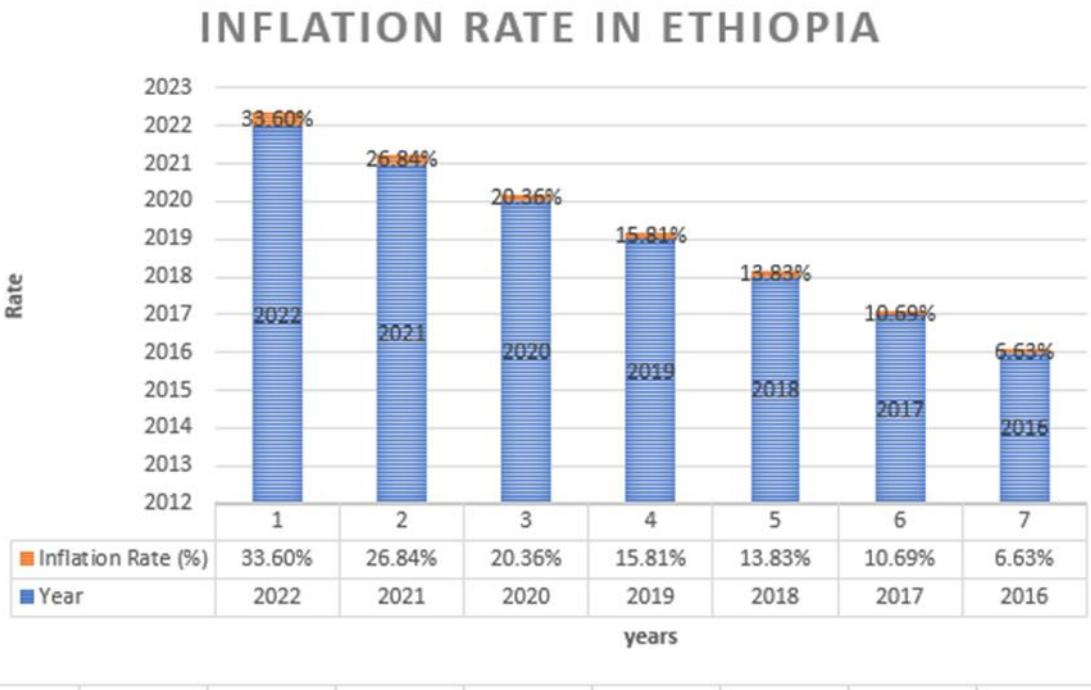


FIGURE 4. Inflation growth rate in Ethiopia for the period 2016-2022.

The above Figure 4 shows that inflation has increased year to year on average 16%, and it increased at a decreasing rate 11.7% average from 2016 to 2019 after this period the inflation rate increased at an increasing rate on average 27% from 2020 to 2022. The renewed conflict in the north, happening of covid-19, as well as the longest and most severe drought in recent years, are the primary causes of high inflation, given the negative impact on agricultural activity and manufacturing.

4.2.4 Growth domestic product growth rate (GDP)

The following figure shows Growth domestic product growth rate of Ethiopia for the period 2016 to 2022.

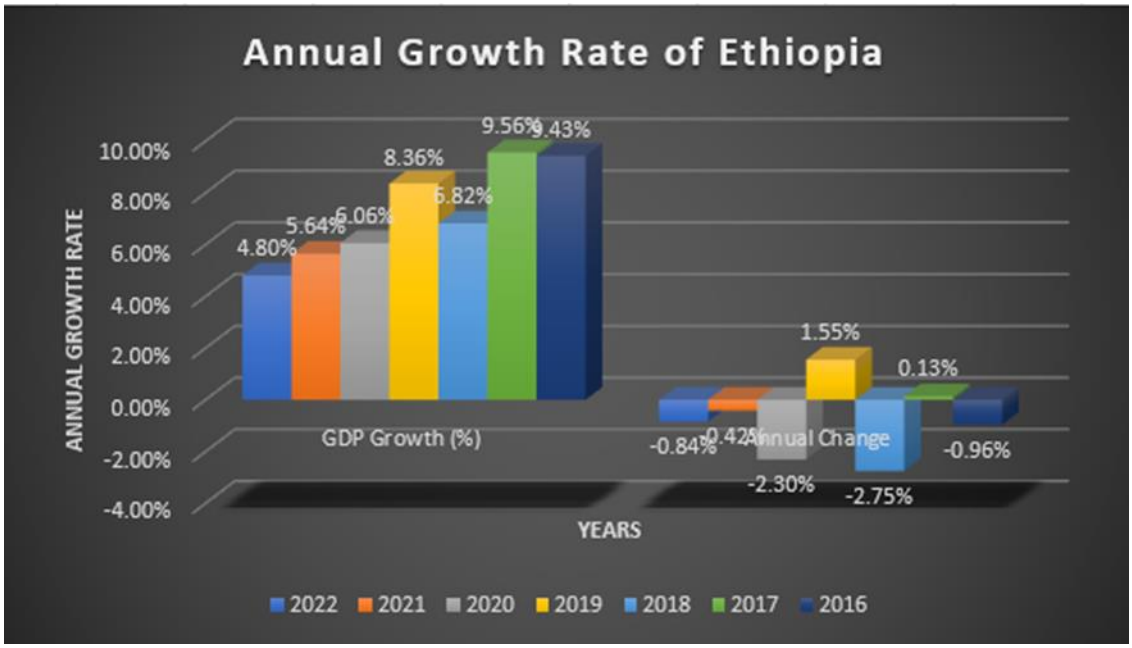
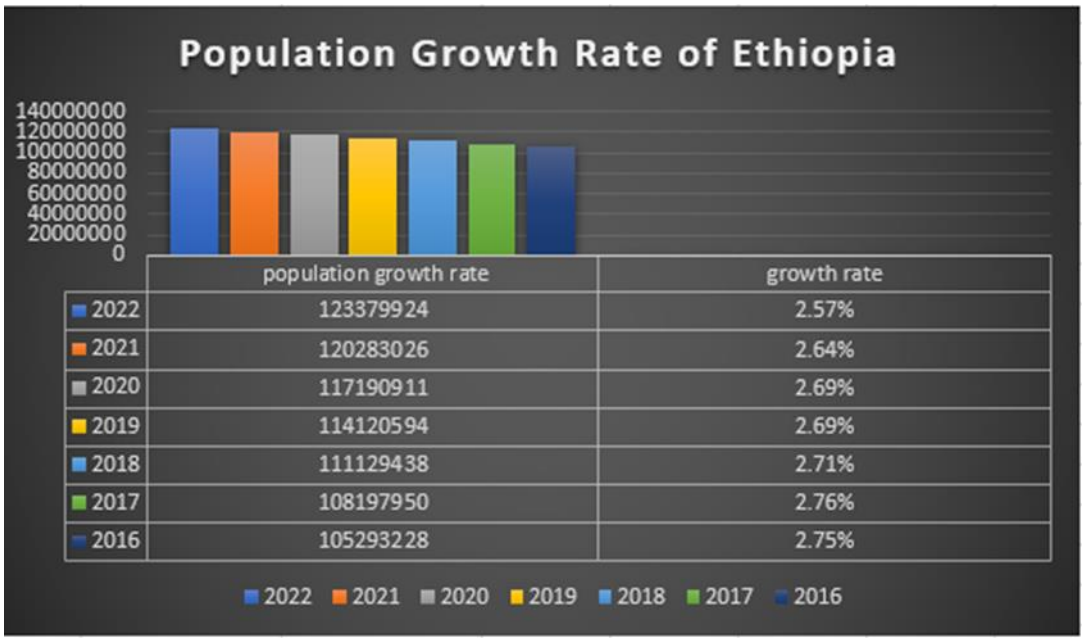


FIGURE5. GDP growth rate of Ethiopia for the period 2016-2022.

As shown in Figure 5, the Ethiopian economy grew at a constant rate of 9.5% for the first two years, but its growth rate fell to 6.82% in 2018, then increased to 8.36% with an annual growth change of 1.55% after 2018. Ethiopia's economic growth rate is steadily increasing from 2019 to 2022, averaging 5.5%. It shows that the country's GDP growth rate changes annually by -2.3%, -0.425%, and -0.84 from 2019 to 2022 in comparison to previous years.

4.2.5 Population Growth rate of Ethiopia

The following figure shows that population growth rate of Ethiopia for the period 2016 to 2022.



	population growth rate	growth rate
2022	123379924	2.57%
2021	120283026	2.64%
2020	117190911	2.69%
2019	114120594	2.69%
2018	111129438	2.71%
2017	108197950	2.76%
2016	105293228	2.75%

FIGURE 6. Population growth rate in Ethiopia for the period 2016-2022

As shows in the above Figure 6, the population growth rate of Ethiopia has increased for the past seven years on average 2.68% and the number of populations reached 123,379,924 in 2022 from 105,293,228 in 2016.

4.3 Descriptive analysis of dependent and independent Variable

Brief discussions of the statistics of each independent and dependent variable gathered from primary data are presented in this section of the study. The independent variables used in this study were assessed, analysed, and interpreted to show their effect on deposits mobilization in Ethiopia. These variables included the number of branches expanded (NOBE), customer relationship management (CRM), interest rate (IR), return on asset (ROA), loan to deposit ratio (LTDR), inflation rate (INR), growth domestic product (GDP), population growth rate (PGR), and conflict and political instability (CAPI).

4.3.1 Dependent variable (Deposit mobilization)

In the figure below, the depvar represent the dependent variable and question8, question9, question13, question18, question21, question23, question26, question28, and question31, implies the independent variables, number of branches expanded (NOBE), saving interest rate (SIR), return on asset (ROA), customer relationship management (CRM), loan to de-posit ratio (LTDR), inflation rate (INR), growth domestic product (GDP), population growth rate (PGR), and conflict and political instability (CAPI) respectively.

TABLE 6. Mean of dependent and independent variables.

The questions describe dependent and independent variables. |	Mean	Std. Err.	[95% Conf. Interval]	
			Minimum	Maximum
depvar	0.9	.0337526	.8328171	.9671829
Question8 |	.9125	.0317912	.8492212	.9757788
question9 |	2.3875	.0915647	2.205245	2.569755
question14 |	.9375	.027234	.883292	.991708
question18 |	2.9375	.1027221	2.733037	3.141963
question21 |	.625	.0544681	.516584	.733416
question23 |	3.7	.0860527	3.528716	3.871284
question26 |	.8875	.0355506	.8167383	.9582617
question28 |	3.3125	.1451688	3.023549	3.601451
question31 |	.95	.0245207	.9011927	.9988073

As shown in the table 6, the average deposit growth rate of in Ethiopia is 0.9. Deposits will grow significantly if all explanatory variables are correctly applied,

as demonstrated by the test result. It is also worth noting that branch annual deposit growth rates remain between 0.83 and 0.97, implying that the minimum deposit growth rate is 0.83 and the maximum deposit growth rate is 0.97.

The following table describes the frequency distribution of number of respondents on the dependent variable of deposit mobilization.

TABLE 7. distribution of number of respondents on the dependent variable of deposit mobilization.

Question8	Freq.	Percent	Cum.
no	7	8.75	8.75
yes	73	91.25	100.00
Total	80	100.00	

As illustrated in Table 7, among the eighty respondents, eight individuals (10%) indicated that their deposit mobilization has decreased from the fiscal year 2015/16 to 2021/22. Conversely, seventy-two respondents (90%) reported an increase in their deposit mobilization during the same period. This data suggests a prevailing trend of heightened deposit mobilization in Ethiopia over the specified timeframe.

4.3.2 Independent variables

4.3.2.1 Number of branch expansion (NOBE)

The following table represents the frequency distribution of respondents on number of branches expansion.

TABLE 8. Frequency distribution of respondents on number of branches expansion.

Question8	Freq.	Percent	Cum.

no	7	8.75	8.75
yes	73	91.25	100.00
Total	80	100.00	

According to table 8, seven (7) of the eighty (80) respondents responded that branch expansion has no impact on deposit mobilization from 2015/16 to 2021/22, implying 8.75% of the respondents; seventy-three (73) respondents, or 90%, said it has an impact on deposit mobilization.

The survey results also shed light on the reasons provided by respondents regarding the necessity of branch expansion for banks. Among the 80 respondents, 28 individuals (35%) highlighted the primary motive for banks expanding their branches as the intention to increase deposit mobilization. Additionally, 10 respondents (12.5%) cited the objective of enhancing customer base services. Notably, a significant portion of respondents, 27 individuals (33.75%), offered multiple reasons, such as aiming to increase customer base services, boost deposit mobilization, and augment the collection of foreign currency. For a more detailed breakdown, please refer to Appendix 1.

4.3.2.2 Saving interest rate (SIR)

The following table represents the frequency distribution of respondents on saving interest rate.

TABLE 9. Frequency distribution of respondents on saving interest rate.

question9	Freq.	Percent	Cum.
Strongly disagree	5	6.25	6.25
disagree	51	63.75	70.00
neutral	12	15.00	85.00
agree	12	15.00	100.00
Total	80	100.00	

According to table 9, five 5 (6%) respondents strongly disagreed; 51 (64%) disagreed; while 12 (15%) were neutral, 12 (15%) agreed, and no respondents strongly agreed that the banks' saving interest rate influences deposit mobilization of their branches. This means that 55 (70%) of respondents believe that the saving interest rate has no impact on deposit mobilization in their branches.

4.3.2.3 Return on asset (ROA)

The following table represents the frequency distribution of respondents on return on asset.

TABLE10. Frequency distribution of respondents on return on asset.

question14	Freq.	Percent	Cum.
no	5	6.25	6.25
yes	75	93.75	100.00
Total	80	100.00	

As shows in table 10, five (5) of the eighty (80) respondents responded that return on asset has no impact on deposit mobilization from 2015/16 to 2021/22, implying 6.75% of the respondents; seventy-five (75) respondents, or 93.25%, said it has a positive impact on deposit mobilization. The figure shows that return on asset has an impact on deposit mobilization.

According to the survey result, the respondents give their reasons why the banks profitable for the period 2015/16 to 2021/22, from eighty respondents 39(48.75) respondents the main reason(s) that their bank profitability is that customers have confident on the status of the bank, 15(18.75%) believes that the banking industry is profitable by itself regardless of the customers believe; while the rest gives more than one answers, for detail information refer appendix number two(2).

4.3.2.4 Customer relationship management (CRM)

The following table represents the frequency distribution of respondents on customer relationship management.

Table 11. Frequency distribution of respondents on customer relationship management.

question18	Freq.	Percent	Cum.
disagree	36	45.00	45.00
neutral	13	16.25	61.25
agree	31	38.75	100.00
Total	80	100.00	

As per the data presented in Table 4.4, there were no respondents who expressed strong agreement or strong disagreement. Among the participants, 36 individuals (45%) indicated disagreement, 13 (16.25%) expressed neutrality, and 31 (38.75%) conveyed agreement regarding the influence of Customer Relationship Management (CRM) on deposit mobilization. This suggests that, based on various factors, Customer Relationship Management does not appear to significantly impact deposit mobilization in Ethiopia. Possible contributing factors include the absence of alternative options for customers even in the event of subpar services from a particular branch, given that not all banks offer satisfactory services.

The researcher has tried to collect information from the respondents by asking questions that “Does your bank collect customer feedback?” from eighty respondents 26(37.5%) of them answered “no” and the rest 67.5% answered “yes” for detail information refer appendix number three (3) and the researcher raised other questions for those how answered yes “does your bank update the data to improve its services?” form the total fifty-four, 19(23.75) answered “No” while the rest thirty-five (76.25%) responded “Yes” for detail information refer appendix number four (4). It implies that 45 (56.25%) of the total respondents stated that

their banks are not using customer feedback to improve the customer relationship management in their branch.

4.3.2.5 Loan to deposit ratio (LTDR)

The following table represents the frequency distribution of respondents on loan to deposit ratio.

Table 12. Frequency distribution of respondents on loan to deposit ratio.

question21	Freq.	Percent	Cum.
no	30	37.50	37.50
yes	50	62.50	100.00
Total	80	100.00	

According to table 12, thirty (30) of the eighty (80) respondents responded that the loan-to-deposit ratio has no impact on deposit mobilization from 2015/16 to 2021/22, implying 37.5% of the respondents; fifty (50) respondents, or 62.5%, believes that it has an impact on deposit mobilization. It indicates that the loan-to-deposit ratio has an impact on deposit mobilization.

4.3.7 Inflation rate (INR)

The following table represents the frequency distribution of respondents on inflation rate.

Table 13. Frequency distribution of respondents on inflation rate.

question23	Freq.	Percent	Cum.
Strongly disagree	1	1.25	1.25
disagree	9	11.25	12.50

neutral	6	7.50	20.00
agree	61	76.25	96.25
strongly agree	3	3.75	100.00
Total	80	100.00	

According to table 13, only 1 (1.25%) of respondents strongly disagreed; 9 (11.25%) disagreed; 6 (7.5%) were neutral, 61 (76.25%) agreed, and 3 (3.75%) strongly agreed that inflation rate has an impact on deposit mobilization at their branches. This means that 64 (70%) respondents believe that inflation rate influences deposit mobilization.

According to the survey, from the total 16 respondents, who responded strongly disagree, disagree, and neutral twelve (12) of them gave their reasons why they believed the inflation rate has no impact on deposit mobilization, 9(11.5%) of the total respondent said that ‘Customers have no choice because the maximum and minimum interest rate has seated by the NBE, there is no significant difference in interest rates among banks’; and 3 (3.75%) respondents believes that Customers do not know about the existing inflation, for detail information refer appendix number five(5).

4.3.8 Growth domestic product (GDP)

The following table represents the frequency distribution of respondents on growth domestic product.

Table.14. Frequency distribution of respondents on growth domestic product.

question26	Freq.	Percent	Cum.
no	9	11.25	11.25
yes	71	88.75	100.00
Total	80	100.00	

According to table 4.9, nine (9) of the eighty (80) respondents indicated that domestic product growth rate has no effect on deposit mobilization from 2015/16 to 2021/22, implying 11.25% of the respondents; seventy-one (71) respondents, or 88.75%, indicated that it has an impact on deposit mobilization. According to the data, the growth domestic product rate has an impact on de-posit mobilization.

According to the survey result from the total respondent, 71 seventy-one answered 'yes' as shown in the above table, 14 (17.75%) of the total respondents gave their reasons that the growth of domestic product has an impact on de-posit mobilization by answering a business organization will be profitable when a countries GDP increases so as their deposit, 13(16.25%) When the GDP of the country increased the government can collect a large amount of tax as a result it can increase its saving. 20 (25%) gave more than one answer of "because customers would have more money than their living cost as a result they deposit more and a business organization will be profitable when a country's GDP increases so as their deposit", for detail information refer appendix number six (6).

4.3.9 Population growth rate

The following table represents the frequency distribution of respondents on population growth rate.

Table 15. Frequency distribution of respondents on population growth rate.

question28	Freq.	Percent	Cum.
Strongly disagree	9	11.25	11.25
disagree	18	22.50	33.75
neutral	5	6.25	40.00
agree	35	43.75	83.75
strongly agree	13	16.25	100.00

Total	80	100.00

As shown in table 15, 9(11.25%) of respondents strongly disagreed; 18 (22.50%) disagreed; 5 (6.25%) were neutral, 35 (43.75%) agreed, and 13 (16.25%) strongly agreed that population growth rate has an impact on deposit mobilization at their branches. This means that 49 (60%) respondents believe that population growth rate has an impact on deposit mobilization.

According to the survey results from, 32 respondents who answered " strongly disagree and disagree" gave their reasons why population growth rate has no positive effect on deposit mobilization, 9 (11.25%) of the total respondent answered that" The productivity growth rate is less than the population growth rate as result all the production is only cover the consumption of the population", 8 (10%) of them answered that " Since Ethiopia is developing country, the economy can't offer job opportunities to the working age population"; while the rest answered more than one answers, for detail information see appendix number seven(7).

According to the survey results, from the total 48 respondents, who answered strongly agree, and agree, gave their reasons why they believed that population growth rate has an effect on deposit mobilization, 12 (15%) of the total respondent answered that" Even if, Ethiopia is a developing country the economy of the country are creating job opportunity for the working age population, who wants to work", 11 (13.75%) of them answered that because the share of younger people in the economy is more than that of the retired and children under age(<15) of production; while the rest answered more than one answer, for detailed information see appendix number eight(8).

4.3.10 Conflict and political instability

The following table represents the frequency distribution of respondents on population growth rate.

Table 16. Frequency distribution of respondents on population growth rate.

question31	Freq.	Percent	Cum.
no	4	5.00	5.00
yes	76	95.00	100.00
Total	80	100.00	

According to table 16, only four (4) of the eighty (80) respondents indicated that the current internal conflict and political instability of the country has no effect on deposit mobilization from 2015/16 to 2021/22, implying 5% of the respond-ents; seventy-six (76) respondents, or 95%, responded that it has an impact on deposit mobilization. According to the Data, conflict and political instability has an impact on deposit mobilization.

According to the survey result from the total respondent,76 seventy-six answered 'yes' as shown in the above table, 12 (15%) of the total respondents gave their reasons that conflict and political instability has an impact on deposit mobilization by answering The conflict increases the number idle labour force in the northern part of the country as a result production decrease, 11(13.75%) The conflict increases the number of idle lands in the northern part of the country, and 10(12.5%) The conflict increases the government expenditure especially to mobilize the military force, as a result, it decreases the government saving. 20 (25%) gave more than one answer " The conflict increases the number idle labour force in the northern part of the country as a result production decrease, The conflict increases the government expenditure specially to mobilize the military force, as a result, it decreases the government saving and, the conflict increases the number of idle lands in the northern part of the country", for detail information refer appendix number nine(9).

4.4 Interpretation of the regression results

The regression results of a linear regression model that investigates the factors influencing deposit mobilization in the Ethiopian banking industry are presented in this section.

As stated in section 4.3.1, questions 8, 9, 14, 18, 21, 23, 26, 28, and 31 refer to the independent variables, the number of branches expanded (NOBE), saving interest rate (SIR), return on asset (ROA), customer relationship management (CRM), loan to deposit ratio (LTDR), inflation rate (INR), GDP growth, population growth rate (PGR), and conflict and political instability (CAPI). The remaining questions in Appendix 8 are related questions used by the researcher to elicit reasons and additional information on the independent variables.

4.4.1 Number of branch expansion (NOBE)

According to the linear regression results shown in Appendix 10, Holding everything else constant, a unit increase in branch expansion will result in 25.18 units increase in deposit mobilization and its probability value 0.051 is higher than the critical value of 0.05 it indicates that the number of branch expansion has a positive but insignificant effect on deposit mobilization in Ethiopia. This finding is like Peter and Michaelo (2015), but differs from many others, including Hibret (2015), Shemsu (2015), Wubetu (2012), and Nathanael (2014), who discovered that the number of branches expanded has a positive and significant effect on deposit mobilization. The researcher believe that this variation is due to two factors. First, because the data was collected from the country's urban areas, the number of branches is evenly distributed in urban areas, causing the demand for branches to decrease. Second, the growing use of mobile banking in this area lowers depositor transaction costs and the demand for branch accessibility. As a result, the impact of branch expansion on deposit mobilization decreased from significant to insignificant.

4.4.2 Saving interest rate (SIR)

According to the linear regression results shown in Appendix 10. holding everything else constant, a unit increase in saving interest rate will result in 4.5 units increase in deposit mobilization and its probability value 0.268 is higher than the critical value of 0.05 it indicates that saving interest rate has a positive but insignificant effect on deposit mobilization in Ethiopia. This finding is supported by Edmister and Merriken (1989) their finding stated that interest rates could do little in deposit mobilization but contrasting to others such Herald and Heiko (2009); they mentioned interest as one of the most determining factors for commercial banks deposits. Philip (1968) also states that the offering of attractive interest rate on bank deposits may be considered to have had a beneficial effect. Rose (2001) said that banks increase their deposits by offering higher deposit rate. In developed countries, the rate of interest is an important determinant of bank deposit. However, the researcher believes that, in developing countries especially in the case of Ethiopia it may be different because the saving interest rate range has seated by the national bank of Ethiopia. So, banks have no power to set their profitable saving interest rate by considering different factors for example inflation.

4.4.3 Return on asset (ROA)

According to the model result as shown in appendix 10, The coefficient value of return on asset is 0.175. This indicates that if the profitability of banks increased by one unit, holding other things constant, leads to an increase the deposit mobilization by 17.5 units and its probability value 0.047 is lower than the critical value of 0.05 it indicates that the profitability of banks has a positive and significant effect on deposit mobilization of the banks in Ethiopia.

This finding is supported by the finding of (Banke & Yitayaw, 2022) they indicated that higher profit is regarded as a positive signal of the bank's soundness, making it easier for such banks to attract new deposits. The proxy of profitability which is return on asset (ROA) statistically and positively related with deposit mobilization (Ferede, 2021). (Bhalla 2006) defines ROA as a ratio used to measure a company's efficiency in the use of its assets to generate profit. That is, a more efficient

company will generate more profit from a given level of total asset than a less efficient competitor. Thus, Return on Asset profitability has a significant positive impact on commercial bank deposit growth. Higher bank profits would tend to signal improved bank soundness, making it easier for these institutions to attract deposits. If the bank is profitable and has an adequate asset return, depositor confidence will rise (Ketema, 2017).

4.4.4 Customer relationship management (CRM)

The goal of customer relationship management is to achieve not only customer happiness but also customer delight. When you lose a customer, you lose more than simply a single sale (Kotler & Armstrong 2008.). This study has expected a significant and positive relationship between CRM and deposit mobilization.

According to the model result in appendix 8, customer relationship management has a positive insignificant effect in deposit mobilization of banks in Ethiopia. The model indicates that a unit increase in customer relationship management quality, holding other things constant, leads to 6.06 units increase in deposit mobilization of Ethiopia and the probability 0.143 is greater than the critical value. This finding is slightly different from the finding of Bello (2019) who stated in his study that customer attraction has a significant impact on de-posit mobilization of banks (DMB) performance, Okeji, (2015) indicates that Customer relationship management is statistically significant in deposit money bank performance. CRM practices that significantly improve bank deposit levels include effective employee-customer communication and proper complaint handling. (Evelyn, 2018.).

The researcher has tried to collect information from the respondents by asking questions that “Does your bank collect customer feedback?” from eighty respondents 26(37.5%) of them answered “no” and the rest 67.5% answered “yes” for detail information refer appendix number nine (9), and the researcher raised other questions for those how answered yes “does your bank update the data to improve its services?” form the total fifty-four, 19(23.75) answered “No” while the rest thirty-five (76.25%) responded “Yes” for detail information refer appendix number ten (10). It implies that 45 (56.25%) of the total respondents stated that

their banks are not using customer feedback to improve the custom-er relationship management in their branch.

4.4.5 Loan to deposit ratio (LTDR)

Bank liquidity is measured in three ratios: liquid asset to deposit, liquid asset to total asset and loan to deposit ratios. The researcher has measured liquidity by loan to deposit ratio, which has significant negative impact on deposit mobilization. From the model result as shown in appendix 8, the coefficient - 0.151 indicates that, holding other things constant, a unit increase in loan to deposit ratio leads to 15.1 units reduction in deposit mobilization and its probability value 0.036 is less than the critical value of 0.05 which indicates that loan to deposit ratio has a significant impact on deposit ratio. This result is supported by Devinga (2010) he stated that, the loan-to-deposit ratio has a negative and statistically significant impact on bank deposits. This is because most banks have collected 50-80% of its loan every year this leads to a higher loan to deposit ratio resulted a decline in deposit mobilization of banks in Ethiopia.

4.4.6 Inflation rate (INR)

According to the model result in appendix 10, shows that inflation rate has a significant and negative relationship with deposit mobilization. The coefficient of this relationship is – 0.067 indicates that, holding other things constant, a unit increase in inflation rate will leads to 6.7 units decrease in deposit mobilization of banks and its probability value of 0.017 is less than the critical value of 0.05 it indicates that inflation rate has a significant impact on the deposit mobilization of banks in Ethiopia. This implies that current double-digit inflation has a negative significant effect on deposit mobilization of banks. This result is supported by Giragn (2015) shows inflation is the most significant factor of deposit mobilization activity. Ngula (2012) also shows that inflation rate significantly affects the mobilization of financial savings (deposit) in Ghana.

4.4.7 Growth domestic product (GDP)

According to theoretical and empirical evidence, economic growth is the primary source of bank deposit growth. Deposits will rise in response to real economic growth.

Appendix 10 shows that the country's economic growth, as measured by GDP, had a positive but statistically insignificant impact on deposits. Holding all else constant, a one-unit increase in GDP increased deposits by 12.9 unit and its probability 0.195 is higher than the critical value 0.05. In a growing economy, both individual and corporate income will rise, this rise leads to higher earnings (per capita income), which in turn leads to higher savings. This argument is supported by the findings of Herald and Heiko (2009), Tizita (2014), and Orji (2012) in Nigeria. They contended that the GDP growth rate has a positive and significant impact on Ethiopian deposit mobilization. While the findings of this research indicate that it has a positive and insignificant impact because as discussed in part 4.2.4 Ethiopia’s economic growth rate has declined by 1.2% on average over the last three (3) years, which has an impact on the effect of GDP on bank deposit mobilization and makes the impact insignificant.

In contrast to this argument Bikker & Gerritson (2017) and Yakubu & Abokor (2020) stated that GDP affects bank deposit mobilization negatively. Haile (2021) also stated that Gross domestic product growth rate has negative and statistically insignificant impact on banks deposit mobilization.

4.4.8 Population growth rate (PGR)

According to the model result in appendix 10, shows that population growth rate in Ethiopia has insignificant and positive relationship with deposit mobilization. The coefficient of this relationship is 0.028, indicating that a unit increase in population growth rate leads to 2.8 unit increases in bank deposit mobilization, and its probability value of 0.247 is greater than the critical value of 0.05, indicating that population growth rate has an insignificant impact on bank deposit mobilization in Ethiopia.

This result is supported by slight differences from Hibert (2015) finding stated that population growth had a positive and significant impact on deposits, and Fisseha (2017) also found a positive relationship between population growth and deposit mobilization, the researcher believes that such differences happen because the decrease in GDP of the country can't create job opportunities for the young population, who are seeking a job and make them dependent and increase the dependency ratio of the country; Whereas; Legass et al (2021), stated that the country's population growth has a negative and significant impact on the deposit growth of Ethiopian commercial banks.

4.4.9 Conflict and political instability (CAPI)

According to the model result in appendix 10, shows that the ongoing conflict and political instability in Ethiopia has a significant and negative relationship with deposit mobilization. The coefficient of this relationship is – 0.1788, indicating that a unit increase in conflict and political instability, holding other things constant, leads to 17.88 unit decreases in bank deposit mobilization, and its probability value of 0.024 is less than the critical value of 0.05, indicating that conflict and political instability has a significant impact on bank deposit mobilization in Ethiopia.

There are so many reasons for this relationship. First, the conflict has displaced people from their villages and made them dependent. second, the young populations who actively participated in the production activities were willingly or forcefully involved in the conflict. It leads a decrease in the total productivity of the country. Third, it also increased the federal government expenditure to mobilize the military force and pushed the government to participate in importing military equipment so, saving by the government decreased.

This finding is supported by Sab and Hegazy (2014) conflict affects the deposit mobilization negatively, Banke and Yitayaw (2022) conflicts and political instability can lead to a greater risk of systemic banking crisis and low bank deposits,

and Attila (2022) Political unrest disrupts economic activity and creates uncertainty, which is likely to encourage runs from depositors anticipating withdrawals from others.

1 DISCUSSION

5.1 Introduction

The study established the relationship between the factors and deposit mobilization in Ethiopia's banking sector. The findings revealed that several factors influence bank deposit mobilization, including branch expansion (NOBE), saving interest rate (SIR), return on asset (ROA), customer relationship management (CRM), loan-to-deposit ratio (LTDR), inflation rate (INR), GDP growth, population growth rate (PGR), and conflict and political instability (CAPI). Following the study results, this chapter summarizes and concludes the study. It also provides insight into policy recommendations and future research directions.

5.2 Summary of the findings

The study's main goal was to identify the factors influencing deposit mobilization of Ethiopian banks. To explain the casual relationships between the variables, an explanatory research design was used. The study used quantitative methods on secondary data sourced from the selected banks financial statements, NBE publications, CSA of Ethiopia, reports from the banking industries, and other concerned parties and primary data collected through questioner for both microeconomics and macroeconomic variables.

Results from the linear regression model indicates that profitability of banks have a positive and significant effect on deposit mobilization of banks in Ethiopia. Deposit interest rate, number of branch expansion, customer relationship management, growth domestic product, and population growth rate have a positive and insignificant effect on deposit mobilization of banks in Ethiopia. Loan to deposit ratio, inflation rate, and conflict and political instability have a negative and significant impact on deposit mobilization of banks in Ethiopia.

In this section presents the conclusion based on the studies result:

- Number of branch expansions (NOBE) has positive and insignificant impact on deposit mobilization of banks in Ethiopia. This result is inconsistent with the hypothesis and literature reviews. The reason for this inconsistency is discussed in part 4.4.1.

- Saving interest rate (SIR) has positive and insignificant impact on deposit mobilization of banks in Ethiopia. This result also inconsistent with the hypothesis and literature reviews. The reason for this inconsistency also discussed in part 4.4.2.

- In regard to profitability measured by return on asset (ROA) has a positive and significant impact on deposit mobilization of banks in Ethiopia. Higher bank profits would tend to signal increased bank soundness, which could make it easier for these banks to attract deposits. This result is consistent with the hypothesis and literatures reviews.

- Customer relationship management (CRM) has positive and insignificant impact on deposit mobilization of banks in Ethiopia. This result also inconsistent with the hypothesis and literature reviews. The reason for this inconsistency also discussed in part 4.4.4.

- In connection with liquidity measured by loan to deposit ratio (LTDR) has a significant negative impact on deposit mobilization of banks in Ethiopia. It happens during the study period because banks can't collect its loan on time which leads a higher loan to deposit ratio. This result is consistent with the hypothesis and literatures reviews.

- The inflation rate (INR) has a negative and significant impact on the deposit mobilization of Ethiopian banks. Because the country experienced double-digit inflation during the study period, higher business costs resulted in a decrease in bank deposits mobilized. The outcome is in line with the hypothesis.

- GDP growth has a positive but insignificant impact on deposit mobilization by Ethiopian banks. Since the country's GDP growth rate has decline by 1.2% over the last three years, its impact on bank deposit mobilization in Ethiopia has decreased from significant to insignificant. The outcome contradicts the hypothesis. The reason for this inconsistency also discussed in part 4.2.4.

- The population growth rate (PGR) has a positive but insignificant impact on Ethiopian bank deposit mobilization. Since Ethiopia's economic growth rate has slowed, the country's economy has been unable to create job opportunities, resulting in an increase in the country's dependency ratio, which leads to a decrease in bank deposit mobilization. The outcome is in line with the hypothesis.

- Conflict and political instability (CAPI) have a negative and significant impact on Ethiopian bank deposit mobilization. Since the country has been at conflict for the past two years, for starters, the conflict has displaced people from their villages and rendered them destitute. Second, the young populations who actively participated in production were willingly or coercively drawn into the conflict. It has a negative impact on the country's overall productivity. Third, it also increased the federal government expenditure to mobilize the military force and pushed the government to participate in importing military equipment. So, saving by the government decreased. The finding is consistent with the hypothesis.

  Furthermore, the researcher believes that the impact of conflict might be underestimated in the current findings, primarily due to the exclusion of data from the Tigray region. This omission is significant, given that, during the study period, the Tigray region experienced a substantial disruption in economic activities, particularly in the banking sector. Over the past two years, more than 130 banks in the region have remained non-operational due to the intense conflict between the Tigray People's Liberation Front (TPLF) and the federal government. This protracted conflict has not only impeded the day-to-day functioning of financial institutions but has also

likely contributed to a broader economic downturn, amplifying the potential impact of the conflict on various socio-economic indicators beyond what is currently reflected in the research findings. Therefore, the absence of Tigray-specific data may result in an underestimation of the true extent of the conflict's economic consequences.

In a broader context, when considering the five internal factors under scrutiny, it becomes apparent that two specific factors, namely Return on Assets (ROA) and Loan to Deposit Ratio (LTDR), exert a noteworthy influence on the process of deposit mobilization. These two internal factors emerge as pivotal contributors to shaping the dynamics of attracting deposits within the Ethiopian financial landscape.

Simultaneously, delving into the external macroeconomic variables, it is evident that out of the four factors examined, two stand out as having a substantial impact on deposit mobilization in Ethiopia. The inflation rate, serving as a key indicator of the economic environment, is identified as one of these influential variables. Additionally, the factor of conflict, reflecting the socio-political and economic stability of the region, emerges as another critical determinant significantly affecting the mobilization of deposits within the Ethiopian financial sector.

In essence, this nuanced analysis underscores the multifaceted nature of the factors influencing deposit mobilization, highlighting the intricate interplay between internal elements such as ROA and LTDR, and external macroeconomic variables, specifically inflation rate and conflict, in shaping the deposit landscape within the Ethiopian financial context.

The findings of this research bear significant implications for the commissioner of this thesis, particularly in the realm of strategic decision-making. By leveraging and applying the insights gleaned from this study, the commissioner has the potential to enact highly effective strategies aimed at generating and in-creasing deposit mobilization.

First and foremost, the positive and significant impact of banks' return on assets (ROA) on deposit mobilization presents a valuable opportunity for the commissioner. Recognizing that profitability plays a crucial role in attracting deposits, strategic measures can be implemented to enhance the overall financial health of the banking institution. This may involve optimizing operational efficiency, exploring new revenue streams, or refining investment portfolios to bolster ROA.

Conversely, the negative and significant impact of variables such as loan-to-deposit ratio, inflation rate, and conflict and political instability underscores areas that demand careful consideration. Recognizing the potential deterrent effect of these factors on deposit mobilization, the commissioner can tailor strategies to mitigate risks. This might involve optimizing loan portfolios, implementing measures to counteract inflationary pressures, and closely monitoring geopolitical dynamics to proactively address potential instabilities.

In essence, the commissioner of this thesis possesses a wealth of actionable insights that can inform a holistic and tailored approach to deposit mobilization. By strategically navigating the intricacies revealed in this research, the commissioner has the potential to institute measures that not only safeguard against potential pitfalls but also capitalize on opportunities to foster a more robust and resilient deposit mobilization strategy.

5.2.4 Recommendations

The research’s findings have prompted the researcher to make the following recommendation to the concerned parties.

5.2.4.1 To Banks

- When banks want to expand their branches, especially in the country's urban areas, they should conduct research.
- Banks should use customer feedback data to improve their services in order to attract new customers and retain current ones.
- They should request that the National Bank of Ethiopia (NBE) adjust the interest rate to be comparable to the current inflation rate.

5.2.4.2 To customers

- Customers should seek information on the impact of inflation on interest rates and wealth.

5.2.4.3 To the Government

- The government should continue to keep inflation below its threshold or optimal level because higher inflation reduces banks' ability to mobilize more deposits.

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REFERENCES

Andenit, L.2016. Factors Determining Mobilization Performance: in the case of private Commercial Banks in Ethiopia.

Ambe, M. An investigation of Determinant of deposit Mobilization in Commercial Banks of Ethiopia. Read on 17.9.2023.
https://core.ac.uk/download/pdf/234676105.pdf

Attila, J. 2022. Does bank deposit volatility react to political instability in developing countries? Read on 18.8.2023.
https://www.sciencedirect.com/science/article/abs/pii/S154461232200349X

Ayele, G. 2015. Microfinance Institutions in Ethiopia, Kenya & Uganda: Loan outreach to the poor and the quest for Financial viability. Rea don, 16.08.2023.

https://onlinelibrary.wiley.com/doi/abs/10.1111/1467-8268.12128

Azolibe, B 2019. Macroeconomic Dynamics, Bank Specific. Factors and Deposit Mobilization of The National Banking Sector. Rea don 14.8.2023.

http://www.sdiarticle3.com/wp-content/uploads/2019/08/Revised-ms_AJEBA_50584_v1.pdf

Banke, N. & Yitayew, M. Deposit Mobilization and its determinants: evidence from commercial banks in Ethiopia. Read on 17.10.2023.
https://fbj.springeropen.com/articles/10.1186/s43093-022-00144-6

Banson, et al. 2012. The Role of Mobile Deposit in Deposit mobilization in Ghana. Asian Journal of Business and Management Sciences. V.3(30) 1-25.

Bello, A.2019.impact of customer Relationship Management (CRM)on the performance of Deposit Money Banks (DMBS) in Abuja. Read on, 17.6.2023.
https://www.academia.edu/70858838/Impact_of_Customer_Relationship_Management_CRM_on_the_Performance_of_Deposit_Money_Banks_DMBS_in_Abuja

Bahalla, V. K. 2006. Financial management and policy: - text and cases.

Bhatt, V.V.1970. Some Aspects of Deposit Mobilization. Economic and Political Weekly. V.5, No.36, pp.1480-1490.

Bikker, J & Gerritsen, D.2017. Determinant of Interest Rates on Time Deposits and Savings Accounts: Macro Factors, Bank Risk, and Account Features. Read on 14.6.2023.
https://onlinelibrary.wiley.com/doi/full/10.1111/irfi.12143

Brooks, C. 2008. Introductory Economics for Finance, 2nd ed, Cambridge University Press, New yourk.

Carlson, M & Mitchener, K. 2005. Branch Banking, Bank Banking competition, and financial stability. National Bureau of Economic Research.

Carlson, M. & Mitchener, K. J. 2005. Branch Banking & Bank Banking Competition, and Financial Stability. National Bureau of Economic Research.

CFI Team. 2022. Read on 7.8.2023.
https://corporatefinanceinstitute.com/resources/data-science/variance-inflation-factor-vif/

Devinaga, R. 2010. Theoretical Framework of Profitability as Applied to Commercial Bank in Malaysia. European Journal of Economics, Finance and Administrative Sciences. Multimedia University, Faculty of Business and Law, Melaka, Malaysia.

Edeh, F. 2019. Effect of Customer Relationship Management on Organizational Resilience of Deposit Money Banks in Nigeria. Read on 3.9.2023.
https://www.researchgate.net/publication/336463035_Effect_of_Customer_Relationship_Management_on_Organisational_Resilience_of_Deposit_Money_Banks_in_Nigeria

European Parliament. 2022. Inflation Explained: What lies behind and what is ahead? Read on 13.10.2023.
https://www.europarl.europa.eu/Reg-Data/etudes/BRIE/2022/729352/EPRS_BRI(2022)729352_EN.pdf

Evelyn, B. 2018. Customer relationship management and customer deposit mobilization at lower pra Rural Bank in Ghana.

Eyob, T. 2019. The impact of Branch expansion on deposit mobilization, Loan Disbursement and Profitability. Master's Thesis, Addis Ababa, Ethiopia.

Fekadu, K. 2016. Factors affecting Deposit Mobilization: The case of Dashen Bank SC. Addis Ababa branches.

Ferede, A. 2021. Drivers of Deposit Mobilization in Privat Commercial Banks Of Ethiopia. Read on 14.10.2023.
file:///C:/Users/Omistaja/Downloads/10.11648.j.jim.20211004.11%20(2).pdf

Fisseha, T. 2017 Determinant of Commercial Banks Deposit in Ethiopia. Master's Thesis. Addis Ababa University. Ethiopia.

Getaneh, A. 2020. Determinants of Deposit Mobilization in the Case of Commercial Bank of Ethiopia Selected Benches. European Journal of Business and management. 12(13), 40-42.

Georgiou. et, al. 2015. Democracy, Political Stability and Economic performance. A panel Data Analysis. 5-0, Reas on 1.03.202.
file:///C:/Users/Omistaja/Downloads/out.pdf

Giragn, G.2015 Determinant of deposit mobilization and related costs of Commercial Bank in Ethiopia. Master's thesis, Addis Ababa University. Ethiopia.

Haile, T. 2021. Determinant of deposit mobilization in commercial banks of Ethiopia. Master's thesis. Debre Berhan University. Ethiopia.

Habibipour. 2008. Study of factors affecting Banking Resource Mobilization.

Hassen, F. A. & Bashir, M. 2003. The impact of Financial Sector Policies on Banking in Ghana.

Herald, F. & Heiko, H. 2009. Lebanon Determinants of commercial banks deposits in a regional financial centre. IMF working paper. WP/09/195/

Hibret, T. 2015. Determinant of commercial Banks deposit growth in Ethiopia. Case study on commercial bank of Ethiopia.

Karhuanga, P. 2021. Deposit Growth in Commercial Banks in Ethiopia. Business and Economies Journal. Read on 18.7.2023.
https://www.hilarispublisher.com/open-access/deposit-growth-in-commercial-banks-in-ethiopia-83698.html

Kazi.2012. The effects of deposit mobile on financial performance.
Kelvin, A. S. 2021. The Role of Commercial Bank in Financing Growth and Economic Development in Trinidad and Tobago and the Caribbean. A perspective from the Royal Bank of Trinidad and Tobago. Central Bank of Belize.

Ketema, A. 2017. Determinant of Commercial Bank Deposit Mobilization in Ethiopia. Master's Thesis. St. Merry University. Addis Ababa, Ethiopia.

Khezra, N. 2006. Study of Factors affecting mobilization of financial resources.

Kibebe, G. 2016. Determinant of commercial Bank Deposit Mobilization Evidence from Private Commercial Bank in Ethiopia.

Kumar, V., et, al. 2021. The Impact of Branch Expansion Dimension on Deposit Mobilization with Reference Dashen Bank S.C Ethiopia. Inernational Journal of Engineering. V (3)

Legass, A., Shikur, A. & Ahmed, O. M. 2021. Determinant of commercial banks deposit growth evidence from Ethiopian commercial banks.

Macrotrend. 2022. Read on 21.06.202. https://www.macrotrends.net/countries/ETH/ethiopia/gdp-growth-rate.

Mushtaq, S. & Siddiqui, D. 2017. Effect of interest rate on bank deposits. Evidence from Islamic and non-Islamic economies. Future Business Journal. V(3)

Mustafa, M. & Savera, Y. 2009. Analysis of Interest Rate Spread in Bangladesh. The Bangladesh Development Studies.

National Bank of Ethiopia. 2015- 2022. Annual report.

Ngula, I. B. 2021. Determinant of deposit mobilization and its role in economic growth in Ghane master's thesis. Kwame Nkrumah.

Orji, A. 2012. Bank Saving and Bank credits in Nigeria Departments and Impact on Economic Grwoth, International Journal of Economics and Financial Issues.Vol,2, No.3 2012, pp 357-372. University of Science and Technology.

Orok, A., Okoi. I. & Essien, A. 2018. Inflation and Deposit Mobilization in Deposit Money Banks – The Nigerian Perspective. Inflation Project.

Osei, L. 2015. Determinant of Rural Banks Deposit Mobilization in Ghana. Master's Thesis, Kwame Nkrumah University, Ghana.

Panthee, U. 2010. Interest Rate and its Impact on Deposit Mobilization of commercial Banks. Master's Thesis, Tribhuvan University.

Patric, K. 2021. “Deposit growth in commercial banks in Ethiopia” Bus Econ JS5:005.

Sab, Randa, & Amgad, H. 2014. Where does Syria stand? Presentation at the international Monetary Fund, Washington.

Shabbier, G., Anwar, M. & Adil, S. 2016. Corruption, political stability and economic growth.

Shemsu, B. 2015. Determinants of commercial banks deposits in Ethiopia: a case of commercial bank of Ethiopia. Master’s thesis, Addis Ababa University, Ethiopia.

Tizita, Y. 2014. Determinants of private saving in Ethiopia, master’s Thesis Arbaminch University, Ethiopia.

Yakubu, I.& Abokor, A. 2020. Factors determining banks deposit growth in Turkey: an empirical analysis. Read on 16.6.2023. https://www.emerald.com/insight/content/doi/10.1108/RAMJ-05-2020-0017/full/html

Wubetu, E. 2012. Factors Determining Commercial Bank Deposit: - An Empirical Study on Commercial Bank of Ethiopia. Master’s Thesis, Addis Ababa University, Ethiopia.

Yoseph, D. 2019. Determinant of commercial banks deposit mobilization.

Zewdu, T. & Alemu, K. 2018. The effect of customer relationship management on bank performance:- in context of commercial banks in Amhara Region, Ethiopia.

APPENDICES

Appendix 1. Frequency distribution of reason why branch expansion is necessary for banks.

question7	Freq.	Percent	Cum.
To have a large number of branches	1	1.25	1.25
To increase customer base	10	12.50	13.75
To increase deposit mobilization.	28	35.00	48.75
2 & 4	3	3.75	52.50
1&2& 4	1	1.25	53.75
1&3 & 4	3	3.75	57.50
2&3 & 4	27	33.75	91.25
not applicable	7	8.75	100.00
Total	80	100.00	

Appendix 2. Frequency distributions of reasons why their banks profitable for the period 2015/16 to 2021/22.

question15	Freq.	Percent	Cum.
Customers have confident on the bank's	39	48.75	48.75
Because the banking industry is profit	15	18.75	67.50
Customers believes on the banks capaci	8	10.00	77.50
1 & 2	3	3.75	81.25
1&2 & 3	12	15.00	96.25
Not applicable	3	3.75	100.00
Total	80	100.00	

Appendix 3. Frequency distribution of respondents that shows their banks used customer feedback.

question19	Freq.	Percent	Cum.
no	26	32.50	32.50
yes	54	67.50	100.00
Total	80	100.00	

Appendix 4. Frequency distribution of respondents that shows their banks are using customer feedback to update their services.

question20	Freq.	Percent	Cum.
no	19	23.75	23.75
yes	35	43.75	67.50
not applicable	26	32.50	100.00
Total	80	100	

Appendix 5. Frequency distribution of reasons of inflation rate impact on deposit mobilization.

```
. tab question25

                    question25 |      Freq.     Percent        Cum.
-------------------------------+-----------------------------------
Customers have no knowledge about the |          3        3.75        3.75
Customers have no choice because the  |          9       11.25       15.00
                   not applicable |         68       85.00      100.00
-------------------------------+-----------------------------------
                            Total |         80      100.00
```

Appendix 6. Frequency distributions of reasons of GDP's impact on deposit mobilization.

question27	Freq.	Percent	Cum.
Because customers would have more income	9	11.25	11.25
When the GDP of the country increases	13	16.25	27.50
A business organization will be profit	14	17.50	45.00
1&3	20	25.00	70.00
2&3	4	5.00	75.00
1&2&3	10	12.50	87.50
not applicable	10	12.50	100.00
Total	80	100.00	

Appendix 7. Frequency distribution of reasons of respondents who disagree on the impact of population growth rate on deposit mobilization.

question29	Freq.	Percent	Cum.
Since Ethiopia is developing country t	8	10.00	10.00
The retired and children's population	4	5.00	15.00
The productivity growth rate is less t	9	11.25	26.25
1 & 3	9	11.25	37.50
not applicable	50	62.50	100.00
Total	80	100.00	

Appendix 8. Frequency distribution of reasons of respondents who agree on the impact of population growth rate on deposit mobilization.

question30	Freq.	Percent	Cum.
Because the share of younger people in	11	13.75	13.75
Because the current younger population	12	15.00	28.75
1 & 2	25	31.25	60.00
not applicable	32	40.00	100.00
Total	80	100.00	

Appendix 9. Frequency distributions of reasons of conflict and political instability impact on deposit mobilization.

question32	Freq.	Percent	Cum.
The conflict increases the number idle	12	15.00	15.00
The conflict increases the government	10	12.50	27.50
The conflict increases the number of i	11	13.75	41.25
1&2 & 4	17	21.25	62.50
1&3&4	20	25.00	87.50
2& 3 & 4	7	8.75	96.25
not applicable	3	3.75	100.00
Total	80	100.00	

Appendix 10. The linear regression results.

```
. mvreg depvar = question8 question9  question14 question18 question21 question23 question26 quest

Equation             Obs    Parms        RMSE    "R-sq"          F         P
----------------------------------------------------------------------------
depvar                80       10    .2662557    0.3108   3.506974    0.0012

------------------------------------------------------------------------------
      depvar |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
   question8 |    .2518712   .1271279     1.98   0.051    -.0016775    .5054199
   question9 |    .0450946   .0403831     1.12   0.268     -.035447    .1256361
  question14 |    .1753682   .0867989     2.02   0.047     .0022531    .3484832
  question18 |    .0606508   .0409918     1.48   0.143    -.0211048    .1424063
  question21 |   -.1513929   .0708273    -2.14   0.036    -.2926535   -.0101322
  question23 |   -.0670721   .0273206    -2.46   0.017    -.1215614   -.0125829
  question26 |     .129302   .0987418     1.31   0.195    -.0676323    .3262363
  question28 |    .0281222   .0240995     1.17   0.247    -.0199427    .0761871
  question31 |   -.1788655   .0776576    -2.30   0.024    -.3337487   -.0239823
       _cons |    .3719374   .2458649     1.51   0.135    -.1184248    .8622995
------------------------------------------------------------------------------

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Questioner

I am conducting research which shall be submitted to TAMK University of Applied science international business department. The aim of the study is to explore information regarding factors affecting deposit mobilization in Ethiopia.

The questionnaire is drafted to collect detailed data on deposit mobilization in Ethiopia and the information you provide in response to the items in the questionnaire is highly valuable data needed to meet the objectives of this study. I believe you provide your assistance by genuinely filling in all items in the questionnaire.

The information you supply would be used for academic purpose only and will be kept confidential. You are not required to disclose your name and/or your address. Thank you in advance for your authentic response & unreserved cooperation!

A, Dependant variables questions

1. What is your position in your branch?

☐ Manager
☐ Marketing officer

2. The volume of deposit mobilized by your branch on average from 2016-2022 ?

☐ has increased.
☐ has decreased.
☐ No change

3. What is the level of your branch.

☐ Level one
☐ Level two
☐ Level three

4. If your answer for question two (2) is 'has decreased', what could be the reason(s)? (Multiple answers can be given)

☐ No attractive interest rate
☐ Poor customer relation management
☐ The current internal conflict
☐ not applicable

B, Branch expansion and deposit mobilization

5. How many branches does your bank have as of the year ended June 30, 2022?

☐ Less than 100 branches
☐ 100-150 branches
☐ 151-200 branches
☐ 200-250 branches
☐ More than 250 branches

6. Is your bank increasing the number of its branches every year?

☐ Yes
☐ No

7. If your answer for Number six (6) is 'yes' what could be the reason for the branch expansion?

☐ To have a large number of branches
☐ To increase customer base services

- ☐ To collect foreign currency.
- ☐ To increase deposit mobilization.
- ☐ Other reasons (specify) ----------
- ☐ Not applicable

8. Do you think that branch expansion has an impact on deposit mobilization?
   - ☐ Yes
   - ☐ No

C, Deposit Interest Rate and deposit mobilization

9. Do you agree that your bank deposit interest rate has an impact on deposit mobilization?

- ☐ Strongly disagree.
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ strongly agree.

10. Do you agree that, if your bank provides attractive deposit interest rate could mobilize high deposit?

- ☐ Strongly disagree.
- ☐ Disagree
- ☐ Neutral
- ☐ agree
- ☐ strongly agree.

11. How many times your bank increases its deposit interest rate from 2016 to 2021?

- ☐ 1-3 times
- ☐ 3-6 times
- ☐ more than 6 times

12. If your answer for question number eleven (11), is '1-3 times', what could be the reason(s)?

- ☐ Because it affects the bank profitability
- ☐ Because the existing interest rate of your bank is comparable to the existing inflation rate.
- ☐ Because the existing interest rate is equal to the maximum interest rate seated by the National Bank of Ethiopia.
- ☐ Other specify.

D, Profitability and deposit mobilization

13. Do you think that your bank is profitable for the period 2016-2022?

- ☐ Yes
- ☐ No

14. Do you believe that profitability of your branch has an impact on deposit mobilization of the bank?
   - ☐ No
   - ☐ Yes
   - ☐ Not applicable

15. If your answer for question number thirteen (13) is yes, what could be the reason?

- ☐ Customers have confident on the bank's status.
- ☐ Because the banking industry is profitable regardless of customers believes on the specific banks.
- ☐ Customers believes on the banks capacity to reimburse depositors.
- ☐ Other specify.
- ☐ Not applicable

3(5)

16. How many of your customers do you think to know the deposit interest rate of your bank?
    - ☐ None of them
    - ☐ Some of them
    - ☐ Most of them
    - ☐ All of them
17. If your answer is none of them or some of them, what could be the reason(s)?(multiple answer can be given)

☐ Information gap
☐ Transparency problem of the bank's management
☐ Customers have no knowledge about deposit interest rate as a result, they do not ask about it.
☐ Other specify.

E, CRM and deposit mobilization

18. Do you agree that your bank customer base service has an impact on deposit mobilization?

☐ Strongly Disagree
☐ Disagree
☐ Neutral
☐ Agree
☐ Strongly agree.

19. Do your bank collect customer feedback?

☐ No
☐ Yes

20.If your answer for question number nineteen (19) is yes, do your bank update the data to improve its services quality?

☐ No
☐ Yes
☐ Not applicable

F, Loan to deposit ratio and deposit mobilization

21.Do you believe that loan to deposit ratio has an impact on deposit mobilization?

☐ Yes
☐ No

22.How many percent of the loan is usually collected from the total amount that your bank provides per year?

☐ Less than 30%
☐ 50-80%
☐ More than 80%

G, Inflation and deposit mobilization

23.Do you agree that the current double-digit inflation has an impact on deposit mobilization in your branch?

4(5)

- ☐ Strongly disagree.
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree.

24.If your answer for question number twenty-three (23) is 'strongly agree or agree 'what could be the response from your bank management to tackle this problem? (multiple answers can be given)

- ☐ Increase deposit interest rate.
- ☐ Ask the government to minimize the inflation rate.
- ☐ Ask the national bank to adjust the minimum and maximum deposit interest rate range.
- ☐ Provide good customer services.
- ☐ Other specify.

25.If your answer for question number twenty-three (23) is 'strongly disagree or disagree' what could be reason(s)? (multiple answers can be given)

- ☐ Customers have no knowledge about the existing inflation.
- ☐ Customers have no knowledge about the relationship between inflation and deposit interest rate.
- ☐ Customers have no choice because the maximum and minimum interest rate has seated by the NBE, there is no significant difference in interest rates among banks.
- ☐ Other specify.
- ☐ Not applicable

H, GDP and deposit mobilization

26.Do you think that the current GDP growth rate has an impact on deposit mobilization in your bank?

- ☐ Yes
- ☐ No

27.If your answer for question number twenty-six (26), is 'yes' what could be the reason(s)? (Multiple answers can be given)

- ☐ Because customers would have more income than their living cost.as a result they deposit more.
- ☐ When the GDP of the country increases the government can collect a large amount of tax as a result it can increase its saving.
- ☐ A business organization will be profitable when a countries GDP increases so as their deposit.
- ☐ Other specify.
- ☐ Not applicable

I, Population growth and deposit mobilization.

28.Do you agree that the current population growth rate in Ethiopia has an impact on deposit mobilization in your branch.

- ☐ Strongly disagree.
- ☐ Disagree
- ☐ Neutral

- ☐ agree
- ☐ strongly agree.

29. if your answer for question number twenty-eight (28) is 'strongly disagree or disagree', what would be the reason(s)? (Multiple answer can be given).

- ☐ Since Ethiopia is developing country, the economy can't offer job opportunities to the working age population.
- ☐ The retired and children's population are larger than the working population as a result it leads to increases the dependence ratio.
- ☐ The productivity growth rate is less than the population growth rate as result all the production is only cover the consumption of the population.
- ☐ Other specify.
- ☐ Not applicable

30. If your answer for question number twenty-eight (28) is 'strongly agree or agree', what would be the reason(s)? (Multiple answer can be given).

- ☐ Because the share of younger people in the economy is larger than that of the retired and children underage (<15) of production.
- ☐ Even if, Ethiopia is a developing country the economy of the country is creating job opportunity for the working age population, who wants to work.
- ☐ Because the current younger population are more productive. Thus, the overall economy of the country is increasing so as deposit.
- ☐ Other specify.
- ☐ Not applicable

J, Conflict and deposit mobilization

31. Do you think that the current internal conflict in Ethiopia has an impact on deposit mobilization in your branch?
    - ☐ Yes
    - ☐ No
32. If your answer is 'yes' for question number thirty-one (31), what could be the reason(s)? (Multiple answer can be given)
    - ☐ The conflict increases the number idle labour force in northern part of the country as a result production decrease.
    - ☐ The conflict increases the government expenditure specially to mobilize the military force as a result it decreases the government saving.
    - ☐ The conflict increases the number of idle lands in northern part of the country.
    - ☐ The decrease in production increases the imbalance between import and exports as a result the purchasing power of birr become weak.
    - ☐ The conflict increases the number of dependencies.
    - ☐ Other specify.
    - ☐ Not applicable
33. If your answer is 'No' for question number thirty-one (31), what could be the reason(s)? (Multiple answer can be given)
    - ☐ The conflict has no impact on the labour force.
    - ☐ It doesn't affect the total production of the country.
    - ☐ The conflict doesn't have an impact on the overall economy of the country, so as on deposit mobilization.
    - ☐ Not applicable.