



**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**DETERMINANTS OF COMMERCIAL BANKS DEPOSIT
EVIDENCED FROM PRIVATE COMMERCIAL BANKS IN
ETHIOPIA**

**BY
ALEMAYEHU WORKU MOGES**

**JUNE, 2018
ADDIS ABABA, ETHIOPIA**

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**ATHESIS SUBMITTED TO THE DEPARTMENT OF
ECONOMICS IN PARTIAL FULFILLMENT OF
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ARTS IN DEVELOPMENT ECONOMICS**

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This is to certify that the thesis prepared by Alemayehu Worku Moges.

Entitled: Determinants of Commercial Banks Deposit Evidenced from private commercial Banks in Ethiopia, An Empirical Investigation and submitted in partial fulfillment of the requirements for the Degree of Masters in Development Economics complies with the regulation of the university and meets the accepted standards with respect to originality and quality.

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Declaration

I hereby declare that this thesis is my own work towards to the best of my knowledge under the guidance of Gemoraw Adinew (Asst.prof.), it contains no materials previously published by another person nor material which has been accepted for the award of other degree of university , except where due acknowledgement of the reference.

Declared by: Alemayehu Worku Moges

Signature: -----

Place: Addis Ababa, Ethiopia

Date of Submission: June, 2018

Dedication

The result of This thesis dedicated to my Father My Great Hero, who always jealous, who left earth for his heavenly abode while, I am writing this Thesis. Gashe I always remember you all in your pain, all your suffering, all your love to me and to all your children and I always remember you whenever and I love you, I wish Rest in Peace!!!! And my dearly loved Wife Obse Takele who always wish to see my success, for her love, encouragement, patience and unreserved support throughout the study.

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List of Acronyms and Abbreviations

AAIR:	Average Annual Inflation Rate
ADIR:	Average Deposit Interest Rate
AML:	Anti Money Laundering
ATM	Automatic Teller Machine
BLUE:	Best, Linear, Unbiased, Estimator
CBE	Commercial Bank of Ethiopia
CLRM	Classical Linear Regression Model
CSA	Central Statistical Authority
DEPO:	Deposit
FDI:	Foreign Direct Investment
FEM	Fixed Effect Model
GDP	Gross Domestic Product
IMF:	International Monetary Fund
INDFR:	Individual foreign remittance
INF	Inflation Rate
JB :	Jarque-Bera
LTDR:	Loan to Deposit Ratio
MOFEC	Ministry of Finance and Economic Cooperation
MS:	Money supply
NBE	National Bank of Ethiopia
OLS	Ordinary Least Square
RGDP:	Real Gross Domestic Product
SAP:	Structural Adjustment Programs
VIF:	Variance Inflation Factor
WAMA	West African Monetary Agency

Abstract

This paper is an effort to reveal the insight dynamics that determine Private commercial banks deposit with reference to Ethiopian commercial banks. In order to achieve these objectives the study adopts quantitative data from National Bank of Ethiopia (NBE), Ministry of Finance and Economic Cooperation (MOFEC), Central statistical Authority(CSA), World Bank website which incorporates the period from 2000-2017. The Target population was selected private commercial banks that engage in commercial activities and registered by National Bank of Ethiopia to act. Consequently, seven banks, out of sixteen private commercial banks in existence at June 2017, have purposively been selected for the finding. Different diagnostic test were performed to know whether the model is valid or not. All the tests were valid and eventually regression analysis was performed using STATA 13 software statistical package. The result from regression analysis showed that Deposit Interest rate was significantly and negatively correlated with total deposit, Money supply, Real GDP, Individual foreign Remittance, where significantly and positively correlated with the Total deposit, and Inflation rate and exchange rate was insignificantly and positively correlated with the Banks Total deposit. Finally result from the study The researcher recommended that the selected private commercial Banks should have to work on Individual foreign remittance, Economic growth (RGDP) Money supply, to increase their total deposit.

Key Words: Commercial Banks Deposit, Ethiopia.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Economic growth is the common goal of all nations. Everybody want to lives with more comfortable, better standard of living than before and holding a better welfare because of the surge in economic growth. Government in each country aims to reduce poverty and increase the level of national income. Therefore, to achieve the main target of economic growth, governments may implement various kinds of policies such as encouraging saving, stimulating investment and production in their countries. Mobilizing domestic resources are vital activity to achieve self- sufficiency. Hence, the financial sector is one major sector of the country's economy that needs to be revitalized constantly in mobilizing domestic deposits to increase investment (Pinchawawee, 2011).

The financial system in every economy is composed of the bank-based system where provision and monitoring of investment funds are made through the banks on one hand and the capital market where investors enter directly through ownership of securities (Shemsu, 2015).

Banks role in the economy of any country is very significant. It plays intermediation function and collects money from those who have excess and lends it to others who need it for their investment.

According to (Laura E. et.al, 1999) Commercial banks, being the main player and the most active sector that is highly regulated are considered as the backbone of the country especially in the developing nation like Ethiopia where no presence of capital market at all. They have been playing an essential and peculiar role in the progress of the Ethiopian economy through supporting the private sector and financing government mega projects.

Mobilizing deposits is one of the essential issues in developing countries as domestic funds provide cheap and reliable source of funds for development, which is of great value

to these countries, especially when the economy has difficulty raising capital from international donors, investors and markets. Yet, in many developing countries, there is a considerable amount of savings that are not intermediated through the formal sector particularly there exist significant savings potential in the rural (and/or semi-urban) sector of many developing countries.

Selvaraj& Kumar (2015) State that, the success of the banking greatly lies on the deposit mobilization. Performances of the bank depend on deposits, as the deposits are normally considered as a cost effective source of working fund. Mobilization of savings is one of the important objectives of the Commercial Banks. It helps to expand banking operations. The successful functioning of commercial banks depends on the extent of funds mobilized. Deposits constitute a vital source of funds required for banking business. There are different types of deposits; with different maturity pattern carrying different rates of interests. Deposits for a bank is as essential as oxygen for human being.

(Tuyishime, et al , 2015) ,also stated that, the role of banks in a financial market is that of a financial intermediary, which makes use of loan and deposit services to effectively channel the idle funds of the general public into valuable production and other investment projects helping people to reach their goals. It enables people to save for the future, invest in profitable business opportunities and to protect themselves against unpredictable shock.

1.2 Statement of the Problem

Deposits are the primary source of funds for a bank, which facilitates the uses of funds (loans and investments). The higher the deposits amount, the bigger the lending and investments portfolio can be maintained by the banks to sustain its expansion and future growth. The banks must have adequate deposits to meet the lending volume required by the public and at the same time maintain extra cash for withdrawals by depositors.

The cash reserve is a component of liquidity reserves which measure the ability of the bank to meet its expected withdrawals and recurring withdrawals. The withdrawals made from there serves are oddly-offset against new deposits which the banks should

continuously mobilize. The inability to get sufficient deposits could result in negative fund situation. The level of deposits growth also indicates the bank's performance in relation to customers' satisfaction on interest payout and services rendered. Most importantly, all commercial banks have the needs to mobilize resources without any restriction in Ethiopia. Deposit is one of the resources banks highly motivated to mobilize and the most liquid money that is found in the treasury of the bank and which is ready to be borrowed in need of the fund. A deposit of the bank may be affected by different factors. A deposit is most useful Liabilities of the bank and it is relevant to find out factors affecting the deposit of the bank and determine the relationship between them. However, most commercial banks were not successful in controlling and managing their deposit as they were not aware of the factors that can affect the deposit (Islam & Ghosh, 2014).

The fast growing economy of the country, which is proactively investing in road infrastructure, building hydropower dams, constructing thousands of housing condominiums and expanding agricultural and other investments in the country are hugely relying on the commercial banks for loans and credits.

From various literatures and the researcher own observation, Ethiopian banking industry is still at its infancy stage. As a result, deposit has not yet been mobilized as much as expected. NBE indicates that from deposits that should be mobilized by banks only 7% is mobilized as of 2012 (Wubitu, 2012). This indicates that from the money that should be deposited in the bank 93% of it was not mobilized.

Moreover, in the contexts of Ethiopia, the related research has mostly focus on only one public Bank (Commercial Bank of Ethiopia) or Private commercial Banks separately to assess the factors affecting the total amount of deposits of Ethiopian commercial banks.

Evidence from prior studies indicated that various external and internal factors affect commercial bank deposits. However, the significance of each factor differs across continent, countries and time period. The study made by Erna & Ekki (2014) in Indonesia by using 11 years " time series data, Mohammed & Mansur (2014) in Malaysia by using 7 years panel data and Giragn (2015) in Ethiopia using 13 years panel data indicated that

GDP has not significant influence on the volume of commercial bank deposits. While, Mohammed(2014) in Bahrain using 20 years' time series data and Shemsu (2015) in Ethiopia using 17 years' time series data revealed that GDP has positive influence on the volume of commercial bank deposit. These contradictory findings revealed that there is inconsistency among research findings on factors affecting deposit. Furthermore, most researchers were focused on the quantitative variables.

In Ethiopia as far as the knowledge of the researchers is concerned, there are very few researches related to determinants of commercial banks deposit, Wubitu (2012), Shemsu, (2015), and Hibret, (2015), all conducted a study on determinants of commercial banks deposit of single Ethiopian government bank only, which is Commercial Bank of Ethiopia. All of the three researches are conducted only by taking one government bank but this research is quite different in its industry selection, type of data and incorporates the commercial bank deposit variable.

A single study corresponding with this research is that, the research conducted by Bahredin, (2016)on determinants of commercial bank's deposit growth in Ethiopia from year 2000 to 2014 using single research approach (multiple regression technique). Bahredin has used seven independent variables; bank branches, deposit interest rate, loan to deposit ratio, lagged bank deposit, money supply growth, inflation rate, per capital income growth and bank deposit growth as dependent variable.

Therefore, the purpose of this research is most of the study undertaken in our country related topics of The Determinants of Commercial Banks deposit in case of Private owned and Public Banks, and some external and internal factors are Reviewed by different Researchers in different research techniques also showed that different effects on Banks deposit ,thus inconsistency finding among the researchers and little attention given by Researchers on the determinants of overall deposit of commercial Banks of Ethiopia until to current years motivated me to undertake the research in this particular Area by Adding new additional variable to fill this gap..

1.3 Objectives of the Study

1.3.1 General Objective

- To assess the determinants of deposit in Ethiopian private commercial banks

1.3.2 Specific Objectives

- To give recommendations based on the study result
- To identify Internal and External and factors that affects private Bank deposit

1.4. Research Questions

The research provides answer to the under listed research questions.

- What are the factors that will affect the deposit activities of the private commercial banks in Ethiopia?
- What are the variables/factors that can affect the deposit mobilization activity?
- How will relate these factors to total deposit?
- What should be done to manage total deposit of commercial banks?

1.5. Significance of the Study

The significance of the study will have great contribution to the existing knowledge in the area of factors determining deposit mobilization in the case of private commercial banks in Ethiopia. Accordingly the followings are the significance that is attained from the study.

The study is used to know factors that will affect deposit growth and helps the bank to design and implement effective deposit mobilization strategies and the finding is helpful to private commercial banks to manage their deposit by identifying factors or variables determining Banks deposit and which variable is the most important and the study

provides information for all stakeholders especially for board and Banks management body in order to minimize the impact of factors that will affect Banks deposit growth by making them to design effective strategies, also the study is to support further investigation on the area, since there is no sufficient studies conducted on this area help other researchers through revealing issues of further research.

1.6. Scope of the Study

From the entire financial sector operating in Ethiopia, the research covers particularly the activities of all privately owned commercial banks that are registered by NBE and are being operational is assessed through secondary data during the study period where as to evaluate the effect of monetary and economic variables took 18 years of secondary data.

The paper was exclusively covers the activities of Ethiopian private commercial banks.

1.7. Limitations of the Study

The first limitations of the study is sample size of the research, which too small with Eighteen years. Annual data from 2000-2017 was obtained to run the model, however the data obtained is considered insufficient as minimum requirements at least 30 observation, so the study conducted is shortened because of intended data set limitations and the researchers uses only secondary data sources, although time and Budget constraint is another factor to dig deep and come up with different data source and result..

1.8 Hypothesis of the Studies

Hypothesis of the study stand on theories and empirical findings related to bank's deposit that has been developed over the years by banking area scholars. The primary function of the commercial banks is deposit mobilization (Nathanael, 2014). Therefore, this study has tested the following hypotheses:

H₀: Deposit interest rate has no significant impact on commercial banks deposit growth.

H1: Deposit interest rate has significant impact on commercial banks deposit growth.

H0: Exchange rates have no significance effect on deposit growth of private commercial Banks.

H1: Exchange rates have significance effect on deposit growth of private commercial Banks.

H0: Individual Foreign Remittance has no significant impact on commercial banks deposit growth.

H1: Individual Foreign Remittance has significant impact on commercial banks deposit growth.

H0: Money Supply has no significant impact on commercial banks deposit growth.

H1: Money Supply has significant impact on commercial banks deposit growth.

H0: Inflation rate has no significant impact on commercial banks deposit growth in Ethiopia.

H1: Inflation rate have significant impact on commercial banks Deposit growth in Ethiopia.

1.9. Organization of the Study

This research paper was organized in five chapters. Chapter one provides the general introduction about the whole study. Chapter two describes the review of related literatures. Chapter three provide detail description of the methodology. Chapter four contains data presentation, analysis and interpretation of the model

Finally, the last chapter concludes the total work of the research and gives relevant recommendations based on the findings.

CHAPTER TWO

LITERATURE REVIEW

The literature review consists of two parts, i.e. the theoretical and conceptual review and empirical review. In the theoretical review part the theories that states about the commercial banks deposits and the variables that are claimed to affect it will be discussed. The empirical literature part discusses past studies that were conducted on the area of factors determining commercial banks deposits. In this part the variables that were included, the methodology that is used to undertake the study and the results of the study under review will be discussed.

2.1. Theoretical Review

2.1.1. Background of Private Commercial Banks in Ethiopia

According to (Zewdu, 2014), currently, the Ethiopian financial sector consists of 2 public banks including the Development Bank of Ethiopia (DBE), 16 private banks, 14 private insurance companies, 1 public insurance company, 31 microfinance institutions and over 8200 Saving and Credit Cooperatives (SACCOs) in both rural and urban areas.

Private commercial banks are a recent phenomenon in the Ethiopian economy. They came into existence after the downfall of the Dergue regime two and half decades ago. Before the Dergue, in the imperial era, private commercial banks used to operate in the economy. But after Dergue came to power, private commercial banks were nationalized and amalgamated with the state owned banks, then after that Ethiopian economy was dominated by state owned banks. And in the time of Dergue they were not allowed and not only banks but also there were no other private sector. Surprisingly no one was allowed to have a sum of money more than ETB500,000.00 in his/her bank account. The regime was follower of command economy.

After the downfall of the Dergue private commercial banks were allowed to operate and they started to have market share and now they have some growing market share in the

Ethiopian economy and are some of the major players in the economy. Their number was also growing from time to time but as a result of entry constraint set by National Bank of Ethiopia (NBE), Minimum paid up capital requirement was initially sets 75 million and gradually raised to 500 million and within the next 2 years they should raise to 2 billion, which is practically impossible not only for new entrants but also for those who joined lately. No new private commercial bank has entered to the market since 2013 and there one new private bank on plan to establish for the coming new year.

Following the Proclamation of Licensing and Supervision of Banking Business Proclamation No. 84/1994, Awash International Bank S.C was registered as the first private commercial bank in modern Ethiopia banking business. So far 16 private commercial banks are operating in the country. Some of the list of private commercial banks and their year of establishment. 1, Awash International Bank S.C 1994 2, Dashen Bank S.C 1996 3, Bank of Abyssinia S.C 1996 4, Wegagen Bank S.C 1997 5, United Bank S.C 1998 6, NIB International Bank S.C 1999 7, Cooperative Bank of Oromia 2005 8, Lion International Bank S.C 2006 9, Oromia International Bank S.C 2008 10, Zemen Bank 2009 11, Buna International Bank S.C 2009 12, Berhan International Bank S.C 2010 13, Abay Bank S.C 2010 14, Addis International Bank S.C 2011 15, Debub Global Bank S.C 2012 16, Enat Bank 2013.

There are various publications regarding commercial banks deposits and factors that determine the commercial bank deposits. Some authors had classified the factors and explain their relationship with commercial banks deposits.

Banking industry depends mostly on deposit from their customers to manipulate into corporate profit. Deposit mobilization is important in any economy as it determine the level of credit to be offered. Depositors keep their money in banks for a motive to undertake some activities in the future. From depositors' point of view, the key reason to use deposit in bank are safety of their money, easy access and to get a risk free return.

2.1.2. The Role of Banks in Financial System

Financial institutions play important role in the development process by transferring funds from surplus units to deficit units within the economy. The cost of their operations is very important to the efficiency of the financial intermediation process. Financial markets are allocated efficient when they channel surplus funds to the most productive and profitable uses. They further noted that if the intermediation costs of transferring funds from investors to users are low then, the markets are described as operationally efficient. Financial intermediation costs refer to the spread between the gross costs of borrowing and the net returns on lending. If the resource cost of information, travel, and time have relatively low variance or vary in a way unrelated to intermediation costs, the spread between gross borrowing costs and net lending returns vary with the transaction costs of financial intermediaries (O.B.Oyewole, 1994).

According to Christopher (1995), one country economies require well-developed financial systems to function properly. Properly articulated financial systems contain at least three elements, corresponding to their broad functions within the economies:

1. A payments system which allows the transfer of assets and commodities, and the discharge of debts to proceed smoothly. The system has to allow for the non-synchronization of receipts and expenditures, and hence for various forms of trade and credit and it must utilize money forms which are easily recognizable and widely acceptable. Modern systems need institutions which will furnish these services to households, merchants, and producers. Banks and central banks have to develop efficient clearing systems.

2. Financial intermediation is another essential element of an economy. Intermediaries provide several interrelated services important for an economic development: they match the preferences of ultimate borrowers (usually enterprises) with ultimate lenders (usually household savers) with respect to time, liquidity, and amounts by pooling funds and lending them out, thus reducing the search and information costs of transferring funds from savers to borrowers as well as the risk to savers. Indirect, intermediated finance increases the efficiency of the flow of funds and reduces the cost of external funds to the

borrowers while raising the effective risk-adjusted rate of return to lenders and ultimate savers. As a consequence, financial constraints on economic growth are relaxed and both savings and investment are encouraged. Equally important, one class of financial intermediaries ("banks") can create credit-money when they lend, given the requisite institutional arrangements (fractional reserve banking), which loosens the linkages between saving and investment: savings are not the effective constraint on investment finance in modern capitalist economies with well-developed systems of financial intermediation since the net creation of new bank money by loans represents a source of loan-able funds independent of the current savings flow. The flow of finance for investment is then constrained by the ability and willingness of banks (and to a lesser extent, other financial intermediaries) to extend credit, both of which can be influenced by central bank policy with the proper institutional set.

3. A third essential element is a system of financial markets in which all classes of financial intermediaries (bank and nonbank) as well as ultimate borrowers and lenders can participate in issuing, redeeming, and secondary trading of financial assets. Money markets for short-term securities like bills of exchange, government treasury bills, and commercial paper allow nonbank financing of revenue shortfalls and provide access to interest-bearing liquid financial assets for surplus economic units. Since the actors in these markets compete with banks as both sources and uses of funds, they increase the efficiency of financial systems, and also enhance the liquidity of all financial institutions since banks as well as other units can sell short-term assets for cash if they need to meet cash demands. Another useful attribute of such markets is that they provide away for central banks to adjust the liquidity of banking system through open market operation.

4. Modern financial systems also include a fourth element: a set of regulatory institutions a "central bank" in the broad use of the term. Which are seen as necessary for the stability and efficient operation of the financial sector within the larger economy. Central banks were originally created in most countries to assist the state in its finances, but their responsibilities have increased in scope and complexity over time and time. Most observers argue that modern central banks should not assist governments directly in financing deficits, and in fact most no longer do. Central bankers and most monetary

economists argue that the primary responsibility for central banks should be the conduct of monetary policy, independent of fiscal policy, with an emphasis on the need to constrain inflationary pressures and keep real interest rates positive (although the emphasis on constraining inflation is not universally accepted, some economists give equal importance to constraining speculation and promoting growth), and that central banks should be independent of their governments and free to conduct policy.

A related responsibility is providing liquidity to commercial banks and other types of depository institutions, and very importantly, being willing and able to function as a lender of last resort for individual banks and the system as a whole; although various arrangements can meet these requirements, most modern central banks use open market operations (which require well-organized markets for suitable securities such as treasury bills), discount window lending, or some combination of the two. In addition, central banks in most countries have assumed responsibility for overall financial market stability, as well as for the stability of the payments system.

A third obvious responsibility is to operate a regulatory system which will encourage sound and prudent operation of intermediaries and develop public confidence; financial intermediaries and their customers need a safety net, due to the peculiarities of this industry. Such a system requires some type of deposit insurance, constraints over asset and liability compositions of the intermediaries (including reserve and capital requirements), and a monitoring system. The important principle to emphasize in the design of the central bank/regulatory system is the necessity to implement institutional constraints which will promote and ensure equity and impartiality in access to funds as well as stability, efficiency, confidence in the financial system.

Intermediation is the main macroeconomic function of commercial banks. Commercial banks are financial intermediaries because of their intermediation role. Intermediation is defined as the process of mediation through institutions and instrument, between primary savers and lenders and ultimate borrowers. It is the process of collecting savings by financial institutions and their channeling of the savings to investors. At the rudimentary level of financial development, where savers are users of their own funds, capital

formation can take place without generating financial assets at a very limited extent thereby limiting very seriously the rate of economic development. But with the development of borrowing in the stage of financial development, decisions to save and invest became separated. Thus the mechanism to bridge this dichotomy becomes essential. This mechanism can take two forms: (i) the creation of financial liabilities on primary securities whereby funds of the surplus economic units are transferred to deficit economic units. This is the direct channeling of funds of surplus spending units to deficit spending units (ii). Indirect financial claims consisting of demand and savings deposits via the commercial banks or other financial intermediaries from where funds of the surplus economic units are made available to those wanting to spend on real capital investment (Cletus, 1984).

Commercial banks through their intermediation role between savers and investors affect the volume as well as mobilization of savings, by providing the market with the diversification of instruments that will meet the precise liquidity needs of savers and at the same time making financial resources available to the investors over a relatively long period in accord with their needs. Since they operate with larger portfolios than individuals, commercial banks are less exposed to the effects of default or variation in income or capital value. These advantages they pass on to their depositors so that the liabilities they issue, deposits are less risky than the individual loans or investments the banks hold in their asset portfolios (Cletus, 1984).

2.1.3. Commercial Bank Deposit

Commercial bank deposits are major liabilities for commercial banks. (Kelvin, 2001) said that deposits of commercial banks account for about 75% of commercial banks liabilities. Commercial banks keep lending as long as they possess adequate deposit.

Therefore, banks will be better off if they are mobilizing more deposits. However, as (N. Desinga, 1975) indicates deposit mobilization is a very difficult task. The cost of intermediation for mobilizing deposits is also very important part of overall intermediation cost of the banking system as (E.A. Shaw 1995) indicates. In spite of the

difficulties, deposits play an important role not only to the banking sector but also the overall economy.

All the financial performance of most of the commercial banks in one way or the other related to the deposit it managed to be mobilized. Deposits provide limits to the working capital of the bank. The higher the deposit, the higher will be the funds at the disposal of a bank to lend and earn profits (N. Desinga, 1975). Therefore, to maximize its profit the bank should increase its deposit. (Mahendra, 2005) had also mentioned deposits as a foundation up on which banks thrive and grow and deposit is unique items on a bank's balance sheet that distinguish them from other type of business organizations.

Commercial banking is a service industry with a high degree of built in profit potential (Meenakshi, 1975). Commercial banks mainly depend on the funds deposited with them by the public to lend it out to others in order to earn interest income (Davinaga, 2010). However, banks attract deposits by paying a risk free return to the savers. Interest expense is number one expense on the income statement of most commercial banks. (Hamid 2011) said that if banks lose their deposit base they rely on non-deposit based funding that is very expensive and consequently minimizes the profit margin.

2.1.4. Major Types of Deposit Products

A deposit account is a current account, savings account, or other type of bank account, at a banking institution that allows money to be deposited and withdrawn by the account holder. These transactions are recorded on the bank's books, and the resulting balance is recorded as a liability for the bank, and represents the amount owed by the bank to the customer.

According to (Islam & Ghosh, 2014) the Major types of deposits are:-

Checking accounts: - A deposit account held at a bank or other financial institution, for the purpose of securely and quickly providing frequent access to funds on demand, through a variety of different Channels. Because money is

available on demand these accounts are also referred to as demand accounts or demand deposit accounts.

Savings accounts: - Accounts maintained by retail banks that pay interest but cannot be used directly as money (for example, by writing a cheque). Although not as convenient to use as checking accounts, these accounts let customers keep liquid assets while still earning a monetary return.

Term deposit: - A money deposit at a banking institution that cannot be withdrawn for a preset fixed 'term' or period of time. When the term is over it can be withdrawn or it can be rolled over for another term. Generally speaking of the longer the term the better the yield on the money.

2.1.5. The Cost of Deposit Mobilization

Deposits constitute a vital source of funds required for banking business. The components of deposit mix, such as fixed, current, and savings deposits, have their own risk-return profiles that affect the profitability of banks. Average cost of deposits, which is a percentage of interest cost to total deposits, can be used as an indicator for analyzing the cost or efficiency of deposits of banks and the banks' overall profitability. The higher the ratio, lower will be the productivity of funds management and vice versa. A lower ratio has a positive impact on the banks' profitability (Shollapur&Baligatti, 2010).

2.1.6. Importance of Deposit Mobilization

I. A Source of Investment

According to (Ongore&Kusa2013) Intermediation function of banks play a vital role in the efficient allocation of resources of countries by mobilizing resources for productive activities. They transfer funds from those who don't have productive use of it to those with productive venture.

(Nwanko, Ewuim, &Asoya, 2013) States that, savings are resources which one decides to put aside for investment purposes and not for luxury. What people save, avoiding

consuming all their income, is called "personal savings". These savings can remain on the bank accounts for future use or be actively invested in houses, real estate, bonds, shares and other financial instruments.

II. Low Cost

According to (Shettar&Sheshgiri, 2014) the success of the banking greatly lies on the deposit. Performances of the bank depend on deposits, as the deposits are normally considered as a cost effective source of working fund.

According to (Elser, Hannig, &Wisniwski, 1999) savings are a source of funds with low financial costs i.e., interest costs, Compared to other commercial funds. With regard to financial costs, of the institution apply a differentiated interest rate schedule compensating for the higher administrative costs with no or low interest rates on small savings and increasing them according to the size of the deposit.

III. A Source of Profit

According to (Varman, 2005) the ability of a bank's management and staff to attract checking and saving accounts from business and individuals is an important measure of the bank's acceptance by the public. Deposits provide most of the raw materials for bank loans and thus represent the ultimate source of bank profits and growth.

(Tuyishime, Memba, &Mbera, 2015) also affirmed that, Deposits are an indispensable tool commercial banks use to enhance its profitability through advancing deposits mobilized to its customers in form of loans which make in return interest to commercial banks.

IV. Economic Growth and Development

According to (Ongore&Kusa, 2013), In addition to resource allocation good bank performance rewards the shareholders with sufficient return for their investment. When there is return there shall be an investment which, in turn, brings about economic growth. On the other hand, poor banking performance has a negative repercussion on the economic growth and development. Poor performance can lead to runs, failures and

crises. Banking crisis could entail financial crisis which in turn brings the economic meltdown.

2.1.7. The Effects of Poor Deposit Mobilization

According to (Khalayi, Ondiek, & Musiega, 2014) there are a number of effects that are brought about as a result of the poor deposit growth in commercial banks. These include

- Inability to disburse loans to qualifying members on demand,
- Inability to meet operation costs,
- Inability to service debts,
- unstable board of directors due to frequent reshuffle as disgruntled members vote officials out,
- Fail to expand their accessibility and loyalty to stand for society.
- quitting of members to competitors,
- Falsification of financial reports. These can cause the voting out of elected officials on accusations of fraud, financial mismanagement practices. In addition, dissatisfied members can quit in large numbers to join alternative and emerging financial institutions for fear of losing their savings if the situation deteriorates.

2.2. Factors that affect Commercial Banks Deposit

According to (Ongore & Kusa, 2013), the performance of commercial banks can be affected by internal and external factors these factors can be classified into bank specific (internal) and (external) macro- economic variables. The internal factors are individual bank characteristics which affect the bank's performance. These factors are basically influenced by the internal decisions of management and board. The external factors are sector wide or country wide factors which are beyond the control of the company

(Aftabi, Daneshvar, Karimbakhsh, Shadab, & Mortezaei, 2013) ,also stated that, in a general classification, the factors affecting the banking resources can be divided into two categories: external and internal factors.

External factors are uncontrollable factors of bank management and factors such as inflation, money supply growth rate, National income, economic growth, GDP growth rates and central bank policy are included.

Internal factors can be categorized into service factors, financial factors, relationship and human factors, physical and institutional affiliation factors.

Service factors include:-

Variety of banking services.

- The quality of banking services.
- Electronic banking services.
- Specialized skills of staffs.

Financial factors include:-

- Paid loans.
- The interest rate paid on deposits.
- Bonuses paid to depositors.

Relationship and Human factors:-

- Advertise.
- Bank employee's behavior and how they deal with customers.
- Appropriate informing and training customers.
- Proper individual characteristics of employees.

Physical conditions factors:-

- Location of bank branches.
- Number of bank branches.
- Interior and exterior design and beauty of branches.
- Physical facilities.

Organizational affiliation factors:-

Payment of staff salaries and social security.

Organization of social security and pension benefits paid by the bank.

2.2.1. External Factors

I. Inflation

According to (Tareq, 2015) Inflation rate is considered to be an influential variable in saving mobilization. It has an adverse impact on the personal savings rate in the economy. The overall inflation rate of the economy has been considered as the interest rate for both sectors.

According to (Zeidy, 1996) Inflation reduces the real value of financial holdings, discouraging financial savings by inducing their holders to shift them into physical or real assets which are better store of value. Although this is true at a theoretical level there is no conclusive empirical evidence that negative real rates have an adverse impact on domestic savings.

(Ahlsvede&Schildbach, 2012), states as inflation accelerates, deposits become less attractive, depending on the interest rate. In this case, the assumption would be that as deposit interest rates rise, deposits would increase in principle as well. The narrower the spread between deposit rates and inflation, the less attractive it should be to hold deposits above the required level.

II. Government Laws

A general lack of an appropriate legal, regulatory and prudent framework. This situation is a strong impediment to saving in that it undermines savers confidence and retains retail savings in informal financial system. It is generally accepted that informal systems fail to intermediate savings - in particular in to longer maturities and do seldom reward it financially. Conversely, the lack of an appropriate legal, regulatory and financial framework prevents formal financial institutions from reaching small savers and Confines

them to entities and enterprises sufficiently large for having a legal identity under the existing inadequate legal frameworks. (Zeidy, 1996)

According to (Mashamba, Magweva, & Gumbo, 2014) a lot of people have excluded themselves from the banking sector. They feel that physically handling their own money offers them a sense of control given the banking sector's recent history which has caused many a customer bouts of financial anxiety faced by the stimuli of both industry competition and regulatory pressure.

III. Economic Development

According to (Alipour, 2014) Banks as one of the key financial intermediaries play an important role in the communication between the owners of surplus funds and required groups to the resources to development and advance their economic activities. In fact, banks collect the surplus resources in the hands of people on the supply side of the money market and then allocate resources among different required sectors.

According to (Ongore&Kusa, 2013) Commercial banks play a vital role in the economic resource allocation of countries. They channel funds from depositors to investors continuously. They can do so, if they generate necessary income to cover their operational cost they incur in the due course. In other words for sustainable intermediation function, banks need to be profitable. Beyond the intermediation function, the financial performance of banks has critical implications for economic growth of countries. Good financial performance rewards the shareholders for their investment. This, in turn, encourages additional investment and brings about economic growth. On the other hand, poor banking performance can lead to banking failure and crisis which have negative repercussions on the economic growth.

As (Zhang & Daly, 2013) mentioned GDP is one of the most commonly used macroeconomic variables to measure cyclical output effects within an economy where GDP is expected to influence numerous factors related to the supply and demand for loans and deposits.

Favorable economic conditions will affect positively on the demand for banking services, but may have either positive or negative influence on bank profitability levels. In general we expect a positive relationship between GDP and bank performance.

IV. Individual Income

(Nwanko, Ewuim, &Asoya, 2013), has stated that a tri-lateral relationship among savings, consumption, and income is the key determinant of the amount of personal savings. On the first side, given a certain income, the decision to buy goods and services negatively affects savings. Savings passively adjust to consumption and income. They represent a resource slack, buffering shocks in income and consumption desires.

(Tareq, 2015) also stated that, Income is the most important factor that influence. Higher the income greater will be the ability to acquire temporary surpluses which can be deposited with the banks as well as the need to hold financial assets as a means of payments. It is evident that capacity of the poor to save is much higher than was anticipated. The individual savings behavior of the households not only depends on his income but also on the income of others.

V. Money Supply

According to (Al-Qudah&Jaradat, 2013), Money supply is a measure of the total amount of money in an economy. Money supply (M2) is the summation of currency in circulation, demand deposit, time deposit and saving deposit. Money supply is the amount of money within a specific economy available for purchasing goods or services. The broad definition of money supply (M2+) is adopted which includes currency in circulation, demand deposits, quasi-money and foreign currency deposits. The money creating activities of the deposit money banks impact directly on money supply and given that the central bank is responsible for controlling money supply in an economy, it is important to evaluate the role of these banking institutions on the convergence process. Excess money supply, whether created though the direct or indirect channels, influences economic activity (growth) and may provide downside risks on macroeconomic stability, impacting negatively on inflation, interest rates and exchange rate.

VI. Investment

(Tuyishime, Memba, &Mbera, 2015) stated that, the growth of any economy depends on capital accumulation, which in turn depends on investment and an equivalent amount of savings to match it. Two key issues for developing countries are how to stimulate investment and increase the level of saving to fund increased investment.

VII. Age Dependency Ratio

As (Hyung, 2013) pointed out, due to longer life expectancy and sustained lower fertility rate, characteristics which are seen in most developed and rapidly developing countries, old age dependency ratio is gradually increasing, implying lower saving rate. The youth-dependency thesis which argues that higher ratio of the youth in population distribution will induce lower saving rate. The presence of children also induces households to increase consumption and decrease saving.

(Loichinger, Hammer, Prskawetz, Freiburger, &Sambt, 2014) Stated, the most commonly used dependency ratios are the demographic young age and elderly dependency ratio. The young age dependency ratio relates the number of persons below the age of 20 to the number of persons aged 20-64, the old age dependency ratio the number of persons aged 65+. A large part of any population is usually economically dependent in the sense that a part of its consumption is financed through transfers from other persons. The dependent population consists most notably of children and retired elderly persons. A group of indicators which provide aggregate information on the extent of demographic change in a given society are economic dependency ratios. The needs of children are mainly covered through transfers from the parents, the needs of elderly persons mainly through public transfers from the population which is active in the labor market.

2.2.2. Internal Factors

I. Information Technology

New technology is an essential feature of international banking systems, and yet there is a range of social, political and economic factors that can constrain the uptake and use of advanced technology in developing countries like Ethiopia.

According to (Banson, Sey, & Sakoe, 2012), technology has become an intrinsic part of banking, making it easier and cheaper to develop and deliver financial services. As a consequence of the highly technological environment developed around the world in the banking industry, the expansion of distribution channels for financial services relies on a very complex network of partnerships. There is a tremendous opportunity for banking technology to connect lower-income citizens at reduced costs and bring millions of consumers to the formal financial marketplace through electronic channels.

According to (Alipour, 2014) in recent years, Advances in information technology in the banking industry have radically changed the banking practices and customers can do their banking activities as 24 hours. Internet banking allows customers through bank website have internet banking transactions as extensive and faster and less cost than traditional branches without restrictions of time and space. The speed of development of informatics industry causing major changes in the form of money and resources transaction systems in the areas of banking and new concept of banking has emerged as electronic banking.

According to (ZillurRahman, 2015), Information technology (IT) and the internet have emerged as a dynamic medium for channeling transactions between customers and firms in virtual market places. Due to this, bank customers access their bank accounts, transfer funds, review transaction details, pay their bills online, and conduct transactions electronically virtually anytime and anywhere. Additionally, there are several other advantages of this, such as cost savings for banks and convenience for customers by 24/7 access to their account. In many cases however, both service employees and customers were averse to adopting new technology.

As (Al-Ajam&Nor, 2015), stated that Internet banking provides many benefits not only for banks, but also for customers. Customers can conduct financial activities from anywhere at any time. Ease of transactions and avoidance of queues and restrictive branch operating hours and internet banking is cheaper than traditional banking. At the same time, banks could provide lower cost financial services, and enhance customer satisfaction.

According to (Shereif Mahdi & Dawson, 2007) Worldwide, banks continue to invest heavily in IT, for example in telecommunications networks and SWIFT or Bank's Automatic Clearing House (ACH). They also link overseas branches with their headquarters in order to enable banks to communicate business effectively across the globe regardless of time and distance.

According to (Pramod, Li, &Gao, 2012), Information technology creates new opportunities for banks in the way they organize product development, delivery and marketing service. Although IT has been used to improve regular banking activities such as speed transactions and database management, the threat of IT being used for illegal activities especially money laundering becomes both a practical issue and a research focus.

According to (Nelson, 1999) Technological innovations reduced both geographic and economic barriers to competition, and created an added dimension of uncertainty with in the industry Automated Teller Machines (ATMs) significantly reduced geographic barriers and helped banks better serve their customers.

According to (Malhotra& Singh, 2007) Bank deposits (Deposits) may influence the probability to adopt Internet banking. Banks that are less reliant on traditional sources funding may pursue a more aggressive overall business strategy, including the adoption of Internet banking.

However the positive relation between the deposits base and the decision to adopt electronic banking. A bank can generate Internet transactions if it has sizeable customer base. Banks oriented on client base (i.e. deposits of the bank) respond more actively to

adoption of electronic banking and adopt new products quicker than the banks with a small number of deposits *ceteris paribus*.

Banks with relatively high expenses for premises and fixed assets (Expenses) may view adoption of Internet banking as a way to reduce expenditures devoted to maintaining a branch network. The adoption of Internet banking should appear more attractive to the banks experiencing higher fixed expenses. Thus, the expected sign for Expenses is positive.

II. Competition among Banks

Banks play a key role in improving economic efficiency by channeling funds from resource surplus unit to those with better productive investment opportunities.

According to (Zewdu, 2014) the entry of the private sector in the financial sector has created better opportunities for enhanced access to financial services in the country directly through their operations and indirectly through the spillover effect on public financial institutions. The emergence of private banks with the spirit of competition and emphasis on profitability has led to major shift in the focus of public banks towards a more profit oriented approach. The Government has restructured these banks granting full operational autonomy, recapitalizing them and cleaning their balance sheets from bad debts accumulated in the previous socialist directed credit delivery system.

According To (Eshetu, Tesome, &Abebe, 2013), to enhance the role of banks in an economy, competition is an important driving force; without competition, it is improbable to bring about efficiency and foster financial sector development. In other words, insufficient competition may result in substantial social losses on account of higher price, higher transaction cost, lower credit supply, lack of innovation and poor service quality. Although competition has a positive effect on efficiency and economic growth, there are certain characteristics Intensive competition may lead to excessive risk taking by banks, which would result in deterioration of the quality of banks 'lending portfolio and balance sheets. If banks suffer deterioration in their balance sheets and so have a substantial contraction in their capital, they will have fewer resources to lend,

hence a decline in investment spending, and slower economic activity. If the deterioration in bank balance sheets is severe enough, banks will start to fail, and fear can spread from one bank to another. Depositors, fearing for the safety of their deposits and not knowing the quality of banks' loan portfolios, withdraw their deposits to the point that multiple bank failures occur, whose ultimate consequence would be severe contraction in economic activity. This suggests the need for some degree of market power in achieving stability and efficient allocation of resources in banking industry.

According to (Rakesh, Arun, & Varun, 2015) Competition is particularly important in banking sector as it invests the savings of a society. Banking competition is expected to remove cost inefficiencies and thus provide welfare gains and help in economic growth. Regulators are particularly interested in banking competition and central banks take measures to alter competitive levels for the greater good of the economy. Heightened competition should encourage banks to reduce operating costs and hence eliminate inefficiencies in the banking industry.

III. Saving Interest Rate

According to (Tareq, 2015) Interest rate on deposit has a profound impact on the savings mobilization. People deposit with the banks with the expectation of getting some return. Low interest rates discourage savings. In this model average interest rate has been taken. Interest rate for both urban and rural has been assumed to be the same.

According to (Khalai, Ondiek, & Musiega, 2014) Low rates of interest on deposits have always been an obstacle to savings mobilization. The classical theory of interest otherwise called the demand and supply theory of interest, maintains that the rate of interest is determined by the demand for and the supply of funds by businessmen and households respectively. The supply of funds is governed by the time preference and the demand for capital by the expected productivity of capital. The common peculiarity of monetary theories of interest is that the interest is a monetary phenomenon. And monetary theorists believed that interest rate varies inversely with supply of money and positively with the purchasing power (value) of money. The defenders of the monetary

theories of interest argued that when supply of money increases, purchasing power (value) of money falls and, hence the rate of interest also come down.

(Mashamba, Magweva, & Gumbo, 2014) stated that to encourage private savings, the real interest rates should be positive. Furthermore, innovative saving schemes and investment bonds should be introduced to mobilize resources. These savings are ultimately channeled to the productive sectors of the economy and this promotes economic growth. In light of this countries with repressed financial system find it hard to raise deposits as interest rates on deposits are controlled by the government, hence the need for financial liberalization. They showed that financial liberalization led to higher interest rates which equated the demand and supply of savings. The authors expressed their view that higher interest rates lead to increased savings and financial intermediation in improving the efficiency of savings and investment. The higher real interest rates increase the extent of financial intermediation which in turn raises the rate of economic growth in developing countries. The growth of any economy depends on capital accumulation, and this requires investment and an equal amount of saving to match it.

IV. Number of Branches (Accessibility)

In recent years and particularly with the entry of private banks into the era of activities we have been seen the fierce competition in the banking subsidiaries establishing that the situation has become more competitive edge. The number of branches can be influenced in the amount of bank deposits and banks are more successful in mobilizing resources that the number of its branches more than others. Today, an increasing number of bank branches and credit institutions and the development of its activities, the necessity for cooperation between banks in order to create harmony between requirements and economic development and the banks activities and banking developments is felt.

And banks play effective role in investment in the economic development and in productive. Increasing the number of branches and the increasing of the volume of the bank turnover nationwide, banking system became as a fundamental goal of economic development (Alipour, 2014).

(Tareq, 2015), also stated that, Expansion of bank facilities increases the amount of aggregate savings in the economy. As volume of economic activities increases in a community the potentiality of establishing bank branches increases, which ultimately increases the level of voluntary savings of the households.

According to (Tegene, 2012) unrestrained access to public goods and services is an essential condition of an open and efficient society. It is argued that as banking services are in the nature of a public good, it is essential that the availability of banking services to the entire population without discrimination should be the prime objective of public policy of any country. Expectations of poor people from the financial system is security and safety of deposits, low transaction costs, convenient operating time, minimum paper work, frequent deposits, and quick and easy access to credit and other products, including remittances suitable to their income and consumption.

2.3. Saving Mobilization Strategy

According to (Martin , 2013) financial institutions are actively pursuing innovations in areas such as mobile technology, information management, and agent distribution systems, which show promise of lowering the costs of servicing mass numbers of low-balance deposit accounts. Over the next several years the microfinance community will likely learn whether lowering transaction costs for both savers and providers not only increases access, but also facilitates greater and more effective use of savings accounts by poor people.

I. Transactions Costs of Clients

(Martin, 2013) states that, despite the expected long-term benefits of savings, using savings accounts may cost clients either directly (e.g. Travelling to a bank branch or paying user fees) or indirectly (e.g., the opportunity cost of undergoing financial management trainings). It has long been recognized that transportation costs in particular may be responsible for a large share of usage and uptake shortfalls.

II. Transactions Costs of Providers

According to (Martin, 2013), it is important to minimize the costs faced by savings providers in order to ensure the sustainability of savings products, pass on lower costs to clients who may be unable to afford financial services, and pay higher interest rates to clients that already hold savings accounts. The general consensus in the industry appears to be that provider costs are still too high, meaning that their costs must be covered by soliciting clients willing to keep higher balances. Unsurprisingly, the result is the exclusion of millions of the poorest potential clients, who nevertheless demand access to savings.

III. Lack of Trust

(Martin, 2013) affirms that, trust is key to mobilizing savings. First-time clients rarely trust an institution immediately to entrust it with hard earned cash. In the developed world, lack of trust in financial products in the wake of the financial crisis has led many consumers to avoid such products entirely. There is usually some hesitancy or suspicion on the part of local populations in developing as well as developed countries who are underexposed to financial services: [Clients] often wonder why can't you just give me something instead of teaching me how to save?'

IV. Education Challenges and Illiteracy and/or Innumeracy

According to (Martin, 2013), financial literacy can be viewed as an important potential outcome of savings programs. However, lack of basic education including financial literacy can also impede the establishment of such savings programs in the first place, leading to low uptake and usage rates. Part of the difficulty may be due to low literacy rates in most of the developing world:

2.4 Empirical Review

Under this section, previous empirical studies on the determinants of commercial banks deposit mobilization and related studies in developed and developing countries like in Ethiopia and outside was reviewed.

The past models for banks deposit have been further developed in recent times and empirically tested worldwide. Many empirical studies have estimated the effects of various economic and demographic variables on bank deposit in cross-country, using time series and panel data samples. The literature suggests that there are a number of factors that crucially determine the commercial banks deposit including Interest Rate, Inflation, Gross Domestic Product(GDP) ,Equity to Asset ratio, Liquidity ratio or Liquidity risk, Loan to Asset ratio or Credit risk, Return on Asset or ROA and Bank size. The significance of each factor, however, differs across group of countries, countries, and time period

2.4.1. Empirical Reviews about Determinant of Commercial Banks Deposit outside Ethiopia

Among the empirical analysis done by different authors with a different recommendation with to locally selected and one overseas and they come up with different outcomes.

Herald Finger and HeikoHesse (2009) had written a working paper, which empirically examines the demand for commercial banks deposits in Lebanon, a regional financial center. They classified the variables into two, i.e. macro and micro level variables. At the macro level, they found that domestic factors such as economic activity, prices, and the interest differential between the Lebanese pound and the U.S. dollar are significant in explaining deposit demand, as are external factors such as advanced economic and financial conditions and variables proxy the availability of funds from the Gulf. At the micro level, they found that in addition, bank-specific variables, such as the perceived riskiness of individual banks, their liquidity buffers, loan exposure, and interest margins, bear a significant influence on the demand for deposits. They have used quarterly data from 1993 to 2008. They have estimated a number of vector error correction model

(VECMs) to take account of co-integration in the non-stationary time series. They have collected the data for their study from 50 Lebanon banks.

They found that both domestic and international factors help explain deposit demand. Among domestic variables, they found that the coincident indicator for real economic activity in Lebanon, consumer prices, and the interest differential between the local currency and the U.S. dollar matter. Among the external variables, advanced economy economic and financial conditions appear significant (especially advanced economy industrial production and the Goldman Sachs Risk Aversion Index), as do some variables proxy the availability of funds from the Gulf. While both domestic and external variables are significant in explaining deposit demand, impulse response functions and variance decomposition analyses underscore the relative importance of the external variables. Regarding bank specific variables they found that the banks' perceived riskiness (z-score), their liquidity buffers, loan exposures and interest margins all bear a significant influence on deposit growth at the bank level, controlling for domestic and external macroeconomic factors.

Determinants of commercial Banks liquidity in Slovakia, This article was written by (PAVLA). It identifies the determinants of liquidity of Slovak commercial banks deposit growth and empirically analyses them. Finally it describes the result of the study and recommends how states realize deposit growth.

By considering bank specific and macroeconomic data over the period from 2001 to 2010 and analyses them with panel data regression analysis. He has found that bank liquidity drops mainly as a result of the financial crisis. Bank liquid assets decreases also with higher bank profitability, higher capital adequacy and with the size of bank. Liquidity measured by lending activity of banks increases with the growth of gross domestic product and bank profitability and decreases with higher unemployment. Key interest rates, interest margin, rate of inflation and the level of non-performing loans have no statistically significant effect on the liquidity of Slovak commercial banks.

An empirical study made by (Muhammad & Amir, 2013), on commercial banks in Pakistan with the aim of identifying the key determinants of banking liquidity. The study

examines the bank specific and macroeconomic determinants of commercial banks liquidity in Pakistan. The sample of the study consists of 26 Pakistani commercial banks. The study period consists of 5 years from 2007 to 2011, which also covers the period of the Asian financial crisis 2008. Bank' s liquidity is measured by two ways; one is cash and cash equivalents to total assets (Li) and second is advances net of provisions to total assets (L2). Two models are estimated based on these measures of liquidity. The results of model 1 (Li) indicate that the bank specific fundamentals (NPL and TOA) and monetary policy interest rate positively determine the bank liquidity whereas inflation has a negative impact. Bank liquidity measured by Li is negatively and significantly affected by the financial crisis. The results of model 2 (L2) indicate that the bank size and monetary policy interest rate positively and significantly determine the bank liquidity.

Lomuto Joel Katalai (2008) had written a research paper, which empirically examines the determinants of Kenyan Commercial Banks Deposit growth. Its main objective was to analyses the factors that influence Commercial banks deposit growth in Kenya.

Time series data covering 1968 - 2006 was analyzed. First, the time series characteristics of the data were assessed using unit root tests to examine how stationary of each variable. Secondly, the test for co integration was performed to determine the long run relationship of the non-stationary variables. Lastly, estimated model was a single regression equation with deposit as the dependent variable and explanatory variables as deposit rate, nominal exchange rate, investment income ratio, number of cheques cleared (used as proxy for innovations in the financial sector), real GDP, ratio of monetary GDP to total GDP and Structural Adjustment Programs (SAPs). Estimation was done using Ordinary Least Squares (OLS) technique and Econometric software STATA13 statistical package.

Analyzed results showed that lagged Commercial bank deposits and all the other variables including Structural Adjustment Programs (SAPs) significantly affect Commercial bank deposit growth in Kenya. Based on these results, several policy implications were drawn that aim at encouraging deposits growth by Commercial banks for the benefit of the domestic deposit mobilization. First, growth-enhancing policies promote deposits growth. Second, the stability of macroeconomic system should be

maintained. Lastly, financial sector innovations encourage deposit growth in Commercial banks in Kenya as people reduce their demand for carrying cash.

Factors influencing deposit level of commercial Banks in Kisumucity (Kenya) this article was written in 2013 by (Ndichu, Ooko, & James, 2013). The main objective of this study was to investigate the factors that influence liquidity level of commercial banks in Kisumu City. According to the authors, Liquidity is an important determinant of financial distress, without liquidity a bank cannot meet the deposit withdrawals and satisfy customer loans and high liquidity level will mean a decline in returns to commercial banks, thus liquidity level becomes a challenge to commercial banks and investigating the factors influencing it comes in handy. The researcher chose to study on commercial banks due to availability of needed data and convenience. All 27 commercial banks operating in Kisumu City were investigated. Out of the 27 questionnaires distributed to the heads of finance, 26 questionnaires were returned successfully filled giving a response rate of 96.29 %. Exploratory survey research design was used in the study. Data was analyzed using descriptive statistics; Pearson Correlation analysis and multiple regression analysis were used to determine the relationship between the factors and the liquidity level of banks. The study found that that 42.2 % the variations in liquidity level are explained by changes in the various factors notably; contingency planning, profitability, banks major obligations, management policies, credit rating, monetary policies, government expenditure and Balance of payment status with 57.8 % of the variation being explained by other factors external to the model.

From the study they concluded that there are other factors, other than Central Bank of Kenya regulations, which influence liquidity level of commercial banks in Kisumu City. And finally the researcher recommends a further study to be conducted based on various geographical areas

Macroeconomic determinants of Nigeria banks deposit, this article was written in 2014 by Nathanael O. Eriemo the main objective of this study was to analyze the effects of various macroeconomic indicators that influence bank deposits in Nigeria. The paper empirically examines the macroeconomic determinants of bank deposits in Nigeria using

data covering the period between 1980 and 2010. It tries to analyze the effects of various macroeconomic indicators, on the performance of banks within the context of deposit mobilization of banks and its determinants. The economic analysis result showed that in Nigeria, bank investment, bank branches, interest rate and the general price level are important determinant of bank deposit. The Vector Error Correction and Johansen co-integration test indicates a long run relationship among the variables and economic analysis result showed a satisfactory speed of adjustment.

It is thus recommended among others that both the banks and the monetary authorities should take these factors into serious consideration when attempting to improve the deposits of banks and this will go a long way in increasing aggregate investment.

Factors determining commercial banks deposit an empirical study; this article was written by (Wubitu Elias 2012). The main objective of the study was to determine factors that affect commercial bank deposits. The study empirically examine both endogenous and exogenous determinant factors which affect bank deposit in Commercial Bank of Ethiopia using time series data covering the period 2000 to 2011.

Accordingly, the researcher concluded that both exogenous and endogenous factors affect the deposit mobilization effort of Commercial Bank of Ethiopia positively. Since the bank is totally owned by government, most of its deposit comes from government budget. In addition to getting access to government budget, the bank also mobilizes funds from its customers and profit from operation. Among the three kinds of deposits, (Demand deposit, fixed time deposit and saving deposit), saving deposit is mainly used by the bank and its customers.

Shemsu (2015) focused on Determinants of commercial bank deposits: A case of study of commercial bank of Ethiopia. The study aimed to identify and evaluate those factors affecting bank deposit in general by taking Commercial Bank of Ethiopia as evidence. Accordingly, the researcher adopts mixed research approach. Time series data covering 1998 - 2014 was analyzed and questionnaire is used to gather information from the employees of commercial bank of Ethiopia with deposit as the dependent variable and explanatory variables as deposit interest rate, overall inflation rate, number of branch

opening, gross domestic product, individual foreign remittance and dummy variable. Estimation was done using Ordinary Least Squares technique by E-views7 statistical package.

The results from economic analysis showed that all the explanatory variables were positively correlated with the explained variable. Among these variables, branch opening is an important strategy for deposit mobilization, it is highly significant than others. Individual foreign remittance from Diasporas is also next to branch opening is significantly affects CBE's deposit. The other variables affect positively and can increase CBE's deposit.

Andinet (2016) the aim of this study is to examine factors influencing deposit mobilization in private commercial banks in Ethiopia. In doing so, the study adopted quantitative methods research approach using secondary data. The study had found variables that can affect the total deposits of the banks.

Seven variables are regressed with the dependent variable i.e. total deposit. The explanatory variables are 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). The data for these variables were collected from the respective private commercial banks' financial statements, national bank of Ethiopia, central statistical authority and MOFEC of the sample year 2005 up to 2015. Different diagnostic test were performed to know whether the model is valid or not. All the tests were valid and eventually regression analysis was performed using E view statistical package. The result from regression analysis showed that number of bank branches, deposit interest rate, net interest margin and GDP were significantly and positively correlated with the explained variable. Lagged value of bank deposit was significantly and negatively correlated with total deposit. However, liquid asset to deposit ratio and inflation rate were insignificantly negatively correlated with bank deposit. Finally the study had recommended what should be done to mobilize more deposits.

Kibebe(2016) the research tried to determine factors that affect deposit mobilization, the associated costs of deposit mobilization in private banks. Therefore, the study adopts

mixed approach to gather the data. The primary data is gathered using questionnaire. Sampling method of the primary data is purposive sampling technique. While the secondary sources of data were extracted from annual reports of all private commercial banks of Ethiopia, data from National Bank of Ethiopia (NBE) and from Central Statistical Authority (CSA). Regarding the secondary data, the study used time series data from 2000-2014 for analysis made using Classical linear regression method. The study shows that, Age dependency ratio, Investment and money supply, are the most significant factors of deposit mobilization activity. The other variable such as Per capita income has insignificant power to influence the dependent variable. As a result, the study recommended that, Government should increase investment so as to promote economic growth to mobilize deposits since there exists a positive relationship between Deposit and Investment. And private banks ought to increase number of branches to mobilize more resources.

Dereje (2017) the purpose of this study is to investigate determinants of deposit mobilization in private commercial banks of Ethiopia using panel data of six private commercial banks from year 2002 to 2012. The study used both quantitative and qualitative research approach. Secondary financial data are analyzed using multiple linear regressions models for the six banks deposit. Fixed or random effect regression model was applied to investigate the impact of bank branches, exchange rate, Real Gross domestic product, Capital Adequacy and Liquidity on private commercial banks deposits. Besides, the study used primary data analysis to solicit managers' perception towards the determinants of private commercial banks deposit mobilization. The empirical results from regression analysis showed that bank branches, exchange rate, and real gross domestic product affects deposit of the bank positively whereas, capital adequacy and liquidity affects the deposit of the private banks negatively. This implication show that better capitalized banks tend to create less liquidity that leads to mobilize little deposit amount. On the other hand the feedback of respondents depicted that managerial efficiency, government policy, convenience of bank office, technology, bank size and awareness of savings by society affected deposit level of the banks significantly. Thus, management bodies of private commercial banks should strive to strengthen the

identified significant factors and government bodies should also see the adverse effect of tight polices imposed on the existing private commercial banks as well as for the new entrant banks.

Giragn (2015) this paper then explores the theoretical as well as empirical analysis of those factors having an impact on deposit volume in banks and even assesses which ones are more significant or less significant. To do the practical investigation in terms of commercial banks in Ethiopia, the researcher collected the relevant data from annual reports of twelve years (2001/2-2012/13) and from questionnaires and interviews made to senior bank officers of seven banks. The data is analyzed through the econometric analysis using SPSS software.

The study reveals that the branch expansion, the money supply, the exchange rate of Birr to USD and general inflation are the most significant factors of deposit mobilization activity. The other variables-deposit rate and real per capita GDP growth rate have insignificant power to influence the dependent variable. In this research, as opposed to the conventional economic theory, the deposit rate is found to have negative relation against the deposit volume for the period under study. The study also exposes that the deposit mobilization activity is becoming challenging, its associated costs are escalating and the competition is also becoming stiff-the outcome of the competition favoring the big size state banks. Beyond that the government policies are also favoring the latter in an effort to mobilize huge fund for a national development activities. The research recommends that banks have to do much in branch expansion studying potential deposit areas.

Hibret (2015) primarily aimed at determining the short and long run impacts of determinant factors on deposit growth of commercial bank by taking Commercial Bank of Ethiopia for the period 1974/75 to 2013/14 using Vector Error Correction Model (VECM). The study also checked the causal relationships that exist between deposit growth and its determinant factors employing test of Granger causality. In the empirical VECM model, control variables (Economic Growth, Inflation, Interest Rate, Exchange Rate, Population Growth and Branch Expansion) were included to enable *ceteris paribus*

interpretation of the relationship and impact on the growth of deposit in commercial bank of Ethiopia.

The estimated results suggest that interest rate had positive but insignificant impact on deposit growth both in the long run and short run. While Exchange rate and branch expansion significantly increases banks deposit contemporaneously both in the short run and long-run. Population and Economic growth also had a positive relationship with deposit growth and it was significant in the long run but insignificant in the short run. However, Inflation had positive and significant impact on deposit in the long-run and negative impact in the short run. Using test of granger causality, the study found unidirectional causality that runs from deposit to inflation, from exchange rate deposit, from deposit to interest rate, from population growth to deposit without any feedback response. The finding also indicated that there was bidirectional causality between branch expansion and deposit and economic growth in Ethiopia. This implies that deposit can affect economic growth through investment.

The study by Bahredin (2016) aimed to find the determinants of commercial banks deposit growth in Ethiopia. In order to achieve this objective quantitative research approach has been used. Target population was all banks that engage in commercial activities and registered by National Bank of Ethiopia to act. Consequently, eight banks, out of the eighteen commercial banks in existence as at 2014, have purposively been selected for the study. The panel dataset for the study used secondary source consisted of annual data spanning from 2000 to 2014 gathered from the National Bank of Ethiopia time series database and commercial banks financial database. The dependent variable used to this study was bank deposit growth. Explanatory variables used in this study were inflation, deposit interest rate, loan to deposit ratio, bank branches, money supply growth, per capita income growth, and lagged bank deposit. Different diagnostic tests were conducted to check the appropriateness of the model. The random effect

Technique had been applied to find out the most significant variables. According to the final results achieved by applying panel data techniques, bank branches and per capita income growth influence was positively and statistically significant on bank deposit

growth; whereas, lagged bank deposit and loan to deposit ratio influence was negatively and statistically significant on bank deposit growth. Money supply growth had insignificant negative influence on bank deposit growth; whereas deposit interest rate and inflation had insignificant positive influence on bank deposit growth. The study implies that stimulation of economic growth; banks presence and financial intermediation were most important factors that affect bank deposit growth.

(Gemed,2012)Factors Determining Commercial Banks Deposit An Empirical Study On Commercial Bank of Ethiopia. The articles used data from commercial banks of Ethiopia in doing the research through mixed methodologies of investigations. The data of total deposits of commercial bank of Ethiopia for twelve years regressed against three independent variables namely deposit rate, number of branches and inflation rate.

The type of the data for this study is time series including the twelve years of data in regression analysis. This model is multiple regressions Model with one dependent variables and three independent variables.

The dependent variable of this multiple regression is total deposit of commercial banks which is indicated by the symbol LNTD.

Whereas the Independent variables are deposit rates inflation rate and branches of commercial banks, which are indicated by the symbol DR, INFRATE and LNBR respectively. Two dummy variables, D2002 and D20011 are added in the model to have normal distribution among the residuals.

Deposit rate (DR) and inflation rate (INFRATE) had positive insignificant effect on the commercial banks deposit. However, the branches of commercial bank (LNBR) had positive coefficient estimates and significant at 5% significant level, therefore branch expansion has positive significant effect on commercial bank deposit.

(Adem,2015) Determinants of commercial banks deposit mobilization in Ethiopia: in case of commercial Bank of Ethiopia, The researcher adopted mixed research approach. The rational of using such a mixed approach is to gather data could not be obtained by adopting a single method. Regarding to the qualitative data: questionnaire's is used to

gather information from the employees of commercial bank of Ethiopia particularly for those employees who actively participated in deposit mobilization tasks in the commercial bank of Ethiopia city branches.

Regarding to the secondary data; time series data covering 1998-2014 was analyzed. First the time series data were assessed using descriptive statistics for the variables as well as the test for Heteroskedasticity, autocorrelation and normality testing to know if the assumption of CLRM violated or not.

Second estimated model was a single regression equation with deposit as the dependent variable and explanatory variables as deposit interest rate, overall inflation rate, number of branch opening, gross domestic product, individual foreign remittance and dummy variable.

Estimation was done using ordinary least square technique by E-views7 statistical package. The result from economic analysis showed that all explanatory variables are positively correlated with the explained variables. Among these variables, branch opening is an important strategy for deposit mobilization, It is highly significant than others. Individuals' remittance from diaspora is also next to branch opening is significantly affects Commercial Bank of Ethiopia deposit. The others are affects positively and can increase commercial banks deposit. And finally the study has recommended what should be done to encouraging deposit growth by commercial bank of Ethiopia for the benefit of the domestic deposit mobilization.

Finally the researcher after assessing other researcher empirical literature in Ethiopian case and abroad Ethiopia methodology, technique and gaps on the relevant variables that are not addressed in those studies and uses 18 year time serious data estimated by using OLS model of CLRM.

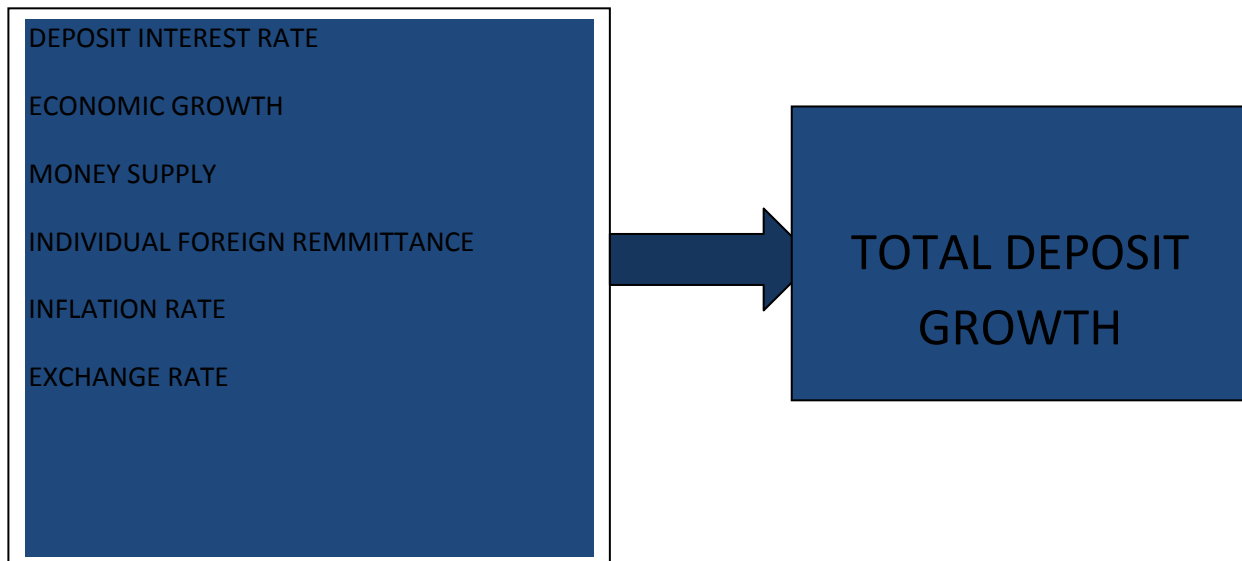
2.5. Conceptual Framework

From the above theoretical and empirical literature reviews the main factors that determines the deposit growth of private Commercial banks is divided in to both macro and micro economic factors. The study has quantified how these variables are determining the deposit of Commercial banks in Ethiopia. The researcher will reveal that there are independent factors determining deposit mobilization performance of private commercial Banks in Ethiopia (the dependent variable). Deposit is a deliberate effort by relevant organ vested that right by the central bank. It is normally not brought about by a single variable but rather an interaction of various networks of different variables and factors. Among the factors Deposit interest rate, inflation rate, Real GDP, Individual Foreign Remittance, Money supply, Exchange Rate are those claimed to affect the deposit Growth of private commercial Banks activity.

The Conceptual framework of these variables is a guide to this research and shows how they determine deposit performance of private commercial banks in Ethiopia.

INDEPENDENT VARIABLE

DEPENDENT VARIABLE



CHAPTER THREE

RESEARCH METHODOLOGIES

3.1 Introduction

This chapter exclusively covers the research approach, the type and source of data and the research design. It explains the type of data used for the study and the techniques employed in identifying the factors that determines the private commercial Banks deposits, and offers recommendation for the problem.

3.2 Research Approach and Research Design

The research design is focused on how data sources were collected and analyzed. In order to triangulate and getting deep analysis in the study area and would come up with optimal solution to the proposed challenges.

The study examines the cause and effect relationships between growth of deposit and its determinant, therefore it is an explanatory research and the problem identified factors affecting the outcome having numeric value, it is quantitative approach.

Since this study was designed to examine the relationships between deposit growth and its determinants, a logical reasoning either deductive or inductive is required. Induction is the process of reasoning to reach general principles by looking at a set of facts. Whereas deduction is the process of carefully thinking about known facts to reach an answer or decision about a particular questions. Besides, deductive reasoning is applicable for quantitative research whereas inductive reasoning is for qualitative research (Admas et al., 2007). Thus, due to quantitative nature of data, the researcher used deductive reasoning to examine the cause and effect relationships between bank deposit and its determinants in this study.

Therefore the researcher had employed quantitative research methodology and techniques using an econometric model and Descriptive Quantitative & Qualitative

Analysis in order to address the research questions. Multiple regression using OLS (Ordinary Least Square) estimates of the dependent (Total Bank Deposit) and with five independent variables, Inflation rate, Deposit Interest Rate, Money Supply, Real GDP, Individual Foreign Remittance, Exchange rate were employed. It follows time series data covering the period from 2000 through 2017. Hence, considering for generating a clear picture about the subject of the study, the raw data interpretation and analysis laid on descriptive and analytical statistical methods.

3.3 Data Collection Method and Sources

This research used secondary panel data set for Ethiopian private Commercial banks between 2000 and 2017, for Eighteen years. Seven private Commercial banks operating in Ethiopia during the period under the study were included in the panel data set. The researcher prefers to use panel data since panel data can take heterogeneity among different units into account over time by allowing for individual-specific variables. Besides, by combining time series and cross-section observations, it gives more informative data. Accordingly, the researcher employed secondary sources of data that is panel in nature. The researcher preferred a secondary source of data since it is less expensive in terms of time and money while collecting. And also, it affords an opportunity to collect high quality data (Saunders et al., 2007) cited in (Gadise, 2014). Secondary data was obtained from the audited annual financial statements of the concerned private commercial banks in Ethiopia. These data include both bank internal and external factors. Bank internal factor was collected from annual reports and statement of accounts of the selected banks. However, data on external factors was collected from the National Bank of Ethiopia (NBE) and Ministry of Finance and Economic Development (MoFEC), National Planning Commission, and Central Statistical Authority (CSA).

3.4. Population Size and Sampling Techniques

As of June 2017, there are eighteen banks in Ethiopia. These are Commercial bank of Ethiopia, Awash International Bank S.C, Bank of Abyssinia S.C, Wegagen Bank S.C,

United Bank S.C, Nib International Bank S.C, Dashen Bank S.C, Development Bank of Ethiopia, Cooperative Bank of Oromia S.C, Lion International Bank S.C, Zemen Bank S.C, Oromia International Bank S.C, Buna International Bank S.C, Berhan International Bank S.C, Abay Bank S.C, Addis International Bank S.C, Debub Global Bank S.C, and Enat Banks S.C. However, from all the above listed banks, Development Bank of Ethiopia and Commercial bank of Ethiopia are not private commercial bank.

As noted by (Kothari, 2004) good sample design must be viable in the context of time and funds available for the research study. Accordingly, this study employed purposive sampling technique to select the required sample of banks from the above listed banks since it is viable in line with time and funds available for this study. This sampling method is a form of non-probability sampling in which decision concerning the individual source of data to be included in the sample is taken by the researcher, based upon a variety of criteria. The major limitation of purposive sampling is making description rather than generalization (Dawson 2002). The researcher considers that the sample size is sufficient to make sound conclusion about the population as far as it covers around 40% of the total population. Moreover, the big portion of total deposit of private commercial banks is found in the banks selected as sample i.e. banks established before 2006 G.C

The selection criteria set by the researcher was first, the required banks are only selected private commercial banks in Ethiopia. Second, those commercial banks should have financial statements for consecutive Twelve years. Third, the researcher chose this sample because they play a major deposit share in the entire research period.

Based on such criteria, seven private commercial banks out of sixteen private commercial banks operating until 2006 G.C are selected. These banks included Awash International Bank S.C, Dashen Bank S.C, Bank of Abyssinia S.C, Wegagen Bank S.C, United Bank S.C and NIB International Bank S.C. Cooperative Bank of Oromia S.C.

To this end, the sample size for this study is not less than specified sample size required for ones" study. That is why this study used only seven -experienced private commercial banks in Ethiopia for twelve years. The cut date for the sample size is based on the fact

that private commercial banks starts computation with state owned banks starting from 2005 (Sime et al., 2013)

3.5. Multiple Regression Model

The type of the data for this study is time series data for Eighteen years of private commercial Banks deposit from 2000-2017. The model is multiple regression models with one dependent variable and with six independent variables

3.6. Model Specification and Justification of Variables

The literature reviewed in the previous chapter identified the different factors determining deposit growth in various countries in Ethiopia and outside Ethiopia. This section presents a framework of analysis on the basis of these studies, and involves adopting a model that would help to demonstrate the responsiveness of certain key variables that influence Private Commercial banks deposit growth in Ethiopia.

3.6.1. Justification of the Variable

Dependent variables and Independent variables. In this study, private commercial banks deposit has been used as the dependent variable while uses Deposit interest rate, inflation rate, Number of Bank Branches, Real GDP, Individual foreign remittance, Money supply uses as Independent(Explanatory Variables).

- **Total Deposit (DEPO):** represents the total accumulated amount of customer financial savings with the commercial banks. The performance of commercial banks is best measured by the size of its deposit liabilities. A large portion of commercial banks asset base is often finance by their deposit mobilization. For instance, a commercial banks ability to lend more loans to its customers will be determined by the size of its deposit. The growth of the bank is therefore subject to its ability to mobilize more deposit at cheaper cost from the general public.
- **Deposit Interest Rate (DIR):** Interest rate determines the price of future consumption relative to current consumption. Economic theory suggests that a

rise in interest rate can have either positive or negative effect on saving. If the substitution effect outweighs the income effect, then saving ratio showed a rise with an increase in interest rate. In addition, the most important consideration regarding demand for particular deposit is the return or yield on it, which is price for losing one's liquidity at particular time.

The higher the rate of interest, the more money will be saved, since at higher interest rates people will be more willing to forgo present consumption. Low interest rates on savings forced depositors to take their money out of banks and seek out Higher Yielding investment. In other word when the rate is too high, it damages the margin of the bank. However, when the rate is too low, customers will take their saving money somewhere else and volume will decline.

- **Inflation** (INF): the rate of inflation and the inflationary expectations might have some influence on the growth of overall deposits with the private commercial banks industry. It is generally assumed that the growth of total deposits is to be negatively related with inflationary expectation. As inflation accelerates, deposits become less attractive, depending on the interest rate. In this case, the assumption would be that as deposit interest rates rise, deposits would increase in principle as well. The narrower the spread between deposit rates and inflation, the less attractive it should be to hold deposits above the required level. As the rate of inflation increases, people will be tempted to divert their savings from bank deposits to any other kind of tangible assets because these assets act as hedge against. This is the persistent increase or decrease in the average price of goods and services. (BaherdinAwol, 2016).

In the standard life-cycle model the only impact of inflation on savings is through its role in determining real returns to savings (the real interest rate). This postulate is based on the implicit assumptions of inflation neutrality (the absence of money illusion) in saving behavior and the absence of the real balance effect of inflation. On the other hand, high level of inflation discourages people from saving their money with the banks. This implies that the bank deposit will decrease.

- **Real Gross Domestic Product (RGDP)**

According to Mohammed (2014) the fundamental assumption of the life-cycle hypothesis is that an individual seeks to maximize the present value of lifetime utility subject to the budget constraint. The theory predicts that consumption in a particular period, and thus the decision to save, depends on expectations about lifetime income. According to this theory, the lifetime of an individual is divided into working period and retirement period. Individuals are assumed to be net savers during the working period and dis-savers during the retirement period. In the light of that, growth of per capita income will result in an increase of aggregate savings rate, because it increases the lifetime earnings and savings of younger age groups relative to older age groups. Thus countries with higher RGDP growth rate and so higher per capita growth rate are expected to have higher savings ratios than countries with lower growth rates. However, there is another view indicates that the size of this effect is likely to decline as per capita income rises and may even become negative for rich countries where investment opportunities and growth are relatively low.

Different studies show varying results regarding the directional relationship between GDP and deposit volumes. For instance, GDP is found to have insignificant relation with deposit in a study made in Malaysia by Mohammad & Mansur (2014) and made in Ethiopia by Giragn.

- **Money Supply (MS)**

Money supply is one of the tools used by the government in the conduct of its monetary policy. Hence, any changes in money supply can have a major impact on economic conditions. An increase in money supply makes loanable funds cheaper, thus reducing cost of borrowing for corporate and individual customers. In this case, it is expected that people will increase consumption and reduce savings and thus money supply will have an inverse relationship with deposits. On the other hand, it could also be argued as well that as more money is supplied to the economy, more deposits could put in banks accumulating the fund for transactional and investment purposes.

- **Exchange rate (EXR)**

The National Bank of Ethiopia (Central Bank) follows a managed floating exchange rate regime where the local currency Birr is pegged to the US Dollar. Accordingly, drastic movements in the nominal exchange rate are not expected. Birr continued to depreciate but at a very high rate and it reached 27.28/USD at the end of 2017. This gradual depreciation is in line with the goal to enhance competitiveness of Ethiopian exports with the world market and minimizes our import and attracts foreign direct investment (FDI).

- **Individual Foreign Remittance (INDFR)**

Remittance from Diasporas to families in home-country has become another significant determinant of household saving and domestic private savings (Prema-chandra & KunalSen, 2001). Remittance is part of the disposable income of recipient households, and as their combined income increases, saving is expected to do so. It is, however, alleged that remittance makes households rather loose in their spending and pressurize families to Western life-style. According to this pessimistic view, remittance is spent on conspicuous consumption, and unproductive investment when viewed in terms of the economy. On the optimistic side is that remittances allow poor households to invest on durable goods and human capital improving children's education and health, and should therefore be encouraged and facilitated (Shemsu, 2015).

3.6.2 Model Specification

The nature of data that the researcher used in this study enabled to use panel data model which is deemed to have advantages over cross sectional and time series data methodology. Panel data involves the pooling of observations on the cross-sectional over several time periods. As Brooks (2008) stated the advantages of using panel data set; first and perhaps most importantly, it can address a broader range of issues and tackle more complex problems with panel data than would be possible with pure time-series or pure cross-sectional data alone. Second, it is often of interest to examine how variables, or the relationships between them, change dynamically (over time). To do this using pure time-series data would often require a long run of data simply to get a sufficient number of

observations to be able to conduct any meaningful hypothesis tests. But by combining cross-sectional and time series data, one can increase the number of degrees of freedom, and thus the power of the test, by employing information on the dynamic behavior of a large number of entities at the same time.

To decompose the model into its actual variables to be estimated, the equation can be presented as below: -

$$DEP_t = \alpha + \beta_1 INFR_t + \beta_2 DPINTR_t + \beta_3 MSt + \beta_4 RGDP_t + \beta_5 INDFRT_t + \beta_6 EX_t + \varepsilon$$

Where:

DEP_t = Represents the Total deposit of private commercial Banks for period t.

$INFR_t$ = Represents overall Inflation Rate in Ethiopia for period t.

$DPINTR_t$ = represent Deposit Interest rate of private commercial banks for period t.

$RGDP_t$ = Represents Real GDP (The overall economic Growth) for the period t.

$INDFRT_t$ = Represents Individual Foreign Remittance for private commercial banks for period t.

EXR_t = Represents the growth of Ethiopian birr with USD for a period t.

MSt = Represents Money Supply for a period t

t: Time period from (2000-2017)

ε = is error term with zero mean and constant variance

t = is time in year while α is parameter constant and β_1 - β_8 are coefficients of the respective variables.

3.7. Diagnostic Test Methods

Diagnostic tests assumptions were performed to check for the validity of the parameters. The assumptions were made relating to the classical linear regression model (CLRM). Every estimator of the model should have to meet the Ordinary Least Squares (OLS) assumptions before the estimation is carried out.

If the estimators of the model satisfy the OLS assumption it is possible to say the estimator is BLUE (Best Linear Unbiased Estimator)(Brooks,2008).

According to Brooks, 2008 there are five assumptions to test the classical linear regression model (CLRM) and the researcher also Conducted the research according to the given below Assumption of (CLRM).

3.7.1. Test for Assumption of Heteroscedasticity

Heteroscedasticity means that error terms do not have a constant variance. If Heteroscedasticity occur, the estimators of the ordinary least square method are inefficient and hypothesis testing is no longer reliable or valid as it will underestimate the variance and standard errors and if the Homoscedasticity assumption is violated.

3.7.2. The Assumption of Autocorrelation

The covariance between the error terms overtime (or cross-sectional for that type of data) is zero. In other word it is assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are auto correlated or they are serially correlated.

3.7.3. Test for the Assumption of Normality

Normality tests are used to determine if a data set is well-modeled by a normal distribution.

With the normality assumption, ordinary least square estimation can be easily derived and would be much more valid and straight forward. This study used JarqueBera Test (JB test) to find out whether the error term is normally distributed or not

3.7.4. Test for the Assumption of Multicollinearity

When using the OLS estimation method is that the explanatory variables are not correlated with one another. If there is no relationship between the explanatory variables they would be said to orthogonal to one another. If the explanatory variables were orthogonal to one another adding or removing a variable from regression equation would not cause the values of the coefficients on the other variables to change. Therefore, there should be no any perfect linear relationship between two or more of the explanatory variables. So, the explanatory variables should not correlate too highly. If there is perfect collinearity between explanatory's it becomes impossible to obtain unique estimates of the regression coefficients because there are an infinite number of combinations of coefficients that would work equally well.

3.8. Summary of Expected Sign of Variables used in Regression

3.8.1 Dependent Variable

Variable	Definition	Notation	Expect sign
Private Commercial Banks Deposit	The annual growth of Total Deposit	DEPO	

3.8.2. Independent Variable

Variable	Definition	Notation	Expect sign
Deposit Interest rate	The rate of interest on deposit given by commercial banks	Depir	-
Money Supply	The growth of broad money supply	Ms	+
Inflation rate	The overall inflation rate in Ethiopia	Infr	+
Exchange rate	The rate of Ethiopian birr with USD	Xr	+
Real GDP	The overall Economic Growth	Gdpgr	+
Individual Foreign Remittance	The foreign currency gaining of private commercial Banks.	Perremmittance	+

Source: The Researcher Result Analysis

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents results of the determinants of private commercial banks' deposit growth. The chapter presents the diagnostics test results of multicollinearity, serial correlation, heteroscedasticity, and normality. The chapter also presents results of the regression analysis and discusses the study results. The chapter is concluded by a summary of the chapter

4.1. Descriptive Statistic

This section presents the descriptive statistics of dependent and explanatory variables used in this study. The dependent variable used in this study was Total bank deposit growth (Predictand variable), and the explanatory variables were Deposit Interest rate, Exchange rate, Money Supply, Real GDP, Inflation Rate, on the private commercial bank deposits.

Table 4.1 Summary statistics of the data

	Mean	Maximum	Minimum	Std,Dev	Observation
DEPO	8.831538	13.13	2.5	3.276056	26
DIR	4.943846	11.5	3.35	1.476878	26
INFR	9.842308	44.39	-8.48	11.13144	26
MS	19.15154	25.32	6.11	5.266126	26
RGDP	7.576538	13.57	-8.67	5.639379	26
EXR	11.38885	27.77	2.8	6.525754	26
INDFR	0.5286538	.8	.321	.1575497	26

Source: STATA 13 software Output

Table 4.1 shows the average indicators of variables computed from the financial statements, NBE annual report, Central Statistics Agency report, Ministry of Finance and Economic Cooperation.

Standard deviation that shows how much dispersion exists from the average value. According to Brooks, (2008), a low standard deviation indicates that the data point tend to be very close to the mean, whereas high standard deviation indicates that the data point are spread out over a large range of values.

As shown in the table 4.3 above, the logarithm of commercial bank deposit was used for regression and its minimum and maximum value was 2.5 and 13.13 respectively and also a mean of 8.8315. It can be noticed that the commercial bank deposit fluctuates between 2.5 and 13.13. This means, commercial banks were achieved on average birr8.83 from deposit for the period of 2000- 2017. The standard deviation among banks in terms of bank deposit was 32.76 percent for private commercial Banks; this confirms that there were high variations of deposit among commercial banks during the study period. The reason of this variation of deposit may attribute to high amount of deposit collected by Commercial Bank of Ethiopia compared to other commercial banks.

The mean value of Deposit Interest rate was 4.94; the standard deviation was 14.74percent, while the maximum and minimum was 11.5 and 3.35 respectively. As shown in the result, there were medium differences among private commercial banks deposit growth. There was Medium variation of interest rate towards its mean value over the periods under study with the value of standard deviation 14.76 percent. This implies that the stability of deposit interest rate for subsequent years under the study periods in a sense there is a control of minimum and maximum deposit interest rate by the government body.

The inflation or average price of goods and service on the basis of inflation in the country over the sample period was recorded an average of 9.84 percent. The maximum inflation was recorded in the country 44.39 percent and the minimum was in the country was -8.48 percent The rate of inflation was highly dispersed which exhibits higher dispersion larger than its mean value over the periods under study towards its mean with standard

deviation of 11.131 percent. This clearly shows that there was a bit more variations in terms of cost of living as it measured by inflation consumer price index

The mean growth rate of broad money supply by the government is 19.1515 percent, the maximum and the minimum growth rate of broad money supply was 25.32 percent and 6.11 percent respectively. The growth rate of dispersion is 6.11 percent which is moderate.

The other external factor is economic growth showed the mean GDP in Ethiopia during 2000-2017 of 7.57 percent, with a maximum of 13.57 percent and a minimum of -8.6 percent in. The standard deviation for GDP was 5.64 percent; this implies that Medium variation GDP its mean value during the period of 2000 to 2017

In the above table 4.1 the result of average growth of exchange rate is the mean value of 11.39 percent. The minimum and the maximum growth was 2.8 percent and 27.77 percent the growth is increasing from year to year with the standard deviation of 6.52 percent which is a very low dispersion

The last macro-economic factors of private commercial banks is individual foreign remittance recorded with table 4.2 shows that the average Mean value of 0.52 percent. The maximum and minimum growth value records 0.8 and 0.32 respectively, the growth is slowly increasing from year to year with the standard deviation of 0.15 percent. This illustrates that there is little variation that the country got foreign currency

4.2. Diagnostic Tests

Diagnostics test are usually undertaken to detect model misspecification and as a guide for model improvement. These tests include serial correlation, heteroscedasticity, multicollinearity, and normality tests. The serial correlation test can be done using the Durbin-Watson test or the Lagrange multiplier (LM) test. It helps to identify the relationship that may exist between the current value of the regression residuals and lagged values. The study used the Durbin -Watson test to investigate serial correlation.

The null-hypothesis of the Durbin-Watson test that the residuals are not serially correlated is accepted at 5% level of significance (see appendix6).

The Jarque-Bera normality test is used to see whether the regression errors are normally distributed. The null-hypothesis that the residuals are normal is rejected in this particular study. However, econometric theory states that the existence of non-normality does not affect and distort the estimator's BLUE and consistency property (Enders 1995). The non-normality of vector in our model doesn't affect the coefficients and t-values (see appendix5).

The heteroscedasticity test helps to identify whether the variance of the errors in the model are constant or not. The null-hypothesis of the test is that the errors are homoscedastic and independent of the regressors' and that there is no problem of misspecification. The null-hypothesis that the residuals are homoscedastic is accepted at 5% significance level (see appendix3).

The term multicollinearity indicates the existence of exact linear association among some or all explanatory variables in the regression model. When independent variables are multi collinear there is overlapping or sharing or sharing of predictive power. Thus if multicollinearity is perfect the coefficient of the independent variable are undermined and their standard errors are immeasurable since increased p-value lowers the t-statistics value and Variance inflation factor (VIF) is less than ten.(see appendix4).

The study conducted different post-estimation diagnostic tests to guarantee that the residuals from the model are Gaussian that the assumptions are not violated and the estimation results and inferences are trustworthy the results are presented in appendix..

4.3. Results of Regression Analysis

This section illustrates the regression results of the fixed effect model that determines deposit growth of private commercial banks of Ethiopia registered under the proclamation of National bank of Ethiopia.

Accordingly, the regression result was made and coefficients of the variables were estimated via, STATA 13 software version to verify the coefficients of the explanatory variable is statistically significant to model or not. The coefficients of explanatory variable were estimated by the use of ordinary least square (OLS) technique.

Accordingly the researcher try to depict in previous chapter with a mathematical equation model presents the result of fixed effect regression model that examines the impact of explanatory variables on bank deposit growth. Hence, depr is Outcome variable whereas Deposit interest rate, (depir), Inflation rate (infr), Money supply (ms), Economic growth (gdpgr), Exchange rate (xr), Individual foreign remittance (perremmittance) are Covariate variables that are showed Operational model, used to find the statistically significant determinants of private commercial banks deposit growth in Ethiopia, as follows

$$DEPO_t = \alpha + \beta_1 INFR_t + \beta_2 DPINTR_t + \beta_3 Mst + \beta_4 RGDP_t + \beta_5 EXR_t + \beta_6 INDFR + \epsilon_t$$

Table 4.3 Results of Fixed Effect Regression Model

. regress depr depir gdpgr infr xr ms perremmittance

Source	SS	df	MS	Number of obs = 26		
Model	262.976065	6	43.8293441	F(6, 19) =	156.02	
Residual	5.33747208	19	.280919583	Prob > F =	0.0000	
				R-squared =	0.9801	
				Adj R-squared =	0.9738	
Total	268.313537	25	10.7325415	Root MSE =	.53002	

depr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
depir	-.2238851	.0880193	-2.54	0.020	-.4081115	-.0396587
gdpgr	.0631391	.0255981	2.47	0.023	.0095618	.1167165
infr	.0124883	.0124092	1.01	0.327	-.0134845	.0384611
xr	.0010511	.0333942	0.03	0.975	-.0688437	.0709459
ms	.1660642	.0302091	5.50	0.000	.1028358	.2292926
perremmittance	14.68577	1.754407	8.37	0.000	11.01375	18.35778
_cons	-1.61894	.7869794	-2.06	0.054	-3.266107	.0282267

Note: * significant at 1%, ** significant at 5%, *** significant at 10% and **** insignificant H* accept null and H** reject null hypothesis.

Source: STATA13 Software output.

Based on the regression result, showed on the above the relationship between the variables included in the model can, therefore be represented as follows;

$$DEPO_t = \alpha + 0.13 * INFR - 0.22 * DPINTR + 0.17 MS * + 0.06 RGDP * + 0.001 EXR * + 14.67 NDFR *.$$

4.3.1. Interpretation of R-squared

As the researcher try to show in Table 4.3, an R-squared coefficient of 0.9801 obtained from the estimated model; revealing that 98 percent of variation in deposit growth (depr) is explained by the selected exogenous variables (Deposit interest rate (depir), Inflation rate (infr), Money supply (ms), Economic growth (gdpgr), Exchange rate,(xr), Individual foreign remittance (perremmittance) .

The R-square result makes sense because there are other factors such as Liquidity buffers, Peroxide by the loans to asset ratio, size of the bank and the other factors that were not included in the model but could help in explaining deposit growth in private Ethiopian commercial banks. These and other remaining factors can account for the remaining 2 percent.

4.3.2. Interpretation of Adjusted R-squared

An adjusted R-squared value, which takes into account the loss of degrees of freedom associated with adding extra variables were inferred to see the Independent variables powers of the models. In other words, the adjusted R-squared shows satisfactory levels, which mean that nearly 97 percent of the volatilities in deposit growth, are explained by the volatilities of independent variables included in the equation. Therefore, an adjusted R- square having value of 0.9738 shows that 97 percent of dependent variable is explained by the independent variables included in the model.

4.4. Interpretation Results of the Independent variables.

1. Deposit Interest Rate (depir) on commercial Bank Deposit Growth

Interest rate on deposit as a fraction of total deposit is taken as a measure for interest rate on deposit. It was hypothesized that deposit rate has positive and insignificant impact on bank's deposit. The result of the regression shows that, interest rate on deposit has Negative and significant impact on private commercial banks deposit.

The positive relation was consistent with the findings of Hibret and Shemsu (2015) on commercial Bank of Ethiopia and (Andebet, 2016) on Private Commercial Banks. According to the model in Table 4.3 above a one- unit increase in deposit interest rate generates 0.22 unit decrease deposit growth and concludes that deposit interest rate do significantly affect total deposit level of more than 10 percent.

This result is different from the previously done by different authors supported by the findings of Wubetu (2012); Hibret (2015), Shemsu (2015), they concluded that deposit interest rate is positively correlated and significant with explained variables. And finally the researcher recommends a further study to will be conducted based on various different empirical result.

2. Inflation rate and Commercial Banks Deposit

The other macroeconomic variable included in this study was Inflation.

Inflation is a sustained rise in the general level of prices – the price level. The inflation rate is the rate at which the price level increases. Symmetrically, deflation is a sustained decline in the price level. According to Herald and Heiko (2009), price can also determine commercial bank deposit and it can be indicated by consumer price index.

This result is consistent with the precautionary motive, suggesting that increased macroeconomic uncertainty induces people to save a proportion of their incomes.

This implies that persistent inflation has a positive relationship with growth of bank deposit. But has no impact on growth of bank deposit. The positive relation was

inconsistent with the findings of Hibret(2015) on commercial Bank of Ethiopia and consistent with finding of (Bahredin, 2016), Gemedu (2012), they argued that inflation had insignificant and positive influence on Private Commercial Banks deposit.

3. Money Supply and Commercial Bank Deposit

The other macroeconomic variable included in this finding was Money Supply. According to the regression result of this study, Money Supply has positively and statistically significant impact on deposit of commercial banks.

The coefficient of this relationship of 0.1660642 indicates that holding other things constant, a unit increase in Money Supply will lead a 0.1660642 unit increase in private commercial bank deposit growth and significant level at 1%.

However, according to WAMA (West African Monetary Agency), Excess money supply, whether created through the direct or indirect channels, influences economic activity (growth) and may provide downside risks on macroeconomic stability, impacting negatively on inflation, interest rates and exchange rate

This significant influence relation of Commercial Bank Deposit and Money Supply is consistent with the funding of (Kibeb, 2016), (Hibret, 2015) and (Girang, 2015) and reject the finding of (Bahreddin,2016) Money supply growth had insignificant negative influence on bank deposit growth; whereas deposit interest rate and inflation had insignificant positive influence on bank deposit growth

4. Real Gross Domestic Product (RGDP)

The results of Fixed effect model in Table 4.3 shows that there is a positive and statistically significant impact of Economic Growth (RGDP) on the level of private commercial banks deposit (DEPO). The result shows the effect of economic growth measured in terms of RGDP on DEPO with a coefficient of 0.631391 and statistically significant at 5% significance level. This implies that for one unit change in RGDP, keeping the other things constant had resulted 0.631391 unit change on the level of DEPO in same direction. Thus the positive sign implies that in times of strong economic

growth, commercial banks deposit is higher, because it increases the lifetime earnings of the people.

The finding is consistent with the previous empirical finding of Bahredin (2016) in Ethiopia. And the result was contradictory with the finding of Giragn (2015) in Ethiopia and Shemsu (2015) in Ethiopia.

5. Exchange Rate and Commercial Banks Deposit Growth

Exchange Rate was found to have a positive relationship with commercial bank deposit growth and the relationship insignificant according to the model in Table 4.3 above. According to the regression result of this finding exchange rate had positive impact and statistically insignificant. The insignificant relation was inconsistent with the findings of (Dereje 2017), Hibret (2015) and Girang(2015).

6. Individual Foreign Remittance on Banks Deposit Growth

Remittance from Diasporas to families in home-country has become another significant determinant of household saving and domestic private savings (Premachandra&KunalSen, 2001). Remittance is part of the disposable income of recipient households, and as their combined income increases, saving is expected to do so. This could be the attribution of remittance from Diasporas to families in home-country is increasing. According to NBE report, in Ethiopia remittance from Diaspora is one of the most beneficial sources to offset foreign trade deficit of the foreign currency for the country.

The correlation coefficient of the regression result shows that 14.68577 other things remain constant, one percent increase remittance inflow from the abroad would increase 14.68577 private banks deposit growth, and the result is had positive impact on banks deposit and statistically significant at 1% significance level. According to the researcher through finding previous different empirical investigation (Shemsu, 2015),(Adem,2015) on individual foreign remittance, the result of the regression analysis is consistent and highly positive and significant impact on Banks deposit growth.

CHAPTER FIVE

CONCLUSION AND POLICY RECOMMENDATIONS

The previous chapter presented the analysis of the findings, while this chapter deals with the conclusions and recommendations provided based on the findings of the study. Accordingly this chapter is organized into two subsections. The first section presents the conclusions while, the second section presents the recommendations of the finding.

5.1 Conclusions

This study empirically investigates the possible factors that determine the Private Commercial Banks Deposit Growth in Ethiopia during 2000-2017 by using Classical Regression Model (CLRM). Based on review of previous researches, six Factors have been identified that generally determine the commercial Banks deposit. They are Deposit Interest Rate, Inflation Rate, Economic Growth (RGDP), Money Supply, Individual Foreign Remittance, and Exchange Rate to comply with the finding of the research objectives, quantitative research approach was used for the variables of listed on the above and secondary data were collected. The secondary data were collected from National bank of Ethiopia (NBE), from Ministry of finance and economic development office (MOFEC), Central Statistics Agency (CSA) and Six perspective commercial banks in Ethiopia

Based on the result of empirically investigate analysis, the study had concluded the following:

There are various external factors which is not detailed discussed by researcher such as Age Dependency Ratio, shocks, Reserves, Government Policies, Population Growth, Investment and legal environment affects the operation and performance of financial institutions

The researchers analyzed that before performing OLS Regression model was tested for classical regression model assumption which is identify six explanatory

variables, four of the explanatory variables proved to statistically significant determinants of banks deposit.

In estimating the result it is found that variables such as Deposit interest rate, Economic growth (RGDP), Money supply and individual foreign remittance have positive coefficient and are statically significant impact and major determinants of commercial banks deposit.

The result of this study find out that, among the exogenous factors (factors beyond the bank) Inflation rate and exchange rate is positive coefficient and statically insignificant to the growth of commercial bank deposit. The insignificant impact relation of the exchange rate and Inflation rate on Commercial Bank's deposit is not consistence with our expectation. It implies that Exchange rate and inflation rate is not a major factor in explaining the commercial banks deposit growth in Ethiopia. The finding of positive and insignificant relationship between Banks deposit and exchange rate and inflation rate is inconsistent with findings of Hibret (2015), Bahredin (2016).and individual foreign remittance and money supply is highly significant impact on banks deposit than other variables, and Real Gross Domestic Product (RGDP) had a positive and significant effect on DEPO of commercial banks in Ethiopia. It implies that in times of strong economic growth, commercial banks deposit is higher, because it increases the lifetime earnings of the people.

Finally the researcher reveals that Deposit Interest Rate (ADIR) had negative and significant effect on DEPO of commercial banks in Ethiopia. For this variable to put implication since there is no base to say so, it is better to let this variable for further research to be investigated.

5.2 Policy Recommendation

Based on the conclusion as well as analysis made in the previous chapters, the following recommendations are proposed accordingly.

It is well known that deposits are the critical resource for the banks to stay profitable, by the same analogy commercial Banks major activity is mobilizing deposit. Therefore the bank should give due emphasis to its deposit mobilizing tasks by considering mobilizing deposit is a way to survival.

As it can be seen from the regression analysis of commercial banks deposit growth determinants in Ethiopia, Deposit interest rate, Economic Growth (gdpg), Money supply and Individual foreign remittance is the major factors that determines Commercial banks deposit in Ethiopian case. Hence, in order to increase the deposit of commercial banks in Ethiopia those factors are significant according to the finding of the researcher.

For next researchers who are interested in further studying it is highly recommended that they should increase the sample size to more than 30 observations. Researchers may use monthly, quarterly or semiannual data instead of using annual data. This is because the bigger the sample size, the lower the probability of having multicollinearity, heteroscedasticity and autocorrelation problems. This will prevent the need to split the model but run it as a whole instead. Hypotheses testing will provide researchers with better results in detecting these problems. Therefore, other researchers are suggested to include other variables by broadening its base and updated situations

REFERENCES

- Adem, D. (2015). *Mobilizing Household Savings through Rural Financial Markets. Economic Development and Cultural Change*, pp 547 -560.
- Adem, S. B. (2015). Determinants of Commercial Bank Deposits in Ethiopia: A Case of Commercial Bank of Ethiopia.
- Admas, J., Robert, R., & White, D. (2007). *Research Method for Graduate Business and Social Science Student*.
- Aftabi, A., Daneshvar, S., Karimbakhsh, A., Shadab, R., & Mortezaei, F. (2013). Assessing the effect of banking resource mobilization on financial resource attraction (Case Study: Melli Bank of Anzali). *International Research Journal of Applied and Basic Sciences*, 4(7), 1884-1888
- Ahilsveda & schildaback,. (2012). The role of Social Capital in financial development. *The Center for Research in Security Prices (Working paper No 511)*
- Alipour, H. (2014). Comparison of Effective Factors in Bank Resource Mobilization from Perspective of Branch Managers and Customers (Case Study: Agricultural Bank of Gilan Province). *Kuwait Chapter of Arabian Journal of Business and Management Review*, 90-99.”.
- Al-Qudah, A., & Jaradat, M. A. (2013). The Impact of Macroeconomic Variables and Banks Characteristics on Jordanian Islamic Banks Profitability: Empirical Evidence. *International Business Research*, 6(10).
- Andebet G. (2015). *Will the Government of Ethiopia's policy of saving mobilization be successful? The lesson from the African Evidence*. Mudaye Neway vol.5 N0.2
- Andinet Ferede Alemu (2016). *Factors Determining Deposit Performance, In case of Private Commercial Banks in Ethiopia*. MSc, Addis Ababa University.

- Bahredin Awole (2016). *Determinants of Commercial Banks' Deposit Growth*, Addis Ababa University.
- Banson, Sey, & Sakoe. (2012). Service rendered by commercial bank; A customer oriented empirical evidence from state bank of India. *Management convergence*, Volume 1, No 2, pp 50 - 65.
- Brooks, C. (2008). *Introductory Econometrics for Finance*. , Cambridge University Press.
- Christopher D. Carroll (2006). *Precautionary Saving and Precautionary Wealth*, Johns Hopkins University.
- Christopher J. Niggle (1995). The Role of the Financial Sector in the Socialist Economies in Transition: The Second "Primitive Accumulation of Capital", *Review of Social Economy*, Vol. 53, No. 3 (FALL 1995), pp. 311-331
- Cletus Chike Agu (1984). The Role of Commercial Banks in Mobilization and Allocation of Resources For Development In Nigeria, *Savings and Development*, Vol. 8, No. 2 (1984), pp. 135-158
- Creswell, J. (2009). *Quantitative, and Mixed methods approaches*. (3rd edition) India: Sage Publication Inc. New Delhi.
- Daviniaga, (2010). *Determinants of Bank Profitability in Macao*, Macao Monetary Research Bulletin.
- Dereje Hailemariam Amene (2017). *Determinants of Deposit in Ethiopian Private Commercial Banks*. MSc. Addis Ababa University
- Devinaga Rasiyah (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.

- Dickey, D.A. & Fuller, W.A. (1981). Likelihood ratio statistics for autoregressive time series within a unit-root. *Econometrica*, 49:1022-1057.
- E.A. Goldenweiser. (1995). The Function of Deposit Banking, *Journal of the American Statistical Association*, Vol. 33, No. 202 (Jun., 1938), pp.303-310
- Elser, Hannig, & Wisni Wiski,. (1999). ‘Mobilizing Deposits; the Role of Commercial Banks in Ghana’, *Commonwealth Executive Masters in Business Administration*.
- Erma & Ekki (2014). Factors Affecting Banks’ Risk Exposure: Evidence from Indonesia. *European Journal of Economics, Finance and Administrative Sciences*.
- Eshetu Bekele & Mammo Muchie (2009). “*Promoting Micro Small & Medium Enterprises (MSMEs) for sustainable rural livelihood*” Diiper Research Series, Working Paper No.11, ISS 1902-8679.
- GIRAGN, G. (2015). “Determinants of Deposit Mobilization and Related Costs of Commercial Banks in Ethiopia” MSc, A.A.U.
- Hamid Rashid (2011). “*Credit to Private Sector, Interest Spread and Volatility in Credit Flows: Do Bank Ownership and Deposits Matter?*”, DESA Working Paper No. 105.
- Herald Finger & Heiko Hesse. (2009). Microfinance in Africa; Experience and Lessons from selected African countries. *African Journal of finance* (IMF Working paper).
- Herald Finger and Heiko Hesse (2009). “*Lebanon-Determinants of commercial banks Deposits in a Regional Financial Center*” IMF Working paper, WP/09/195
- Hibret B. 2015. Determinate of Commercial Bank’s Deposit Growth in Ethiopia: Case Study on the Commercial Bank. MSc, A.A.U.
- Islam, A., & Ghosh, P. (2014). A Comparative Analysis of Deposit Products in Banking Industry : an Opportunity for eastern Bank LTD. *Journal of Investment and Management*, 3(1), 7-20.

- Jembere, H. (2014). Determinants of deposit of mobilization in private commercial Bank of Ethiopia. MSc, St. Marry University.
- Kelvin, A. S. (2001). "The Role of Commercial Banks 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.
- Khalayi, J. A., Ondiek, A., & Musiega, D. (2014). A Comparative Study of Effects of Interest Rates on Deposit Mobilization Among Sacco Members in Kakamega country. *International Journal of Business and Management Invention*, 3(5), 28-41.
- Khalayi, Ondiek, & Musiega. (2014). *SPSS survival manual: a step by-step guide to data analysis using SPSS for Windows*. Buckingham: Open University Press,
- Laura Ethephen & phanull,1999. The Impact of Bank Specific and Macroeconomic Factors on China's Bank Performance. *Global Economy and Finance Journal*, 6(2), 1-25
- Loichinger, E., Hammer, B., Prskawetz, A., Freiberger, M., & Sambt, J. (2014). Economic Dependency Ratios: Present Situation and Future Scenarios. Retrieved from www.foreurope.eu.
- Loichinger, Hammer, Praskawetz, & senbet, domestic banking mobilizing financial resources, quoted in Effective Factors On The Absorption Of Bank Deposits In Order To Increase The Relative Share Ofisfahan Sepah Bank, by Hossein and Ali, *International Journal of Academic Research in Economics and Management Sciences* July 2014, Vol. 3.
- Lomuto Joel Katalai (2008). Determinants of Kenyan Commercial Banks Deposit growth.
- Mahendra Varman (2005). "Impact of Self-Help Groups on Formal Banking Habits", *Economic and Political Weekly*. Vol. 40, No. 17, pp. 1705-1713

- Marthin,2013). Adoption of Internet banking among sophisticated consumer segment in an advanced developing country. *International Journal of Bank Marketing* (Iss: 3), pp.212 - 232.
- Mashamba, T., Magweva, R., & Gumbo, L. C. (2014). Analyzing the relationship between Banks' Deposit Interest Rate and Deposit Mobilization. *IOSR Journal of Business and Management (IOSR-JBM)*, 64-75.
- Muhammad, F. M., & Amir, R. (2013). Commercial Banks Liquidity in Pakistan: Firm Specific and Macroeconomic Factors. *Romanian Economic Journal*, 2013, vol. 16, issue 48, pages 139-154
- N. Desinga Rao (1975). Deposit Mobilization by Co-operative Banks: A Comparison with Scheduled Commercial Banks, *Economic and Political Weekly*, Vol. 10, No. 29 (Jul. 19, 1975), pp. 1098-1100
- National Bank of Ethiopia NBE"s Monetary Policy Framework (2009)
- Ndichu, Ooko, and James, (2013). Factors Influencing deposit level of commercial banks in Kisumu City, Kenya:
- Nwanko, Ewuim & Asoya,2013). Determinants of Household Deposit Behavior in the Dominican Republic, Unpublished M.S. thesis, Department of Agricultural Economics and Rural Sociology, The Ohio State University
- O. B. Oyewole (1994). The Effect Of Interest Rate Restriction On The Cost Of Deposit Mobilization By Commercial Banks In Nigeria, *African Review of Money Finance and Banking*, No. 1/2 (1994), pp. 57-71
- Obamuyi, M. T. (2013). An Analysis of the Deposits and Lending Behaviors of Banks in Nigeria. *International Journal of Engineering and Management*, 4(1), 46-54.
- Ongore, V. O., &Kusa, G. B. (2013). Determinants of Financial performance of Commercial Banks in Kenya. *International Journal of Economics and Financial Issues*, 3(1), 237-252.

PAVLA: Determinants of Banks liquidity in Slovakia.

Pinchawawee Rasmidatta (2011), "The relationship between domestic saving and Economic Growth and Convergence Hypothesis: Case Study of Thailand. Sodertorn University College, School of Social Sciences

Premachandra & Kunalsen.(2001). *Saving and Growth with Habit Formation*. American Economic Review, 341-355.

Rakesh, A., Arun, M., & Varun, D. (2015). Bank competition and efficiency: empirical evidence from Indian market. Emerald Insight.

Rakesh, Arun & Varin (2015). "What Determines the Profitability of Commercial Banks- New Evidence from Switzerland" Institute of Financial Services IFZ, Lucerne University of Applied Sciences, Grafenauweg 10, 6304 Zug, Switzerland.

Richard, W. (2015, 02 21). Richard Williams, University of Notre Dame. Retrieved 05 2015, 2015, from [https://www3.nd.edu/~rwilliam/stats3/Panel04-Fixed Vs Random.pdf](https://www3.nd.edu/~rwilliam/stats3/Panel04-Fixed_Vs_Random.pdf).

Selvaraj, N., & Kumar, B. (2015). A Study on the Debit Mobilization Pattern of the Dindigul central Bank Co-operative Bank Limited. J Tourism Hospit, 4, 1-8.

Shemsu Bargicho (2015). "Determinants of commercial bank deposits in Ethiopia: a case of Commercial Bank of Ethiopia" Degree of Master's Thesis Addis Ababa University.

Shettar & Sheshigri. (2014). Economic development (10th edition), New York: Pearson Education 714.-750.

Shollapur & Baligatt, (2010). A guide to modern econometrics", 2ndedn., John Wiley & Sons Ltd, Erasmus University Rotterdam.

Tareq, M. A. (2015). Savings Mobilization Behavior of NCBs in Bangladesh. Austrian Journal of Business and Economic studies, 1(2), 79-92.

- Tegene, G. (2012). Management of Commercial Banks in Ethiopia from the Perspective of Financial Inclusion. *European Journal of Business and Management*, 163-168.
- Tuyishime, R., Memba, F., & Mbera, Z. (2015). The Effects of Deposits Mobilization on Financial Performance in Commercial Banks in Rwanda. A Case of Equity Bank Rwanda Limited. *International Journal of Small Business and Entrepreneurship Research*, 3(6), 44-71.
- Varman Rima (2005). The effect of anti-money laundering regulation implementation on the financial performance of commercial banks in Kenya, Research project submitted in partial fulfillment of the requirement of the award of the degree of masters of business administration, university of Nairobi.
- Wubetu Elias Gemedu (2012). Factors Determining Commercial Bank Deposit: An Empirical Study on Commercial Bank of Ethiopia. MSc Addis Ababa University.
- Zeidy, (1996). Assessment of the Factors that Influence Deposit Mobilization in Tanzania: The Case Study of Commercial Banks, Dares Salaam, Tanzania.
- Zewdu, G. A. (2014). Financial Inclusion, Regulation and Inclusive growth in Ethiopia. Overseas Development Institution, Addis Ababa.
- Zhang, X., & Daly, K. (2013). The Impact of Bank Specific and Macroeconomic Factors on China's Bank Performance. *Global Economy and Finance Journal*, 6(2), 1-25.

APPENDICES

Appendixes1: Raw data

Year	Deposit	Deposit interest rate	Economic Growth(RGDP)	Inflation rate	Exchange rate	Money supply
1992	2.50	11.50	-8.67	10.53	2.80	11.31
1993	3.20	6.00	13.14	3.54	5.00	6.11
1994	3.55	4.50	3.19	7.59	5.47	7.94
1995	4.10	5.00	6.13	10.02	6.16	9.20
1996	6.01	4.36	12.43	-8.48	6.35	14.11
1997	6.15	4.06	3.13	2.40	6.71	17.52
1998	6.39	4.15	-3.46	0.89	7.12	20.76
1999	6.92	4.05	5.16	7.94	7.94	24.96
2000	6.99	5.60	6.07	0.66	8.22	22.90
2001	7.32	4.70	8.30	-8.24	8.46	21.28
2002	7.36	3.35	1.51	1.65	8.57	21.01
2003	8.49	4.00	-2.16	17.76	8.60	20.16
2004	9.49	4.06	13.57	3.26	8.64	19.20
2005	10.00	4.10	11.82	12.94	8.67	22.81
2006	10.11	4.11	10.83	12.31	8.70	23.66
2007	11.00	4.68	11.5	17.24	8.97	18.53
2008	11.11	4.70	10.8	44.39	9.60	17.71
2009	11.22	4.75	8.8	8.47	11.78	18.47
2010	11.33	4.91	12.4	8.14	14.41	20.23
2011	11.55	4.94	11.2	33.22	16.90	20.96
2012	12.00	4.95	8.6	22.77	17.70	21.20
2013	12.12	4.90	10.6	8.1	17.80	22.01
2014	12.13	5.00	10.3	7.4	17.90	23.01
2015	12.33	5.02	10.4	10.1	18.10	23.45
2016	13.12	5.03	10.4	10.2	27.77	24.12
2017	13.13	6.12	11.00	11.10	27.77	25.32

Source: NBE, MOFEC AND CSA via simple excel.

Appendix 2: Regression Result

```
. regress depr depir gdpgr infr xr ms perremmittance
```

Source	SS	df	MS			
Model	262.976065	6	43.8293441	Number of obs =	26	
Residual	5.33747208	19	.280919583	F(6, 19) =	156.02	
Total	268.313537	25	10.7325415	Prob > F =	0.0000	
				R-squared =	0.9801	
				Adj R-squared =	0.9738	
				Root MSE =	.53002	

depr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
depir	-.2238851	.0880193	-2.54	0.020	-.4081115	-.0396587
gdpgr	.0631391	.0255981	2.47	0.023	.0095618	.1167165
infr	.0124883	.0124092	1.01	0.327	-.0134845	.0384611
xr	.0010511	.0333942	0.03	0.975	-.0688437	.0709459
ms	.1660642	.0302091	5.50	0.000	.1028358	.2292926
perremmittance	14.68577	1.754407	8.37	0.000	11.01375	18.35778
_cons	-1.61894	.7869794	-2.06	0.054	-3.266107	.0282267

Appendix 3: Regression Result:Heteroschedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of depr

chi2(1) = 0.02

Prob > chi2 = 0.8765

Appendix 4:Multicollinearity Test

Variable	VIF	1/VIF
perremmitt~e	6.80	0.147077
xr	4.23	0.236613
ms	2.25	0.444000
gdpgr	1.85	0.539219
infr	1.70	0.588912
depir	1.50	0.664963
Mean VIF	3.06	

Appendix 5: Normality Test

```
. swilk U
```

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
U	26	0.98217	0.510	-1.380	0.91628

```
.
```

Appendix 6: Autocorrelation Test

Durbin-Watson d-statistic(7, 26) = 2.028375

```
. summarize depr depir gdpgr infr xr ms perremmittance
```

Variable	Obs	Mean	Std. Dev.	Min	Max
depr	26	8.831538	3.276056	2.5	13.13
depir	26	4.943846	1.476878	3.35	11.5
gdpgr	26	7.576538	5.639379	-8.67	13.57
infr	26	9.842308	11.13144	-8.48	44.39
xr	26	11.38885	6.525754	2.8	27.77
ms	26	19.15154	5.266126	6.11	25.32
perremmitt~e	26	.5286538	.1575497	.321	.8

Source: Own Computation Using STATA 13