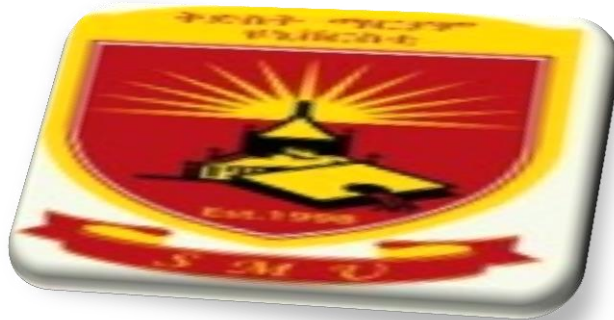


**St. Mary's University  
School of Graduate Studies**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF ARTS IN BUSINESS ADMINISTRATION (MBA)**

**FACTORS AFFECTING DEPOSIT MOBILIZATION IN COMERCIAL BANK OF  
ETHIOPIA**

**BY: - NAFKOT GEBREYOHANNES**

**ADVISOR: - ABEBAW KASSIE (ASS.PROFFESSOR)**

**JUNE 2016**

**ADDIS ABABA, ETHIOPIA**

**St. MARY'S UNIVERSITY**

**SCHOOL OF GRADUATE STUDIES**

**ASTUDY ON FACTORS AFFECTING DEPOSITE MOBILAYZATION**

**IN COMMERCIAL BANK OF ETHIOPIATHE CASE OF ADDIS ABABA CITY**

**BY NAFKOT GEBREYOHANNES**

Approved by

-----

-----

-----

Dean office

Signature

Date

-----

-----

-----

Advisor

Signature

Date

-----

-----

-----

Name of Internal Examiner

Signature

Date

-----

-----

-----

Name of External Examiner

Signature

Date

St. Mary's Addis Ababa

June 2016

### **Declaration**

I the under signal, declare that this thesis is my original work, prepared under the guidance of Ass ProfeserAbebawKassie. All source of material used for this thesis have been fully acknowledged. I further confirm that this thesis has not been submitted to any other higher learning institution for purpose of earning any degree.

NafkotGebreyohannes

-----

-----

Name

Signature

Date

**Endorsement**

This thesis has been submitted to St. Mary's University school of graduate studies for examination for approval as university advisor.

AbebawKassieasstProfesor -----

Name

Signature

Date

## **Acknowledgement**

First and foremost my innumerable praise to the almighty God forgive me the opportunity capacity and guidance my life.

I would like to offer my deepest thanks doctor, AbebawKassie for their valuable work and continuous help during the process of writing this research proposal, and also I would like to thank my friends those provides a constrictive idea for me to conduct this research.

## **Abstract**

*The study primarily aims at factors that affect deposit mobilization of Commercial Bank of Ethiopia. The study uses both primary and secondary data and uses both descriptive and regression analysis by using SPSS and OLS methods. The study empirically ascertains that, managing deposits is not possible without knowing and controlling the factors affecting it. It is well known that deposit mobilization is the major services of commercial bank of Ethiopia. In view of that without having deposit CBE can't survive as a bank. The study find out that the key factors for deposit growth are employees' skill and capabilities, top management cooperation, government rule and regulation, population, exchange rate and nominal GDP. Also even if the inflation and CBE branch expansion didn't have key factors but they have role in determining deposit mobilization. For the qualitative analysis a total of 244 respondents answered the entire survey. The overall respondent rate for survey was approximately 97.6%. The respondent answer for the question "What do you think the most influencing internal factors in deposit mobilization activity, which make people to deposit in your branch?" are Public trust and reliability, Customer handling, Big depositor Rewarding system , Service efficiency, Delivery time, Accessibility and Different packages of bank product. On the other hand, results from the qualitative analysis, based on economic analysis model population, exchange rate and nominal GDP was found to have a positive relationship with bank deposit growth and the effect on bank deposit is significant. Inflation and branch expansion are affects positively and can increase CBE's deposit but these factors are not as such significant. These results have important policy implications for both domestic policy makers and the bankers working in the country and specifically for developing of reliable deposit mobilization policy by the commercial bank of Ethiopia.*

## **List of Abbreviations**

CBE = Commercial Bank of Ethiopia

CLRM = Classical Linear Regression Model

CSA = Central Statistics Authority

EViews7 = Econometric Views Software version 7

NGDP = Nominal Gross Domestic Product

OLS = Ordinary Least Square

SPSS = Statistical Package for Social Science

## *Table of Content*

### **Chapter one**

<a href="#"><u>Introduction and background of the company</u></a> .....	12
<a href="#"><u>Introduction</u></a> .....	12
<a href="#"><u>1.2 Background of the company</u></a> .....	13
<a href="#"><u>1.3 Statement of the problem</u></a> .....	14
<a href="#"><u>1.4 Research questions</u></a> .....	15
<a href="#"><u>1.5 Objective of the study</u></a> .....	15
<a href="#"><u>1.6 Significance of the study</u></a> .....	16
<a href="#"><u>1.7 Scope of the study</u></a> .....	16
<a href="#"><u>1.8 Limitation of the study</u></a> .....	16
<a href="#"><u>1.9 Organizing the study</u></a> .....	16
<a href="#"><u>Chapter two</u></a> .....	17
<a href="#"><u>Literature review</u></a> .....	17
<a href="#"><u>2.1 Theoretical review</u></a> .....	17
<a href="#"><u>2.1.1 Purpose of deposit</u></a> .....	17
<a href="#"><u>2.1.2. The function of banks in financial systems</u></a> .....	18
<a href="#"><u>2.1.3 Commercial bank deposits</u></a> .....	20
<a href="#"><u>2.1.3.1 The importance of deposits for banks</u></a> .....	21
<a href="#"><u>2.1.3.1.1. Deposits as a source of fund for loan</u></a> .....	21
<a href="#"><u>2.1.3.1.2 Focusing on deposit is cheaper than raising equity</u></a> .....	21
<a href="#"><u>2.1.3.1.3 Banks make profit using their deposits</u></a> .....	21
<a href="#"><u>2.1.3.1.4 Fund investment and/or development projects</u></a> .....	22
<a href="#"><u>2.1.4 The determinants commercial banks deposits - theory</u></a> .....	22
<a href="#"><u>2.1.4.1 external factors</u></a> .....	23



<a href="#">2.1.4.1.1country specific factors</a> .....	23
<a href="#">1. Saving interest rate</a> .....	24
<a href="#">2. Inflation</a> .....	25
<a href="#">3. Real interest rate</a> .....	26
<a href="#">4. Population growth of the country</a> .....	26
<a href="#">5. Per capita income of the society</a> .....	27
<a href="#">6. Economic growth</a> .....	27
<a href="#">2.1.4.1.2 Bank specific factors</a> .....	27
<a href="#">1. Liquidity of the banks</a> .....	27
<a href="#">2. Profitability of the bank</a> .....	28
<a href="#">3. Security of the bank</a> .....	29
<a href="#">4. Banking accessibility</a> .....	29
<a href="#">5. Bank size</a> .....	30
<a href="#">6. Reserves</a> .....	30
<a href="#">7. Transaction cost</a> .....	30
<a href="#">8. Financial technologies</a> .....	31
<a href="#">9. Foreign remittance</a> .....	31
<a href="#">10. Awareness of the society</a> .....	31
<a href="#">11. Convenience of bank’s office</a> .....	31
<a href="#">12. Services in the bank</a> .....	32
<a href="#">2.2 Empirical review</a> .....	33
<a href="#">2.2.1 Factors affecting deposits mobilization</a> .....	33
<a href="#">Chapter three</a> .....	<b>Error! Bookmark not defined.</b>
<a href="#">Methodology of the study</a> .....	36
<a href="#">3.1 Introduction</a> .....	36

<a href="#"><u>3.2 Research design</u></a> .....	36
<a href="#"><u>3.2.1 Qualitative approach</u></a> .....	36
<a href="#"><u>3.2.2 Quantitative approach</u></a> .....	36
<a href="#"><u>3.3 Population and sample size</u></a> .....	36
<a href="#"><u>3.4 Source of data</u></a> .....	37
<a href="#"><u>3.5 Method of data analysis</u></a> .....	37
<a href="#"><u>3.6 Model specification</u></a> .....	38
<a href="#"><u>3.7 Hypotheses</u></a> .....	39
<a href="#"><u>3.8 Validity and reliability of data</u></a> .....	39
<a href="#"><u>Chapter four</u></a> .....	39
<a href="#"><u>Data presentation, analysis and discussion</u></a> .....	40
<a href="#"><u>4.1 Frequency distribution of the questionnaire response</u></a> .....	40
<a href="#"><u>1. Sample size and respondent profile</u></a> .....	40
<a href="#"><u>2. Questionnaire finding on internal factors of deposit mobilization activity</u></a> .....	41
<a href="#"><u>4.2 Statistical description of the dependent and independent variable</u></a> .....	45
<a href="#"><u>1. Dependent variable – bank deposit</u></a> .....	45
<a href="#"><u>2. Independent variable</u></a> .....	46
<a href="#"><u>2.1 Population growth</u></a> .....	46
<a href="#"><u>2.2 Exchange rate</u></a> .....	47
<a href="#"><u>2.3. Inflation</u></a> .....	48
<a href="#"><u>2.4. Number of branch</u></a> .....	49
<a href="#"><u>2.5 Nominal gdp</u></a> .....	50
<a href="#"><u>4.3 Econometric analysis and results interpretation</u></a> .....	51
<a href="#"><u>1. Test for multicollinearity</u></a> .....	51
<a href="#"><u>2. Test for heteroskedasticity</u></a> .....	52

<a href="#">4.4 Summary of regression analysis and results interpretations</a>	53
<a href="#">1. Results interpretations</a>	54
<a href="#">1.1 Coefficient of determination of the model</a>	54
<a href="#">1.2 Coefficient of determination of the constant term</a>	54
<a href="#">1.3 Coefficient of determination of population</a>	54
<a href="#">1.4 Coefficient of determination of exchange rate</a>	54
<a href="#">1.5 Coefficient of determination of nominal gdp</a>	55
<a href="#">1.6 Coefficient of determination of inflation rate</a>	55
<a href="#">1.7 Coefficient of determination of increasing number of branches</a>	56
<a href="#">1.8 Coefficient of determination of dummy variable (error terms)</a>	56
<a href="#">2. Hypothesis test</a>	57
<a href="#">Chapter five</a>	58
<a href="#">Summary of research findings, conclusions and recommendations</a>	<b>Error! Bookmark not defined.</b>
<a href="#">5.1 Summary of the findings</a>	58
<a href="#">5.2 Recommendations</a>	59
<a href="#">References</a>	61

## CHAPTER ONE

### INTRODUCTION AND BACKGROUND OF THE COMPANY

#### Introduction

Some have described saving or deposit related with rescues, preservation and the like whereas the whole lot supports the definition of savings or deposit as being “the money which you keep in an account in a bank of similar financial organization “although in relation to this research this definition will be chiefly applied, other definitions by the Oxford dictionary is “An economy of or reduction in money, time, or another resource” or an amount of money that you do not need to spend”.

Deposit mobilization is an integral part of banking activity. Mobilization of savings through intensive deposit collection has been regarded as the major tasks of many commercial banks worldwide recently. Acceptance of deposits is the primary function of commercial banks. As such deposit mobilization is one of the basic current Ethiopian banking activities (Muday, 2011).

At all level of national economy, high level of saving increases the amount of national resources and decrease the need to resort to foreign indebtedness in order to cover domestic investment and consumption demand. Numerous countries with long internal saving rates must borrow from abroad, which results in a debt service burden .this clearly underlines the importance of saving mobilization to sustain economic growth with national financial resource (payn ,2000).

From the perspective of larger public the importance of banks as major institution for saving mobilization arises from their ability to offer to various section of society a wide range of saving instruments combining different attributes, such as safety, liquidity, transferability and yield. Commercial banks not only cultivate the saving habits of depositors and guide him to hold financial assets which yield higher income but also ensure safety and liquidity of found at the Same time they have the advantage of holding a good network branches and therefore have an edge over the financial institution for rapid mobilization of deposits, further bank deposits are risk free and are liquid compared to the other financial instruments (*Tarawneh, 2004*).

Taking in to consideration the current economy of Ethiopia and given the low level income of the people it is difficult to satisfy the financial demand based on limited customer bases. Hence,

there is a need to understand factors affecting deposit and develop effective deposit mobilization strategies that would reach the wider customer base, including the rural part of the country. Moreover, deposit mobilization strategies alone could not bring about long-term and sustainable deposit flows unless the bank insures that the service quality is well maintained and its staff is motivated to respond to emerging challenges.

This study will examine the most important factors affecting deposit mobilization overtime in both internal and external environment of CBE.

## **1.2 Background of the Company**

The Commercial Bank of Ethiopia (CBE) was established after the Italian invasion of Ethiopia in 1942, with 2 branches and 43 staff, which was granted by the Ethiopian government with the sole right of issuing currency in 1945. It was only in 1963 that the Ethiopian government decided to split the Bank sector into two banks, the National Bank of Ethiopia (the central bank), and the CBE. It opened branches in Sudan, Djibouti and the current Eritrea, which were all lost later on due to nationalization at different times. CBE has been the most dominant bank in Ethiopia, since then, which seizes quasi-monopoly power with more than 900 branches country wide despite increasingly growing and mushrooming private banks in the country. However, its share in total deposit fell from 92% in 1996/97 to 64% in 2014, while its disbursed credit fell from 75 to 57% in 2014. Commercial Bank of Ethiopia is serving as a major commercial bank in the country, providing short and long terms loan for major economic and infrastructure investments of the public sector. 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 CBE and other banks for loans and credits. Moreover, there have been multiple small enterprises incubated in the last decades and increasing number of import and export companies, heavily relying on CBE for loans, foreign currency and trade assurances. This calls for an increased demand for deposit mobilization from public institutions, private sector and other potential contributors. There has been successful deposit mobilization strategies developed and implemented by the banks in the last few years. Banks usually implement different strategies to attract new customers and retain the existing one. For instance, the public fund mobilization

for housing development through various financial arrangements could be seen as a good example of deposit mobilization strategy in CBE.

Various literatures explained different factors affecting commercial bank deposits. Wubetu (2012) grouped determinants of deposit in to Macro and Micro level factors. According to his study, among others, Macro level factors are inflation rate, interest rate, economic performance of the country and exchange rate. At micro level factors that believed to affect the growth of deposit are: convenience, comprehensive branch and Automatic Tellers Machine (ATM) network, excellent customer service, products and pricing, promotion and market segmentation (Kane, 2005). Accordingly, the Commercial Bank of Ethiopia has been applying different deposit mobilization strategies. Currently, CBE performed aggressive new branch openings, lottery, and salary payment service for different governmental and nongovernmental offices. This calls for a better understanding of the strategies used to attract bank deposits and its implications on the functionality of the system.

### **1.3 Statement of the problem**

Recently due to competition and different environmental circumstances deposits mobilization activities are one of most confronting job in banks however to make it success story there should be different activities that should be done to compete from the crowd and be the best performer from the rest . Still it is known fact that from the whole deposit that should be collected by the government institution of Ethiopia, only less that 30% of the resource is collected from the public at large (muday, 2011).

As mentioned in the introductory part, deposit growth for commercial banks is very crucial to fill the increasing demand of finance. As result, examining factors that can affect deposit growth would help for banks to formulate deposit mobilization strategies. Various researchers tried to study about factors affecting deposit mobilization in Ethiopia.

Determinant variables commonly explained as a factor affecting deposit are, inflation rate, interest rate, exchange rate, demographic change (population growth) and branch expansion. Wubetu (2012) found that Branch expansion had positive and significant effect on total deposit whereas deposit interest rate and inflation rate were insignificant. As opposed to this finding, Tizita (2014) reported that branch expansion has negative effect on private saving in the short

term. She also concluded that inflation rate influenced private saving negatively and significantly. As per the finding of Tizita, level of real per capital income and urbanization ratio has significant positive effect on private savings. Moreover, Aberham's finding showed that the banks total deposit is positively related to income, its Asset and loans, liability, and advance granted and consumer price index (Abreham, 2014). However, this relationship is expected, since deposit is a liability to the Bank, deposit and liability are positively related to each other.

But all the above researchers give emphasis only on the external factors of deposit mobilization using regression analysis. This paper is prepared to fill the gap and to identify both the internal and external deposit mobilization factors by using both descriptive statistics and regression analysis method.

#### **1.4 Research Questions**

The study finally answers the following questions,

1. How staff capabilities towards deposit mobilization and organization administrative environment affect deposit mobilization activity of CBE.
2. What kind of mechanism should be applied to increase accessibility of saving service by the organization?
3. What are the significant internal and external factors that affect CBE' S deposit mobilization?
4. How the independent variables explain the dependent variable?

#### **1.5 Objective of the study**

The main objective of the study is to explore the main factors that affect the banks deposit mobilization activity in CBE.

##### **Specific objective of the study**

1. To examines the level of CBE staff capabilities and administrative system in relation to the banks deposit mobilization activity.
2. To explore and evaluate the internal and external factors affecting CBE deposit.

3. To evaluate the relationship between the CBE's total deposit against the most significant factors.

### **1.6 Significance of the Study**

Understanding factors that determine commercial bank's deposit play a crucial role for adequate bank deposit management tools. The study has great contribution to the existing knowledge in the area of the internal and external factors affecting Commercial Banks deposit in the case of Commercial Banks of Ethiopia. This in turn contributes to the well-being of the financial sector of the economy and the society as a whole. Therefore, the major beneficiaries from this study are: Commercial Bank of Ethiopia, regulatory bodies and the academic staff of the country. Furthermore, it can serve as stepping stone for further research in similar area.

### **1.7 Scope of the study**

In Ethiopia there are more than eighteen commercial banks under operation. From the number of the banks under operation the study uses Commercial Bank of Ethiopia as case study. The research specifically concerned on saving activities conducted in Addis Ababa area district. When discussing factors of deposit mobilization, both internal and external factors are considered.

### **1.8 Limitation of the study**

In its best, this research work should have been extended to cover all the commercial banks in Ethiopia to collect facts however, the inadequacy of relevant data and material leads the researcher to limit the study to only on commercial banks CBE. It is selected because the larger proportion of bank deposit in Ethiopia is on the hands of CBE.

The qualitative data is collected by using questionnaires, 250 questionnaires were distributed and 244 questionnaires is collected from the employees of CBE which were not as much of representative to the whole population.

### **1.9 Organizing 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. Finally, the last chapter will concludes the total work of the research and gives relevant recommendations based on the findings.



## CHAPTER TWO

### LITERATURE REVIEW

Literature review is prepared in two parts, the theoretical review and the empirical review part. In the theoretical review part the theories that states about the commercial banks deposits and the variables that is claimed to affect it are discussed. The empirical literature part discusses past studies that were conducted on the area of factors determining commercial banks deposits.

#### 2.1 Theoretical review

There are articles, journals and different information on the issue of the commercial banks deposits and the factors which controls the commercial banks deposits. Some authors had classified the factors and explain their relationship with commercial banks deposits.

Commercial Banks deposits are dependent on depositor's money as a source of funds. According to the Keynesian theory of demand for money, there are three main motives why people hold money: transactions, precautionary and investment motives. In order to cater for these motives, commercial banks offer three categories of deposit facilities that are demand, savings and time deposits. Demand deposit facility is most commonly referred to as current account and is designed for those who need money for transaction purposes. This motive can be looked at from the point of view of consumers who want income to meet their household expenditure and from the viewpoint of businessmen who require money and want to hold it in order to carry out their business activities. Hence, the purpose of deposit facility is for convenience or for making daily commitments. Bank deposits represent the most significant components of the money supply used by the public, and changes in money growth are highly correlated with changes in the prices of goods and services in the economy (Sergeant). Bank deposits are made to deposit accounts at a banking institution, such as savings accounts, checking accounts, time deposit accounts and money market accounts. The account holder has the right to withdraw any deposited funds, as set forth in the terms and conditions of the account. The "deposit" itself is a liability owed by the bank to the depositor (the person or entity that made the deposit), and refers to this liability rather than to the actual funds that are deposited.

##### 2.1.1 Purpose of deposit

From depositors' point of view, the key purposes to use deposit in bank are safety of their money, easy access and a possible real return. In general depositors keep their money in banks

for a motive to undertake some activities in the future. According the author (Bhatt), there are motives to save money, the followings are the example of some motives:-

- ❖ to own house
- ❖ to provide for children's education and marriage
- ❖ to provide for old age
- ❖ to bequeath property to children
- ❖ to provide for emergency expenditure

### **2.1.2. The function of banks in financial systems**

Understanding the many roles that banks play in the financial system is one of the fundamental issues in theoretical economics and finance. The efficiency of the process through which savings are channeled into productive activities is crucial for growth and general welfare. Banks are one part of this process. Lenders of funds are primarily households and firms. These lenders can supply funds to the ultimate borrowers, who are mainly firms, governments and households, in two ways. The first is through financial markets, which consist of money markets, bond markets and equity markets. The second is through banks and other financial intermediaries such as money market funds, mutual funds, insurance companies and pension funds.

Financial sector is broad which consists of the banking sector and other financial institution (such as insurance corporations and pension funds, brokers, public exchange and securities markets etc.), however in the context of African continent the banking industry carries the greater share of the financial system (Sheku, 2005). Most of the business relies on banking sector as a source of financing (Medhat, 2004). Banks have historically been viewed as playing role in financial markets for two reasons. One is that they perform a critical role in facilitating payments. Commercial banks, as well as other intermediaries, provide services in screening and monitoring borrowers; and by developing expertise as well as diversifying across many borrowers, banks reduce the costs of supplying credit (Samolyk, 2004). Thus in their role as lenders, banks are often not merely buying someone's debt, rather they are providing significant financial services associated with extending credit to their customers and to the extent that investors want to hold banks liabilities, banks can fund borrowers directly. The main providers of additional financing are domestic commercial banks (Herald &Heiko, 2008). Banks perform various roles in the economy (Franklin & Elena, 2008):-

- ❖ They improve the information problem between investors and borrowers by monitoring the latter and ensuring a proper use of the depositors' fund.
- ❖ They provide inter temporal smoothing of risk that cannot be diversified at a given point in time as well as insurance to depositors against unexpected consumption shocks. Because of the maturity mismatch between their assets and liabilities, however banks are subject to the possibility of runs and systematic risk.
- ❖ Banks contribute to the growth of the economy.

Commercial banks are institutions that engage in two distinct types of activities, one on each side of the balance sheet deposit-taking and lending. So that banks are playing mainly intermediation function, this is supported by (Russell & Bamindele). Also states banks as the backbones of the trade and commerce playing the intermediary role of capital formation and supply. Even if other financial institutions are available banks play a major role in facilitating the way the financial sector operates. Therefore banks are important of all other financial institutions. Banks influence macroeconomic environment, as to (Adam), bank failures involve significant macroeconomic costs. (Adam, 2005), has developed evidence that bank failures have significant and apparently permanent effects on real economic activity. Therefore banks are also important influencers in macroeconomic environment.

Banks mobilize, allocate and invest much of society's savings. Households and businesses are mainly using banks to save their money to get loan for their project undertakings. (Kelvin, 2001), said that commercial banks are important financial intermediaries serving the general public in any society. In most cases commercial banks hold more assets than any other financial institutions. Apart from their many functions, commercial banks facilitate growth and development. Banks lend in many areas or sectors of the economy.

Moreover commercial banks will affect the overall economy of the specific country both in a good way or bad way. Commercial banks represent a vital link in the transmission of government economic policies (particularly monetary policy) to the rest of the economy. For example, when banks credit is scarce and expensive, spending in the economy tends to slow and unemployment usually an increase as (Kelvin) explains. So the event in the commercial banks will affect the country's economy in general.

Bank deposits represent the most significant components of the money supply used by the public, and changes in money growth are highly correlated with changes in the prices of goods

and services in the economy (Kelvin). Commercial banks are critical to the development process. By granting loans in areas such as agriculture, manufacturing, services, construction and energy sectors, banks contribute to the development of the country

Not only commercial banks are affecting the economy but also the economy affects the function of commercial banks. Bank loan portfolio including volume, tenor and structure may be generally influenced by their expectations of the performance of economy both in terms of stability and level of performance. As cited by banks make out more loans during periods of boom and reduced level of macroeconomic uncertainty and curtail lending when the economy is in recession.

### **2.1.3 Commercial bank deposits**

Commercial Bank deposits are major liabilities for commercial banks. (Kelvin), said that deposits of commercial banks account for about 75% of commercial bank liabilities. Due to the fact that commercial banks are using this liability to lend it and gain return on it their deposits are using them do their business. Therefore, banks will be better if they are mobilizing more deposits. However, as (N. Desinga) 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.

Deposits provide limits to the working capital of the bank concerned. The higher the deposits, the higher will be the funds at the disposal of a bank to lend and earn profits (N. Desinga). Therefore to maximize its profit the bank should increase its deposit. (Mahendra) had also mentioned deposits as a foundations up on which banks thrive and grow and 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. The number one expense item for a bank is interest paid. 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 (N. Desinga). (Hamid), said that if banks lose their deposit base they rely on non-deposit based funding which is expensive.

Deposits are of three kinds (N. Desinga,), namely:

1. Current or demand deposits
2. Fixed or Time deposits / Term deposits.
3. Savings deposits

Hence, the competition for deposits is really a competition for profits. Commercial banks compete for deposits in order to become profitable and thus to be able to supply more funds to the public. However such financial growth is profitable only if the commercial bank does not incur additional expenses to obtain and retain cash (Devinaga, 2010).

Commercial banks earn a return on their deposits and capital by investing deposit funds and capital funds in assets (Richard, 1971). That is for commercial banks to attain profit deposits are one of the most important sources of capital. Moreover, according to (Richard, ), capital structure in commercial banks are made up of shareholders' funds, borrowing and deposits. Therefore, deposits are one of the sources of capital for commercial banks.

### **2.1.3.1 The importance of deposits for banks**

Deposits are the foundation upon which Banks thrive and grow. They are a unique item on banks' balance sheet that distinguishes it from other types of business firms.

#### **2.1.3.1.1 Deposits as a source of fund for loan**

States deposits are the main source of banks to provide loan (Herald &Heiko, ). This deposit is mainly provided by people as (Salehi). However deposits can also be provided by business organizations, NGOs, government and so on. Therefore, whether deposits are from individuals, businesses and government they are important financial source of banks.

#### **2.1.3.1.2 Focusing on deposit is cheaper than raising equity**

Banks as any other business organizations can collect funds from debt and/or equity. In the banks context, raising equity is more expensive or costly than attracting deposits. (Lorenzo et al 2010) states that, if the lending channel plays a role, the deposit growth should lead to an increase in the supply of loans due to the additional source of financing for banks. As demand for loan increases because of the development work done by individuals, businesses and government, banks should extend their deposit base. When a commercial bank creates a deposit by lending to a business man, it is clearly performing a function for which it is entitled to a return in the form of interest payments (Harold, 1946).

#### **2.1.3.1.3 Banks make profit using their deposits**

Deposits provide most of the raw materials for bank loans and thus represent the ultimate source of the bank's profits and growth (Mahendra,). Banks make profit by using their deposits, therefore it is said that depositors can discipline banks. (Maria & Sergio, ), found that depositors discipline banks by withdrawing deposits and by requiring higher interest rates. For depository

corporations mainly deposit money banks, their principal objectives is undertaking financial intermediation to make profit and increase their shareholders value (Sheku,). They achieve their objectives mainly by attracting deposits and investing the money on profitable investment portfolio.

#### **2.1.3.1.1.4 Fund investment and/or development projects**

Debt is largely held by domestic commercial banks which are funded mainly from deposits, the government demand for bank assets enabled banks to continue to expand their deposit base rapidly (Herald &Heiko).Individual investors and government are mainly depending on the deposits of banks to fund their investments and/or development projects.

Generally, the banking system can be viable only if it can mobilize deposits at the required rate. And this can be done only by making a bank deposit more attractive (Bhatt, 1970).

The ability of a bank's management and staff to attract checking and savings accounts from business and individuals is an important measure of the bank's acceptance by the public (Mahendra). Banks' management major concern is the variability of deposits for several reasons. (Kaufman), mentioned the reasons why the variability of banks' deposit is important as follows:-

- ❖ Deposit variability is frequently included as an important determinant of portfolio strategy. The more volatile a bank's deposits are the more liquid its mix of assets will be.
- ❖ To the extent deposit variability affects bank holdings of cash and excess reserves, variability affects the distribution of total member bank reserves within the banking system and thereby the path and speed of monetary policy actions.
- ❖ To the extent deposit variability affects the mix of banks assets; it affects the availability of funds for loans and consequently the loan rate.
- ❖ To the extent deposit variability affects both the mix of earnings assets and the frequency of engaging in costly reserve adjustments, variability affects the profitability of individual banks.
- ❖ Deposit variability is an important factor influencing bank use of the Federal Reserve discount window and thereby affects discount administration.

#### **2.1.4 The determinants commercial banks deposits - theory**

An important indicator of the success and efficiency of any credit agency, which is also a banking institution is, the extent to which it is able to mobilize the savings of the community in the form of deposit. But deposit mobilization is very difficult task. It depends up on various factors exogenous as well as endogenous, to the banking system (N. Desinga,).Exogenous factors

are the general economic environment of the region, the volume of business transaction of the region, the confidence of the people on the banking system, the banking habit of the people and the saving potential of the region. Even when exogenous factors are more conducive for deposit mobilization, banks may fail because of unfavorable endogenous factors such as location, type of building and window dressing(furniture, cheque books, vouchers, pay slips etc), which assure the customers about the physical fitness of a bank (N. Desinga, 1975).

As (N. Desinga,), did the researcher classify the variables which are claimed to have effect on the commercial banks deposits into two, namely exogenous and endogenous factors? Exogenous has further divided into country specific and bank specific factors for clarification purpose. Endogenous factors can be controlled by the banking system; however the exogenous factors cannot be controlled by the banking system. The bank specific factors are factors that are specific to the banking system and the country specific factors are factors that are beyond the banking system.

#### **2.1.4.1 External factors**

These are factors that are from country and banks that can affect the growth of commercial banks deposits. There are discussed as follows:-

##### **2.1.4.1.1 Country specific factors**

The country's economic, social and political factors can affect the commercial banks deposit. According to (Herald &Heiko,), country specific risks such as political, economic and financial risks may affect the propensity for depositors to place funds in the banking system.

Any single bank operates under the rule and regulation of the country where it belongs, also different problems and shocks that has happened in the country has its own concern in the banks operation. Generally, a bank success in their operation is mainly depends on the environment where the business is undertaken.

The researcher has identified ten country specific factors that have affected the commercial banks deposits from the literature. They are saving interest rate or deposit rate, inflation, real interest rate, number of commercial banks available in the country, population growth, per capita income of the society, economic growth, consumer price index, gross domestic product (GDP) and shocks.

## 1. Saving interest rate

One of the most effective factors for deciding to deposit in banking system is the interest rate (Mohammad & Mahdi,). Moreover, this article shows the impact of interest rate on the performance of the banking system to achieve the goals that are expected from the banking system. (Herald & Heiko,), also mentioned interest as one of the determining factor for commercial banks deposits. (Philip,), also states that the offering of attractive interest rate on bank deposits may be considered to have had a beneficial effect. Moreover, (Mustafa & Sayera, 2009) said that low deposit rates are discouraging saving mobilization. (Bhatt), said that the banking system is unlikely to be in a position to meet the demand for bank credit unless concerted policy is pursued to raise the rate of saving generally and the rate of saving in the form of deposits in particular.

Interest rate in the banking system is held as investment cost from the investor's point of view and opportunity cost from the depositor's point of view (Mohammad & Mahdi). Thus, capital market forces balance interest rates. In other words, the just and correct interest rate should be determined through market mechanism, that is, interest rate is balanced in supply and demand conditions in proportion with the inflation rate. (Eustacius & David), states that deposits are more interest rate sensitive and banks may choose to increase investments in interest rate sensitive assets and to decrease investments in loans. That is commercial bank deposits are interest rate sensitive, therefore as the interest rate changes the deposit of the commercial banks will change.

It is known that depositors bring money to the bank which the banks in turn lend it to the borrowers. The gross earnings of the bank are determined by the volume and composition of loan able funds and the rates at which they are loaned. After losses and expenses of operation are deducted, the net earnings provide a margin out of which interest on deposits can be paid. Because of the competition for these funds among bankers who desire to loan them at a profit, a bank must pay interest or lose deposits to a competitor. The payment of interest on deposits is explained in this wise, like any other interest rate. As to (Erna ), Economists, mainly conventional ones, believe that depositors are attracted to deposit their money in banks because of the opportunity cost of holding cash in hand is high when the interest rate is also high. This can easily be explained by the utility maximization (cost minimization) premise, as a depositor will choose an action that will maximize their welfare or satisfaction. As to (Richard,), regulation of the commercial banking industry affects the returns which commercial banks realize on their



deposits and capital. That is although deposits are the source for profit of banks it is influenced by regulation of the country. Accordingly, the higher profit rate on demand deposits is to a large extent the result of the prohibition against the payment of interest on these deposits. Therefore, depositors are motivated by returns.

Using an Adaptive Expectation Model (AEM), it is founded that depositors are indeed motivated by returns in Malaysia (Erna & Ekki,). On the other hand, (Erna & Ekki, ) states that the rate of interest does not have influence on the volume of the deposits. However, (Rose,) said that banks increase their deposits by offering higher deposit rate. These are the articles that contradict to each other in identifying the relationship between the commercial banks deposits and saving interest rates or deposit rate.

## **2. Inflation**

As to (Herald & Heiko), inflation is one of the factors that determine commercial banks deposits. Fischer showed that in Latin America the effect of inflation on savings and time deposit to GDP was significantly negative (Mohammad & Mahdi, 2010).

The classical belief is that, because bank assets and liabilities are expressed in monetary terms and because these assets will normally grow in line with growth in money supply, banks are relatively immune from the effects of inflation (Devinaga). In brief, monetary policy works by controlling the cost and availability of credit. During inflation, the Central bank can raise the cost of borrowing and reduce the credit creating capacity of commercial banks. According to (Devinaga, 2010), this will make borrowing more costly than before and thereby the demand for funds will be reduced. Similarly with a reduction in their credit creating capacity, the banks will be more cautious in their lending policies. Since the banks demand for fund decreases obviously the deposits will decrease. Banking system was affected by inflation D

in terms of deposit absorption and facilities grant (Mohammad & Mahdi). As to (Mohammad & Mahdi), in developed countries negative correlation between inflation and absorbed deposits and granted facilities has been documented. However, in developing countries the opposite is true.

Inflation is seen as an economic problem in developed countries in the second half of 20th century. Inflation with effect in economic growth, employment, income distribution and wealth as well as social and political conditions of a country can influence its entire dignity (Mohammad & Mahdi). Banking system as an important effective factor in economic performance has also been under the influence of inflation. As far as the effect of inflation on

financial sector conceived the literature demonstrates that inflation affects the capacity of financial sector for optimal allocating of resources. That is as inflation rate increases, true yield rate of money and assets decreases; therefore deposits are no longer attractive. Also the increase of inflation rate has a negative effect on the performance of financial sector through the market credits and in turn, on the performances of banks and capital markets and finally on the long term economic growth (Mohammad & Mahdi, 2010).

With respect to the effect of inflation on savings, it can be mentioned that in general, all individuals who save a part of their incomes in banks are directly damaged by the inflation and their assets decrease in proportion with money value decrease (Mohammad & Mahdi, ). In that case as (Mohammad & Mahdi) describes people try to change their cashes and savings to more reliable and stable forms such as land, jewelry, antiques, art collections, foreign currencies that causes to definite decrease in commercial bank's total deposit. High inflation rates reduce the real value of deposits (M. A. Baqui& Richard L. Meyer). According to (M. A. Baqui& Richard L. Meyer), inflation technically did not decrease deposit; however it decreases the value of deposits.

### **3. Real interest rate**

Real interest rate is nominal interest rate minus inflation rate. (Mohammad & Mahdi, ), said that in negative real interest rate condition, people withdraw their resources from banking system. According to this author some research supposed that decrease in real interest rate could decrease true demands for money (in its extensive definition including savings and time deposits). Therefore it states that the interest rate and deposit of the banks have positive relationship.

### **4. Population growth of the country**

The twin objectives of commercial banks, i.e. acquiring deposits and advancing credit cannot be attained without good banking habits of the people (Mahendra). Moreover (Mahendra, ) states that, the number of deposit accounts is more important because it ensures that the probability of account is more important because it ensures that the probability of account holders withdrawing cash at a time decreases as the number of deposit account increase, thereby creating advantage for banks in terms of increasing the size of the loanable fund. So the higher number of deposit accounts the greater is the advantage to banks. The number of deposit accounts depends on the number of deposit account holders.

## **5. Per capita income of the society**

According to (Jim.), per capita is the level of GDP divided by the population of a country or region. Changes in real GDP per capita over time are often interpreted as a measure of changes in the average standard of living of a country. If households and firms desire to hold more money, deposits will increase. So the relationship between income and deposit, is positive as the income of the society increases the same happens for the commercial bank' deposits. Income is expected to have a positive effect on deposits (M. A. Baqui& Richard L. Meyer, ). Therefore as society's per capita income increases the same will happen for commercial banks deposits. (Mahendra), also indicates that income of the society matters for banks' deposit growth.

## **6. Economic growth**

Economic performance is generally being measured through GDP (Gross Domestic Product), a variable that has also become the de facto universal metric for 'standards of living. It is universally applied according to common standards, and has some undeniable benefits mainly due to its simplicity.

According to (Herald &Heiko), growth is one of the determining factors for commercial banks deposits. GDP is calculated by adding up the value-added at each stage of production (deducting the cost of produced inputs and materials purchased from an industry's suppliers. (Erna &Ekki, ), finds four variables, GDP, number of Islamic bank's branch offices, profit sharing rate, and interest rate that are thought to have influence on the volume of deposits. So, GDP can influence the growth of commercial banks deposits.

### **2.1.4.1.2 Bank specific factors**

#### **1. Liquidity of the banks**

The concept of liquidity in finance principally lies in two areas

- a) Liquidity of financial instruments in the financial market
- b) The liquidity related to solvency.

The former related to liquid financial markets and financial instruments, smooth transactions and no barriers. As to (ISMAL), the latter discusses the obligation of banks to make payments to third parties. Some examples of this includes: setting up liquidity management policies, reserve liquidity, balancing assets and liabilities and preparing liquid financial instruments (ISMAL). An important measure of liquidity is loan to deposit ratio. The loans to deposit ratio is inversely related to liquidity and consequently the higher the loans to deposit ratio the lower the liquidity

and vice versa (Devinaga). Key liquidity indicators such as central bank credit to financial institutions, deposits as a share of monetary aggregates, loans to deposits ratios, are important for open market operations and liquidity management (Sheku). The basic need for liquidity, asset, liability, capital adequacy, credit and interest rates risks management are now more challenging than before. The banks' liquidity management involves acquiring sufficient liquid asset to meet the bank's obligation to depositors. According to the theories of financial intermediation, the two most crucial reasons for the existence of financial institutions, especially banks, are their provision of liquidity and financial services (ISMAL). According to (ISMAL), Regarding the provision of liquidity, banks accept funds from depositors and extend such funds to the real sector while providing liquidity for any withdrawal of deposits, however the banks' role in transforming short term deposits into long term loans makes them inherently vulnerable to liquidity risk (Bank for International Settlements, 2008b:1). Individual, business and government will be willing to deposit their money in banks if they are certain that they are safe to withdraw the money whenever they want, this is the question of liquidity of banks. The more liquid banks can attract the deposits.

A higher degree of financial intermediation (proxied by the loan-to-assets ratios) may signal a bank's success in generating income as well as a need for it to attract more deposits to support its increased lending activities (Herald & Heiko, ). A higher liquidity buffers (measured by the ratio of liquid assets to deposits) tend to favor deposit demand (Herald & Heiko,). Liquid banks as well as banks with a higher loan exposure are associated with higher deposit states that the liquidity situation of the bank also plays a significant role in determining banks deposit growth. According to (Nada), Banks perceived as risky should have had more difficulty attracting deposits and making loans than banks perceived as safe. When banks fail to pay for its depositors then it faces liquidity risk that makes other depositors not to deposit in that particular bank.

## **2. Profitability of the bank**

(Erna & Ekki, 2004), finds that the long run relationship between commercial banks deposits and the profitability of the banks. Higher bank profits would tend to signal increased bank soundness, which could make it easier for these banks to attract deposits (Herald & Heiko, ). However, the effect of bank profitability and bank size are found to be insignificant once controlling for the other variables. So, the effect of profitability and banks size on commercial bank deposit is lower as compared with other variables.

### **3. Security of the bank**

Security of banks matters in mobilizing deposit. Riskier banks would be able to attract deposits only paying higher Interest rates. The security of banks has its own impact on its attractiveness for depositors. For example in the existence of deposit insurance the depositors no longer are concerned about the soundness of their banks because their deposits are insured in the event of bank failure. So the bank should secure its system so as to mobilize more deposit than before and to attract new depositors and maintain the exiting depositors.

### **4. Banking accessibility**

There is a relationship between commercial banks deposits and commercial bank's branch expansion, not only are deposits influenced by bank branches, but the expansion of bank branches is also influenced by the level of deposits in any area (M. A. Baqui & Richard L. Meyer, ). It is expected that banks make decisions on expanding their facilities by considering factors such as level of competition, deposit potential, regional income and existence of road and vehicles. As deposit potential is one thing that banks consider in expanding its branches, the deposit can also be a reason for branch expansion strategy that the banking sector uses. According to (Erna & Ekki), there is a long run relationship between commercial bank branch and commercial banks deposits.

It is often argued that branching stabilizes banking system by facilitating diversification of bank portfolios. (Mark & Kris), found from theoretical literature on banking regulation that branch banking leads to more stable banking systems by enabling banks to better diversify their assets and widen their deposit base. An argument commonly articulated in the literature is that branch banking stabilizes banking systems by reducing their vulnerability to local economic shocks; branching enables banks to diversify their loans and deposits over a wider geographical area or customer base (Mark & Kris). Restrictions on branching have been linked to the instability of banking systems. (Daniel), suggest that the lack of widespread branching bank networks hindered the development of large-scale industrial firms. It is stated that unit banks become increasingly incapable of receiving deposits from a widespread geographic area. The single office bank is also not able to monitor geographically diffuse debtors as easily as could be done with multiple offices. Moreover, it can be concludes that under branch banking the mobility of capital is almost perfect.

## **5. Bank size**

Among the factors prominently identified as affecting deposit variability one is bank size. Evidence indicates that the number and diversity of the ownership of individual deposit accounts as well as the distribution of deposits by type vary with bank size (Kaufman). (Herald &Heiko), finds that although insignificant once controlled by other variables bank size have an effect on deposits. Smaller banks have to generate fewer deposits in absolute terms to achieve the same deposit growth than large banks, thus possibly favoring smaller banks in achieving higher deposit growth. But a larger bank with economies of scale as well as larger branch network might be able to better attract deposits (Herald &Heiko, 2008).

## **6. Reserves**

(Thorn & S.), said that reserves that are fixed legally can influence the deposits that banks can hold. According to them reserve requirements determine the maximum amount of loans and investments that each commercial banks and the banking system as a whole may maintain in relation to deposits. Thus, if the reserve requirement is 20 percent of deposits, loans and investment (of the bank's own choosing) may not exceed 80 percent of deposits.

Therefore, reserve requirements limit the total expansion of bank deposits that can occur on the basis of any primary increase in deposits. Reserve requirements also have the effect of limiting the reduction in bank credit and deposits that is forced up on the banking system by a primary decrease in deposits. The commercial banks can obtain currency to pay out to customers only by drawing down their reserve deposits at the central bank or by using till money (Thorn & S., 1959). Till money, according to (Thorn & S.) is the currency that banks keep on hand to satisfy day to day needs. They pointed out that bank deposits are a large part of the money supply in virtually all countries.

## **7. Transaction cost**

Important indicator of management's effectiveness in any bank are whether or not deposited funds have been raised at the lowest possible cost and whether enough deposits are available to fund those loans the bank wishes to make (Mahendra, 2005).

This last point highlights the two key issues that every bank must deal with in managing its deposits (Mahendra, 2005):-

- ❖ Where can the bank raise funds at the lowest possible cost?

❖ How can management ensure that every bank always has enough deposits to support the volume of loans and other financial services demanded by the public?

### **8. Financial technologies**

Financial technologies such as card banking enable customers' access to cash services 7-days-24 hours by making large cash carrying unnecessary (Mr Gunnar & Mr Zhao). It shifts out the traditional frontier of access to banks. Deposit per capita of countries had grown well after the introduction of card payment, ATM and mobile/internet banking technologies in their financial system. A study in Georgia indicated that these technologies have reduced public preference to holding cash in purse.

### **9. Foreign remittance**

Remittance from Diasporas to families in home-country has become another significant determinant of household saving and domestic private savings (Athukorala & Sen, ). 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.

### **10. Awareness of the society**

According to (M. A. Baqui & Richard L. Meyer), some analysts argue that demand for deposits is influenced by education level which in turn increases the awareness of the rural people about banking services. Since the study of (M. A. Baqui & Richard L. Meyer) conducted by taking rural area as its base it is obvious that it considers the awareness as a factor of deposit mobilization. It was also found that literacy as a proxy for awareness about banking, positively influence deposits.

### **11. Convenience of bank's office**

Road and vehicles directly influence interest bearing deposits because of the reduction in depositors' transaction costs through reduced time spent in travelling to and from banks (M. A. Baqui & Richard L. Meyer). Banks can mobilize more deposit when they make themselves closer to their customers (depositors).

## 12. Services in the bank

Services can be defined as “any primary or complementary activity that does not directly produce a physical product that is the non-goods part of the transaction between customers and providers.

It is known that banks are service giving organizations and the service delivery can affect their business undertakings. (M. A. Baqui & Richard L. Meyer), stated that there is some empirical evidence demonstrating the positive influence of services rendered to depositor. Further suggested two innovations to be tested to provide incentives to depositors:-

- ❖ Additional benefit like prize bounds could be given to depositors for maintaining deposits for particular period.
- ❖ One category of deposits might be specifically tied to future loans. Bank customers might be encouraged to participate in a savings program that, for example, provides machinery or housing after a predetermined amount of savings has been accumulated.

Services in the bank should be attractive enough for the depositors so as to mobilize deposits. If the banks could offer these services, the savers would be inclined to keep a part of their saving in the form of deposits (Bhatt). The followings are services that (Bhatt) claims to use to mobilize deposits:-

- (1) Door-to-door collection of small saving in the form of deposits.
- (2) Offering land revenue or insurance premium: If the banks offer to pay land revenue or insurance premium out of the interest earned on deposits, some persons may be inclined to put deposits of such amounts as would earn enough interest to meet their land revenue or insurance premium liability. To attract deposits these types of services are worth providing.
- (3) An investment service: Some savers have neither the inclination nor the time to select an appropriate portfolio of financial investment. Banks can select the portfolio of investments on their behalf, keep the securities in safe custody, collect Interest/dividend income and even fill income-tax forms; with such services offered, some savers would be inclined to keep their liquid funds in the form of deposits.
- (4) Some persons like farmers get their incomes say once or twice in a year, while their expenditure is spread over the whole year. If banks could collect deposits from them at the harvesting season, and assure them regular withdrawals during the year, farmers may be inclined to keep deposits with the banks. This scheme would ensure safety of their funds, prudence in



their management and certainty of regular monthly means to meet their current liabilities. In addition they would earn some interest. With a sympathetic and persuasive approach, farmers could be attracted to such a scheme.

(5) While giving loans to farmers and small sector, the banks could provide them with facility of purchases from recognized dealers instead of giving those cash. In this case, the dealers could send the bills to the banks, which would debit the accounts of the loan receivers. Some banks have introduced agro-cards with such a purpose in mind. If such facilities are provided to others also, the customers would use bank money rather than currency for making payment and once they form this habit, they would be induced to keep their transaction balances in the form of deposits rather than in the form of currency.

According to (Bhatt, 1970), these are some of the new deposit schemes which, if introduced, could raise the rate of saving as well as the rate of growth of bank deposits. To the extent to which the rate of saving is raised, the growth rate of the economy would be higher. To the extent to which the deposit growth rate is raised, the community would have more effective control over the allocation of financial resources for plan purposes

## **2.2 Empirical Review**

### **2.2.1 Factors affecting Deposits mobilization**

Commercial banks are the most dominant depository institution. They serve investors by offering wide variety of deposit accounts, and they transfer deposited funds to deficit units by providing direct loans or purchasing debt securities. Commercial banks serve both the private and public sectors, as their deposit and lending services are utilized by households, businesses, and government agencies. In doing activity commercial bank faces numerous challenges.

Asele conduct a study to analyze the relationship between real deposit rates and financial savings in Kenya and found that real deposit rates do not significantly affect savings mobilization. This was in relation to government control in setting savings deposit rates below inflation. The country had negative real savings deposits in the 1980 's after the start of liberalization reforms. It was also revealed that nominal exchange rate had a significant effect on the mobilization of deposits by commercial banks. The period of devolution resulted in currency substitution.

Maende obtaining time series date between 1968 and 1991 and employed ordinary Least Squares, Two –Stage Least and the Granger test of causality. He examined the determinates of

demand for commercial bank deposits in Kenya. It was revealed that the number of branch network and national income levels and stability were the main determinants of deposits in the banking industry. He also observed that there is a unit-directional relationship between volumes of bank deposits and branch network expansion.

Sowa in Ghana Using data from 1960 to 1988 price index which served as a proxy for inflation was found to be statistically significant. He also found that money demand is a function of interest rate, Exchange rate, income, inflation, and lagged money stock . However, exchange rate did not show any significant influence on money demand. He equally found that interest rate was significant and attributed its significance to the weak market in Ghana.

Gupta examined the effects of real interest rates on personal savings of rural and urban households in a survey of a group of Asian and Latin American countries, using per capita aggregate savings as the dependent variable in a cross –sectional model with alternate interest rate as independent variable. He concluded that though per capita income levels were low incentives such as positive real interest rates have an effect on the structure of savings. In his findings, financial savings as a percentage of total savings increases with increases in deposit rates.

Herald Finger and HeikoHesse (2009) used quarterly data from 1993 to 2008 from 50 Lebanon banks. They empirically examine 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 praying the availability of funds from the Gulf. At the micro level, they found that the perceived riskiness of individual banks, their liquidity buffers, loan exposure, and interest margins, bear a significant influence on the demand for deposits.

As mentioned above, various studies were conducted on the factors affecting deposit mobilization by commercial banks. Most of these studies adopted a macroeconomic approach yet the behavior of economic units on the aggregate level may not necessarily be the same as on an individual or household level. In addition to that the solution to individual problems is on the hands of the bank. Thus, this research was focused on factors affecting deposit mobilization on the individual level.

Teseaye (2011) and mahlet(2014) both indicate on their study due to the existence of competitors some customers are inclined to the service of other banks creating challenges on the deposit mobilization effort on the commercial bank of Ethiopia .The commercial bank of Ethiopia should examine its overall service excellence and try to improve service quality by excel competitors bank by implementing different mechanism to decrease the waiting time .Beside more effort are required to meet customer expectation and bring the service excellence to the required level.

Summarizing the result from numerous studies on factor affecting deposit are both internal and external factors .Internal factors related to bank management are staff capability, service quality, branch network, number of bank branches, and bank liquidity(danel,2005 ,deaton 197, and wibetu).on the other hand external factors which highly affect the task of saving mobilization are related to the environment in which the bank operates includes GDP, growth rate ,economic growth, inflation, interest rate, wealth of society, exchange rate, and monetary policy by (bruce George, 1965and sowa,).Above stated factors need to be considered in this paper for further analyses because for two reasons..Firstly the variables supposed to have huge impact on deposit mobilization process positively and negatively as shown by privies findings. Secondly though these factors studied by different scholars on whether these factors general sensitivity to saving which lacks detailed and specific impact of each variable on saving mobilization. Besides the study is conducted based on business environment mainly using business environment of developed countries so this paper need to investigate further on variables which needs more study in our country business environment.

In general this paper tries to analyze previously studied factors in more detailed and with circumstance existing in our country at the same time identifying further internal and external variables which affect deposit mobilization so as to measuring the level of their effect.

## CHAPTER THREE

### METHODOLOGY OF THE STUDY

#### **3.1 Introduction**

**This chapter describes the sources of data, the research design, and the characteristics of the study population, sample, sampling techniques, and statistical tools that is used in the study. It explains the type of data that is used for the study and the techniques that is employed in identifying the factors that influence the bank's deposit mobilization**

#### **Research design**

In order to study the factors of bank deposit in case of Commercial Bank of Ethiopia, researcher adopts both quantitative and qualitative research approach.

##### **3.2.1 Qualitative Approach**

The quantitative approach used to collect and evaluate the internal factors of deposit mobilization through developing and distribute questionnaires to the employee of the bank.

##### **3.2.2 Quantitative Approach**

The quantitative approach involves the use of regression analysis in estimating the relationship between deposit and variables that emerge as its explanatory variables. The bank deposit is the dependent variable while population growth, exchange rate, inflation, number of branch and nominal GDP used to represent the independent variables.

#### **3.3 Population and Sample size**

The target population of the study is the employee of Commercial Bank of Ethiopia, Addis Ababa city. For sampling purpose convenient sampling of CBE employee is implemented. Primary data is collected from the employees of CBE particularly from those employees who actively participated in deposit mobilization tasks in selected city branches from four districts of the city, namely East, West, North and South.

The population of the district is 2201 employees for north district, 1822 for east, 1798 for west and 1721 for south district which equals to 7542 employees in total (CBE annual report, 2015). Based on the recommendation of (Eihgie, 2006); to make a more specific study, with specific respondents. The researcher used judgmental sampling which enable the researcher to pick out respondent that have close information and knowhow with regard to saving mobilization activity of the bank. Accordingly the respondents is selected from the organizations based on the following bench marks namely level of experience, understanding or the approach to the topic

from different sections that can give better image of problems and challenges regarding saving mobilization.

In order to make intensive study population is has to be minimized to appropriate sample group. The plan was to select 250 employees of the bank at different level of position, experience and academic status but only 244 questionnaires s collected. The basis for choosing this number is in accordance with Dillman (2000) and Hill et al. (2003) that, a sample size of 100 and above is sufficient to present good concise research findings when the population contains a large number of units.

On the other hand to study the correlation of dependent and independent variables the researcher uses 16 year period data from 1999/2000 up to 2014/15. On this point of view the target population under reviewed is the economy of Ethiopia and the commercial bank of Ethiopia.

### **3.4 Source of Data**

The study uses both primary and secondary data. The primary data needed for this study were collected from the randomly selected Addis Ababa city branches staff of CBE. The questionnaires are distributed to the employees of commercial bank of Ethiopia particularly for those employees who actively participated in deposit mobilization tasks in selected city branches. The rationale for this selection was the larger proportion of bank deposit and the number of staff on the hands of in those city branches.

The target population under review of secondary data is bank - specific and macroeconomic factors of bank deposit over the twenty five years period 1989/90 up to 2014/15 using time series data. Regarding the sources, secondary data was acquired from internal and external. The internal sources of data for the bank - specific variables were collected from the annual audited reports, which are published and unpublished sources of materials. The external sources are National Bank of Ethiopia (NBE) which regulates the banking sector of the country, Ministry of Finance and Economic Development (MoFED) which regulates the macroeconomic issues of the country and Central Statistics Authority (CSA) annual reports and others.

### **3.5 Method of data analysis**

The collected data is analyzed by using both descriptive statistics and regression analysis methods.

Statistical package for social science (SPSS) is used in data analysis to compute for statistical tables that is collected from 244 respondents. The collected data from questionnaires is analyzed by using descriptive statistics.

The collected data was regressed by time series OLS regression method and interpret with the help of different financial relationship and statistical description including standard deviation, average, minimum, maximum and median and multiple regressions (significant test). To conducted this, the researcher supported by statistical tool eviews7 software. And finally the proposed hypotheses are tested statistically to arrive at the conclusion and policy implication.

### **3.6 Model specification**

The nature of data used in this study enabled to use time series. Quantitative data received are described through multiple regression technique. It contains one dependent variable, many independent variables, the constant term and the error term. This regression analysis allows to explicitly controlling for many other factors that simultaneously affect the dependent variable. This is important both for testing economic theories and for evaluating policy effects when we rely on non-experimental data.

Moreover, multiple regression models may accommodate many explanatory variables that may be correlated. Naturally, if we add more factors to our model for explaining dependent variable, then more of the variation in dependent variable can be explained. Thus, multiple regression analysis can be used to build better models for predicting the dependent variable. An additional advantage of multiple regression analysis is that it can incorporate fairly general functional form relationship and the model allows for much more flexibility.

Accordingly the econometric estimation technique that is used by this study is Ordinary Least Square (OLS). Different diagnostic tests are exercised to know whether the model is valid or not, having the model is valid the regression analysis and hypothesis testing is performed using EViews7 software.

Depending from the theoretical views, the study estimated the linear regression equation by calculating the log values of the variables in the following equation.

$$BD = b_0 + b_1 PN + b_2 EX + b_3 INF + b_4 NB + b_5 NB + b_6 NGDP + \varepsilon$$

Where, BD= bank deposit (dependent variable)

$b_0$  = represent the slope coefficient to the dependent variable.

$b_1, b_2, b_3, b_4, b_5, b_6$  = represents coefficient of independent variable

PN=population growth for period t.

EX= exchange rate for period t

INF = inflation for period t

NB = number of branch for period t

NGDP = nominal gross domestic product for period t

$\varepsilon$ = stochastic error term of the multiple regression model.

### 3.7 Hypotheses

The study had used the multiple regression technique to show the relationship between CBE total deposit and the factors that the literatures claims to affect total deposit of commercial banks particularly CBE.

The null and alternate hypotheses of the regression are explained as follows;

**H<sub>0</sub>:** There is no any relationship between independent and dependent variables, i.e. bank deposit, population growth, exchange rate, inflation, number of branch, nominal GDP.

**H<sub>1</sub>:** There is relationship between independent and dependent variables, i.e. bank deposit, population growth, exchange rate, inflation, number of branch, nominal GDP. The null hypothesis is rejected at 5% significant level.

### 3.8 Validity and reliability of data

It is well known that secondary data are vulnerable to some errors by data collection process. This definitely affects the outcome of the study. But the methodology used for this study was selected because of its suitability in its dependence on certified information from recognized institutions other than subjective opinions only, which would have been associated with primary sources. The F-test and the coefficient of determination were used to test the validity and reliability of the relationship established by the regression analysis. In the preceding chapters, we are going to see the result of the analysis that is the effect of each independent variable on the dependent variable.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND DISCUSSION

This chapter consists of the analysis of descriptive statistics for the internal factors and regression analysis for the external factors of deposit mobilization in CBE. In this chapter the dependent and independent variable will be tested their correlation and finally discussed which independent variable has strong correlation with the deposit mobilization.

#### 4.1 Frequency Distribution of the Questionnaire Response

##### 1. Sample Size and Respondent Profile

The sample sizes as discuss in chapter 3 a total of 250 questionnaires were prepared to potential respondents to fill the structured questions. Of the 250 potential respondents, a total of 244 questioners were collected and the remaining 6 is either lost or is not returned. In the end, a total of 244 respondents answered the entire survey. The overall respondent rate for survey was approximately 97.6%.

Table.1 Frequency distribution of sex, age, educational background, year of experience, and position of respondent.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	141	57.8	57.8	57.8
Female	103	47.2	47.2	100
total	244	100	100	
Valid 20-03	142	58.2	58.2	58.2
31-40	84	34.4	34.4	92.6
41-50	11	4.5	4.5	97.1
Above 50	7	2.9	2.9	100
total	244	100	100	
Valid College diploma	19	7.8	7.8	7.8
BA degree	213	87.3	87.3	95.1
MA/MSC	12	4.9	4.9	100
degree	244	100	100	
Total				
Valid Below 5 years	125	51.2	51.2	51.7
6-15 years	66	27	27	78.3
	39	16	16	94.3



16-25 years	14	5.7	5.7	100
26 and above	244	244	244	
total				
Valid Branch manager	9	3.7	3.7	3.7
Accountant	13	5.3	5.3	9
Auditor	15	6.1	6.1	15.
Customer Service	169	69.3	69.3	84.4
Officer	38	15.6	15.6	100
Other	244	244	244	
total				

Source: - SPSS output

All of the respondents are the employees of Ethiopian commercial bank of Ethiopia and from the result most respondents were males (57.8%), while 42.2% were female.

The average respondent was 20 to 30 years old, which is; about 58.2% of the respondents were from 20 years old to 30 years old. Moreover about 34.4% of the respondent was from 31 years old to 40 years old the rest which is about 7.4% were above 41 years old.

Furthermore respondent were asked about their educational background and about 87.3% of the respondent are BA degree holders. Moreover about 7.8% of respondent were college diploma holders and only 4.9% of the responders were M/MSC degree holders.

Responded also were asked about their occupational experience and from the total of 244 respondent the greater portion goes to below five years of experience which accounts 51.2%, 27.00% from 6-15 years, 16.00% from 16-25 years and 5.7% has above 26 years of experience.

On the other hand, respondents also answered about their position and the dominant number goes to the customer service officer, which accounts 69.3% and other position including branch manager, accountant and auditor it accounts 30.7%.

## **2. Questionnaire Finding on Internal Factors of Deposit Mobilization Activity**

The question aims to know whether existing employee skills and knowledge help them for promoting and collecting the intended deposit amount and among 244 respondents, 162 or 66.4% of the respondents are respond high that they believe their knowledge and skill will help them to promote and collect intended deposit amount. Furthermore 11.1% of the respondent is respond very high. The remaining 12.5% of the respondent are respond as neutral, low and very low.

On the other hand some employees answer the question, what kind of skill and knowledge you need to increase your capability. The respondent answer is their skill and knowledge will enhance if they get customer handling training.

Table 2 Employee skills and knowledge in relation to promoting and collecting of intended deposit amount

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very high	27	11.1	11.1	11.1
High	162	66.4	66.4	77.5
Neutral	16	6.6	6.6	84.0
Low	25	10.2	10.2	94.3
Very low	14	5.7	5.7	100.0
Total	244	100.0	100.0	

Source: - SPSS output

On the other hand the employees respond their perception on the adequacy of training given to them regarding deposit mobilization and the respondents find it that the training is helpful. According to the result 73.4% respondents select high and 10.7% select very high and the remaining 16% goes to low.

Table 3 Employees' training on deposit mobilization activities.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very high	26	10.7	10.7	10.7
High	179	73.4	73.4	84.0
Low	39	16.0	16.0	100.0
Total	244	100.0	100.0	

Source: - SPSS output

As we can see the result in the following table, the majority questionnaire respondents choose neutral which accounts 45.9% and this explains that employees didn't have any clue whether higher officials of CBE is concerned and work to address branch challenges on deposit mobilization activity on the other side second best result is explains that employees know and experience it that higher officials of CBE work for addressing branch challenge with 44.3% also 3.7% is given to very high. The remaining 6.2% choose low and very low also this group suggest that the higher managements should work very closely by seen the reality that exist in the branch rather sit in office and make decisions.

Table 4 cooperation of concerned higher official

	Frequency	Percent	Valid Percent	Cumulative Percent
Very high	9	3.7	3.7	3.7
High	108	44.3	44.3	48.0
Neutral	112	45.9	45.9	93.9
Low	7	2.9	2.9	96.7
Very low	8	3.3	3.3	100.0
Total	244	100.0	100.0	

Source: - SPSS output

Another question in the questionnaire aim to know whether the government role and regulation affects the deposit mobilization activity of the band and the majority of the respondent goes to high with 82% and the remaining 185 choose neutral, low and very low. The majority respondent say that it has positive effect by stating the condominium saving which regulates the customers to open and save only on CBE branches and according to the respondent this increases significantly the bank deposit.

In relation to the above, one respondent believe that the government force CBE to give foreign currency for prioritized areas of business but this have huge effect on branches deposit because of this regulation some business depositors close their CBE account and go to other private banks.

Table 5 Government role and regulation effect

	Frequency	Percent	Valid Percent	Cumulative Percent
High	200	82.0	82.0	82.0
Neutral	33	13.5	13.5	95.5
Valid Low	5	2.0	2.0	97.5
Very low	6	2.5	2.5	100.0
Total	244	100.0	100.0	

Source: - SPSS output

According to the gathered data, the next table shows that the branch employees think that their customers have appropriate and enough awareness about importance of saving by 88.9% of respondent and only 11.1% employees think that the customers didn't have enough awareness about saving.

The employees, who say no to this question, recommend that the bank should increase awareness about saving but not only by promotion and prize techniques, the bank also should increase deposit interest rate by considering the current country inflation.

Table 6 Customer awareness on the importance of saving

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	217	88.9	88.9	88.9
No	27	11.1	11.1	100.0
Total	244	100.0	100.0	

Source: - SPSS output

Majority of respondents answer yes for the question ‘‘ Do you think that the customers in your branch satisfied by the service of CBE and your branch?’’ and this counts about 88.9%. the remaining 11.1% responds ‘‘No’’ and they recommends that the bank should improve customer satisfaction through improving the network, improving the mobile banking service and ATM

services and one of the respondent also recommend that the bank first must satisfy the employees otherwise the unsatisfied employee will create dissatisfaction to the customer.

Table 7, Satisfaction on service of CBE?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	140	57.4	57.4
	No	104	42.6	100.0
	Total	244	100.0	100.0

Source: - SPSS output

The respondent also answers for the question “What do you think the most influencing internal factors in deposit mobilization activity, which make people to deposit in your branch?” as follows.

- ❖ Public trust and reliability
- ❖ Customer handling
- ❖ Big depositor Rewarding system
- ❖ Service efficiency
- ❖ Delivery time
- ❖ Accessibility
- ❖ Different packages of bank product

The respondent also answers for the question “What are the most recurrent factors in your deposit mobilization endeavor?” as follows

- ✓ Service quality
- ✓ Network problems
- ✓ Foreign currency procedures
- ✓ Some of the bank procedures

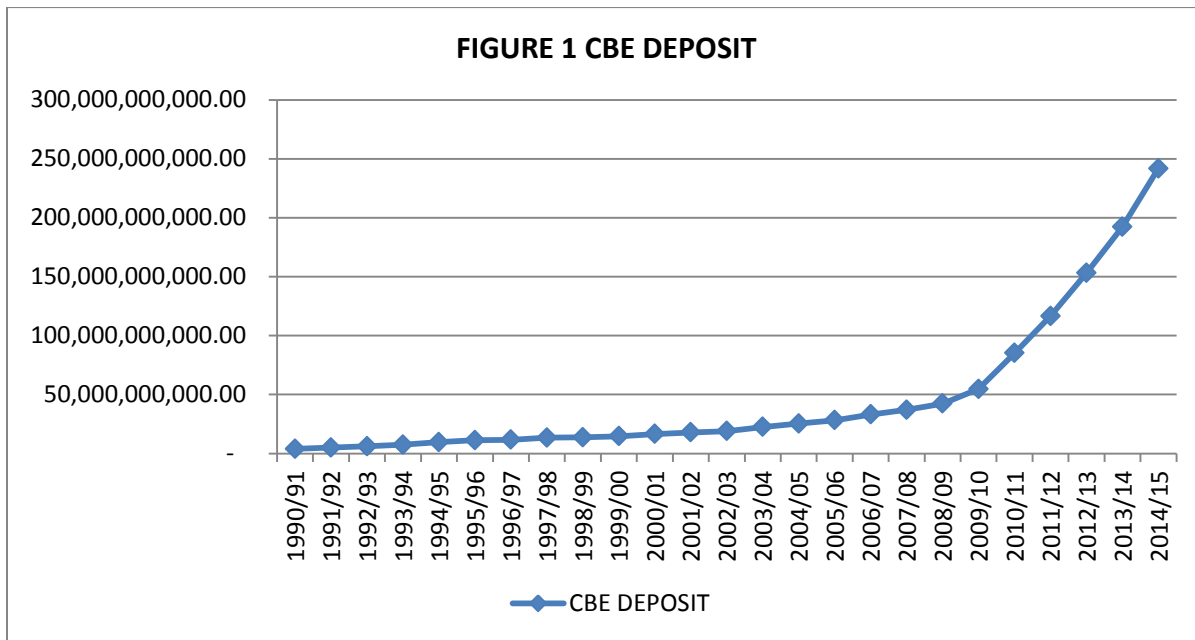
## 4.2 Statistical Description of the Dependent and Independent Variable

### 1. Dependent Variable – Bank Deposit

The following diagram reveals that CBE deposit increased over the years from 1990/91 to 2014/15 GC. Despite this consistent increase in deposits, it is realized that the year 1990/91 up to

2005/06 GC shows a slow growth. At that time there was less public awareness to savings, less branch accessibility to the society and little financial technologies such as E-banking, but after that as we can see in the diagram, there was a huge increment from 2006/07 up to 2014/15.

Figur 1 CBE deposit



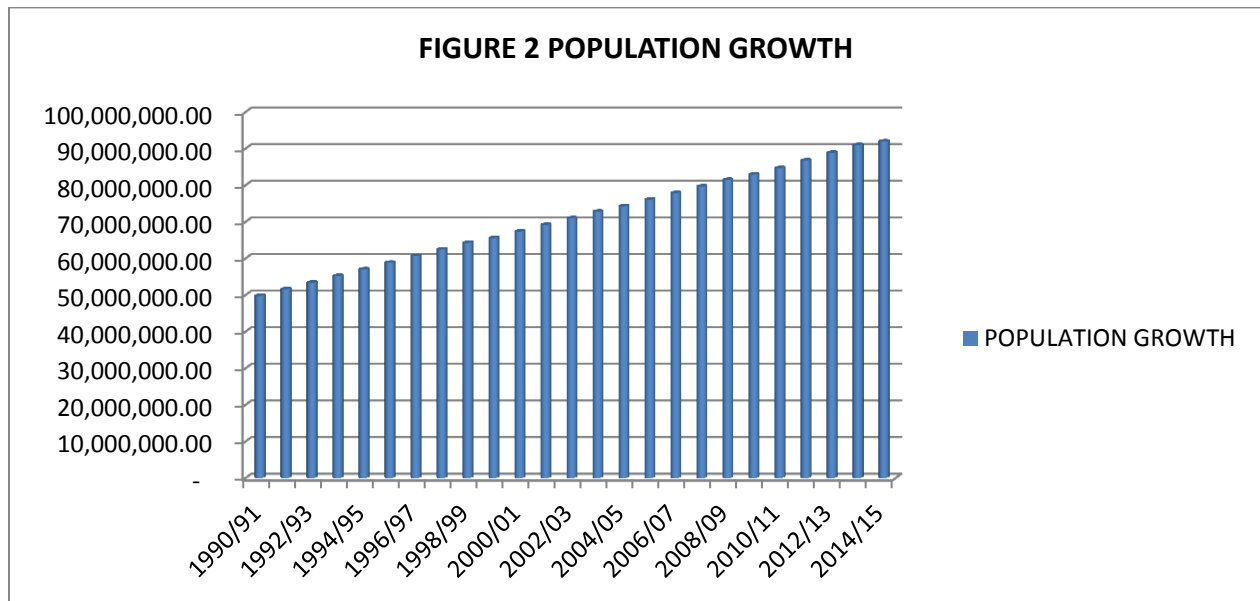
Source; output of regration analysis

## 2. Independent Variable

### 2.1. Population Growth

According to the report by Population Information Resource of Ethiopia, the population increased fourfold between 1900 and 1988. At the beginning of the present century the crude rate of natural increase was estimated at 0.3% per annum. In 1984 census, it was 2.9% a year. The total population in 1900 was estimated at 11.8 million. It took 60 years for this to double to 23.6 million in 1960. It took only 28 years for the population in 1960 to double to 47.3 million in 1988. The report also disclosed that the Population grew at average annual rate of 2.5% between 1965 and 1980 and at 2.9% between 1980 and 1989. If the prevailing fertility rate continues and mortality declines as would be expected under improving health service, it is projected that the population of Ethiopia may grow at the rate of 3.1 % or more a year during the remaining part of the present century.

Figure 2 population growth



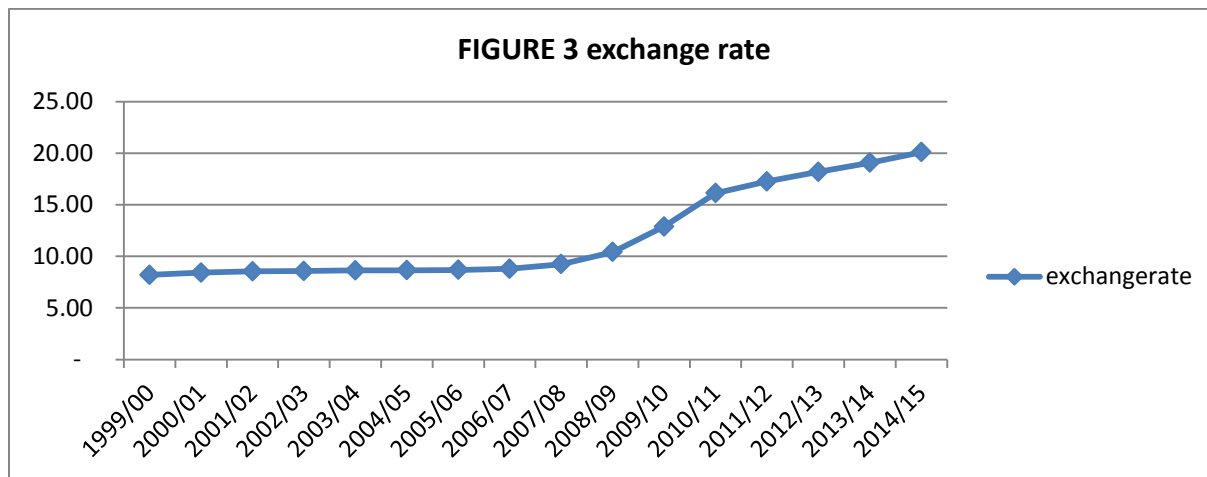
Source; output of regration analysis

## 2.2. Exchange rate

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 slow rate and it reached 18.19/USD at the end of 2012/13.

The average exchange rate of Birr against US dollar in the official market showed annual depreciation of 5.4 % since 2011/12. In 2015, the exchange rate reached 20.10 Birr/USD, 5.85 % depreciation since January 2013.

Figure 3 exchange rate



Source; output of regration analysis

### 2.3. Inflation

Historically Ethiopia has been one of the low inflation economies with average inflation rate of less than 5 % since 2006. However, In July 2008, an all time high inflation rate of 64 % was recorded. The major causes were suggested to be the then high fuel and food prices shocks, weaker foreign exchange earnings, and rising demand for imports that depleted international reserves of the country. The highest price increase was observed in food, housing, fuel and transport services, making the urban poor the most vulnerable to the impacts of inflation (UNDP 2014).

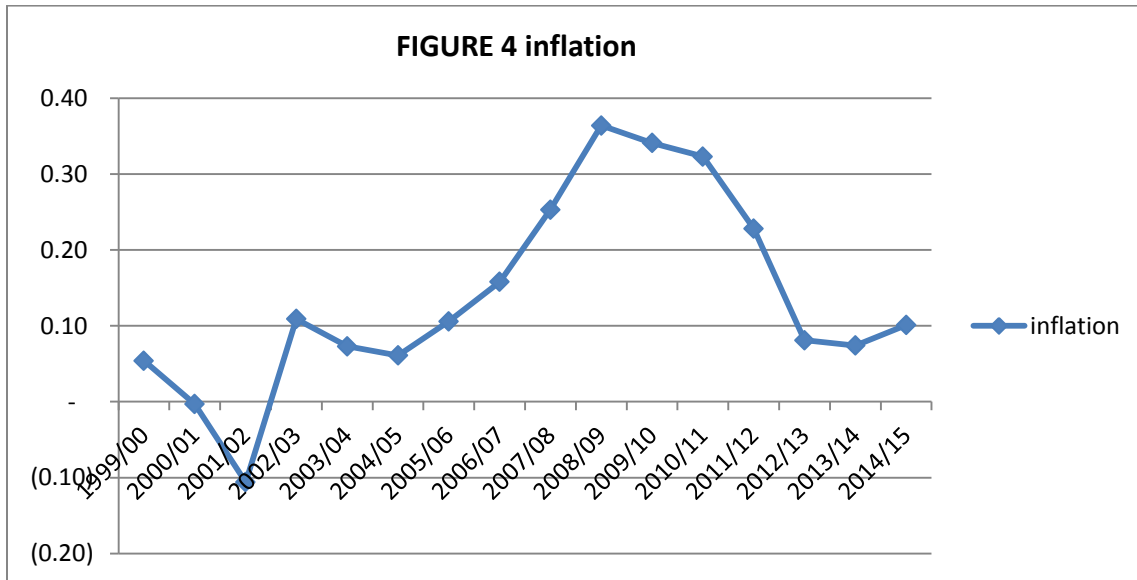
According to the latest (2010/11) survey on household income and expenditures, households on average spent 53 % of their income on food and non-alcoholic beverages (the percentage is higher for households in the lower expenditure quintile), 16.3 % on housing, water, electricity and fuel with urban households in the lowest expenditure quintile tending to spend more on this category (29 %).

Inflation reemerged in 2012 and reached a peak of about 40 % in September 2012. Looking at the components, the food and nonalcoholic beverages category has been the main drivers of overall price movements. However, year on year food and nonfood inflation rates contained back to single digits in 2013. In January 2015 while headline inflation became 7.8 %, food inflation tumbled down to 5.1 % and non-food inflation to 10.9 %. Although inflation is low compared to



the previous two years there are signs of the rate increasing in recent months especially in then on food category (UNDP 2014).

Figure 4 inflation

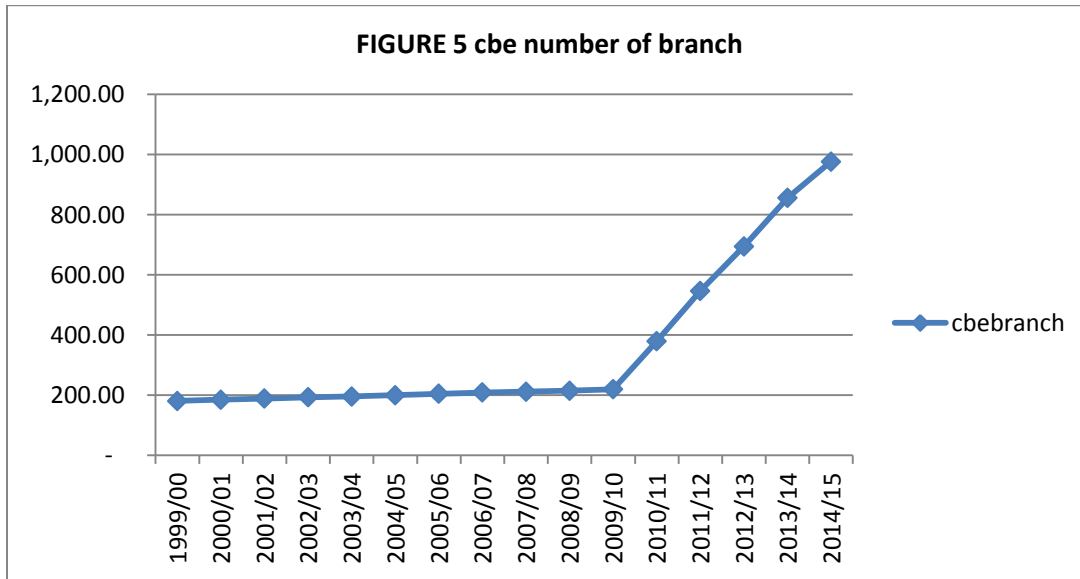


Source; output of regration analysis

#### 2.4. Number of Branch

The total number of branches opened by commercial bank of Ethiopia is shown drastic increase since 2010. Before 2009, there was limited branch expansion while during the period of 1999 and 2009 only forty additional branches were opened throughout the country. Since 2009, CBE aggressively increase the number of branches, mainly intended to deposit mobilization. Currently, the bank opened nearly 200 branches per year and now number of branch reached 977as of June 2015.

Figure 5 CBE number of branch



Source; output of regration analysis

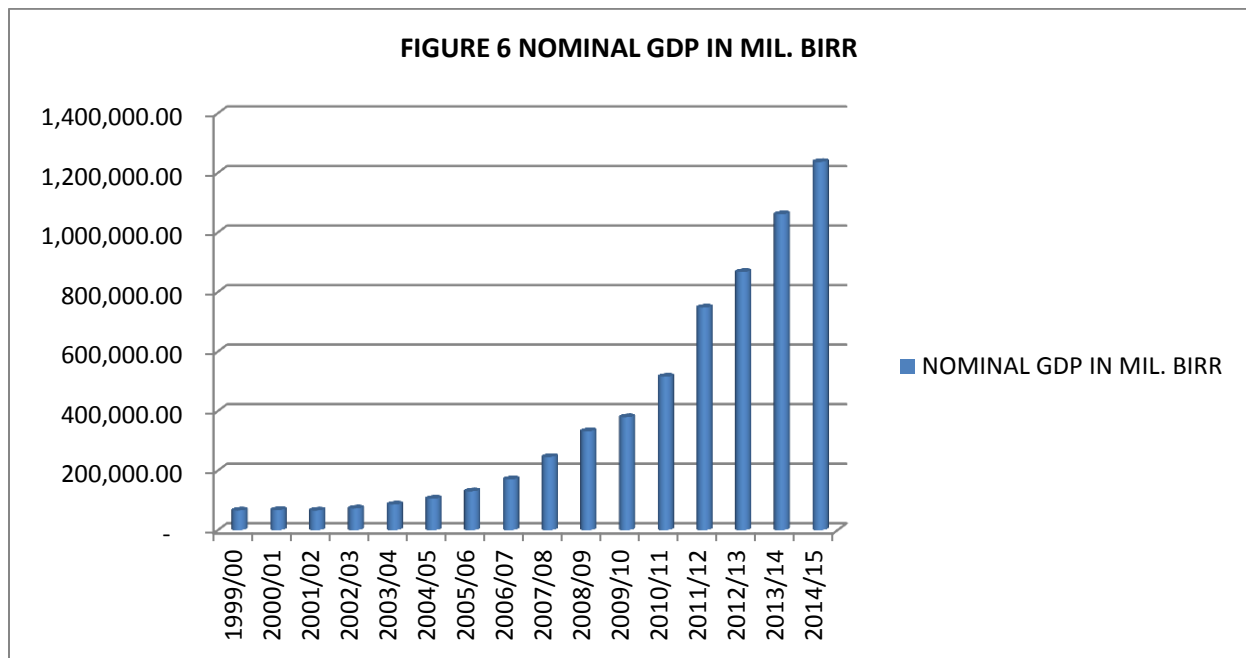
## 2.5. Nominal GDP

Income and wealth are the prime determinants of saving according to the conventional models. The effect of these variables on the level of saving and rate of saving are assumed to be positive and significant. In essence, as the disposable income of a household increases, saving increases both marginally and on average. In addition, agents earning higher income have the propensity of saving more than the low income class at least in absolute terms.

Several empirical studies have confirmed the positive effect of income on private saving propensity regardless of nations' economic stage. It is indisputable that the distinction exists on the size, purpose and mode of saving. The data frequently used at macro level include per capita income and Gross Domestic Product (GDP) growth as prime determinants of gross and private domestic saving rates. In essence, saving rate is larger for high income countries, and the overwhelming empirical studies have witnessed the positive correlation between income and saving as well as with deposit.

The following diagram reveals that GDP Ethiopia in 1990 and 2003 having the lowest record while the value for 2008 and 2011 was the highest GDP increment. As the result of in this inconsistent increase in GDP in those years, incremental bank deposit in Ethiopia has not significantly affected by this phenomenon.

Figure 6 nominal GDP



Source; output of regration analysis

#### 4.3 Econometric analysis and results interpretation

This study focuses on the relationship between banks deposit and the determining factors of bank deposit. The researcher had used the econometric model of multiple regressions. The model contains one dependent variable, five independent variables, the constant term and the error term. The ordinary least square (OLS) method is used to come up with the econometric results.

For the test statistics 5 % ( 0.05) significant level is used to reject or not to reject the null hypothesis. In view of that before running the regression equation the following tests were carried out; multicollinearity test using the correlation matrix and Heteroskedasticity using Breusch-Pagan Godfrey. As these tests prove the validity of the model, the study had continued into regression analysis. Accordingly, the output of the tests which are displayed by EViews7 software are presented and interpreted as follow.

##### 1. Test for Multicollinearity

The results of correlation tests are depicted by a correlation matrix table

VARIABLES	DEPOSIT	POPULATION	EXCHANGERATE	CBEBRANCH	INFLATION	NGDP
DEPOSIT	1.00	0.33	0.38	0.45	0.49	0.09
POPULATION	0.33	1.00	0.25	0.06	0.43	-0.22
EXCHANGERATE	0.38	0.25	1.00	-0.09	0.16	0.14
CBEBRANCH	0.45	0.06	-0.09	1.00	0.18	-0.26
INFLATION	0.49	0.43	0.16	0.18	1.00	-0.31
NGDP	0.09	-0.22	0.14	-0.26	-0.31	1.00

Source: - Eviews output of multicollinearity test

The correlation matrix presented in the above indicates a positive relationship between Total deposit (dependent) with explanatory variables (population growth, exchange rate, inflation, number of branch, nominal GDP). As expected, all explanatory variables are positively related or correlated to the explained variable. And also there is no higher correlation between independent variables. Therefore it can be concluded that there is no correlation between the explanatory variables.

## 2. Test for Heteroskedasticity

The test of heteroskedasticity is a test of the second assumption of OLS estimator that says the variance of errors term is constant. The researcher uses Breusch Godfrey test (BG test) to test for heteroskedasticity.

Ho: The assumption that there exists homoscedasticity

H1: There is no homoscedasticity (there is Heteroskedasticity)

### Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.007419	Prob. F(5,10)	0.3080
Obs*R-squared	8.003710	Prob. Chi-Square(5)	0.2347
Scaled explained SS	3.780036	Prob. Chi-Square(5)	0.7433

Source: - Eview output for heteroskedasticity test

Based on the result displayed in the above table the three different types of tests for heteroskedasticity and all fails to reject the null hypothesis of homoscedasticity presence. Therefore it can be concluded that the variance of error term is constant or CLRM is not violated.

#### 4.4 Summary of regression analysis and results interpretations

The main variables in this analysis are dependent, independent and error terms. The relationship between one dependent variable and five independent variables and error terms is regressed using econometric software called EViews7. Dependent variable, in this case is annual total bank deposit and Independent variables are factors that mostly affect the commercial banks deposits. These are population growth, exchange rate, inflation, number of branch, nominal GDP. But for the purpose simplicity we include only these five explanatory variables in this model and others are collectively contained in error term. The regression is used by ordinary least square method with the data of successive 16 years from the 1999/2000 GC to 2014/15 GC

Dependent Variable: DEPOSIT

Method: Least Squares

Date: 24/04/16 Time: 21:35

Sample: 1 16

Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.001902	2.919783	-0.450306	0.2621
POPULATION	0.309103	0.598323	0.516615	0.0167
EXCHANGERATE	8.490617	1.279603	6.635353	0.0001
INFLATION	2.254794	25.69860	0.087740	0.4317
CBEBRANCH	0.047519	0.055429	0.857292	0.4114
NGDP	12.67981	7.740514	1.241313	0.0428
R-squared	0.909334	Mean dependent var		120.6458
Adjusted R-squared	0.864002	S.D. dependent var		12.94062
S.E. of regression	4.772238	Akaike info criterion		6.243504
Sum squared resid	227.7425	Schwarz criterion		6.533225
Log likelihood	-43.94803	Hannan-Quinn criter.		6.258340
F-statistic	20.05908	Durbin-Watson stat		1.893507
Prob(F-statistic)	0.009500			

Source: - Eview OLS regression result

## **1. Results Interpretations**

### **A) Coefficient of determination of the model**

The above table (Table 4.5) shows the results of regression analysis. An F statistics of 20.05908 (with Probability >F= 0.009500) indicates the significance of the model in explaining the factors that influence the growth of total bank deposits from customers. The coefficient of determination of R<sup>2</sup> 0.864002 means that 86.4% of the variation in deposits is being explained by the independent variables in the model and there is a strong relationship between deposits and the independent variables. Based on the regression results also, the model proved to be consistent with the OLS assumption of no autocorrelation. But the D-W test of 1.893507 was obtained which is inconclusive to determine autocorrelation existing or not.

### **B) Coefficient of determination of the constant term**

The coefficient estimate of the constant of the regression is -9.0019 shows that the value of dependent variable if all independent variable becomes zero. This indicate that the total deposit of commercial banks will be decreased by the unit 9.0019 given all independent variable zero and this indicate that the dependent variables in the model is highly depends on the dependent variable. Then again the probability of 0.2621 showed that this variable was insignificant.

### **C) Coefficient of determination of population**

If population is high in a given nation, it can lead to high labor force participation that can rise saving rate or deposit of banks. Saving could occur only when there is transitory income whereas; in steady growing economy saving rate will be changing through population growth or productivity. When source of growth is population, saving rate will increase.

The coefficient estimate of the population is 0.309103 indicating that ceteris paribus a 1% increase in population leads to a 0.309103 increase in CBE deposits. And also probability value of 0.0167 is less than 0.05 critical value showed that this variable is significant in assessing the research problem.

### **D) Coefficient of determination of exchange rate**

Exchange rates are quoted as foreign currency per unit of domestic currency or domestic currency per unit of foreign currency (Bishop, 2006). According to Nugel (2012) as currencies depreciated in one country deposit will be reduced since investors tend to withdraw deposit and exchanged to keep it by appreciating currency (Hard currency) or invest in other form of investment rather than bank deposit.

The regression coefficient for exchange rate is 8.490617. This indicates that ceteris paribus, an increase in exchange rate by 1% leads to increase in deposits by 8.490617 units. This is inconsistent with economic theory so it needs further study why it didn't work in this subject. Also again the probability value of 0.0001 indicated that this variable is significant for the deposit growth in case of CBE deposit growth.

#### **E) Coefficient of determination of nominal GDP**

Theoretical and empirical evidence suggests that, economic growth is the main source of banks deposit growth. If there is a real growth in the economy, deposit will grow as well. This hypothesis was proved by the chakravarty committee in 1985. The committee reported that the growth of Indian deposit in 1985 at an accelerated pace was attributed to the higher real growth achieved by the economy (chakravarty committee, 1985).

The coefficient estimate of the nominal GDP is 12.67981 indicating that ceteris paribus a 1% increase in nominal GDP leads to a 12.67981 increase in CBE deposits. And also probability value of 0.0428 is less than 0.05 critical value showed that this variable is significant in assessing the research problem.

#### **F) Coefficient of determination of inflation rate**

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. It corresponds to a negative inflation rate. The practical issue is how to define the price level. Macroeconomists typically look at two measures of the price level, at two price indexes: the GDP deflator and the consumer price index. As Deaton (1991) explained inflation is measured alternatively by Consumer price index. The first theory he assumed that greater uncertainty should raise savings since risk-averse consumers set resources aside as a precaution against possible adverse changes in income and other factor. Hence inflation may increase precautionary savings by individuals. Precautionary saving is additional saving that result from the knowledge that the future is uncertain (D. Carroll, 2006). The second theory was, inflation can influence saving through its impact on real wealth. 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.

The regression coefficient for inflation is 2.254794. This indicates that ceteris paribus, an increase in Inflation by 1% leads to increase in deposits by 2.254794 units. Consistent with economic theory, as inflation soars households forego banking products. Households are expected to buy properties and other real assets to cushion themselves against loss in purchasing power of their monies. However, in many literatures the effect of inflation is not clearly defined but in this study the relationship between CBE deposit and inflation is positive but not significant because probability value of 0.4317 is less than 0.05 critical value showed that this variable is significant in assessing the research problem.

#### **G) Coefficient of determination of increasing number of branches**

Based on the model in the above regression analysis, the relationship between branch opening or addition and bank deposit had a positive and robust association in CBE deposit. The study ascertains that CBE's aggressive branch opening that has positive correlation with deposit mobilization with respect to widening customer base and increased financial inclusion through creating accessibilities to the unbanked rural and urban areas. But the probability value shows insignificant on CBE's deposit growth.

#### **H) Coefficient of determination of Dummy variable (error terms)**

The deposit market share of the CBE has been dropping for quite a long time with the entry of new banks although it maintained its dominant position in the market. This long term drop was somewhat reversed in 2011 because of some policy adjustment like opening new branches rather than only expansion of existing branch and using new banking technologies. Based on this policy adjustment in end of year 2010, CBE has opened 210 new branches in 2011. This CBE's aggressive branch opening that has positive correlation with deposit mobilization with respect to widening customer base and increased financial inclusion through creating accessibilities to the unbanked rural and urban areas. Furthermore, extensive training of staff based on the HRD strategy, that will be responsive enough to the demands of customers, which results in service excellence.

On the basis of this policy adjustment, the level of deposits by the CBE was reached 86,498 billion birr and 54.5% growth in the end of 2011 compared with other years which was exceptional in the history of CBE' total deposit .



## 2. Hypothesis test

Wald test have been used to test the multiple hypothesis. The null hypothesis is rejected with p-value of zero to four decimal places.

Wald Test:

Equation: Untitled

Test Statistic	Value	Df	Probability
F-statistic	7.329218	(5, 10)	0.0040
Chi-square	36.64609	5	0.0000

The null hypothesis says that the coefficient of independent variables on the right hand side is zero that means the independent variables have no effect on the dependent variable, total deposit of commercial banks. The alternate hypothesis is therefore the coefficients of independent variables are different from zero that is the independent variables have effect on the dependent variable, total deposit of commercial banks. Therefore the rejection of the null hypothesis shows that the coefficients of variables on the right hand side are different from zero, i.e. independent variables have effect on the dependent variable. In this case all independent variables are positively affects the total deposit of commercial banks but some independent variables have insignificant result.

## **Chapter Five**

### **Summary of Research Findings, Conclusions and Recommendations**

This chapter summarizes the findings, discusses the conclusions drawn from the study, and provides recommendations.

#### **5.1 Summary of the findings**

The main objective of this study was to investigate the factors that affect deposit mobilization of Commercial Bank of Ethiopia. Accordingly the study reveals certain basic facts about CBE's deposit along with factors determining bank deposit. As a result of the analysis and interpretation, the following are the summary of the findings:

The study empirically ascertains that, managing deposits is not possible without knowing and controlling the factors affecting it. It is well known that deposit mobilization is the major services of commercial bank of Ethiopia. In view of that without having deposit CBE can't survive as a bank. For the reason that, the bank management, the staff and stakeholders of the bank has concerned about the deposit and the determining factors of deposit.

The study finds out that the key factors for deposit growth are employees' skill and capabilities, top management cooperation, government rule and regulation, population, exchange rate and nominal GDP. Also even if the inflation and CBE branch expansion didn't have key factors but they have role in determining deposit mobilization.

For the qualitative analysis a total of 244 respondents answered the entire survey. The overall respondent rate for survey was approximately 97.6%. The question that aims to know whether existing employee skills and knowledge help them for promoting and collecting the intended deposit amount and among 244 respondents, 162 or 66.4% of the respondents are respond high that they believe their knowledge and skill will help them to promote and collect intended deposit amount. Another question in the questionnaire aim to know whether the government role and regulation affects the deposit mobilization activity of the band and the majority of the respondent goes to high with 82% and the remaining 185 choose neutral, low and very low.

The respondent also answers for the question "What do you think the most influencing internal factors in deposit mobilization activity, which make people to deposit in your branch?"byindicating Public trust and reliability, Customer handling, Big depositor Rewarding system , Service efficiency, Delivery time, Accessibility and Different packages of bank product.

The respondent also answers for the question “What are the most recurrent factors in your deposit mobilization endeavor?” are Service quality, Network problems, Foreign currency procedures and some of the bank procedures.

Results from the qualitative analysis ascertain that deposit mobilization is very difficult task because of many factors determine bank deposit. To verify this result the researcher used empirical data by applying economic analysis model, the followings are the relationship between bank deposit and the determining factors of deposit exhibited. Based on economic analysis model result population, exchange rate and nominal GDP was found to have a positive relationship with bank deposit growth but the effect on bank deposit is significant. Inflation and branch expansion are affects positively and can increase CBE’s deposit but these factors are not as such significant. The value of Durbin-Watson Statistic (DW) showed that there was no presence of autocorrelation; hence, the model produced a sound economical result.

## **5.2 Recommendations**

Based on the research findings and conclusions above, the following are recommended for CBE to mobilize more deposits:

- ❖ It is well known that mobilizing deposit is a core activity of all commercial banks. By the same analogy CBE’s 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.
- ❖ Managing deposits is not possible without knowing and controlling the factors affecting it. Thus CBE should have identified the sources of deposit by considering the determining factors of bank deposit.
- ❖ Staff skill and capabilities, top management cooperation and Service quality is one of the most useful qualitative determinants of bank deposit. In view of that CBE should provide training to the staff and create administrative system that enables the bank to improve its deposit.
- ❖ Based on economic analysis model result population, exchange rate and nominal GDP was found to have a positive relationship with bank deposit growth but the effect on bank deposit is significant. Inflation and branch expansion are affects positively and can increase CBE’s deposit but these factors are not as such significant. Therefore CBE should exploit the population number and the current economic growth of the country in order to increase the bank deposits.

This will also educate the unbanked society on the essence of the banking system overall the country.

❖ As shown in the result inflation has not significant effect on deposit this is because deposit interest rate is not as much increase as inflation so to exploit this bank must use better strategy on this one.

## References

- AberhamTeshale (2014), Determinants of Deposit Mobilization in Commercial Banks, Gondar University.
- Alemayehu G. (2007), The political Economy of Growth in Ethiopia, Chapter 4 of Volume 2, Addis Ababa University.
- Alasdair M.(2013), Danger in Bank Accounts, London Stock Exchange, London
- African Journal of Economics (2013), Competition in Ethiopian Banking Industr,5th edition vol.1.
- Commercial Bank of Ethiopia (2011), Boosting domestic savings in Africa, MudayeNiway Magazine.
- Christopher D. Carroll1 (2006), Precautionary Saving and Precautionary Wealth, Johns Hopkins University
- Debesh R. (2003), Dynamics of Bank Deposit, D.K publishers, New Delhi, India.
- DevinagaRasiah(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.
- Deaton, A. (1991), Household saving in LDC'S: Credit markets, insurance, and welfare, Woodrow Wilson School Development Studies, Princeton.
- Deaton A. (1998), Saving and Liquidity Constraints, *Econometrica*, 59 (1991): 1221- 1448
- Dickey, D.A. & Fuller, W.A. (1981), Likelihood ratio statistics for autoregressive time series within a unit-root, *Econometrica*, 49:1022-1057
- G. J. Santoni (1985), The Effects of Inflation on Commercial Banks, Federal reserve bank of st. Louis.
- GetnetAdisu (2013), The Impact of Inflation on Economic Performance of the country, civil service collage, Addis Ababa.
- Edmister and Merriken (1989), Measuring interest rate sensitivity of consumer depositors, *Journal of Financial Services Research*.
- Erna Rachmawati&EkkiSyamsulhakim(2004), Factors Affecting Mudaraba Deposits in Indonesia. Working Paper in Economics and Development StudiesPadjadjaran University, Indonesia

Falkena et al, (2004), Banks and banking, South Africa Reserve Bank.P 76-190

Granger, C.W.J. (1986), Developments in the Study of Co-integrated Variables, Oxford Bulletin of Economics and Statistics, 48, 424-438

Holton, Glyn A. (2004), Defining Risk, Financial Analysts Journal, 60 (6), 19–25.

HadushGebrelibanos (2012), the determinants of private saving in Ethiopia, unpublished msc. Thesis (economic policy analysis), Arba Minch University

Johansen, S.and K. Juselius (1990), Likelihood Estimation and Inference on Co integration with the Application to the Demand for Money, Oxford Bulletin Economics and Statistics, Vol. 52, pp. 169-210.

Johnson, O. (1984).On Growth and Inflation in Developing Countries, IMF Staff Papers, 31:636-660

Koop G. (2006), Analysis of financial data, New York, John Wiley and Sons

Knight, F.H (1921), Risk Uncertainty and Profit, New York Hart, Schaffner and Marx.

Mohammad Namazi and Mahdi Salehi(2010), The Role of Inflation in Financial Repression: Evidence from Iran, IDOSI Publications, World Applied Sciences Journal 11(6): 653-661.

Margaret Kane. (2005). Strategies and Tactics to Improve deposit Growth, CA 95864.

Modigliani F. And Brumberg R. (1954), Utility analysis and the consumption function, the collected papers of Franco Modigliani, vol.6

National Bank of Ethiopia (2014), Annual Report NBE 2013/14

Ngula, Isaac Beligna, (2012). Determinants of Deposit Mobilization and its role in Economic growth in Ghana, Ghana

Paul, Thomas N. And B.N Bhattacharyay(2012), Behaviour of Aggregate Bank Deposits and their determinants in India”, Prajana.

Narasimham Committee (1991), Report of the committee on the financial system, RBI, Bombay (Mumbai), P.7

Rangarajan C. (1982), Innovations in Banking- The Indian experience, Oxford and IBH Public Bombay (Mumbai).

Sandhu,H.S and R.K Goswami,(1986), ‘Determinants of commercial bank deposits in India, The Indian Economic Journal vol 34 no. 1 July- sept 1986 Indian Economic Association.

TizitaGebeyehuYismaw(2014), Determinants of Private Saving In Ethiopia ,MBA Thesis, Arbaminch University.

Thomas B. (2006), Exchange Rates and the Foreign Exchange Market: An Asset Approach, Chapter 13

United Nations Development program (2014), country Economic brief, Analysis Issue No.1

Wubetu Elias Gemedu (2012), Factors Determining Commercial Bank Deposit: An Empirical Study on Commercial Bank of Ethiopia, Addis Ababa University.

Wooldridge J.M (2000), Introductory Economics, 2nd Edition

Zereauyesusseme, KagneWoldie and TeshomeKetama 2013), Competition In Ethiopian Banking Industry, African Journal of Economics, Vol. 1(5).

➤ [Http://www.investopedia.com/terms/i/interestrates.asp](http://www.investopedia.com/terms/i/interestrates.asp), taken on April, 20, 2016

➤ [Http://www.economicshelp.org/macroeconomics/exchangerate/factors-influencing/](http://www.economicshelp.org/macroeconomics/exchangerate/factors-influencing/) taken on March, 16, 2016

➤ [Http://www.allbankingsolutions.com/Top-Topics/DEPSUB4.shtml](http://www.allbankingsolutions.com/Top-Topics/DEPSUB4.shtml), taken on March 21, 2016

➤ [Http://www.indexmundi.com/ethiopia/demographics\\_profile.html](http://www.indexmundi.com/ethiopia/demographics_profile.html) taken on March, 21, 2016

## St. Mary University post graduate program

### Questioner to be filled by CBE employees

Dear respondent

This questionnaire is prepared to undertake a research on assessment of challenges and opportunities of deposit mobilization with respect to branch of commercial bank of Ethiopia employees. The data will be used in writing research for partial fulfillment for the requirement of the post graduate general business administration by St. Mary University. Dear respondent your valuable response is vital for successful accomplishment of the study and you are kindly requested to respond as thoughtful and frankly as possible. Your responses are kept confidential and it will be used only for this research purpose. I am grateful to you for your co-operation.

- There is no need to write your name
- Please make a mark on the box given

General information about employees of CBE

1. Gender?             Male             female
2. Age             20-30             31-40             41-50             Above 50
3. Academic level?    College diploma    BA    MA    Doctorate degree
4. Work experience in the bank:
- Below 5 years    6-15 years    16-25 years    26 and above years
5. Position in the bank
- Branch manager    Accountant    Auditor    Customer service officer
- Other positions, please specify.....



**Staff skill and capabilities**

6. How do you rate your skills and knowledge in relation to promoting and collecting of intended deposit amounts?

Very high       High       neutral       Low       Very low

If you reply medium and low to the above questions, what kind of skill and knowledge you need to increase your capability?

-----  
-----

7. How do you rate the adequacy of training given to the staff regarding deposit mobilization activities?

Very high       High       neutral       Low       Very low

**Administrative system**

8. How do you rate the cooperation of concerned higher official in addressing your branch specific challenges in deposit mobilization?

Very high     High       neutral       Low       very low

9. If your answer to the above question is low and very low, what should be made to minimize such challenge?

**Role and regulation**

9. How do you rate government role and regulation effect on deposit mobilization process of CBE?

Very high       High       neutral       Low       Very low

If your answer to the above question is high and very high, what kind of government intervention is imposed and does it positively or negatively affects the bank deposit mobilization activity?

-----  
-----

**About customer**

10. Does the customer in your branch have awareness about the importance of saving?

Yes       No

If your answer is no for the above, then what should be made by the bank to promote saving for the customer?

-----

11. Are customers in your branch satisfied by the service of CBE?

Yes       No

If you replied no, what should be made to improve customer satisfaction?

-----

12. What do you think the most determinant factors in deposit mobilization activity, which make people to deposit in your branch?

-----  
-----

13. What are the most recurrent factors in your deposit mobilization endeavor?

-----

**Thank You for Your Cooperation to Fill the Questionnaire**

