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DETERMINANTS OF PROFITIABILITY OF PRIVATE COMMERCIAL BANKS IN ETHIOPIA

BY

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Statement of Declaration

This is to certify that, the thesis is prepared by YemsrachLoul, entitled: Determinates of private commercial Banks Profitability in Ethiopia. And submitted in partial fulfillment of the requirements for the degree of Master of Science in Accounting and Finance complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Abstract

The major objective of the study is to examines determinates of profitability of private commercial Banks of Ethiopia using quantitative research method. The study investigates both internal and external determinants of profitability for the period 2012 - 2016. The secondary data were obtained from annual reports of each bank. It was found that profit of commercial banks significantly and negatively influenced by capital reserve, liquidity assets, and non-performing loan. NBE bill purchasing regulatory and inflation rate also affect profitability of commercial banks significantly and negatively. The rest variables such as Banks size, Loan growth, and GDP positively influence profitability of the studies commercial banks, By those given result, management bodies of private commercial banks should strive to strengthen and widening other income generating sources such as Agent Banking to reach untapped market, Paperless service to decrease the service delivery process and others and then ,can also prevent themselves from liquidity risk by gaining sufficient cash, beside this banks should make increase their loan growth by controlling their customers(borrowers) by strengthen their inspection techniques to identifying quality borrowers, gathering sufficient information about the borrowers, improve poor enforcement of creditor rights and obligation in order to control non-performing loan. If there is and strengthening the legal environment of the business.

Key Words: *-Ethiopia, Externalfactors, Internalfactors, PrivateCommercialBanks, Profitability.*

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Acronyms

AFDB	African Development Bank
BIB	Birhan International Bank
DB	Dashen Bank
CBE	Commercial Bank of Ethiopia
NBE	National bank of Ethiopia
NIM	Net Interest Margin
OECD	Organization for Economic Co-operation and Development
ROA	Return on Asset
ROE	Return on Equity
UNDP	United Nations Development Program
GTP	Growth and Transformation Plan
CAP	Capital Adequacy
LIQ	Liquidity
LG	Loan Growth
LB	Lion Bank
BIL	NBE Purchasing Bill
NIR	Net Interest Rate
IMF	International Monetary Fund
GoE	Government of Ethiopia
GTP	Growth Transformation
NIB	Nib International Bank
OIB	Oromia International Bank
UB	United Bank
WB	Wegagen Bank

CHAPTER ONE

I. Introduction

The purpose of this study is to examine determinates of profitability on commercial banks of Ethiopia. This chapter briefly provides the introductory part of the study includes; background of the study, statement of the problem, basic research questions, objective of the study, , significance of the study, scope of the study, limitation part, and organization of the paper.

1.1. Background of the Study

In economies where the capital markets are still are developing, banking institutions serve as a vital source of finances for enterprises. Therefore, good performance of the bank is usually measured as per its profitability levels and has been essential to shareholders, customers as well as for banks continued survival and expansion (Bentum, 2012).

Profitability is generally measured using accounting ratios with the commonly used profitability ratio being ROA. It determines the amount of the profit earned per shilling of assets. This reflects the efficiency with which the bank's managers use bank's investment resources or assets in generation of income. ROA simply connotes the management efficiency and depicts how effective and efficiently the bank management operate as they employ the organization's assets into the earnings. A high ROA ratio is a clear indicator a good performance or profitability of a banking entity (Gedajlovic& Shapiro, 2002).

Studies (Ally, 2014, Gedajlovic, & Shapiro, 2002) have made investigation on this area by considering the importance and the hot issue of profitability in banking sector. For instance research conducted by Goddard, et al, (2004) found very strong relationship between bank-specific determinants and profitability.Although a number earlier studies have made to add their own contribution to the theory of commercial banks'profitability and stated their own policy implication, they were inclined towards to the developed economy, and less developed countries received little attention in various literatures on this issue (Gitonga, 2014). In light of this, Tsuma&Gichinga (2016) demonstrated that continuous poor performance of banking systems in Africa could be partly explained by the high degree of financial market fragmentation and limited access to basic payment services or savings accounts.

In Ethiopia, commercial banks play important primary role as financial intermediaries in the economic growth process, channeling funds from savers to borrowers for investment. As financial intermediaries, banks play an important role in the operation of an economy. In such away, commercial banks are key providers of funds and their stability is of paramount importance to the financial system (Bentum, 2012). As such, an understanding of determinants of their profitability and the drivers of bank profitability for that matter is essential and crucial to the sustainability of the banking industry. However, substantial numbers of studies have not conducted to investigate the status of bank profitabilityas well as the determinants of profitability of Ethiopian banking system. Therefore, in this study attempts will be tried to address factors determining profitability of commercial banks in Ethiopia.

1.2 Statement of the problem

Banks play a pivotal role in the economy of a country. This is particularly true in the case of Ethiopia where no capital market exists (Abebe, 2014). Banks are the main providers of funds, and their stability is of paramount importance to the financial system. As such, an understanding of determinants of their profitability is essential and crucial to the stability of the economy (Bentum, 2012). There is no doubt that profitability is essential for a bank to maintain ongoing activity and for its investors to obtain fair returns. Even though the primary objective of every commercial bank is to make profit, profitability is not the same across commercial banks. This because of profitability is determined by different factors such as factors specific to the bank and Macro-economic determinants. The specific banks (Internal factors) are those factors which bank's managements can control whereas external factors are those outside or beyond bank's management control (Staikouras and Wood, 2002). The internal determinants include management controllable factors such as liquidity, investment in securities, investment in subsidiaries, loans, non-performing loans, and overhead expenditure. Other determinants such as savings, current account deposits, fixed deposits, total capital and capital reserves, and money supply also play a major role in influencing the profitability. Similarly, external determinants include those factors which are beyond the control of management of these

institutions such as interest rates, inflation rates, market growth and market share (Ongore.V.o. 2013)

In banking literature, the determinants of profitability are empirically explored although the measurement of profitability varies among studies. Disregarding the profitability measures, most of the banking studies have noticed that the capital ratio, loan-loss Provisions and expense management are important factors in achieving high profitability. For instance, study conducted by Semu (2010), Belayneh (2011), Damena (2011) and Mohana&Berhanu (2008) tried to examined the determinants of Ethiopian commercial banks profitability by employing the variables capital, bank size, loan and advance, saving deposit, fixed deposit, non-interest income, non- interest expenses and credit risk as bank–specific; market concentration as industry – specific variable and economic growth, saving interest rate and inflation as macroeconomic variable. However, even though the studies focused on similar variables that affect profitability of the commercials banks but, their, findings and conclusion were inconsistent. With regards to this Sawe, (2011) argues that, determinates of commercials banks profitability vary with the dynamicity of time. Therefore, it is necessary, conducing timely study as profitability of commercial banks vary with the dynamic environment. In addition, all of the previous studies conducted considering all of commercial banks and their analysis were focused on the general trend of determinates, rather not implied how factors affect each banks through compare and contrast. Therefore, to fill this research gap, studies attempts tried to investigate determinant variables on selected private banks and compare and contrast trend of each banks of profitability and indicate how factors affect each banks profitability.

1.3 Basic research Question

1. What is the trend of commercial banks profitability look like?
2. How Banks specific variables affect Profitability of Commercial Banks?
3. How Macro-economic variables affect profitability of Commercial Banks?

1.4 Objective of the study

1.4.1 General objective of the Study

General objective of the study is to examine determinants of profitability among commercial banks of Ethiopia.

1.4.2 Specific objective of the study

Specific objective of the study deals the following:

1. To assess the commercial banks Profitability trend
2. To examine the banks specific variables effect on profitability.
3. To investigate the effect of macro factors on banks profitability.

1.5 Significance of the Study

The banking industry is crucial source of financing different business segments that is operated in a given country. Due to these facts, this study can help the banks to identify the determinants of profitability with regards to time variability. The study is also initiating other bank service providers to give due emphasis on the management of identified specific and macro variables that affect. Finally, the study also provides bank managers with understandings of activities that would enhance their banks profitability through providing recommendation. Especially, as internal factors close to manager, manager can handle them by issued different polices, for instance to increase loan growth, prevent from unexpected liquidity risk by getting sufficient cash through seeing effect of variables and applying given recommendation. Institutions and/or individuals who are interested to know the determinant of profitability of private commercial banks in Ethiopia can use the document as a reference. Besides, it would be a useful reference for researchers and other personnel interested in this topic, and can serve as a base for any further studies to be conducted in this area of study. Furthermore, as the study is academic base it help the researcher to advance technical knowledge regarding the development of research.

1.6 Scope of the Study

Though, it is believed in the literature that more observation means more information for generalization, however, this study is restricted only to know the key determinants of profitability of selected Ethiopian private commercial banks by analyzing their financial statements start from the

year 2012 to 2016. Regarding the sample banks included in this study attempts were made to include 8 private commercial banks, this is because it is difficult to address and easily manage data of all commercial banks. Therefore, from 16 total private commercial banks the study only consider 8 of them based on their experience (establishment years) as well as asset size, accordingly, United, Dashen, Wegagen and Nib Banks selected from medium peer group while, Bunna, Birhan, Lion and Oromia Banks considered from small peer groups)NBE (2011), this is because the sample banks are fairly representing their corresponding peer banks positions in terms of asset size, capital level, liquidity positions and profitability.

1.7. Limitations of the study

All of the commercial banks were not taken as the subject of the study. So that it is difficult to generalize the fining results in a country wide.

1.8 Organization of the study

The research report organized into five chapters. Chapter one presents an introduction, where the background of the study, a statement of the problem, and objectives of the study, research questions, and, scope and limitation, and significance of the study were presented. Chapter two brings the theoretical and empirical literature review on the banks performance indicator and NBE bills. Chapter three also present Materials and Methodology and it contains research design, Sample population and participants, data collection instruments. Chapter Four include data analysis and interpretation. Chapter five were the last chapter that contained conclusion and recommendation

CHAPTER TWO

2. LITRATURE REVIEW

In this part the study tried to reviewed literatures related to profitability, according, the study revised literatures such as, concept of profitability, theories of profitability, determinantfactors of profitability, empirical studies and design of conceptual frame work.

2.1 The Concept of Profitability

Profitability is imply money a firm can produce with the resources it has. Thegoal of most organization is profit maximization (Niresh&Velnampy, 2014). Profitability is the capacity to make benefits from all the business operations of an organization, firm or company (Muya&Gathogo, 2016). Profit could be as reward for entrepreneur for doing his/her investment well. In addition, profit is also the main motivator of an entrepreneur for doing business. Profit is used also as an index for performance measuring of a business (Ogbadu, 2009). Profit is the difference between revenue received from sales and total costs which includes material costs, labor and so on (Stierwald, 2010).

Profitability can be expressed either accounting profits or economic profits and it is the main goal of a business venture (Anene, 2014). Profitability portrays the efficiency of the management in converting the firm's resources to profits (Muya&Gathogo, 2016). Thus, firms are likely to gain a lot of benefits related increased profitability (Niresh&Velnampy, 2014). One important precondition for any long-term survival and success of a firm is profitability. It is profitability that attracts investors and the business is likely to survive for a long period of time (Farah & Nina, 2016). Many firms strive to improve their profitability and they do spend countless hours on meetings trying to come up with a way of reducing operating costs as well as on how to increase their sales (Schreibfeder, 2006).

In, accounting theory profitability shows the surplus of profit over expense for a specified duration that represent earning of commercial banks from the various activities they perform in a growing economy (Tariq et al., 2014). The profitability of a banking institution can thus be defined as net profit of the bank (San &Heng, 2013). A commercial bank is profitable when it has get more gains in financial perspective from invested capital. Thus, the bank's success is

determined from the profits it has made in a given financial year (Adeusi, Kolapo&Aluko, 2014). Profitability also shows the association between the absolute amount of income that indicates the capability of the bank to advance loans to its customers and enhance its profit. In today's competitive environment, profitability is a key factor for smooth the running of the business and has a significant effect on performance of the bank and economic development as well (Tariq et al., 2014). Profitability is also crucial for a banking institution to maintain its ongoing activities and for shareholders to generate fair returns (Ponce, 2011).

2.2 Theories of bank profitability

Commercial banks are important financial institutions in the financial system and the economy. They have played an important role in the tremendous economic development that has taken place in the region in recent years. Banks mobilize, allocate and invest the greatest part of the economic agents‟ savings. In addition, their performance has important consequences on capital allocation, firm expansion, industrial growth and economic development. Therefore, profitability of banks is very important not only at the individual bank level, but also in the macroeconomic level. Profitability is a reflection of how banks are run, given the environment in which they operate. Profitability is vital in maintaining the stability of the banking system and contributes to the state of the financial system (Goddard et al., 2004). Therefore, the determinants of bank performance have attracted the interest of academic research, financial markets and bank supervisors.

Studies on the performance of banks started in the late 1970s and early 1980s with the application of two industrial organizations models: the Market Power and Efficiency Structure theories (Athanasoglou et al., 2006). Moreover, the balanced portfolio theory has also contributed into the study of bank profitability (Nzongang and Atemnkeng, 2006).

2.2.1. Market power theories

Tregenna (2009) stated that market power theory indicates that performance of bank is influenced by the market structure of the industry. There are two different approaches within the market power theory: the Structure-Conduct-Performance (SCP) and the Relative Market Power (RMP) hypotheses. According to the SCP approach, banks in more concentrated market are more willing to raise their profitability, by the opportunity to lower the deposits rates and to charge higher loan rates as a result of the monopolistic environment, rather than firms operating in less concentrated markets (Tregenna, 2009). While, RMP hypothesis implies that bank profitability is influenced by market share. It supposes that only banks with differentiated products can influence prices, exercise market power and earn non-competitive profits (Tregenna, 2009)..

2.2.2 The efficiency theory

The efficiency theory assumes that banks earn high profits because they are more efficient than others. The efficiency theory has two different approaches such as: the X-efficiency and Scale-efficiency hypothesis. Efficient firms are more profitable because of their lower costs due to X-efficiency. Furthermore, the scale approach emphasizes economies of scale rather than differences in management or production technology. Larger firms can gain lower unit cost and higher profits through the economies of scale. Such firms tend to have large market share, which can provide higher concentration and profitability (Athanasoglou et al., 2006).

2.2.3 The balanced portfolio theory

The balanced portfolio theory is the most significant and plays an important role in bank performance studies (Nzongang and Atemnkeng, 2006). According to the Portfolio theory, the optimal holding of each asset in a wealth holder's portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return held in a portfolio, a vector of risks associated with the ownership of each financial assets and size of the portfolio. They stated that the ability to receive maximum profits depends on the feasible set of assets and liabilities determined by the management and the unit costs incurred by the bank for producing each component of assets.

2.2.4 Risk-return trade off theory

Also, balance sheet structure could influence bank's profitability; therefore the equity-to-asset-ratio is an important balance sheet ratio. According to Modigliani & Miller (1958) theorem there exists no relationship between the capital structure (debt or equity financing) and the market value of a bank. Financing theory suggests that increasing risks, by increasing leverage and lowering the equity-to-asset ratio, leads to a higher expected return as entities will take more risks when expected return will increase. This theoretical explanation is known as the risk-return trade off (Van Ommeren, 2011). On the other hand, there are also theoretical explanations that a higher equity-to-asset ratio has a positive effect on profitability. Berger stated that these explanations are based on the signaling and bankruptcy cost hypotheses. The signaling hypothesis states that a higher equity ratio is a positive signal to the market of the value of a bank (Berger, 1995). While, the bankruptcy cost hypothesis suggests that in a case where bankruptcy cost are unexpectedly high a bank holds more equity to avoid periods of distress (Berger, 1995).

Researcher argues, Bank uses the Balanced portfolio theory,give vital contribution to its profit .since ,optimal holding of each asset in a wealth holder's portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return held in a portfolio ,a vector of risks associated with the ownership of each financial assets and size of the portfolio.They also stated that ability to receive maximum profits depends on the feasible set of assets and liabilities and it's determined by management and also unit costs incurred by the bank for producing each component of assets.As a resultthe bank manager easily manage assets & liabilities, major issues not beyond ability of him/her .They may not expect others for their successes, because theory mainly direct link with internal factors of bank.

2.3 Determinants of Profitability

Factors that influence commercial bank's profitability are divided into internal and external. Internal factors are those factors which bank's managers can control whereas external factors are those outside or beyond bank's management control. External factors that influence profitability of commercial banks are related to legal and economic environment and comprises of factors like (Staikouras& Wood, 2011). The internal factors reflect the management policies of the banks and decisions made about the sources of funds, expenses and liquidity management (Onuonga,

2014). Information on bank specific factors that influence commercial banks profitability can be obtained from financial statements as, discuss above Internal factors easily managed by manager, at the end making decision with aid polices profit of banks can goes one step. Hencethis study will emphases on bank's size, capital adequacy, liquidity, credit risk and efficiency in the bank's operations.

2.3.1 Internal Factors

2.3.1.1 Capital Adequacy

Bank equity capital can be seen in two dimensions as stated by Aburime (2008). Those are the amount contributed by the owners of a bank (paid-up share capital) that gives them the bank's business which includes reserves, and is also termed as total share holders' funds. It is measured by the ratio of equity capital to total assets. Bank's capital is widely used as one of the determinants of bank profitability since it indicates the financial strength of the bank (Athanasoglou, Brissimis and Delis, 2005). Aburime (2008) suggested that the bank level of safety achieved through the high capital requirements which generated positive net benefits. The degree of security exceeded the level maximizing net benefits. Capital adequacy requirements generally aim to increase the stability of a national banking system by decreasing the likelihood of a bank failure and a number of negative externalities exist in banking that cause risk to systematically under price. Research conducted by Valentina, Flamini, McDonald and Schumache, (2009) on the determinants of commercial banks profitability in Sub – Saharan Africa by taking 389 sample banks in 41 SSA countries, they measuring profitability by return on asset indicators. They founded that capital adequacy has positive and significant effect on profitability.

2.3.1.2 Loans and Advances

One of the principal activities of commercial banks is to grant loans to borrowers. Because loans are among the highest yielding assets a bank can add to its balance sheet, and they provide the largest portion of operating revenue. The higher the volume of loans extended the higher the interest income and hence the profit potentials for the commercial banks. Furthermore, it must also be noted that higher interest income are not merely a function of higher volume of loans but

are in fact also dependent on the lending rates and the interest rate elasticity of loans as well. The interest rate elasticity of loans will depend on the national affluence or national income (Moin, 2008).The interest raised from the loans is the most important source of the banks' income. However, inherent with bank's loan is liquidity risk as well as credit risk. In this respect, in extending loans, banks should properly manage such risks. In general, it is expected that the more loans, the more interest income, and the more profitable the bank (Sastrosuwito and Suzuki, 2011). Loan and advance is the ratio of loans to total assets. It measures what percent of total assets is comprised by loans and it gauges the percentage of total assets the bank has invested in loans (or financings). It is also another important ratio that measures the liquidity Condition of the bank in terms of its total assets (Moin, 2008).

2.3.1.3 Liquidity Risk

Liquidity risk is another type of risk for banks; when banks hold a lower amount of liquid assets they are more vulnerable to large deposit withdrawals. In other word, liquidity risk arising from the possible inability of a bank to decreases accommodate liabilities or to fund increases on the assets'side of the balance sheet. Therefore, liquidity risk is estimated by the ratio of liquid assets to total asset. Insufficient liquidity is one of the major reasons of bank failures (Ommeren, 2011). Liquidity is the quality of an asset that makes it easily convertible into cash with little or no risk of loss. A bank considered liquid when it has sufficient cash and other liquid assets, together with the ability to raise funds quickly from other sources, to enable it to meet its payment obligation and financial commitments in a timely manner. Following prior research of Ommeren, (2011) and Rasiah (2010) a negative relationship between profitability and large liquid assets to customer deposits and short term funding ratio is hypothesize. On the other hand researchers expected a positive relationship between liquidity risk and profitability and concluded that the fewer the funds tied up in liquid assets the higher expected profitability to be (Eichengreen and Gibson, 2001).

2.3.1.4 Size of the Bank

The bank's total asset is another bank specific variable that affects the profitability and liquidity of a bank. Bank size measures its general capacity to undertake its intermediary function. There are two opposing arguments regarding to the relationship between bank liquidity and bank size. The first view is the “too big to fail” hypothesis which considers negative relationship between bank size and liquidity whereas; the second view considers there is a positive relationship between bank size and liquidity. In this study, bank size is measured by the natural logarithm of total asset of the bank and it is expected positive relationship between bank size and liquidity and then draws the following hypothesis.

2.3.1.5 Non-performing Loans

Non-performing loans are loans that are outstanding in both principal and interest for a long time contrary to the terms and conditions contained in the loan contract (Kiyotaki, and Moore (2008). It follows that any loan facility that is not up to date in terms of payment of both principal and interest contrary to the terms of the loan agreement, is non-performing. Therefore, the amount of non-performing loan measures the quality of bank assets (Basel,2011). Bank nonperforming loans to total gross loans are the value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of specific loan-loss provisions). The loan amount recorded as nonperforming should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue. Non-performing Loans is measured by ratio of nonperforming loans over the Total Loan (Moore, 2005).

Non-performing loans can lead to efficiency problem for banking sector. It is found by a number of economists that failing banks tend to be located far from the most-efficient frontier because banks do not optimize their portfolio decisions by lending less than demanded (Barr et al. 1994). According to Bloem and Gorter (2001), though issues relating to non-performing loans may affect all sectors, the most serious impact is on financial institutions such as commercial banks and mortgage financing institutions which tend to have large loan portfolios. Besides, the large bad loans portfolios will affect the ability of banks to provide credit. Huge non-performing loans could result in loss profit.

2.3.2 External Factors

2.3.2.1 Economic Growth (GDP)

Economic growth (GDP) is among the most commonly used macroeconomic indicators, as it is measure of total economic activity within an economy. The GDP per capita growth is expect to have a positive impact on banks' profitability, according to the well-documented literature on the association between economic growth and financial sector performance. An important finding of the study is that, the economic growth had positively and significantly affects bank profits (Athanasoglou, 2005). This is because the default risk is lower in upturn than in downturn economy. In addition, higher economic growth may lead to a greater demand for both interest bearing and non-interest bearing financial services. Moreover, higher economic growth encourages banks to lend more and permits them to charge higher margins, as well as improving the quality of their assets. Neely and Wheelock (1997) uses per capita income and suggests that this variable exerts a strong positive effect on bank earnings. Demirguc-Kunt and Huizinga (2000), Athanasoglou, Brissimis and Deli (2005) and Bikker and Hu (2002) by supporting this idea attempted to identify the effect of economic growth (GDP) on bank profitability. All researchers agreed and concluded that positive and strong correlation existed between economic growth (GDP) and bank profitability.

2.3.2.2Inflation

Inflation reflects a situation where the demand for goods and services exceeds their supply in the economy (Karl et al, 2002). Inflation causes many distortions in the economy. It hurts people who are retired and living on a fixed income. When overall prices rise these consumers cannot buy as much as they could previously. It also affects the repayment of loans and discourages savings due to the fact that the money is worth more presently than in the future and inflation therefore affects the liquidity of the of the Commercial Banks.

In any economy inflation is undesirable. This is because of the specific economic costs associated with inflation. First, when inflation is high, currency and non-interest-bearing checking accounts are undesirable because they are constantly declining in purchasing power.

Secondly, there are tax distortions, for example, when inflation rages, the actual value of these deductions are much less than it should actually be (Ludi and Ground, 2006).

A growing theoretical literature describes mechanisms whereby even predictable increases in the rate of inflation interfere with the ability of the financial sector to allocate resources effectively. More specifically, recent theories emphasize the importance of informational asymmetries in credit markets and demonstrate how increases in the rate of inflation adversely affect credit market frictions with negative repercussions for financial sector (both banks and equity market) performance and therefore long-run real activity (Huybens and Smith 1998, 1999). The common feature of these theories is that there is an informational friction whose severity is endogenous. Given this feature, an increase in the rate of inflation drives down the real rate of return not just on money, but on assets in general. The implied reduction in real returns exacerbates credit market frictions. Since these market frictions lead to the rationing of credit, credit rationing becomes more severe as inflation rises. As a result, the financial sector makes fewer loans, resource allocation is less efficient, and intermediary activity diminishes with adverse implications for capital/long term investment. In turn, the amount of liquid or short term assets held by economic agents including banks will rise with the rise in inflation. Hence, there is positive relationship between increase in inflation rate and banks liquidity.

2.3.2.3 NBE bill Purchase Regulatory

TheNBE bills purchase directive isone of the repressivepolicies of government issuedandimplementedsofar. The National Bank issued this directive on April6, 2011ordering privatecommercialbankstobuygovernment bondworthof27percentofthefreshloandisbursement.This policysettoearn3 percentinterestwhiledepositrates setbyNational Bankstandsat 5percent. As much as the study concern is to analyze the effect of the NBE bill directive on profitability private commercial banks.

2.4 Empirical Literature of the Study

Kyalo (2013) examined the factors influencing profitability of banks in Kenya for a 3 years period from 2010 – 2012. Secondary data collected from the 44 banks in Kenya was used in the study. Using the regression model the study established that capital invested has a significant influence on ROE while operational efficiency, GDP and inflation have insignificant effect on ROE on equity. The study recommended that commercial banks in Kenya should put more focus both the bank specific factors and the external environment together to come up with effective strategies to enhance their financial performance.

Kosmidou and Pasiouras (2008) examined effect of macroeconomic conditions, bank-specific features and market structure in financial perspective on banks' profits in United Kingdom from the year 1995 to 2002. The research findings established that banks capital strength had a positive and dominant effect on their profitability. The study established that efficiency in expenses management and bank size significantly affected the profitability of commercial banks.

Badola*et al*. (2006) made an attempt to identify the key determinants of profitability of public sector banks in India. The analysis is based on step-wise multivariate regression model used on temporal data from 1991/92 to 2003/04. The study has brought out that the explanatory power of some variables is significantly high. Such variables include non-interest income (NII), operating expenses (OE), provision and contingencies (P&C) and Spread. However, some variables namely credit/deposit ratio, NPAs and business perindicators. Controlling for differences in bank activity, leverage, and the macroeconomic environment, they found that a larger bank asset to GDP ratio and a lower market concentration ratio lead to lower margins and profits. Moreover, foreign banks have higher margins and profits compared to domestic banks in developing countries, while the opposite holds in developed countries. Also, there is evidence that the corporate tax burden is fully passed on to bank customers.

The profitability of European banks during the 1990s is investigated by Goddard *et al*. (2004) using cross-sectional, pooled cross-sectional time-series and dynamic panel models. They use

cross-sectional and dynamic panel estimation to investigate selected determinants of profitability in six major European banking sectors: Denmark, France, Germany, Italy, Spain and the UK, for the period 1992–98.Models for the determinants of profitability in corporate size, diversification, risk and ownership type, as well as dynamic effects. Despite intensifying competition there is significant persistence of abnormal profit from year to year. The evidence for any consistent or systematic size–profitability relationship is relatively weak. The relationship between the importance of off-balance-sheet business in a bank's portfolio and profitability is positive for the UK, but either neutral or negative elsewhere. The relationship between the capital–assets ratio and profitability is positive.

Sufian et al. (2009) uses a sample of 389 banks in 41 SSA countries to study the determinants of bank profitability from 1998 through 2006. Their study is based on an unbalanced panel of SSA commercial banks. They use the return on assets (ROA) as a measure of bank profitability. They use independent variables namely, credit risk, activity mix, capital, bank size, market power, GDP growth and inflation. They found that apart from credit risk, higher returns on assets are associated with larger bank size, activity diversification, and private ownership. Bank returns are affected by macroeconomic variables, suggesting that macroeconomic policies that promote low inflation and stable output growth do boost credit expansion. The results also indicate moderate persistence in profitability. Causation in the Granger sense from returns on assets to capital occurs with a considerable lag, implying that high returns are not immediately retained in the form of equity increases. Thus, the paper gives some support to a policy of imposing higher capital requirements in the region in order to strengthen financial stability.

Masood and Ashraf (2012) undertook study on the determinants of Islamic banks profitability in case of different countries by taking 25 banks out of 12 countries for the period of 2005-2010.The objective of their study was to inspect whether bank-specific and macro-economic determinants influence Islamic banks' profitability in the selected countries of different regions by using the balanced panel data regression model. They used ROA and ROE as profitability measure and considered both micro and macro variables as determinants of profitability. The micro determinants include asset size, capital adequacy, asset quality, liquidity, deposits, Assets Management, Operating efficiency, Gearing Ratio, Financial Risk and macro factors included GDP growth and inflation rate. Their study results reveals that, banks with larger assets size and

with efficient management lead to greater return on assets and also their result shows that management efficiency regarding operating expenses positively and significantly affects the banks' profitability.

Kosmidou (2008) using unbalanced pooled time series data studied the factors that influence the performance of banks in Greece from the year 1990 to 2002. The research established that more return on average assets was connected to highly capitalized commercial banks and low cost to income ratios. The research revealed that size of the bank had a positive but statistically significant in combination with financial structure and macroeconomic variables. The research established that growth of gross domestic product significantly and positively influenced profitability whereas inflation has a negative and statistically significant negative effect on banks' profitability.

Ezra (2013) undertake study on the determinants of commercial banks profitability in sub-Sahara Africa using an unbalanced panel of 216 commercial banks drawn from 42 countries in SSA for the period 1999 to 2006.He employed the random effect panel methods to estimate bank profitability. Growth in bank asset, growth in bank deposit, capital adequacy, operational efficiency, liquidity ratio, growth in GDP and inflation are an explanatory variable. The findings show that the bank level variables such as capital adequacy and growth in bank deposits have positive influence on bank profitability. According to the study, Positive growth of these indicators could be results of banking sector liberalization that has been implemented in most of SSA countries since 1980s and 1990s. On the other hand, growth in bank assets, operational efficiency and bank liquidity indicators have negative effect on bank profitability. The negative effect of these indicators could be explained by disproportionate accumulation of assets through merger and acquisitions of foreign based banks at high costs that has occurred in SSA in the last two decades. On the other hand, negative effect of bank liquidity can be explained by low bank lending. For macro-economic variables, Francis M.E found that both growth in GDP and inflation had a negative effect on bank profitability.

Alemu (2015) examined determinants of commercial banks profitability of eight banks in Ethiopia from for 10 years from 2002 - 2013. The study used multiple linear regressions and the fixed effect regression model to analyze data. The study established that size of banks; capital adequacy and gross domestic product have a positive and statistically significant relationship

with profitability of banks. The findings of the study also revealed that liquidity risk, operational efficiency, funding cost and banking sector development have a negative and statistically significant relation with profitability of banks. Finally, the study found that the relationship between efficiency of management, efficiency of employee, inflation and foreign exchange rate was statistically insignificant.

Abebe (2014) assessed the internal and external determinants of financial performance Ethiopia's banks using panel data of banks for a period between the year 2002 and the year 2013. The study employed the fixed effect regression model. The regression results established that capital structure, income diversification, operating cost had a significant negative relationship with performance while bank size had a positive significant

A study made by Semu (2010) assessed the impact of reducing or restricting loan disbursement on the performance of banks in Ethiopia. It also attempted to examine the possible factors that compel the banks to reduce or restrict lending, covering the period of 2005- 2009. The findings of the study showed that net deposit and paid up capital have statistically significant relationship with banks' performance measured in terms of return on equity. On the other hand, Damena (2011) examined the determinants of Ethiopian commercial banks profitability. The results showed that all bank-specific determinants, with the exception of saving deposit, significantly affect commercial banks profitability in Ethiopia. Market concentration was also a significant determining factor of profitability.

2.5 Literature Gap

In Ethiopia there were studies that took place related to determinate of profitability of commercial banks however, there were no timely studies that indicated the current situation of private banks profitability.

An important gap still exists in the empirical literature to indicate determinates of bank profitability Ethiopia. Only few studies aimed and tried identify determinates of profitability. Studies cited on the empirical literature above such as a study doing by Belay (2010) factors that determine Commercial Bank profitability measured by ROA and ROE, and the result indicated that, profitability of commercial banks majorly challenged by liquidity risk management. The gap in this study were that, it was focused only on specific determinant factors of profitability

and tried to identify major determinant factor, however, to fill this gap in this study attempts were tried to include both specific and macroeconomic determinant variables.

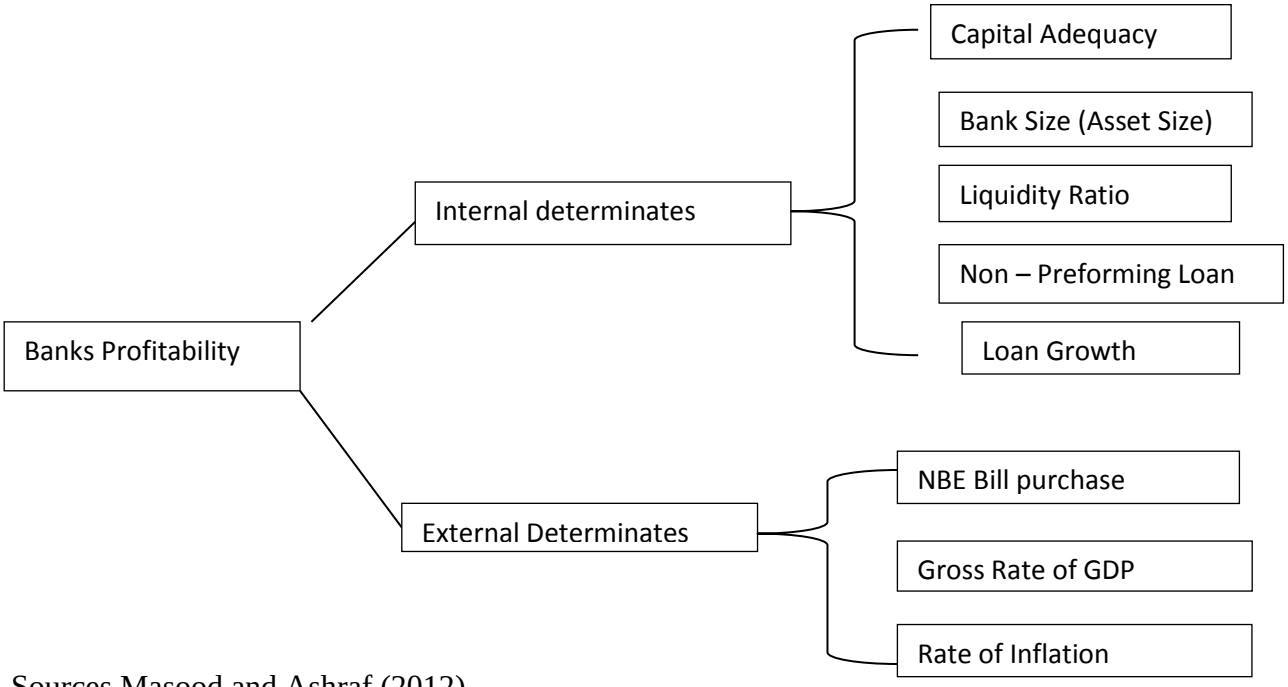
The study conducted by Abebe (2014) also assessed the internal and external determinants of financial performance Ethiopia's banks using panel data of banks for a period between the year 2002 and the year 2013. The study employed the fixed effect regression model. The regression results established that capital structure, income diversification, operating cost had a significant negative relationship with performance while bank size had a positive significant. In this study performance of commercial banks were assessed measured ROA and the result implied ingrate rather it didn't implied which factors more affect specific banks.

Irrespective of many challenges that private commercial banks in Ethiopia has faced, they were found to be more profitable and having high return on asset, even above the SSA (Sub – Saharan Africa) average. But profitability across private and public banks are not the same, however, many previous studies didn't focused on private commercial banks determinates of profitability, rather they were study both governmental and private banks. However, profitability of those banks were not affected similarly by the determinant factors. For instance the 2011 NBE bill purchase Regulatory were only affected profitability of private commercial banks than CBE and Development Bank of Ethiopia, this this because the regulating didn't include those banks. Thus studying determinates of profitability across private commercial banks is necessary to compare and contrast similar areas. Therefore, this study aimed to fill this knowledge gap.

2.6 Conceptual Framework

From the literature review mentioned above, the investigator developed the following schematic representation of the conceptual frame work.

Figure 1: Conceptual frame work



Sources Masood and Ashraf (2012)

CHAPTER THREE

3. Research Methodology and Design

This section discusses on the research question, hypothesis, approach and techniques adopted for the study with the aim of achieving the research objectives. The process of research usually entails problem identification, making hypothetical statements, collecting relevant data and then analyzing the data using the relevant and appropriate statistical tools. This section explains the research design and provides details regarding the population, sample and sampling technique, the research instruments used in collecting data for the study and the data collection and data analysis methods. It also discusses about the model and the components of the model both the dependent and the independent variables.

3.1 Research Approach

According to Creswell (2009), there are three basic research approaches; these are quantitative, qualitative and mixed research approaches.This study is quantitative in its approach, the quantitative data research relies on the measurement and analysis of statistical data to produce quantifiable conclusions. Quantitative research is a means for testing objective theories by examining the relationship among variables. Therefore, for this study quantitative research approach is used to see the relationship between the profitability of private commercial banks and the bank specific and macroeconomic factors affecting banks profitability in Ethiopia by establishing causal relationship.

3.2 Research Design

This study also adopted an explanatory design by using balanced panel research design, to meet the research objective. As explained by Bhattacherjee (2012), explanatory research attempts to identify causal factors and outcomes of the target phenomenon. According to Brooks (2008), a panel of data will embody information across both time and space and it measures some quantity about them over time. The advantage of using panel data is to address a broader range of issues and tackle more complex problems than would be possible with pure time-series.

3.3 Data Type and Sources

The types of data that used in this study were balanced panel data and Quantitative in nature. Balanced panel data meaning that each cross sectional units have same number of time series observations. The investigator was collected Secondary data from annual reports of each sampled banks. Therefore, the main Secondary data of the study were gathered from financial statements of the respective banks and Macroeconomic data were gathered from NBE and MoFED. The data were collected from 2012 to 2016. This is because,as the study analyses each banks trend through compare and contrast it is difficult including extensive data.

3.4 Population Sampling Technique of the Study

According to NBE annual report (2015/16), Ethiopia consists of 17 Commercial banks and 1 Development bank. In this research,the target population is all Commercial Banks in Ethiopia. Commercial Bank of Ethiopia (CBE), Dashen Bank S.C (DB), Awash International Bank S.C (AIB), Wogagen Bank S.C (WB), United Bank S.C (UB), Nib International Bank S.C (NIB), Bank of Abyssinia S.C (BOA), Lion International Bank S.C (LIB), Cooperative Bank of OromiaS.C (CBO), Berehan International Bank S.C (BIB), Buna International Bank S.C (BUIB), Oromia International Bank S.C (OIB), Zemen Bank S.C (ZB), Abay Bank(AB),Addis International Bank(ADIB), Debub Global Bank(DGB) and Enat Bank (EB).

Commercial Banks of Ethiopia categorized into three peer groups. It is based on the establishment period and asset sizes of the banks. A large bank is the first category, there is only one banks is Commercial Bank of Ethiopia (CBE), The second peer group is middle banks, under this category there is six medium banks which are Awash, Dashen, Abyssinia, Wegagen, United and Nib Banks. The final peer group is small banks; this group is relatively small in asset size, which is Cooperative Bank of Oromia, Oromia International, Lion, Zemen, Bunna, Berhan, Abay, Addis, Enate and Debub Global Banks. As the study took place on NBE bill Regulation effect the study exclude CBE as a sample so that, the study only consider private commercial banks, accordingly, from 16 total private commercial banks 8 of them were selected based on their experience (establishment years), accordingly, United, Dashen, Wegagen and Nib Banks selected from medium peer group while, Bunna, Birhan, Lion and Oromia Banks considered

from small peer groups), this is because the sample banks are fairly representing their corresponding peer banks positions in terms of asset size, capital level, liquidity positions and profitability.

3.5 Methods of Data Analysis

After the data were collected, it was organized and financial ratios were computed for each bank of each bank specific variables. And then, the next step was analyzing and interpreting them accordingly to achieve the stated objectives. In this study two type of statistical analysis was used to test the proposed hypotheses. These are descriptive statistics and inferential statistics/to see the cause – effect relationship between the dependent and independent variables. The descriptive statistics of both dependent and independent variables were calculated over the sampled periods. This helps to convert the raw data in to a more meaning full form which enables the researcher to understand the ideas clearly. Then, correlation analyses between dependent and independent variables were made and finally a multiple linear regression analysis was used to determine the relative importance of each independent variable in influencing profitability of private commercial banks.

3.6. Variable Definition & Hypotheses of the Study

According to Creswell (2009), the variables need to be specified in quantitative researches so that it is clear to readers what groups are receiving the experimental treatment and what outcomes are being measured. Accordingly, the study identified both dependent and independent variables, and discuss each of them.

3.6.1 Dependent Variables

Banks profitability is the dependent variable. In the context of this study, bank is measured by profitability (ROA).Because ROA direct measure ratio of net profit Before Tax to Total Asset.

3.6.1.1 Return on Asset (ROA)

The ROA reflects the ability of a bank's management to generate profits from the bank's assets. It shows the profits earned per birr of assets and indicates how effectively the bank's assets are managed to generate revenues. This is probably the most important single ratio in comparing the efficiency and operating performance of banks as it indicates the returns generated from the

assets that bank owns.(Getahun, 2015).There are differentaccountingbased measuresforbanks ‘profitability.Forinstance,ReturnonEquity(ROE),ReturnonAssets(ROA),theReturnonEquity (ROE)ProfitEarningRatio(PER) and Net Interest Margin (NIM). However, in this study ROA used to measure profitability of the studied banks.

$$ROA = \frac{Net\ Profit\ Before\ Tax}{Total\ Asset}$$

3.6.2 Independent variables

3.6.2.1 Bank sizeBank size is measured by total assets. One of the most important questions in the literature is if there exists an optimal bank size in order to maximize bank profitability. It has been argued that a growing bank size is positively related to bank profitability (Pasiouras and Kosmidou, 2007). Lager banks are more willing to have a higher degree of product and loan diversification than smaller banks. Furthermore, due to high diversification, economies of scale can also arise from a larger size. The study expect a positive effect of size on bank profitability as diversification reduces risk and economies of scale lead to increased operational efficiency. Therefore, if the bank becomes extremely large in size, a negative effect could be between size and bank profitability, because the bank is harder to be managed due to bureaucratic and other reasons. Therefore, the size-profitability relationship is expected to be non-linear (Eichengreen and Gibson, 2001). In order to emphasize this possible non-linear relationship, as a proxy the study use the logarithm of banks total assets.

HP1: There is a significant positive relationship between the size of a bank and bank’s profitability.

3.6.2.2 Loan GrowthOne of the most important roles of banks is to offer loans to borrowers and loans serves as the main source of earnings for commercial banks. In different words, loans are the highest yielding asset on bank’s balance sheet. According to Abreu and Mendes (2002) the more the banks offer loans the more they do generate revenue and more profit they make. Therefore, loans should positively affect profitability as the bank is working vigilantly and not taking excessive risk.

HP2: There is a significant positive relationship between the loans and bank’s profitability.

3.6.2.3 Capital Adequacy *As*a proxy for the bank capital, the study uses the ratio of equity to assets. The equity to asset ratio measures how much of bank assets are funded with owners funds. According to literature review, academic research is mixed regarding to the relationship between the capital ratio and banks profitability. According to risk-return tradeoff, a higher equity to asset ratio leads to a lower expected return. Opposed to risk-return hypothesis, Berger (1995) examined the signaling hypothesis and bankruptcy cost hypothesis; suggesting that a higher equity to asset ratio increase profitability due to lower costs of financial distress. Therefore, there is an ambiguous relationship between capital ratio and bank profitability.

HP3: There is a significant positive/negative relationship between the capital ratio and bank's profitability.

3.6.2.4 Non-performing Loans Non-performing loans means loans & advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with the contractual repayment term of the loan or advance is in question (NBE directive No SBB/43/2008). The rise of non-performing loan portfolios in banks significantly contributed to financial distress in the banking sector. Non-performing loans affect profitability of the banks negatively. are the main contributor to liquidity risk, which exposes banks to insufficient funds for operation Based on this it is expected that there is a negative relationship between non-performing loans and profitability of the bank and as a result the following hypothesis is drawn.

H4: The share of non-performing loans in the total volume of loans & advances has negative and significant impact on bank's profitability.

3.6.2.5 Bank Liquidity Effective liquidity management seeks to ensure that, even under adverse conditions, a bank will have access to the funds necessary to fulfill customer needs, maturing liabilities and capital requirements for operational purposes. Without the required liquidity and funding to meet short-term obligations, a bank may fail. For the purpose of this research, liquidity positions of private commercial banks are used as a measure of bank performance. And hence, the following the following hypothesis is drawn

H5: There is significant positive relationship between Liquidity and profitability of commercial banks

3.6.2.6 NBEbill TheNBE bills purchase directive isone of the repressivepolicies of government issuedandimplementedsofar. The National Bank issued this directive on April6, 2011ordering privatecommercialbankstobuygovernment bondworthof27percentofthefreshloandisbursement.This policysettoearn3 percentinterestwhiledepositrates setbyNational Bankstandsat 5percent. As much as the study concern is to analyze the effect of the NBE bill directive on the financial performance of the commercial banks the directive taken as determent factors that affect profitability. Therefore, it is expected that there is a negative relationship between NBE bill Purchasing directive and profitability; as a result the following hypothesis is drawn.

H6: NBE bill purchase has negative impact on profitability of commercial banks

3.6.2.7 Growth rate of Economyis among the most commonly used macroeconomic indicators, as it is a measure of total economic activity within an economy. The GDP per capita growth is expect to have a positive impact on banks' profitability, according to the well-documented literature on the association between economic growth and financial sector performance, as result the following hypothesis is drawn.

H7:GDP has positive and significant effect on profitability of commercial banks

3.6.2.8 Inflation Rate The effect of inflation on bank profitability depends on how inflation affects both salaries and the other operating costs of the bank. The study of Perry (1992) suggests that inflation impacts bank profitability whether it is fully anticipated or not. If the inflation rate is fully anticipated by the bank's management, the bank can adjust interest rates appropriately to increase revenues faster than costs, which should have a positive impact on profitability. However, Ethiopian Private commercial banks can't adjacent interest rate based at individual level, as result the following hypothesis is drawn.

H8 Inflation affects profitability of commercial banks significantly and negatively.

3.7 Model Specification

In establishment of the relationship between study variable comprising of independent variables including size of the bank, capital adequacy, liquidity, credit risk, operating efficiency and the dependent variable (Return on Assets) the study used the regression model. The regression model was as follows;

Y=b0+b1x1+b2x2+b3x3+…..+e

Where

Y refer to the dependents variable which is profit (which is expressed by ROA)

Xi refers to the independent variables

Bi refers to the value of the parameter

e refer to the error term

Based on this to analysis the cause effect relation the study were developed the following model;

$$\mathbf{Y_i = (b_0 + b_1\ CAP_{i1} + b_2\ SIZE_{i2} + b_3\ NPL_{i3} + b_4\ LIQ_{i4} + b_5\ LG_{i5} + b_6\ BIL_{i6} + b_7 GDP_{i7} + b_8 IFL_{i8}) + \varepsilon_i}$$

Y is the outcome variable (dependent variable of ROA), $b_1$is the coefficient of the first predictor (CAP_1), $b_2$is the coefficient of the second predictor ($SIZE_2$), $b_3$is the coefficient of the third predictor (BPL_3), $b_4$is the coefficient of the fourth predictor (b_4 LIQ_{i4}), b_5 is the coefficient of the fifth predictor (LG_{i5}), b_6 is the coefficient of the sixth predictor(BIL_{i6}) b_6 is the cofficent of the seventh predictor (BIL_6) B_7 is the seventh coefficient (GDP_7) B_8 is the eighth predictors of (INF_8) and $\varepsilon_i$is the difference between the predicted and the observed value of Y for the i the participant.

ROA=f (CAP, SIZE, NPL, LIQ, LG, BIL, GDP, INF,).

Where:

CAP = Capital Adequacy:

SIZE= Banks size (asset size of the banks)

NPL= Non – performing loans

LIQ= Liquidity ratio of the banks

LG= Loan Growth of banks

BIL: 27% of NBE Bill purchase regulatory

GDP = Rate of economic growth with in the country

INF = Rate of inflation with the country

CHAPTERFOUR

4. Results and Discussion

This study conducted based on annual report data of 8 private commercial banks. The study investigates the both internal and external determinants of the Ethiopia private commercial banking system of profitability for the period 2012 - 2016. The data have been obtained from annual reports of each bank. Specifically, this chapter has included four sections. The first section analyzed the effect of determinate variables on ROA using percentage ratio. The second section presented the correlation analysis result of dependent and independent variables. Section three presented the classical linear regression analysis and finally discussion of the regression results in compare with several related theories. .

4.1 Descriptive Analysis

This section presents the summary of data used in the regression model and provides statistical descriptive analysis of the dependent and independent variables. The descriptive analysis is important in providing an insight about the distribution of the data by bank and across time as well as their averages.

4.1.1 Trend Analysis of ROA

Profitability is the likelihood of a business earning the desired level of income within a specific period of time under certain prevailing business conditions. ROA was measured by the ratio of net profit before tax to total asset.Net profit before tax was used in order to avoid the impact of different period's tax rate on the net profit of the bank. Below the table indicated profitability of the studied banks for the consecutive five years

Table 4.1 Return on Asset (ROA) (in percentages)

Table **Bank**	**Year**					
	2012	**2013**	**2014**	**2015**	**2016**	**Average**
UB	3	2	2	1	1	**1.8**
DB	4	3	3	2	1	**2.6**
WB	3	3	3	2	2	**2.6**
NIB	3	3	2	2	2	**2.6**
BUB	3	2	2	1	1	**1.8**
BIB	2	2	2	3	2	**2.2**
LB	2	1	1	2	1	**1.4**
OIB	3	2	2	1	1	**1.8**
Average	***2.875***	***2.25***	***2.125***	***1.75***	***1.378***	***2.0756***

Source: Annual Financial reports of banks (2012-2016)

As shown in table, the average growth rate of Return on Asset (ROA) of the studied banks was constantly decreased. Accordingly, the minimum return on asset of 1.378% was registered in the year 2016 and the maximum return on asset of 2.875% was registered on the year 2012. Regarding the individual bank level the average growth rate of Dashen, Wegagen and Nib Banks were high which 2.6% is and lion bank at 1.4% average of ROA is the lowest of all banks considered in this study. Though the net profit of older banks were higher in magnitude than newly opened banks, equivalently the total asset of the older banks was higher and as a result the ratio of ROA has not shown significant difference between the studied banks.

4.1.2 Capital Adequacy Ratio

Capital adequacy refers to the sufficiency of funds available to absorb losses to protect depositors, creditors, etc. in the interest of maintaining financial system stability. As per Basel Committee on Banking Supervision (BCBS 2004) revised framework and NBE requirement (NBE directive no SBB/9/95) capital adequacy is measured by the ratio of regulatory capital to risk-weighted assets and accordingly a minimum of 8% is required. However, the proxy for capital adequacy measurement used in this study was the ratio of total equity to total asset. The higher this ratio entails the capability of the bank to absorb losses from its own capital.

Table 4.2**Average Capital Adequacy Ratio**

Bank	Year					
	2012	2013	2014	2015	2016	Average
UB	0.12	0.11	0.11	0.09	0.09	0.104
DB	0.13	0.12	0.11	0.09	0.10	0.11
WB	0.19	0.17	0.16	0.12	0.11	0.15
NIB	0.19	0.19	0.18	0.15	0.12	0.16
BUB	0.13	0.13	0.14	0.11	0.10	0.122
BIB	0.14	0.12	0.12	0.13	0.12	0.126
LB	0.12	0.11	0.11	0.10	0.10	0.108
OIB	0.13	0.13	0.12	0.11	0.11	12
Average	***0.14***	***0.13***	***0.128***	***0.11***	***0.10***	***0.12***

Source:Annual Financial reports of banks(2012-2016)

The average capital adequacy ratio of the studied banks was above the minimum requirement set by the NBE which is 8%. The maximum CAP ratio of 14% which was recorded in the year 2012 shows that, during that time the total asset of the studied banks were at its highest level as compared to its capital. The capital adequacy ratio reaches the minimum 10% in the year 2016. Starting from 2012, the average capital adequacy ratio shows consistent slight decrement u to 2016 from the year 2012 to 2016. This indicates that commercial banks have by mobilizing funds from sale of additional shares and especially newly established banks make an effort to meet the increased minimum paid up capital requirement of 500 million set by the NBE bill purchased on October 2011. Generally, the study depicted that, the average capital adequacy ratio of the studied banks for the studied period such as, UB Bank has shown the lowest average capital adequacy ratio of 10.4% and NIB (16%) and WB (15%), respectively maintained highest average capital adequacy ratio. From the result it can depict that, relatively the commercial engaged with higher level of capital have higher opportunity to lend a higher amount of money to a borrower and they can increase their interest income and can reduce their transaction costs, and which finally enables them to increase their profit. Therefore, an increase in the ratio of capital to loan leads to an increase the profit of the banks.

4.1.3 Bank Size

Bank size is what the bank possesses and it is useful to measure the banks general capability to undertake its intermediary function. In this study, the proxy used to measure bank size was the

natural logarithm of the total asset. Below the table implied the effect of bank size on profitability of the studied commercial banks

Table 4.3 Average natural logarithm of total asset

Bank	Total size growth of the studied commercial banks in percentage				
	2012	2013	2014	2015	2016
UB	6.72	6.89	6.21	7.11	7.23
DB	8.86	9.09	9.22	9.40	9.54
WB	6.96	7.24	7.52	7.63	7.75
NIB	6.04	6.33	6.53	6.62	6.86
BUB	6.02	6.06	6.31	6.43	6.75
BIB	8.11	8.21	8.33	8.67	8.96
LB	7.12	7.87	8.03	8.23	8.11
OIB	8.12	8.64	9.11	9.32	9.45
Average	***7.24***	***7.53***	***7.84***	***8.11***	***8.54***

Source: Annual Financial reports ofbanks(2012-2016)

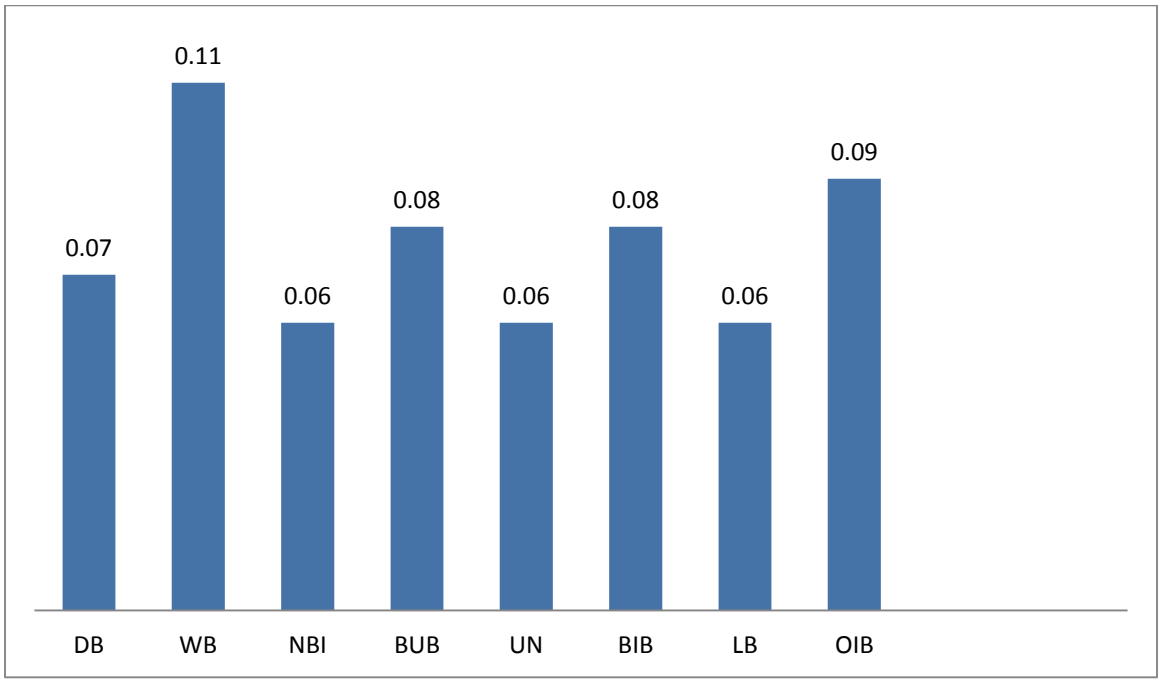
As it is shown in the above table, the average total assets of Ethiopian private commercial banks have shown consistent growth throughout the studied period. As indicated on the consecutive years the minimum total assets growth of the banks observed in 2012 (7.24%) while, the banks highest assets growth were observed in the 2016 (8.54%).

Moreover, bank size has relatively higher value as compared to other variables show that an increase the asset size of the bank (size) will result in increased profitability. Accordingly, the result of the study implied that all of the studied commercial private banks asset size was grow consistently in the studied years.

4.1.4 Non-Performing Loans

As it is defined by NBE, non-performing loan means loans & advances whose credit quality has deteriorated such that full collection of principal and/or interest in accordance with the contractual repayment term of the loan or advance is in question. In this study, NPL is measured by the share of non-performing loans from the total loans & advances of the bank. The National Bank of Ethiopia has provided direction to all commercial banks to maintain the NPL ratio below 5%.Figure 4.2.6 below shows that, the average NPL ratio of the studied banks during the last five consecutive years (2012 – 2016).

Figure 2 NPL experiences of Private commercial banks in Ethiopia



Source: Annual Financial reports of banks (2012-2016)

As it is shown in the above figure, all of the studied banks of NPL ratio didn't full fill the requirement stated by NBE Ethiopia below 5%. As implied by the highest ratio WB at 11% highly affected OIB (9%), Both BUB and BIB (8%), and DB (7%), restively, NIB, UN, and LB less affected of NPL at (6%). Even though some of the bank's Profitability highly affected as a result of poor NPL loan performance, however, all of the studied banks in the studied years were affected by NPL therefore, NPL affect profitability of the studied banks negatively.

4.1.5 Liquidity

Liquidity position of the studied banks were measured based one Liquid asset/net deposit ratio which indicates the extent to which the bank's total liquid assets are composed of deposits from customers and other financial institutions. The measure implied that, liquid assets are cash on hand, deposits with local and foreign banks and treasury bills and other items compared with liquid assets. On the other hand, Net deposit is composed of demand deposits, saving deposits and time deposits which are liabilities for the bank. One of the liquidity measures of this study is liquid asset-to-deposit and other short-term borrowings ratio. The National Bank of Ethiopia also uses this ratio as the measurement of banks liquidity level and the liquidity requirement directive is based on this ratio. As per NBE directive number SBB/57/2014 issued by the National Bank of

Ethiopia, any licensed commercial banks are required to maintain liquid asset not less than 15% of its net current liabilities (which includes the sum of demand deposits, saving deposits, time deposits and similar liabilities with less than one-month maturity).Commercial banks may confront with liquidity deficit, when they face a problem of meeting a large amount of demand (withdrawals). In such a situation, banks may be forced to raise additional liquid funds by borrowings or disposing some of their liquid assets. Usually, short-term borrowings are costly and the loss of income from the sale of liquid assets will tend to have an adverse effect on profitability. Below, the overall average liquid asset-to-deposit and other short term borrowing ratio of the studied banks indicated from 2012 to 2016 implied as follow:

Table 4.4 Liquid Asset/Net Deposit

Bank	**Year**					
	2012	**2013**	**2014**	**2015**	**2016**	**Average**
UB	71	64	62	55	56	61.6
DB	40	36	31	34	47	37.60
WB	47	48	37	48	61	48.20
NIB	54	56	47	45	57	51.80
BUB	51	43	40	32	32	*39.6*
BIB	42	41	38	33	31	*37*
LB	55	51	39	39	34	*43.6*
OIB	60	60	54	50	51	*55*
Average	***52.5***	***51***	***43.5***	***42***	***46***	***47***

Source: Annual Financial reports of banks (2012-2016)

The ratio shows consistent decrement from the period 2012 to 2016 minimum reaches 42% and then it has shown increments in the year 2016 reaches the maximum ratio of 47%. Accordingly both are by far above the minimum liquidity requirement standard of the supervisory authority of 15%. In general, the higher this ratio signifies that the bank has the capacity to absorb liquidity shock and the lower this ratio indicates the banks increased sensitivity related to deposit withdrawals. The continuous decline in the liquid asset/net deposit ratio is attributed to the shift in investment from Treasury bill (liquid asset) to bonds (illiquid assets). In all the years under this study except 2016 the liquid asset/net deposit ratio is more than the industry average. This indicates the banks maintained high illiquid average asset more than the NBE requirement which affects the return on asset negatively because as more liquid assets are kept idle with respect to

net deposits, no profit will be generated from these assets unless they are invested in alternative investment avenues.

4.1.6 Loan growth

The major role of commercial banks are its intermediation function in which a bank collects money on deposit from one group (the surplus unit) and funds it out to another group (the deficit unit). Hence, lending is the principal business activity for all commercial banks in Ethiopia and the loan portfolio is the largest asset and the predominate source of revenue. Loan growth is measured by the annual growth rate of total loans & advances of a bank. Below the table implied average loan growth of the studied commercial banks and how it determine ROA of the studied banks

Table 4.5Average Loan growth of the studied banks

Bank	loan growth of the studied banks				
	2012	2013	2014	2015	2016
UB	0.25	0.27	0.29	0.41	0.47
DB	0.28	0.28	0.33	0.43	0.46
WB	0.29	0.29	0.34	0.44	0.48
NIB	0.31	0.31	0.36	0.47	0.49
BUB	0.32	0.32	0.37	0.45	0.48
BIB	0.34	0.37	0.35	0.39	0.41
LB	0. 35	0.36	0.41	0.44	0.46
OIB	0.24	0.31	0.37	0.41	0.45
Average	***0.29***	***0.31***	***0.35***	***0.43***	***0.46***

Source:PrivatecommercialbanksannualreportsandOwncomputation

As it depicts on the above table the average loan growth of the studied banks were constantly increase. According to NBE directive No. SBB/43/2008, loans & advances means any financial asset of a bank arising from a direct or indirect advances fund by a bank to a person that is conditioned on the obligation of the person to repay the fund on a specified date or on demand with interest. Loans & advances are granted to customer from the amount collected from depositors of the bank. In this regard, when banks transform short term deposits to long term loans, which have a maturity mismatch, they will be vulnerable to liquidity problem**.** Therefore, the increase in loan means increase in illiquid assets and decrease in short term/liquid assets in turn banks loss their profit. Therefore, as indicated on the above table the

banks mostly affected by the loan growth specifically, after the NBE bill obligatory directive. This is because most of the commercial banks were transferred the short term loan in to long term loan with less interest rate which is 3%.

4.1.7 NBE bill purchase Regulatory

The secondarydataobtained from annualbulletins of banksandcomputedalso convincedthe adverseimplicationsofNBE billspurchase directive onprofitability viareducingtheirprofitfromyeartoyear. As itisportrayedintable 10,NBEbills purchase directive hasadverseimplication byreducingthe amounts of Profitof private commercialbanks.During 2011fiscalyear,forinstance, the studied commercial banks lost atotal amount of profit estimated to birr *130,608*million;which grew up to birr 254,553 million in 2012fiscalyear, birr 375,954 in 2013, birr 420,925 million in the facial year of 2014, birr 514,548 million in 2015 and 640,273 million at the end of 2016.Ingeneral, theaverageprofitforegonebyprivatecommercialbanksduringthelast six yearsstoodat birr at birr 2, 336,861 billion.

Table 4.6 Forgone profit due to the Purchasing of Bill

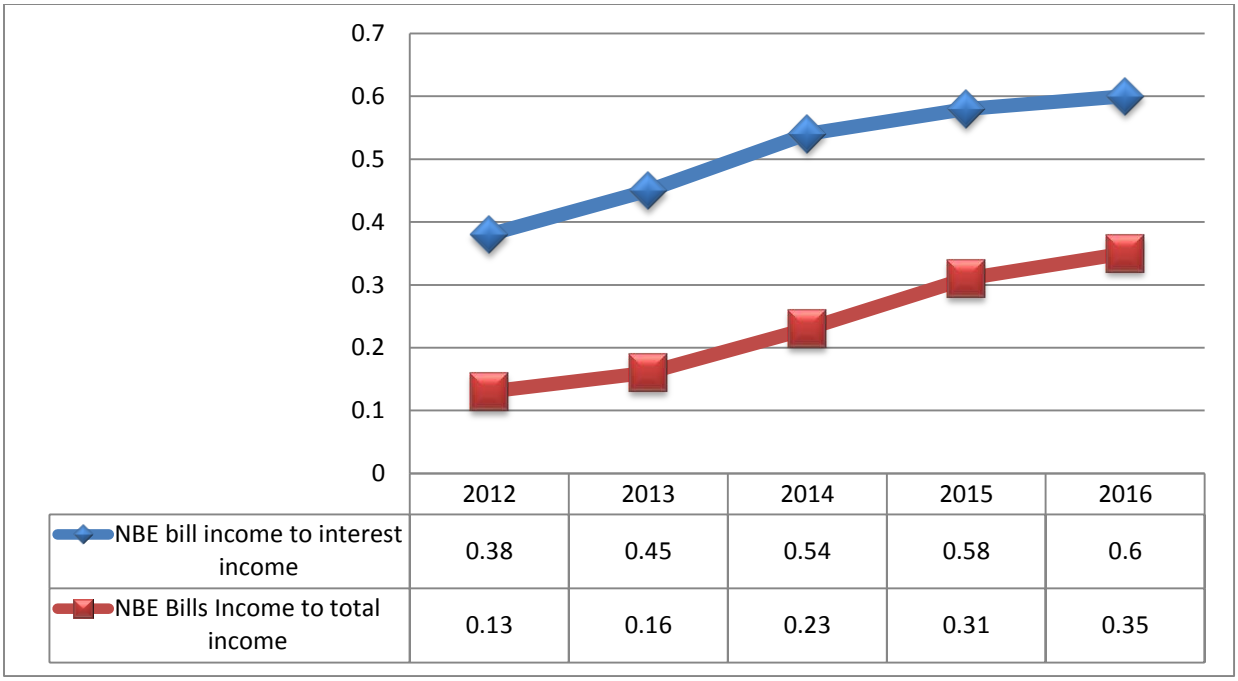
Bank	Profit amount loss of the banks After the directive of the Bill (in million)					
	2011	2012	2013	2014	2015	2016
UB	27,835	51,471	52,678	59,349	69,234	73,965
DB	33,500	67,447	73,644	76,541	79,935	90,034
WB	31,046	53,194	55,651	59,543	84,675	89,985
NIB	19,433	40,336	44,946	49,841	56,432	67,981
BUB	392	7,843	17,475	23,342	33,619	44,674
BIB	931	6,047	27,983	35,234	45,567	67,312
LB	7,469	13,010	12,507	19,321	39,210	98,347,
OIB	10,002	15,205	91,070	97,753	105,876	107,975
Total	***130,608***	***254,553***	***375,954***	***420,925***	***514,548***	***640,273***

Source:PrivatecommercialbanksannualreportsandOwncomputation

As shown on the above table the directivehastangible impactonthebankingprofitability. In this regard IMF (2012) statedthatthe NBEdirectiveintroducedinApril2011ishavingtangibleimpactsonbanking sector,including

maturitymismatchandlessprofitability. This because privatebankscollect savings attwotothreeyearsmaturityandeven shorter in somecases,buthavetofreezetheseresourcesforfiveyearsatrateslowerthan costoffunds.This clearlyindicatesthatNBEbillspurchasedirectivehassignificant adverse impacton the profitability ofprivate commercial banks via diminishingtheirprofitsandconsequentlymakingthebankstonotaccomplish theirmission ofmaximizing shareholders valueasshareholders'valueisgetting attractivedividend paymentobtainedfromprofitsofthebanks.

Figure 3hShareofincomelostbyprivatecommercialbanksbecauseofpurchaseofNBE bills in percentage ratio

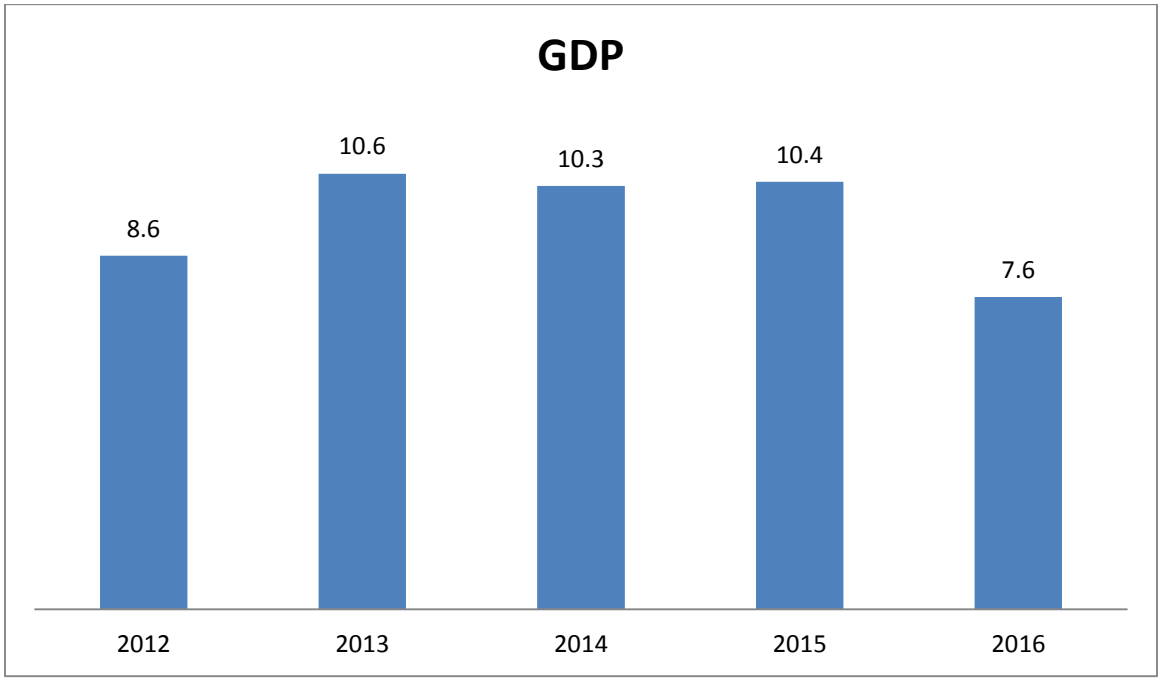


	2012	2013	2014	2015	2016
NBE bill income to interest income	0.38	0.45	0.54	0.58	0.6
NBE Bills Income to total income	0.13	0.16	0.23	0.31	0.35

4.1.8 Gross Domestic Product

Gross Domestic Product (GDP) is an indicator of the economic health of a country as well as the gauge of a country's standard of living. It is the measurement of level of economic activity of a country. For the purpose of this study, GDP is measured by the annual real growth rate of gross domestic product. Below the figure indicates the country GDP for the following 5 consecutive years

Figure 4 Average Gross Domestic Product



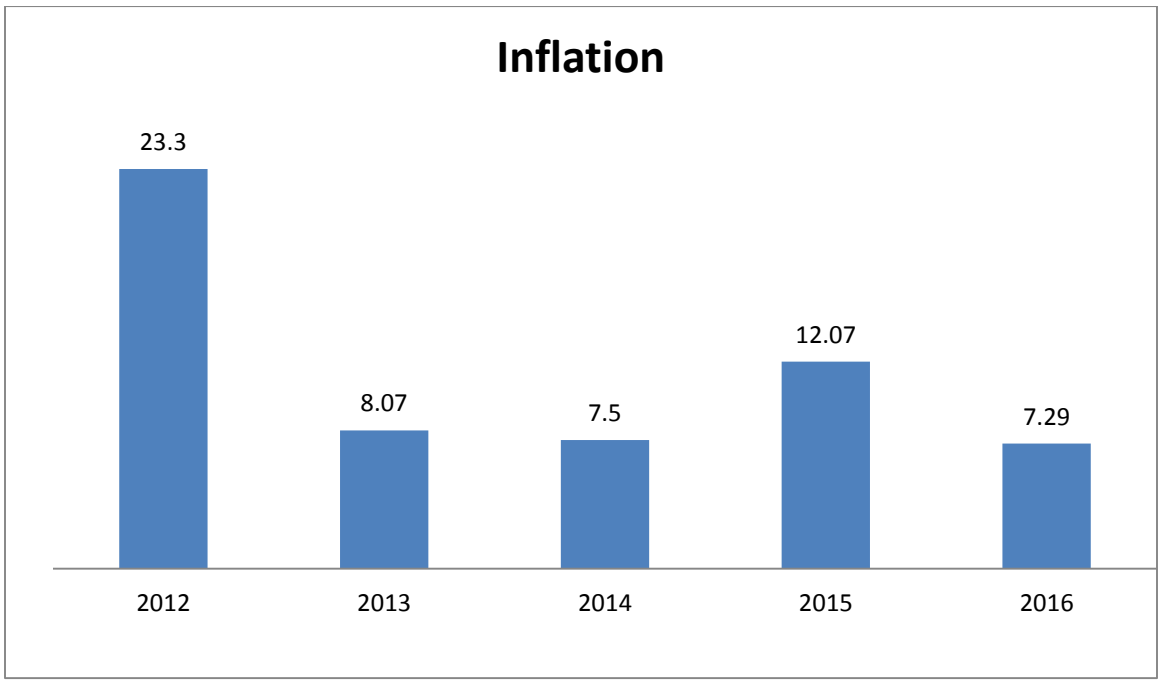
As indicated on the above figure the country GDP growth were less in 2012 (8.6%) and 2016 (7.6%) otherwise the country GDP was Growth in Double digit. According to the study results when the economy is at boom or goes out of recession, economic units including banks are optimistic and increase their loans & advances and as a result decrease their holding of liquid assets. According to the literature it is expected that the relationship between GDP and profitability to be positive. When the economy conditions are poor this is associated with low quality of loan portfolio. This brings the increase of credit losses and provisions expenses translated in lower profitability. Whereas good economic conditions is associated with the increase of demand for loans, better solvency of the borrower influencing positively in the bank profitability.

4.1.9 Inflation Rate

The effect of inflation on bank profitability depends on how inflation affects both salaries and the other operating costs of the bank. The study of Perry (1992) suggests that

inflation impacts bank profitability whether it is fully anticipated or not. If the inflation rate is fully anticipated by the bank's management, the bank can adjust interest rates appropriately to increase revenues faster than costs, which should have a positive impact on profitability. However, Ethiopian Private commercial banks can't adjacent interest rate based at individual level, this is because all of the private banks activities governed by NBE. The study indicates the rate of Inflation between 2010 – 2016 for the last five years in Ethiopia and its effect on ROA.

Figure5AverageInflation of a country



As indicated on the above Figure, the mean value of the general inflation rate of Ethiopia over the past sixteen years was 11.6.4%, which was more than that of the average real GDP growth rate. The maximum inflation rate was recorded in the year 2012 (i.e. 23.3%) followed by the year 2015 (12.07%) and the minimum inflation rate which was recorded in 2014 (7.5%). Therefore, inflation of the country appears to be significant and related negatively to the profitability. Mentioned that the results of the other authors were mixed for the impact of the inflation to the profitability. In Ethiopia financial sector it appears

that with the inflation the operational costs are increased more than the effect of the interest rates resulting in lower profitability for the banks.

4.2 Correlationanalysis

TheROAreflectstheabilityofabank'smanagementtogenerateprofitsfromthebank'sassetsan dthisprofitabilitymeasureiscorrelatedwithotherexplanatoryvariableseitherpositivelyorneg atively.Intable
11below,thecorrelationanalysiswasundertakenbetweenprofitabilitymeasures;returnonass etandexplanatoryvariables such as, Capital Adequacy (CAP), liquidity (LIQ),NBEbills (BIL),Loans growth (LG), Bank Size (SIZE), Non – Performing loan (NPL), Gross Domestic Product (GDP) and Inflation (INF).

Asitcanbeseenfromthetable below,therewasapositivecorrelationbetweenreturnonasset bank size, Loan Growth and GDP with Return on Asset (ROA) while CAP, NPL, Liquidity risk (LIQ), as well as Inflation correlate With ROA negatively.

As per the table below, the correlation coefficient between return on asset and bank size (SIZE) 0.431 which is the smallest positive coefficient as compared to other variables, this mean that private commercial banks has the least positive association with Profitability. However, loan growth (LG) exhibited the highest positive correlation coefficient which is 0.623.This result shows that the LG of the private commercial banks have significant relationship with the profitability measured by return on asset. This indicated that LG becomes the major earning source of the commercial banks, followed by bank size and GDP. On the other hand the studied variables also indicated negative correlation with ROA, such as, NPL at -0.671 highly and negatively affected profitability of the studied banks, followed by, Bill purchase, Inflation, liquidity risk as well as capital adequacy challenge. The correlation between the dependent and independent variables implies that, change made in one of the independent variables can change organization

profitability efficiency. Thus from this result the study confirmed that, all of the independent variables effect of on the ROA were as expected.

Table 4.7 Correlation Matrix of ROA

Correlations										
Variables		ROA	CAP	SIZE	LG	NPL	LIQ	BIL	GDP	INF
	ROA	1								
Pearson Correlation Sig. (2-tailed) N	CAP	-0.521*	1							
	SIZE	0.531	-0.351*	1						
	LG	0.623*	-0.512	0.311	1					
	NPL	-0.671**	0.213	-0.342*	0.023	1				
	LIQ	-0.552*	-0.731*	0.467	0.325*	0.032*	1			
	BIL	-0.631**	0.515	0.212*	-0.331**	0.541	0.511	1		
	GDP	0.495*	-0.546	-0.532	0.045*	-0.312	-0.023	0.054	1	
	INF	-0.612*	-0.3.24	0.441*	0.051	-0.519*	-0.54*	-0.643	-0.512	1

****Correlation is significant at the 0.01 level (2-tailed).**
***Correlation is significant at the 0.05 level (2-tailed).**

Source: Annual Financial reports of banks (2012-2016)

4.3. Results of Regression Analysis and Diagnostics test

In the classical linear regression model different tests were run to form the data ready for analysis and to get reliable output from the study. These tests were expecting to check whether the OLS basic assumptions, are fulfilled when the explanatory variables are regressed against the dependent variables.

Heteroscedasticity Test

When the scatter of the errors is different, varying depending on the value of one or more of the independent variables, the error terms are heteroscedastic(Gujarati&Porter, 2009).Heteroscedasticity white test is used to test the heteroscedasticity problem in this research. This test is very important because if the model consists of heteroscedasticity problem, the OLS estimator no longer BEST and error variances are incorrect, therefore the hypothesis testing, standard error and confident level will be invalid. If the p-value is less than significant level we reject the null hypotheses otherwise, do not reject the null.

Table 4.8 Heteroscedasticity Test

WhiteTest	P-value
F-statistic	0.25333
Obs*R-squared	0.18931
Scaled explained SS	0.57122

Source: Own computation (E-views output, 2018)

The p-value of this model result is more than the significant level 0.05(5%), so the model does not have heteroscedasticityproblem.

Autocorrelation Test

Autocorrelation error occurs when there is a serial correlation between residuals and their own past values. In this study, Breusch Godfrey Serial Correlation LM test is used to carry out the autocorrelation test. The P-value is obtained to check whether the autocorrelation problem occurs in the model. If the p-value is more than5%significantlevel, it indicates that there is no autocorrelation problem in the model. The hypothesis for the model specification test was formulated as follow; H_0: There is no autocorrelation problem.

H_1: There is autocorrelation problem.
H_0: Decision Rule: Reject H_0 if P value is less than significant level 0.05. Otherwise, do not reject

Table 4.9Result of Autocorrelation Test

Variables	P-value	Decision Rule
Breusch-Godfrey Serial Correlation LM Test	0.9522	Do not Reject theH0

Source: Own computation (E-views output)

Multicollinearity Analysis

According to (Dillon, 1993) when independent variables are highly correlated, there is overlap or sharing of predictive power. This may lead to the paradoxical effect, whereby the regression model fits the data well, but none of the predictor variables has a significant impact in predicting the dependent variable (Robert, 2006). This is because when the predictor variables are highly correlated, they share essentially the same information. Thus, together, they may explain a great deal of the dependent variable, but may not individually contribute significantly to the model. The impact of multicollinearityis, therefore, to reduce any individual independent variable's predictive power by the extent to which it is associated with the other independent variables (Beyan, 2014). Before conducting the regression analysis Tolerance and Variance Inflation Factor (VIF) values were calculated to check multicollinearity. According to (Robert, 2006) Tolerance value is an indication of the percentage of variance in the predictor that cannot be accounted for by the other

Table 4.10Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	Constant		
	CAP	.583	1.395
	SIZE	.546	1.634
	LG	.653	1.802
	NPL	.831	1.073
	LIQ	.653	1.022
	BIL	.673	1.292
	GDP	521	1013
	INF	.603	1.430

a. Dependent Variable: ROA

The calculated Tolerance value of the dimensions of the independent variable is ranging between 0.521 and 0.831 indicates all the Tolerance values are within the acceptable level of greater than 0.1, whereas the VIF values are also less than the cut of value of 10 which ispossible to continue test of multiple regression

4.4 Regression Analysis

To examine the relationship between profitability measures and explanatory variables regression analysis were done. The regression analysis was undertaken to investigate the relationship between ROA and independent variables. Thus below the regression analysis of the study summarized as follow:

Table 4 .11Model Summary of the study

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936[a]	.858	.857	.37891

a. Predictors: (Constant), CAP, SIZE, LG, NPL, LIQ, BIL, GDP, INF

As it can be depicted from the table there is a positive and statistically significant Relationship between the independent variables and the dependent variable. In overall, the results revealed that all independent variables accounted for 85.8% of the variance (R^2 = 0.858). Thisindicatesthatthe changesinthe independentvariables collectively explain85.8%ofthechangesinthedependentvariable(ROA)andthe remaining15.4%ofchangeswasexplainedby othervariableswhicharenotincludedinthe model. Therefore, these explanatory variables together, are good explanatory variables of the profitability of the studied private commercial banks in Ethiopia.

Table 4.12 ANOVA Result of the study

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	92.608	6	15.435	107.503	.000[b]
	Residual	13.065	91	.144		
	Total	105.673	97			

a. Dependent Variable: ROA

b. Predictors: (Constant), CAP, SIZE, LG, NPL, LIQ, BIL, GDP, INF

The result in the ANOVA table confirmed the significance of the overall model by p- value of 0.000 which is below the alpha level, i.e. 0.05, which means, the independent variables taken together have statistically significant relationship with the dependent variable under study.

Table 4.13Coefficients Analysis of the study

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.146	.149		7.666	.000
	CAP	-.363	.090	-.593	9.612	.002
	SIZE	.572	.046	.295	-3.776	.001
	LG	.691	.160	.612	.5718	.019
	NPL	-.654	.076	-.822	-2.025	.000
	LIQ	-.593	.192	-.563	1.003	.000
	BIL	-.571	.183	-.693	-1.652	.000
	GDP	.348	.012	.341	8.654	.003
	INF	-.637	.071	-.684	6.342	.005

a. Dependent Variable: ROA

In the table- above, coefficients indicated how much the dependent variable varies with the independent variable, when all other independent variables are held constant. The beta coefficients indicated that how and to what extent the independent variables influence the dependent variable. Accordingly the coefficient beta and sign value implied extent of explanatory variables effect on profitability of the studied banks, accordingly, the effect of NPL at beta = .822, t = -2.025, p= .000 implied its highest effect on profitability of the studied private commercial banks, followed by, BIL purchase effect, at beta value of .693 and p = .000, INF, beta = 684, t = 6.342, p = 0.005, LG at beta.612, t = .5718, P =.019 CAP (.593, t =9.612, p <.005) and LIQ (.563, t = 1.003, P < .005) Significantly influenced profitability of the studied banks.

Discussion of the study

The study found that capital adequacy significantly and negatively influences banks' profitability as indicated on the coefficient analysis< 5% (0.593). The same results by Tobias (2011) revealed that a 5% increase in capital adequacy could result in 0.076% increase in profitability. This was statistically significant effect at 5% significant level, which shows that well capitalized banks face lower cost of bankruptcy and lower need for external funding especially in emerging economies where external borrowing is difficult and costly. Uhomoibhi Toni Aburimet (2005) indicate that though capital size is a significant determinant of bank profitability in Nigeria, only the size of the reserves component of bank capital has a significant relationship with bank profitability. Thus the above theories reveals that well capitalized banks face lower costs of going bankrupt and then cost of funding is reduced, which is also a positive sign that the banks hold sufficient capital to hedge against risks, therefore enhances their financial stability

The study found that bank size positively, influences the profitability. This indicates smaller the bank the lower the profitability and vice versa. According to Alkhazaleh and Almsafir, (2014) large banks are assumed to have more advantages as compared to their smaller rivals and have a stronger bargaining capability and making it easier for them to get benefits from specialization and from economies of scale and scope.

The coefficient of the variable representing liquidity ratio (total loans/total assets) is negative and insignificant as implied in the correlation matrix <5% (-0.552). This is consistent with theory Richard (2011),liquidity ratio has a negative influence on bank profitability such that high excess liquidity decreases bank profitability and low liquidity improves bank profitability. Excess liquidity is a sign that bank lending is low and banks are holding more money than statutory required for precautionary purposes. While, low liquidity is a reflection that banks are holding less money in their accounts, an indication of increased lending to the public, and thus implied growth in business and profitability (Saxegaard, 2006). Indeed, excess liquidity of banks negatively influences bank profitability and our study result also agreed with this idea, this is because all of the studied commercial banks of Ethiopia liquidity position were by far above the requirement of the NBE 15%.

The study have found that NPL ratio the result multiple regression ratio indicated that, NPL significantly and negatively affect ROA of the studied commercial banks. The result is similar with a study (Bentum,2012) the study result of the multi linear regression model shows that this factor is negatively and highly influenced the ROA of commercial banks of Ghana. The banks in Ghana have had a high level of NPL ratio in the recent years, meaning a bad quality of the loan portfolio

As lending is the principal business activity of commercial banks, loans & advances (loan growth) is the major asset of a bank. In this study, the annual growth rate of gross loans and advances to customers was used as a proxy for loan growth. The result of the study indicated that, loan growth had a positive and statically significant effect on ROA of the studied commercial banks. The finding was similar with a theory Roman, &Tomuleasa, (2013), Higher loan to deposit ratio indicates, commercial banks has issuing more of its deposit in the form of interest bearing loans, consequently banks can have generating more profit

NBEbill(BIL):AsindicatedintheTable 4.10thecoefficientestimatesofNBEbillis-0.693.Thismeansholdingotherfactorsconstant,a1%increaseininvestmentinNBE Billwouldleadtoreducesreturnonassetby 0.693unitsandthepvalueofNBEbill (i.e.0.000)revealsthatitisstatistically significantat5%levelofsignificance.Thisresultwasconsistence withthestudy ofTesfaye(2014)andEdeninthesameyear.Overalltheseindicatethatthe magnitudeoftheimpactofNBEbillishighlyaffected profitability of commercial banks.

The impact of gross domestic products (GDP) on profitability of the study were positive; it is significant driver in the profitability of commercial banks of Ethiopia at <5% (.341) percent level of significance as implied in the coefficient analysis of matrix Correlation. This finding conforms to earlier findings by Sufien et al. (2008), Kosmidou a Pasiouras (2005) and Hassan and Bashir (2003), which agrees on the positive association between GDP growth should exert positive impact on bank profitability and this provides support in the study Ethiopian GDP also grow for the last ten years between 8 – 10% per annum , thus if there is economic growth there will be an accessibility of investment and bowers in turn banks liquid money transfer in to investment and profitability will grow.

The study also found the negative effect of inflation on the studied private commercial banks. The result is fit with the theory of Bashir (2001) coat Inflation measures the overall percentage increase in Consumer Price Index (CPI) for all goods and services. Inflation affects the real value of costs and revenues. The negative association between inflation and profitability entails that banks in the study could not adjust their prices such as, cost for employee, expansion of banks branches as wee; as could not adjust interest rate on loans and deposits, according to the inflation rate during the study time.

The coefficient determination (R-squared) is measured the goodness of fit of the explanatory variables in explaining the variations in banks profitability measure ROA. In regression, the R-Square coefficient of determination is a statistical measure of how well the regression line approximates the real data points. As clearly described in Table 4.8 R-squared value for the regression model was ($R^2 = 0.858$). This indicates the explanatory variables in this study jointly explain about 85.8% of the variation in the profitability measure, return on asset. The remaining 14.2%of the variation in the profitability of commercial bank of Ethiopia explained by other variables which are not included the model.

CHAPTER FIVE

5. Conclusion and Recommendation of the study

5.1 Conclusion of the study

Based on the analysis and interpretation done in chapter four the study concludes major findings as follow:

The finding regarding the average growth rate of Return on Asset (ROA) of the studied private commercial banks was constantly decreased. Accordingly, the minimum return on asset of 1.378% was registered in the year 2016 and the maximum return on asset of 2.875% was registered on the year 2012. Though the net profit of older banks were higher in magnitude than newly opened banks, equivalently the total asset of the older banks was higher and as a result the ratio of ROA has not shown significant difference between the studied banks

Starting from 2012, the average capital adequacy ratio shows consistent slight decrement to. This indicates that commercial banks have by mobilizing funds from sale of additional shares and especially newly established banks make an effort to meet the increased minimum paid up capital requirement of 500 million set by the NBE bill purchased on October 2011.

Regarding the bank size the study implied that, relatively higher value as compared to other variables show that an increase the asset size of the bank (size) throughout the studied years. Accordingly, the average growth rate of the banks size (total asset) increase from 7.24% in 2012 to 8.54% in 2016, this implied that, profitability of the studied commercial banks slightly increase with increasing asset size.

Regarding the effect of Liquidity ratio on ROA, the finding implied that, the ratio of liquidity indicate consistent decrement from the period 2012 to 2016 minimum reaches 42% and then it

has shown increments in the year 2016 reaches the maximum ratio of 47%. Accordingly both are by far above the minimum liquidity requirement standard of the supervisory authority of NBE 15%. This indicates the banks maintained high illiquid average asset more than the NBE requirement which affects the return on asset negatively because as more liquid assets are kept idle with respect to net deposits, no profit will be generated from these assets unless they are invested in alternative investment avenues.

Regarding to Loans & advances (loan growth) effect on ROA the study reveal that, loan and advance is granted to customer from the amount collected from depositors of the bank. As indicated from the result above in the table the loan growth slightly increase throughout the years and as main income of banks are interest rate return the growth of loan positively affect profit of the banks.

NBEbillhadanegativeandsignificantimpactonthe profitability ofprivatecommercialbanksbecausethey havebeenofferedvery lowinterest rate(3%)by NBEwhichislessthancostofcollectingsavingonaverage 5.2%NBE (2011 - 2016).Thisevenmakesprivatecommercialbankstoincurnetlossof 2.2%.Notonlyincurringanetlossof2.2%but alsotheinterestratecalculatedonthebills isfarlessthanthemarketlendingratewhichis11.88%onaverage.

GDP growth were less in 2012 (8.6%) and 2016 (7.6%) otherwise the country GDP was Growth in Double digit. According to the study results when the economy is at boom or goes out of recession, economic units including banks are optimistic and increase their loans & advances and as a result decrease their holding of liquid.

The mean value of the general inflation rate of Ethiopia over the past sixteen years was 11.64%, which was more than that of the average real GDP growth rate. The maximum inflation rate was recorded in the year 2012 (i.e. 23.3%) followed by the year 2015 (12.07%) and the minimum inflation rate which was recorded in 2016 (7.29%). Therefore, inflation of the country appears to be significant and related negatively to the profitability.

5.2 Recommendation

In order to hold increase profitability of private commercial banks and maintaining financial stability, it is vital to identify the determinants that mostly influence the overall profitability of commercial bank of Ethiopia. Therefore, based on the study results the researcher would like to forward the following recommendations.

One of the challenges of Ethiopian commercial banks profitability were the high amount of idle money, order to maximize profitability of bank, Ethiopian commercial banks should lower the liquidity ratio to increase the income from loan. In other words, a bank could reduce the cost of loan to increase the lending to the public thereby reduce cash tied up to liquid asset. Therefore, the bank could increase its profitability.

Private commercial banks should improve their asset quality by reducing their non performing through improving their inspection techniques to identifying quality borrowers, gathering sufficient information about the borrowers, improve Poor enforcement of creditor rights and obligation, if there is and strengthening the legal environment of the business.

NBEbillspurchasedirectivehadadverse impacton the profitability ofprivate commercial banks via diminishingtheirprofitsandconsequently hinder the banks mission maximizing profit.Therefore, itisbetterfor thepolicy makerstominimizeeitherthepercentageoftherequirementtopurchasetheNBE bill from newlydisbursed loans orincreasethe interest rate paid forthe bill.

Macroeconomic policies are of great important in determining profitability of commercial banks.as per the study assessed effect of inflation on profitability was negative. Thus, thestudy recommend that, policy makers aimed at controlling inflation should be given priority in fostering financial intermediation. Since the output cycle matters for bank profits, fiscal and monetary police that are designed to promote output stability and sustainable growth are good for financial intermediation.

Private commercial banks may focus on branch expansion to mobilize funds from the unbanked society. As many literatures supports financial intermediation in Ethiopia is still in its early stages even by the standards of other low-income countries: more than 90 percent of the population is unbanked (versus an average of 60-70 percent elsewhere in Africa); and many other metrics such as the total number of banks, banks contribution to GDP, bank accounts per person, branches per person, and bank credit per person are lower in Ethiopia compared to other African countries. Thus, private commercial banks may focus to reach this unmet demand of finance by adjusting their strategy.

And finally, management bodies of private commercial banks should strive to strengthen and widening other income generating sources such as Agent Banking to reach untapped market, paperless service to decrease the service delivery process and others. True, this demands huge investment on infrastructure and technology. Yet, it is investing on their future to assure the public, their shareholders and the government alike of their commitment to stay in the business.

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Appendixes

Correlation Matrix of ROA

Correlations										
Variables		ROA	CAP	SIZE	LG	NPL	LIQ	BIL	GDP	INF
	ROA	1								
Pearson Correlation Sig. (2-tailed) N	CAP	-0.521*	1							
	SIZE	0.531	-0.351*	1						
	LG	0.623*	-0.512	0.311	1					
	NPL	-0.671**	0.213	-0.342*	0.023	1				
	LIQ	-0.552*	-0.731*	0.467	0.325*	0.032*	1			
	BIL	-0.631**	0.515	0.212*	-0.331**	0.541	0.511	1		
	GDP	0.495*	-0.546	-0.532	0.045*	-0.312	-0.023	0.054	1	
	INF	-0.612*	-0.324	0.441*	0.051	-0.519*	-0.54*	-0.643	-0.512	1

****Correlation is significant at the 0.01 level (2-tailed).**

***Correlation is significant at the 0.05 level (2-tailed).**

Heteroscedasticity Test

WhiteTest	P-value
F-statistic	0.25333
Obs*R-squared	0.18931
Scaled explained SS	0.57122

Result of Autocorrelation Test

Variables	P-value	Decision Rule
Breusch-Godfrey Serial Correlation LM Test	0.9522	Do not Reject theH0

Table 15: Multicolinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	Constant		
	CAP	.583	1.395

	SIZE	.546	1.634
	LG	.653	1.802
	NPL	.831	1.073
	LIQ	.653	1.022
	BIL	.673	1.292
	GDP	521	1013
	INF	.603	1.430

Model Summary of the study

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936[a]	.858	.857	.37891

ANOVA Result of the study

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	92.608	6	15.435	107.503	.000[b]
	Residual	13.065	91	.144		
	Total	105.673	97			

Coefficients Analysis of the study

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.146	.149		7.666	.000
	CAP	-.363	.090	-.593	9.612	.002
	SIZE	.572	.046	.295	-3.776	.001
	LG	.691	.160	.612	.5718	.019
	NPL	-.654	.076	-.822	-2.025	.000
	LIQ	-.593	.192	-.563	1.003	.000
	BIL	-.571	.183	-.693	-1.652	.000
	GDP	.348	.012	.341	8.654	.003
	INF	-.637	.071	-.684	6.342	.005