ST.MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF PROFITABLITY IN ETHIOPIAN COMMERCIAL BANKS: THE CASE OF PRIVATE COMMERCIAL BANKS (2001-2013)

BY
YIREGALEM NIGUSSIE

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DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Alem Hagos (Ph.D). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

_____   _____

Name   Signature& Date

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School of Graduate

Studies for examination with my approval as a university advisor.

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Advisor   Signature& Date

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Undoubtedly, writing this thesis has been one of the most challenging and engaging but also considerably exciting experiences of my academic career & experience which I couldn't have done without the help of others. I feel the need to acknowledge the support of these great people.

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List of Acronyms

ADMCO   Administration Cost

ASETQ   Asset Quality

BL   Bank Liquidity

BRAN   Branch number

BS   Bank Size

CAP   Capital Adequacy

DF   Deposit Fund

ID   Income Diversification

LP   Loan Production

ME   Managerial Efficiency

NIB   Nib International Bank

OLS   Ordinary Least Squares

RMP   Relative Market Power

ROA   Return on Asset

ROE   Return on Equity

SC   Share Company

SCP   Structure Conduct Performance

SSA   Sub Saharan Africa

UK   United Kingdom

BP   Bill purchase

NBE   National Bank of Ethiopia

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Abstract

The purpose of this study is to investigate determinants of private commercial banks profitability in Ethiopia by using panel data of six private commercial banks from year 2001 to 2013. The previous research that has been conducted in Ethiopia by researchers on the determinant of private bank profitability is not well studied and is not covered all the determinate factors. Hence, this study aims to fill this gap. In view of this fact, the significance of this study is providing valuable information to bank managers in order to enhance their bank profitability and it enables them to give a due emphasis on the identified variables.

The study used multiple linear regressions models to investigate factors that determine the profitability of commercial banks .To obtain information relevant to the study, secondary data was used. Besides, in the study all operational commercial banks in Ethiopia were taken as study population and purposive sampling method was used to select sample from this population.

The findings of the study show that capital adequacy, loan production, deposit fund, income diversification, managerial efficiency and size of the bank have statistically significant and positive relationship with banks' profitability. On the other hand, variables like asset quality and number of branch have a negative and statistically significant relationship with banks' profitability. However, the relationship for bank liquidity and administration cost is found to be statistically insignificant. Therefore, it is recommended that private commercial banks should increase their level of asset, improve their asset quality ,diversify their non interest income sources, provide trainings to employees and managers, diversify their non interest income sources and mobilize more deposits in order to be profitable.

CHAPTER ONE

INTRODUCTION

1.1 Background

A growing research literature has underscored the importance of banking sector to economic growth and it is considered as an integral part of the economy. It is also widely believed that the bank sector should be profitable in order to play a crucial role for economic growth since it has a direct impact on the sustainability of the banks in particular and on the productivity of all the other sectors in the economy in general (Murundo, 2008). Therefore, the study of profits is important not only because of the information it provides about the revenue generating capacity of the company, but also because profits are a key determinant for the sustainability of a given company. In order for a business entity to continue to prosper, there is need for its earnings to be relatively stable for its expansion and growth over time. Moreover, changes in profitability are an important contributor to economic progress via the influence profits have on the investment and savings decisions of companies. This is because a rise in profits improves the cash flow position of companies and offers greater flexibility in the source of finance for corporate investment (i.e. through retained earnings). Easier access to finance facilitates greater investment which boosts productivity, productive capacity, competitiveness and employment (Flamini, 2009)

The existence, growth and survival of a business organization mostly depend upon the profit which an organization is able to earn. (Cooper,2009) It is true that when Profitability increases the value of shareholders may increase to considerable extent. The term profitability refers to the ability of the business organization to maintain its profit year after year. The profitability of the organization will definitely contribute to the economic development of the nation by way of providing additional employment

and tax revenue to government Moreover, it will contribute the income of the investors by having a higher dividend and thereby improve the standard of living of the people (Cooper,2009)

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. 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 profitability as well as the determinants of profitability of the Ethiopian banking system.

1.2. Statement of the Problem

For the last decade the Economy of Ethiopia increase at increasing rate and the country enables to register a double digit economy growth and it is expected to continue for the future. In this regard, banks also play a great contribution to facilitate the registered economy growth in the last decades. In view of this fact, the government has tried the banking sector to grow and to facilitate the economy growth of the country. In this regard, the number of private commercial banks reached 16.

On the other hand, the literatures on the banking sector have pointed out that a great deal of economic activity would be seriously hindered if the most prominent agents in the credit markets, the commercial banks, did not execute their function properly. A sound and profitable banking sector is able to resist negative shocks and contributes to the stability of the financial system and sustainability of overall economic development. Thus, identifying the major   profit   determinat   factors   is vital to improve the

profitability of the banking industry in particular and for smooth economy growth of the country in general(Sastrosuwito & Suzuki ,2011).

In view of the above fact, a lot of studies conducted in the area of commercial banking profitability and its determinants by considering the importance of the area at international level. They verified that there is a direct association between profitability of commercial banking industries and its determinant factors (eg. Rajan & Zingales, 1998; Eichengreen & Gibson, 2001; Bourke, 2004). Even though, all these and other researchers conducted study on this area, the determinants of profitability have been debated for many years and still unsolved issues in the corporate finance literature. Indeed what makes the profit determinants debate exciting is the determinant of profit is dynamic through time to time and differ with the nature of operating of the firm from place to place (Flamini et al., 2009). To sum up, there is no universally accepted findings to the determinants of profitability of the banking sector. Because countries differ each other by their economic systems, financial systems, political systems and operating environments.

Although, numbers of earlier studies have made to add their own contribution to the theory of profitability and stated their own policy implication, they were inclined towards to the developed economy, and less developed countries including Ethiopia received little attention in various literatures on this issue. Consequently, the conclusion and finding of the study in one country may not serve to another. Therefore, in this study the researcher will examine the variables that determine the profitability of Ethiopian commercial banks.

In Ethiopia there is relatively few studies have been conducted on the determinants of profitability in Ethiopian private commercial banks. However, the studies failed to take in to account some important profit determinant factors in their studies. For instance, Belayenahe (2011) and Habetamu (2012) examined the determinant of profitability of commercial banks in Ethiopia by employing variables like capital adequacy , bank

size, loan production , income diversification , asset quality and administration cost .However these researches do not include variables like deposit fund , number of branch ,bank liquidity and managerial efficiency which are the most important factors to determine the profitability of commercial banks (Pasiouras, & Kosmidou,2007). As a result, it is concluded that the previous researches are not well studied and covered all the determinant factors. Hence, this study seeks to fill the gap by including variables that are not included in the previous studies. Therefore, this research examined determinants of profitability of Ethiopian commercial banks.

1.3 .Research Question

- ✓ What factors determine the profitability of private commercial banks in Ethiopia?

1.4. Objectives of the Study

1.4.1. General Objective of the Study

The main objective of this study is to investigate the determinants of private commercial banks profitability in Ethiopia.

1.4.2. Specific Objective of the Study

Specifically, this study addresses the following objectives;
- ✓ To determine the impact of capital adequacy, administration cost, income diversification, asset quality, bank liquidity, size of the bank, number of branch, loan production, NBE Bill purchase, managerial efficiency and deposit fund on the profitability of private commercial banks.
- ✓ Make policy recommendations regarding the key determinant of profitability of private commercial banks in the country based on the empirical findings.

1.5. Hypotheses of the Study

In many research studies, writers use research questions. However, a more formal statement of research employs hypotheses. (Creswell 2009). These hypotheses are predictions about the outcome of the results, and they may be written as alternative hypotheses specifying the exact results to be expected (more or less, higher or lower of something). They also may be stated in the null form, indicating no expected difference or no relationship between groups on a dependent variable as stated by Creswell (2009). Therefore, the study will develop the following hypotheses (HP):

HP1:   There is a significant positive relationship between capital adequacy of a bank and bank's profitability.

HP2:   There is a significant negative relationship between administration cost of a bank and the bank's profitability.

HP3:   There is a significant positive relationship between income diversification of a bank and bank's profitability.

HP4:   There is a significant negative relationship between bank liquidity and bank's profitability.

HP5:   There is a significant positive relationship between the size of a bank and bank's profitability.

HP6:   There is a significant negative relationship between asset quality of the bank and bank's profitability.

HP7:   There is a significant positive relationship between the number of branch and bank's profitability.

HP8:   There is a significant positive relationship between loan production and bank profitability.

HP9:   There is a significant positive relationship between deposit fund and bank profitability.

HP10: There is a significant negative relationship between NBE bill purchase and bank profitability.

HP11: There is a significant positive relationship between managerial efficiency and bank profitability.

1.6. Scope of the study

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 2001 to 2013. The study comprised all private commercial banks which started their operation before 2001. As a result, out of the 16 private commercial banks, six private commercial banks; Abyssinia, Awash, Dashen, Nib International Bank, United, and Wegagen bank are selected under this study. All sampled banks operate for more than a decade.

1.7. 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 by examining the findings and recommendations. The study is also initiate other bank service providers to give due emphasis on the management of identified variables.

Finally, the study also provides bank managers with understandings of activities that would enhance their banks profitability.

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.

1.8. Limitation of the Study

- The researcher faced several problems in obtaining necessary data .The first one is there was a stiff bureaucracy in the attempt of getting annual audited financial statement from private commercial banks which forced to reschedule and delay the time of completing the study .

- Second, there was no published official data on Non Performing Loan (NPL) amount of commercial banks and also almost all commercial banks were not willing to give this data. Hence, these situations forced the researcher to take the amount of provision to bad loans as proxy of NPL.

- The exogenious factors (inflation,unemployemnt ,GDP….)are not included in the study except NBE bill purchse as all external factors are assumed equally affect all banks and bank mangers can not control it.NBE bill is the new vocabulary for private banks only and included in the varaible as its effect is varaied on thier profitabaility depending on their startagy of collecting income from interst and non interst means.

1.9. Organization of the Paper

This paper consists of five chapters with different sections and sub-sections and it is structured as follows. Chapter one presents the introduction for the main part of the paper. Chapter two reviews the most significant theoretical and empirical studies including Ethiopian banking business environment. Chapter three focuses to presents methodology of the study. Chapter four also provide the interpretation and analysis of econometric model outcomes. Chapter five as usual gives conclusion and recommendation.

CHAPTER TWO

LITERATURE REVIEW

Several factors influence banks profitability and hence renewing, recognizing and understanding the profit determinant factors is essential in order to vouch results and analyses. Hence, chapter two serves as background for this study by describing concepts of financial intermediation and factors that could influence banks profitability. Subsequent chapters will build on concepts and definitions described here. In light of the above, the purpose of this chapter is to review the literatures related to bank profitability and its determinants.

While virtually all of the studies reviewed here in emphasize the need for yet more studies, there has been a growing body of evidence concerning the ability of researchers to identify accurate determinants of bank performance in recent years.

Various determinants influence banks' profitability, recognizing the main concepts of the banking sector profitability and its determinants are essential in order to provide evidence to support the practical result by the theoretical and empirical view. Hence, this chapter serves as a base for this study by describing factors that could influence banks' profitability

2.1. Theoretical literature

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

Thus, each of the aforementioned theories and others related to bank profitability and its determinants are discussed in detail in this particular section as follows.

The Market Power Theories

As noted in Tregenna (2009) applied in banking the market power hypothesis posits that the performance of bank is influenced by the market structure of the industry. There are two distinct approaches within the market power theory; the Structure-Conduct-Performance (SCP) and the Relative Market Power (RMP) hypotheses. According to the SCP approach, the level of concentration in the banking market gives rise to potential market power by banks, which may raise their profitability. Banks in more concentrated markets are most likely to make „abnormal profits‟ by their ability to lower deposits rates and to charge higher loan rates as a results of collusive (explicit or tacit) or monopolistic reasons, than firms operating in less concentrated markets, irrespective of their efficiency (Tregenna, 2009). Unlike the SCP, the RMP hypothesis posits that bank profitability is influenced by market share. It assumes that only large banks with differentiated products can influence prices and increase profits. They are able to exercise market power and earn non-competitive profits (Tregenna, 2009).

The Efficiency Theory

The efficiency hypothesis, on the other hand posits that banks earn high profits because they are more efficient than others. There are also two distinct approaches within the efficiency; the X-efficiency and Scale–efficiency hypothesis. According to the X-efficiency approach, more efficient firms are more profitable because of their lower costs. Such firms tend to gain larger market shares, which may manifest in higher levels on market concentration, but without any causal relationship from concentration to profitability (Athanasoglou et al. 2006). The scale approach emphasizes economies of scale rather than differences in management or production technology. Larger firms can

obtain lower unit cost and higher profits through economies of scale. This enables large firms to acquire market shares, which may manifest in higher concentration and then profitability (Athanasoglou et al. 2006).

The Balanced Portfolio Theory

The portfolio theory approach is the most relevant and plays an important role in bank performance studies (Nzongang & Atemnkeng 2006). According to the Portfolio balance model of asset diversification, the optimum 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 on all assets held in the portfolio, a vector of risks associated with the ownership of each financial assets and the size of the portfolio. It implies portfolio diversification and the desired portfolio composition of commercial banks are results of decisions taken by the bank management. Further, the ability to obtain 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 (Atemnkeng and Joseph, 2006).

Risk-return trade off theory, the signaling and bankruptcy cost hypotheses

The balance sheet structure could also influence banks" profitability; in this context, the equity-to-asset ratio is an important balance sheet ratio that received much attention. For this ratio, theoretical explanations assume different signs of the relationship with profitability. Financing theory suggest that increasing risks, by increasing leverage and thus lowering the equity-to-asset ratio (increasing leverage), leads to a higher expected return as entities will only take on more risks when expected returns will increase; otherwise, increasing risks have no benefits. This theoretical explanation is known as the risk-return trade off (Van Ommeren, 2011).

There are also theoretical explanations for the opposite relationship that a higher equity-to-asset ratio has a positive effect on profitability. These explanations are based on the signaling and bankruptcy cost hypotheses. The first hypothesis states that a higher equity ratio is a positive signal to the market of the value of a bank (Berger, 1995). Less profitable banks cannot achieve such a signal since this will further deteriorate their earnings. In this way a lower leverage, indicates that banks perform better than their competitors who cannot raise their equity without further deteriorating the profitability. The latter hypothesis suggests that in a case where bankruptcy cost are unexpected high a bank hold more equity to avoid period of distress (Berger, 1995).

2.2. Empirical Literature

Determinants of bank profitability have been thoroughly examined for banks operating in the developed and emerging economies. However, such studies are extremely rare for banks operating in Ethiopia. Thus, in this section, studies on determinants of bank profitability carried out elsewhere are briefly accounted for.

The study on the determinants of bank profitability began as early as 1979 when Short (1979) examined the relationship between profit rate and the bank concentration. However, many empirical literatures conducted on banks profit determinants belong to developed countries economies. Mainly focused on the U.S. banking system (e.g Berger, 1995; De young and Rice, 2004; Stiroh and Rumble, 2006 etc.) and the banking systems in the western developed countries for instance, European countries (Ommeren, 2011; staikouras and wood, 2004 etc.), south-east Europ (Athanasoglou et al., 2008), Korea (Sufian (2011)) and Greek (kasmidou et al., 2007; Athanasoglou et al., 2008; Kasmidou and Zopounidis, 2008 etc.). By contrast few studies have looked bank performance in developing economies (e.g Mthuva,2009 in Kenya; Flamini et al., (2009) in SSA countries, Belayneh, 2011 in Ethiopia etc.).

Thus, the following section reviews the empirical evidence on factors affecting bank profitability with a particular focus on those that have been conducted more recently, as far as they are the best indicators of the current situation.

Guru et al. (2009) investigated the determinants of bank profitability in Malaysia, using a sample of 17 commercial banks during the 1998 to 2006 period. The profitability determinants were namely the internal determinants liquidity, capital adequacy, and expenses management. Their finding revealed that efficient expenses management was one of the most significant factors explaining high bank profitability.

Flamini et al. (2009) took a sample of 389 banks in 41 SSA countries to examine the determinants of bank profitability and explore the relationship between profits and equity in the region. To do that they considered a number of bank specific variables including credit risk, activity mix, capital, bank size, market power as factors to influence bank profitability in the region. They found that higher returns on assets were associated with large bank size and activity diversification.

Funacova and Poghosyam (2011) examined the determinants of bank interest margin in Russia with a particular emphasis on bank ownership structure. All banks that were operating in Russia during the period 1999-2007 were included in their study. In the study personnel costs to total assets is found to have statistically significant and positive correlation with bank interest margin, indicating that operational costs incurred by banks are transmitted to their clients through higher margins for their financial services. In the study the equity to asset ratio is also found to have significant positive impact on bank interest margin which shows that banks with higher risk aversion tend to set higher margins. According to the result of their findings, bank size, liquidity and the proxy for credit risk (nonperforming loans to total loans) are all statistically significant and negatively correlated with interest margin. The negative association between bank size and interest margin reflects the presence of economies of scale in Russia as larger

banks tend to have lower margins. They explained the negative relationship between the proxy for credit risk and interest margin using the market structure discipline, and thus, the negative association reflects that depositors require a higher premium for depositing their saving in banks with higher non-performing loans ratio, establishing a negative relationship between non-performing loans and interest margin. More interestingly, they found that the factors that affect bank interest margins vary by ownership. While personnel costs to total assets ratio (positive), equity to asset ratio (positive), concentration (positive) and bank size (positive) are the most determinants of foreign banks interest margin, the determinants of state owned banks interest margin include personnel costs to total assets ratio (positive), equity to asset ratio (positive), and non-performing loans to total loans (positive), and that of the domestic private banks include personnel costs to total assets ratio (positive), equity to asset ratio (positive), non-performing loans to total loans (negative), bank size (negative) and liquidity (negative).

Athanasoglou et al. (2008) examined the effect of bank-specific characteristics on bank profitability for Greek banks that covered the period 2000-2006. The empirical results suggested that capital, labor productivity growth and operating expenses significantly affect profitability. However, the impact of bank size and ownership cannot be observed.

Pasiouras and Kosmidou (2007) made a study to examine the factors that influence the profitability of commercial domestic and foreign banks in the 15 European Union countries using bank data over the period 1995-2005. In their analysis they measured bank profitability by ROA and considered a number of profit determinate factors. In their study they found that capital strength (equity to asset ratio) and efficiency management (cost to income ratio) as the most determinant factors of profitability of both domestic and foreign banks; while equity to asset ratio is positively related with profitability, cost to income ratio is negatively associated. Moreover, their study indicates that liquidity is statistically significant and positively related to the

profitability of domestic commercial banks, but liquidity is statistically significant and negatively related to foreign banks. Their study also finds negative association between bank size and profitability of both domestic and foreign banks.

Sufian and Habibullah (2009) examined the determinants of commercial bank profitability in Bangladesh using the data of 37 banks over the period 1997-2004. The result of the study indicates that loans intensity, credit risk and cost are the bank specific factors that have positive and significant impact on profit.

Badola and Verma (2006) undertook a study to examine the major determinants of profitability of public sector banks in India using data over the time period 1991-02 to 2003-04. They considered net profit as dependent variable and spread (S), non-interest income, Credit/deposit ratio, Non-performing assets as a percentage to Net advances, Provision and contingencies, operating expense, business per employee as independent variables in their analysis. The study found high degree of association between profitability and the independent variables.

Kosmidou and Pasiours (2007) examined the factors that affect the profitability of UK domestic commercial banks from the period 1995-2002. Their finding indicates that capital strength is the most significant factor that positively affects UK owned commercial banks' profitability. specifically, their study shows that cost to income ratio and bank size have a significant and positive impact on both measures of UK's ban

Moreover, factors such as efficiency management in expense and bank size are also factors that have influence on the profitability of domestic UK commercial banks. More k profitability (ROA). Their study also indicates that liquidity has a positive effect on ROA.

Ben Naceur & Goaied (2008) examined the impact of bank characteristics, financial structure and macro-economic conditions on Tunisian banks net interest margins and profitability during the period from 1980 to 2000. They suggested that banks which hold a relatively high amount of capital and higher overhead expenses tend to exhibit higher net-interest rate margin and profitability levels, while size was negatively related to bank profitability.

Gul et al. (2011) examined the relationship between bank-specific and macro-economic characteristics over Pakistan bank profitability by using data of top fifteen Pakistani commercial banks over the period 2005-2009. Their paper used the Pooled Ordinary Least Square method to investigate the impact of assets, loans, equity and deposits on major profitability indicators i.e., return on asset , return on equity, return on capital employed and net interest margin separately. The empirical results have found strong evidence that all factors have a strong influence on the profitability.

Kosmidou (2008) undertook a study to examine the factors that affect the performance of Greece Banks for the period 1990-2002 using unbalanced time series data of 23 banks. A number of internal and external factors were considered in the study and were regressed against the banks' ROA. The study finds that ROA was positively correlated with high capital and lower cost to income ratio as well as with size.

Olweny & Shipho (2011) examined the effects of banking sector factors on the profitability of commercial banks in Kenya. To this end, their study adopted an explanatory approach by using panel data research design. Annual financial statements of 38 Kenyan commercial banks from 2002 to 2008 were obtained from the Central Bank of Kenya and banking survey 2009 for the analysis purpose. The data was analyzed using multiple linear regressions method. The results of the analysis showed that all the bank specific factors had a statistically significant impact on profitability.

Sufian & Chong (2008) examined the determinants of Philippines banks profitability during the period 1990–2005. The empirical findings suggested that all the bank-specific determinant variables had a statistically significantly impact on bank profitability. The empirical findings also suggested that size, credit risk, and expense preference behavior are negatively related to banks profitability, while non-interest income and capitalization had a positive impact.

The determinants of profitability of Korean banking sector is examined by Sufian (2011), in which profitability determinants are evaluated. By employing unbalanced bank level panel data, the period considered is 1992-2003. The empirical results revealed that liquidity level, diversification and credit risk significantly affect banks‟ profitability.

One of the latest studies by Sufian & Noor-Mohamad-Noor (2012) examined determinats that influenced the performance of banks operating in the Indian banking sector during the period 2000–08. The empirical findings from this study suggested that credit risk, operating expenses, liquidity and size had statistically significant impact on the profitability of Indian banks.

The other very latest study by Ponce (2012) empirically analyzed the factors that determine the profitability of Spanish banks for the period of 1999–2009. Based on the findings of the study the researcher concluded that the high bank profitability during these years is associated with a large percentage of loans in total assets, a high proportion of customer deposits, good efficiency and a low doubtful assets ratio. In addition, as per the findings a higher capital ratios also increased the bank's return, but only when return on assets is used as the profitability measure. The findings also revealed that as no evidence of either economies or diseconomies of scale or scope exist in the Spanish banking sector Studies regarding to management efficiency which is measured by the ratio of operating expense to total assets (e.g Aburime, 2008) and it is

a proxy to management quality. Clearly, efficient cost management is a prerequisite for improved profitability of banks. There is evidence that superior management raise profits and market shares (Berger, 1995 and Athanasoglou *et al*, 2005). According to Athanasoglou et al. (2005) investigation on Greek banks during the period 1985 – 2001 observed that Operating expenses appear to be an important determinant of profitability. There is direct negative connection between Operating expenses and profitability of banks; means that there is immediate negative relation between lack of efficiency in expenses management and profitability of banks. In other words there is direct positive relation between efficient expense management (i.e management quality) and profitability. Since banks pass part of increased cost to customers and the remaining part to profits. In a study of United States banks for the period 1989–93, Angbazo (2009) finds that there is evidence that net interest margins are positively related management quality. Guru et al. (2002) attempt to identify the determinants of successful deposit banks in Malaysia. The findings of this study revealed that efficient expenses management was one of the most significant in explaining high bank profitability.

Dietrich and Wanzenried (2011) carried out a study to identify the factors that influence Profitability of commercial banks in Swaziland for the period 1999 to 2009 by taking data from 453 banks. They used ROA as dependent variables and considered explanatory variables in their analysis. The study found a positive and significant relationship between bank profitability (measured in terms of ROA) and equity to total assets, whereas bank size and cost to income ratio were found to be negatively and significantly associated with bank profitability.

2.3. Conceptual Framework

Different empirical evidences suggested that profitability of financial institutions specifically banks is affected by different factors. Based on the literature obtained from different study, This study used the following variables that could be the determinants of bank profitability which are capital adequacy, asset quality, managerial efficiency, bank size , bank liquidity ,income diversification ,administration cost ,number of branch and deposit fund . The study has seen how these variables are determined the profitability of private commercial banks in Ethiopia.

Figure 1: Conceptual Framework

Variables That Affects
Bank Profitability

✓ Administration Cost
✓ Income Diversification
✓ Bank Liquidity

✓ Bank Size
✓ Asset Quality
✓ Number Of Branches
✓ Deposit Fund
✓ Capital Adequacy
✓ Managerial Efficiency
✓ NBE bill purchase

Either negatively or positively effect

Bank Profitability
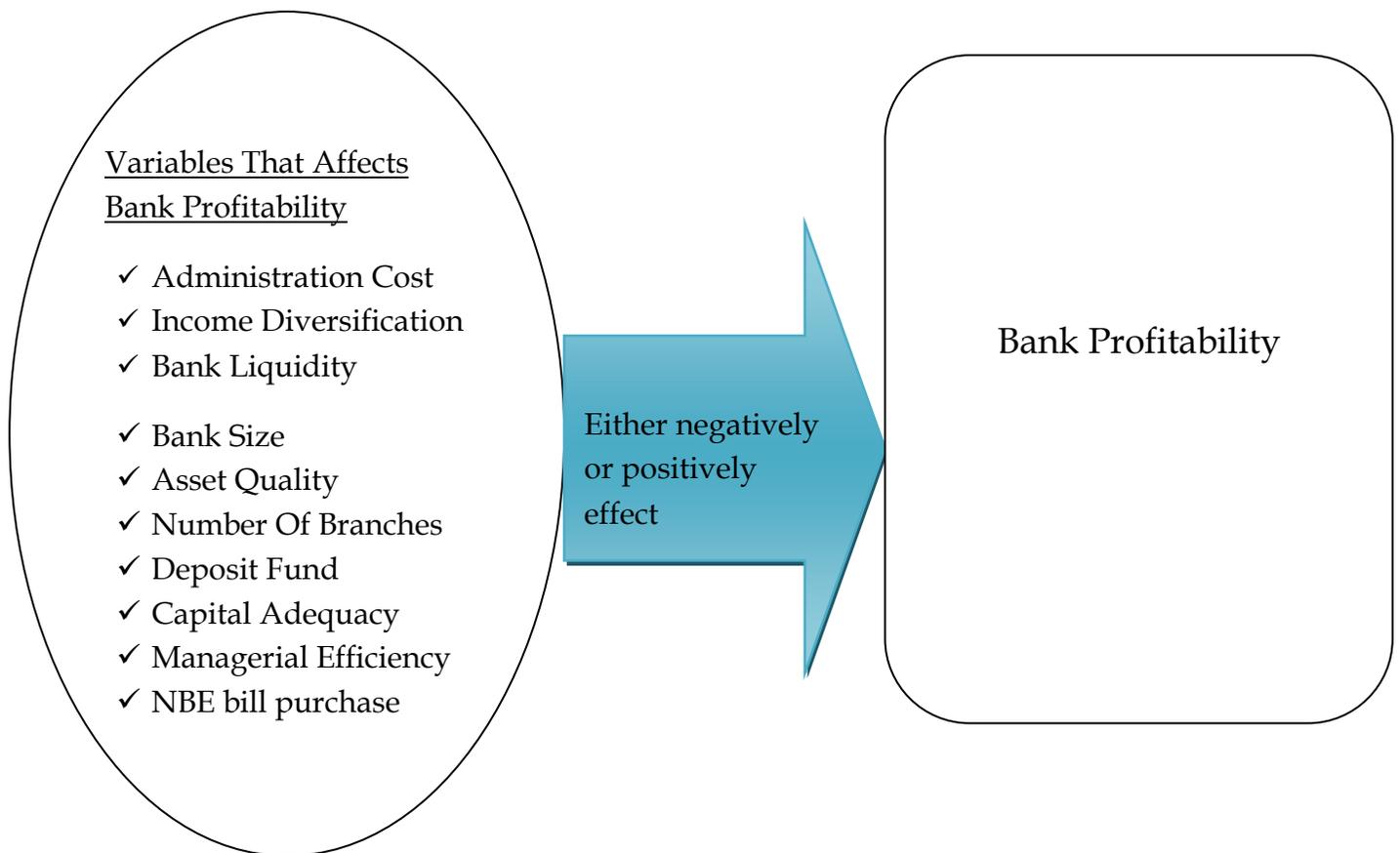
2.4. Review of Previous Studies on Ethiopia

Having established   some of the important determinant of profitability for the banking industry in different part of the world , a review of profit determinant factor in Ethiopia is as follows.

In the context of Ethiopia, to the knowledge of the researcher, there appears to be very limited work on the assessment of determinants of profitability of banks. These studies include the recent studies of Semu (2010) and Damena (2011). Those studies examined the impact of reducing loan by Ethiopian banks on their own performance and the determinants of commercial banks profitability in Ethiopia respectively. Thus, this particular section provides a detailed review of the two related studies conducted in the context of Ethiopia.

Belayenahe (2011) assessed determinant of commercial banks profitability in Ethiopia and the result of the study stated equity capital, the coefficient of capital is positive and significant at 1% significant level when the estimation is made by using only bank specific variables. Bank size, loan, and income diversification of Ethiopian commercial banks are also positive and highly significant factors of profitability.

On the other hand, Habtamu (2012) examined the determinants of Ethiopian commercial banks profitability. The study applied the balanced panel data of seven Ethiopian commercial banks that covers the period 2001- 2010. The paper used Ordinary Least Square (OLS) technique to investigate the impact of variables on major profitability indicator i.e., ROA. The estimation results showed that all bank-specific determinants, with the exception of saving deposit, significantly affect commercial banks profitability in Ethiopia.

2.5. Overview of the Banking System in Ethiopia

Modern banking in Ethiopia was introduced after the agreement that was reached in 1905 between Emperor Minilik II and Mr.Ma Gillivray, representative of the British owned National Bank of Egypt. Following the agreement, the first bank called Bank of Abysinia was inaugurated in Feb.16, 1906 by the Emperor. Within the first fifteen years of its operation, Bank of Abysinia opened branches in different areas of the country in Harar (Eastern Ethiopia), Dire Dawa, Dessie and Djibouti. By 1931 Bank of Abyssinia legally replaced by Bank of Ethiopia shortly after Emperor Haile Selassie came to power. The new Bank, Bank of Ethiopia, was a purely Ethiopian institution, was the first indigenous bank in Africa, and established by an official decree on August 29, 1931 with capital of £750,000. In 1941, another foreign bank, Barclays Bank, came to Ethiopia with the British troops and organized banking services in Addis Ababa, until its withdrawal in 1943. Then on 15 April 1943, the State Bank of Ethiopia commenced full operation after 8 months of preparatory activities. In 1945 and 1949, the Bank was granted the sole right of issuing currency and deal in foreign currency. The Bank also functioned as the principal commercial bank in the country and engaged in all commercial banking activities. The National Bank of Ethiopia with more power and duties started its operation in January 1964. Following the incorporation as a share company on December 16, 1963 as per proclamation No.207/1955 of October 1963, Commercial Bank of Ethiopia took over the commercial banking activities of the former State Bank of Ethiopia. It started operation on January 1, 1964 with a capital of Eth. Birr 20 million. In the new Commercial Bank of Ethiopia, in contrast with the former State Bank of Ethiopia, all employees were Ethiopians.

There were two other banks in operation namely Banco di Roma S. and Banko di Napoli S.C. that later reapplied for license according to the new proclamation each having a paid up capital of Eth. Birr 2 million. The first privately owned bank, Addis Ababa Bank Share Company, was established on Ethiopians initiative and started operation in 1964 with a capital of 2 million in association with National and Grindlay Bank, London

which had 40 percent of the total share. In 1968, the original capital of the Bank rose to 5.0 million and until it ceased operation, it had 300 staff at 26 branches. There were other financial institutions operating in the country like:

Imperial Savings and Home Ownership public Association, which specialized in providing loans for the construction of residential houses and to individuals under the guarantee of their savings.

Saving and Mortgage Corporation of Ethiopia whose aims and duties were to accept savings and trust deposits account and provide loans for the construction, repair and improvement of residential houses, commercial and industrial buildings and carry out all activities related to mortgage operations.

Agricultural Bank that provides loan for the agricultural and other relevant projects established in 1945. But in 1951 the Investment Bank of Ethiopia replaced it. In 1965, the name of the bank once again hanged to Ethiopian Investment Corporation Share Company and the capital rose to Eth. Birr 20 million, which was fully paid up.

Following the declaration of socialism in 1974, the government extended its control over the whole economy and nationalized all large corporations. Organizational setups were taken in order to create stronger institutions by merging those that perform similar functions. Accordingly, the three private owned banks, Addis Ababa Bank, Banco di Roma and Banco di Napoli Merged in 1976 to form the second largest Bank in Ethiopia called Addis Bank with a capital of Eth. birr 20 million and had a staff of 480 and 34 branches. Then Addis Bank and Commercial Bank of Ethiopia S.C were merged by proclamation No.184 of August 2, 1980 to form the sole commercial bank in the country until the establishment of private commercial banks in 1994.

The Savings and Mortgage Corporation S.C. and Imperial Saving and Home Ownership Public Association were also merged to form the Housing and Saving Bank with

working capital of Birr 6.0 million and all rights, privileges, assets and liabilities were transferred by proclamation No.60, 1975 to the new bank. The financial sector that the socialist oriented government left behind constituted only three banks and each enjoying monopoly in its respective market, the following was the structure of the sector at the end of the era: the National Bank of Ethiopia (NBE), the Commercial Bank of Ethiopia, and Agricultural and Industrial Development Bank. Following the demise of the Dergue regime in 1991 that ruled the country for 17 years under the rule of command economy, the Ethiopian People's Revolutionary Democratic Front declared a liberal economy system. In line with this, Monetary and Banking proclamation of 1994 established the national bank of Ethiopia as a judicial entity, separated from the government and outlined its main function. Monetary and Banking proclamation No.83/1994 and the Licensing and Supervision of Banking Business No.84/1994 laid down the legal basis for investment in the banking sector. Currently private commercial banks in Ethiopia reached to sixteen as shown in the table 1 below.

Table1: List of private commercial banks in Ethiopia

No	Private Commercial Bank	Establishment Year
1	Awash International Bank	1994
2	Dashen Bank	1995
3	Abyssinia Bank	1996
4	Wegagen Bank	1997
5	United Bank	1998
6	Nib International Bank	1999
7	Cooperative Bank of Oromia	2004
8	Lion International Bank	2006
9	Oromia International Bank	2008
10	Zemen Bank	2008
11	Bunna International Bank	2009
12	Birhan Internationa l Bank	2009

13	Abay Bank	2010
14	Addis International Bank	2011
15	Debube Global bank	2012
16	Enat Bank	2013

Source: Author Own computation (2014)

2.6. Growth of Commercial Banks in Ethiopia

Following Kiota et.al (2009) ,the growth of banks are mainly determined by the asset growth   of the bank and expansion of its   key area of operation which are mainly collecting deposit and providing loans .Therefore, based on this variable it is possible to see the growth of Ethiopian commercial banks .Accordingly ,   the asset level   of commercial banks in Ethiopia   increase from 26 billion birr from the year 2001 to 146 billion birr in the year 2011 with annual average growth rate of 18.4 percent. This suggests that the Ethiopian banking sector has grown rapidly. Overall deposits collected by all commercial banks also increase from 21 billion birr in the year 2001 to 108 billion birr in the year 2011 with annual average rate of 18 %. Given lending restrictions imposed by the central bank during the year 2010, the increase in banks' lending was of course not as fast as the growth of deposits in the year 2013.However, over the period of 2001-2013 the amount of loan and advance provided by commercial banks generally increase from 11 billion birr in the year 2001 to 79 billion birr in the year 2013 with annual average growth rate of 16 %.Therefore , from this analysis we can conclude that Ethiopian banking is booming and the banking industry showed very strong growth (see the table below).

Chart Title

Legend: Deposit · loan and advance · Asset of commecial banks
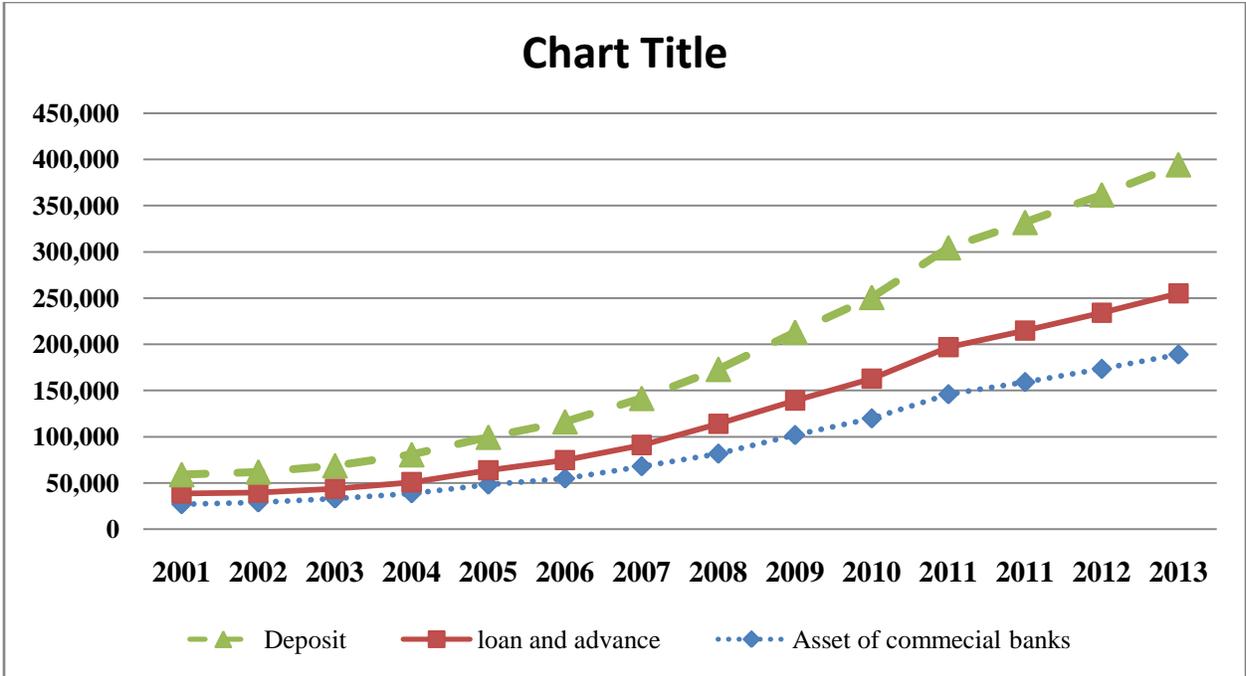
Figure 2: Commercial Banks Growth Indicator Variable

Source: Commercial Banks annual report

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Data Type and Sources

The study used secondary data to investigate the determinants of private commercial banks profitability in Ethiopia. Panel data (pooled time serious and cross section data) from year 2001 to 2013 was taken. The main source of the data was the annual audited financial statement of each private Commercial Banks, Reports and Bulletins of National Bank of Ethiopia .It was also collected from different related journals, magazines and papers written by individuals as well as companies related to the topics. The required data was collected from the sources by approaching the concerned officials mainly from National Bank of Ethiopia and individuals from commercial banks.

3.2 Study Population and Sampling Method

3.2.1 Study Population

All operational private commercial banks in Ethiopia were taken as the study population. As stated before currently there are 16 operational private commercial banks in Ethiopia.

3.2.2 Sampling Method

From the target population, sample was selected based on purposive Sampling method which is a non- probability sampling procedure that ensures to achieve a certain goal that we want to address.

The study covers the period of 13 years from 2001 to 2013. This time interval covers periods of economic turbulence (2001 -2004) and relative macroeconomic stability and robust economic growth especially since 2005(Reporter Magazine, 2010) . Accordingly, it is expected that these economic dynamics would have altered the banks behavior in a significant manner and should be reflected in profit performance. In view of this, the sample covers commercial banks that are operating from the year 2001 to 2013 in the country. Accordingly, six Private owned Commercial Banks (Awash International Bank, Dashen Bank,Abysinia Bank, Wegagen Bank, Hiberet Bank and NIB) was included in the sample.

3.3 Method of Data Analysis

The study used both descriptive statistics and econometrics model to analyze the data. The descriptive statistics used in the study are percentage, mean and standard deviation. While to investigate the determinate of bank profitability, multiple regression model is undertaken. These models are briefly discussed below.

3.3.1. Model Specification

The researcher used the multiple linear regression models. The characteristics of the model and proposed variables in equation (1), likely not violate the classical assumptions underlying the OLS model. Modeling is based on panel data techniques. Panel data or longitudinal data, comprises of both cross-sectional elements and time-series elements; the cross-sectional element is reflected by the different Ethiopian commercial banks and the time-series element is reflected in the period of study (2001-2013). Panel data is favored over pure time-series or cross-sectional data because it can control for individual heterogeneity and there is a less degree of multi co linearity between variables (Altai, 2005). Extensive literature generally comes to the conclusion that the appropriate functional form for testing is a linear function although there are

disagree opinions. Short (1979) investigated this idea and concluded that linear functions produced as good results as any other functional form.

The model for a multiple regression takes the form:

$$y = ß_0 + ß_1x_1 + ß_2x_2 + ß_3x_3 + ... + e \quad \text{(Equation 1)}$$

Where

- ✓ y refer to the dependents variable which is profit (which is expressed by ROA&ROE)
- ✓ X i refers to the independent variables
- ✓ $ß_i$ refers to the value of the parameter
- ✓ e refer to error term

The equation that account for individual explanatory variables which are specified for this particular study is given as follows. Accordingly, the dependent variables as measured by Return on Asset (ROA) & Return on Equity (ROE) is regressed on profit determinant variables including Capital adequacy (CAP), Asset Quality (ASETQ), Bank liquidity(BL) , loan Production (LP), deposit fund (DF),Administration cost (ADMCO), income diversification (ID), number of branch (BRAN) , managerial efficiency (ME) , bank size (BS) and NBE bill purchase (BP)

$$ROA_{jt} = β_0 + β_1 CAP_{jt} + β_2 ASETQ_t + β_3 BL_{jt} + β_4 LP_{jt} + β_5 DF_{jt} + β_6 ADMCO_{jt} + β_7 ID_{jt} + β_8 BRAN_{jt} + β_9 ME_{jt} + β_{10} BS_{jt} + β_{11} BP_{jt} + ε_{it} \quad \text{(EQUATION 2)}$$

$$ROE_{jt} = β_0 + β_1 CAP_{jt} + β_2 ASETQ_t + β_3 BL_{jt} + β_4 LP_{jt} + β_5 DF_{jt} + β_6 ADMCO_{jt} + β_7 ID_{jt} + β_8 BRAN_{jt} + β_9 ME_{jt} + β_{10} BS_{jt} + β_{11} BP_{jt} + ε_{it} \quad \text{(EQUATION 3)}$$

Where,

ROA jt and ROE jt is the are the return on Asset and return on Equity of the jth bank in period t which is a proxy of indicating the profit of a given bank

ROA is profit divided by asset of bank j in period t;

ROE is a profit divided by equity of bank j in period t;

$\beta 0 - \beta 11$ is coefficients for the respective explanatory variables

CAP is the ratio of equity over total asset of bank j in period t;

ASETQ is the ratio of problem loan (NPL) to total loan of bank j in period t .However , due to absence of NPL, data provision to bad loan is taken as a proxy to NPL ;

BL is the ratio of Current asset to current liability of bank j in period t;

LP is the ratio of loan and advance to total asset of bank j in period t;

DP is the ratio of deposit to total asset of bank j in period t;

ADMCO is the ratio of non interest expense over total asset of bank j in period t;

ID is the ratio of non interest income to total income of bank j in period t;

BRAN is the number of branch of bank j in period t;

ME is the ratio of operating expense to income of bank j in period t;

BS is natural logarithm of total asset of bank j in period t;

BP is bill purchase is 27% of the loan and advances

ε is the error term.

3.4. Descriptions of Variables

3.4.1. Dependent Variable

In the literature, there are two major alternative measures of profitability, namely ROA and ROE. The choice of the profitability ratios (ROA and ROE) depends on the objective of the profitability measure since the end of each of the profitability measures differ. The return on assets (the ratio of net profit to total assets) measures the capability of bank's management to make profits from its assets. It is a good indicator of how well a bank's management is managing the assets of the bank. According to Rivard and Thomas (2006), bank profitability is best measured by ROA for two primary reasons. According to them, one of the primary reasons is that ROA is not distorted by high equity multipliers and the second is that ROA reflects a better measure of a bank's ability to generate returns on its assets. Moreover, ROA takes account of the disparity in the absolute magnitude of the profits that may be related to size (Guru et al, 2009). In contrast, the return on equity (ROE), the ratio of net profit to equity, measures the extent to which the bank's management is generating returns using the equity of the bank's shareholders. In this respect, we rarely find the paper utilizes ROE as a single measure of profitability. Rumler & Waschiczek (2010) is one of the examples. Other papers utilize ROE for checking the consistency with ROA, e.g. Ben Naceur & Omran (2011) and Sufian (2011). While a bulk of studies employ ROA as profitability measure, e.g. Pasiouras & Kosmidou (2007), Athanasoglou et al. (2008) and Olweny & Shipho (2011). Therefore, this study attempts to measure profitability by using both ROA and ROE that enables to check the consistence of the result .ROA is measured as net profit before tax divided by total assets while ROE is profit before tax divided by equity (Olweny & Shipho (2011)

$$\text{Return on Asset (ROA)} = \frac{\text{Profit Before Tax}}{\text{Total Asset}}$$

$$\text{Return on Equity (ROE)} = \frac{\text{Profit Before Tax}}{\text{Equity}}$$

3.4.2.Independent Variable

This subsection describes the independent variables that are used in the econometric model to estimate the dependent variable. Following prior researches towards the determinants of banks profitability and by considering the banking environment of Ethiopia, the following variables are taken in too account as independent variable:

✓ **Capital Adequacy**

Capital adequacy reflects the capital strength or capital structure of a bank. In the banking literature equity to asset ratio is often used as a proxy for capital adequacy. As this ratio is a measure of capital strength, commercial banks with high equity to asset ratio are relatively assumed to be safe in the event of loss or liquidity.

$$\textbf{Capital Adequacy (CAP)} = \frac{\textbf{Equity}}{\textbf{Total Asset}}$$

✓ **Bank Liquidity**

The liquidity of a bank is measured by the ratio of current asset to current liability. This ratio shows the capacity of a bank to meet payments when its depositors and other suppliers of funds require. The lower ratio of this reveals that the bank will face difficulty in meeting payments in the right time and hence its liquidity low.

$$\textbf{Bank Liquidity (BL)} = \frac{\textbf{Current Asset}}{\textbf{Current Liablity}}$$

✓ **Income Diversification**

It is measure by non-interest income to total income is used as a proxy for income diversification. This ratio is computed as the percentage of the bank's income other than interest income to its total income.

$$\textbf{Income Diversification (ID)} = \frac{\textbf{Non interest Income}}{\textbf{Total Income}}$$

✓ **Bank size**

The other important determinant of bank performance that is considered by the study is bank size. Since it is difficult to exactly measure the size of a bank, the logarithm of the total assets of a bank is usually used as a proxy for bank size. Bank size is included as an explanatory variable to give an explanation for size related economies of scale or diseconomies of scale in Ethiopia's banking sector.

Bank size (BS) =is natural logarithm of total asset

✓ **Asset Quality**

It is measured by the ratio of nonperforming loan to total loan. Since NPL data of banks is not obtained the provision of banks is taken as a proxy for NPL.

$$\text{Asset Quality (ASETQ)} = \frac{\text{Non performing loan}}{\text{Total loan}}$$

✓ **Managerial efficiency**

The expense management variable, which is defined as the ratio of operating expenses to total income, provides information on variations in operating costs and it used as aproxy to measure the management quality of the bank. The total cost of a bank, excluding interest expense, includes operating cost and other expenses such as depreciation and taxes. From these only operating expenses can be viewed as the outcome of the bank management decision. Therefore, expense management is captured by the ratio of these operating expenses to total assets

$$\text{Managerial effeciency} = \frac{\text{operating expense}}{\text{Total income}}$$

✓ **Administration cost (ADMCO)**

$$\text{Administration cost (ADMCO)} = \frac{\text{Non interest expense}}{\text{Total asset}}$$

✓ **Number of branch (BRAN) = number of branch of bank**

✓ **Loan production (LA)**

$$\text{Loan production } (\text{LA}) = = \frac{\text{laon and advance}}{\text{Total asset}}$$

✓ **Deposit fund (DF)**

$$\text{Deposit fund} = \frac{\text{deposit}}{\text{Total asset}}$$

✓ **NBE Bill Purcahse =**27% of the loan and advances in the respective year.

CHAPTER FOUR

EMPIRICAL FINDINGS AND DISCUSSIONS

In this section results on determinate of private commercial banks profitability is presented .The empirical evidence on the determinants of Ethiopian commercial banks' profitability is studied based on panel data, where all the variables are observed for each cross section and each time period. The study has a time series segment spanning from the period 2001 up to 2013 and a cross section segment which considered six private Ethiopian commercial banks, Awash International Bank, Dashen Bank, Bank of Abyssinia, Wegagen Bank, United Bank and Nib International Bank.

Moreover, this chapter deals with the results of study which include descriptive statistics of variables, correlation results of variables, and regression analysis of independent variable on the dependent variable.

4.1. Descriptive statistics

The table below (table-2) presents the outcomes of the descriptive statistics for main variables involved in the regression model. Key figures, including mean, standard deviation, minimum and maximum value were reported. This was generated to give overall description about data used in the model and served as data screening tool to spot unreasonable figure.

Table 2: Descriptive statistics

Variable	Obs	Mean	Stddev	Min	Max
Return on asset	78	.03875	.0450711	.005	.401
Return on Equity	78	0.4069	0.0396945	0.08	0.654
Capital adequacy	78	.143833	.043144	.089	.279
Asset quality	78	.0342361	.0253024	.001	.109
Bank liquidity	78	1.144931	.1561767	.957	1.965
Loan production	78	.5217361	.1038332	.325	.767
Deposit fund	78	.7135139	.0699662	.567	.878
Administration cost	78	.0249306	.0245783	.015	.225
Income diversification	78	.2140556	.010057	.187	.234
Number of branches	78	36.34722	19.40681	6	107
Management efficiency	78	.039875	.0101786	.028	.071
Bank size	78	21.71613	.0099674	.187	.234
Bill purchase	78	.83333	.3746343	0	1

Source: Author Own computation (2014)

As stated in the above table, from the total of 78 observations, the highest return on asset is 0.401 and the lowest return on asset is 0.005. That means, the most profitable bank of the sample banks earned 40.1 cents of net income from a single birr of investment and the lowest income obtained from the asset is 0.51 cent per one birr investment. On the other hand average amount of profit obtained per one birr investment is 3.8 cent. The standard deviation statistics for ROA was 0.045 which indicates that the profitability variation between the selected banks is relatively high as compared to

other variables. The result implies that some of the banks need to optimize the use of their assets to increase the return on their assets. On the other hand, the highest and lowest return on Equity is 0.65 and 0.08 which implies the most profitable bank of the sample bank earned 65 cent of net income per birr of equity capital and the lowest net income obtained from the equity is 0.80 cent per one birr of equity capital.

Regarding the explanatory variables of the model there are some interesting statistics that have to be mentioned. Capital adequacy which is the ratio of equity to total asset indicates that on the average, the equity-to-asset ratio equals 14.3% with a maximum of 27.87%, which was considerably above the statutory requirement of 8% set by NBE based on Basel II[1] recommendation, and if its minimum value was 8.9%. The standard deviation statistics for capital strength was 0.04 which shows the existence of relatively higher variation of equity to asset ratio between the selected banks compared to other variables.

On the other hand, the outputs of the descriptive statistics indicate that, bank liquidity which is the ratio of current assets to current liability has an average value of 1.14, with a minimum of 0.957 and a maximum of 1.965. This means that Ethiopian commercial banks on the average, a higher liquidity position as compared to their current liability and they can meet their short term obligation.

Regarding the loan production variable, the maximum loan amount of the total asset is around 76 percent and the lowest observation is 32.5 percent. Moreover, loans and advances, on average, almost half of the total asset of the bank (52 percent) is kept in terms of loan.

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[1] Basel II is the second of the Basel Accords, which are recommendation on banking laws and regulations issued by the Basel committee on banking supervision. The purpose of Basel II is to create international standard that banking regulators can use when creating regulations about how much capital banks need to put aside to guard against the type of financial and operational risks banks face.

The observation of non interest income variable indicate that Noninterest income of the banks, on average, is 21% of total income and the maximum amount noninterest income from total income is 23percent while the lowest is 18.6 percent which indicate that the devotion among commercial banks in terms of non interest income generation is the lowest(0.010057). On the other hand number of branch has the highest standard deviation (19.4) that means it is the most deviated variable from its mean as compared to others. This related with some banks has by far large number of branch as compared to other branch. In this regard, the maximum number of branch that a given bank has observed data is107 while the lowest is 6.

4.2. Correlation Analysis among Variables

Correlation matrix between independent variables is presented in table below. As shown in table 3 there were fairly low data correlations among the independent variables. These low correlation coefficients indicate that, there is no problem of multi colinearity in the study. Moreover, Kennedy (2008) stated that multi colinearity problem exists when the correlation coefficient among the variables are greater than 0.70, but in this study there is no correlation coefficient that exceeds or even close to 0.70. Accordingly, in this study there is no problem of multicollinearity which enhanced the reliability for regression analysis.

Table 3: Correlation Analysis

	ASSETQ	ADMC	CA	BL	ME	LP	DP	ID	BRAN	BS	BP
ASSETQ	1.0000										
ADMC	-0.0752	1.0000									
CA	-0.1852	0.0983	1.0000								
BL	-0.0263	-0.1092	-0.0027	1.0000							
ME	-0.0747	0.2999	0.3987	-0.1076	1.0000						
LP	-0.0597	-0.1238	0.0140	0.2448	-0.1239	1.0000					
DP	-0.0769	0.1736	0.3212	-0.1404	0.4738	-0.1427	1.0000				
ID	0.0018	0.1711	-0.1129	-0.2961	0.1706	-0.1724	0.2294	1.0000			
BRAN	0.0750	0.0910	-0.2801	-0.3129	0.0904	-0.5943	0.1747	0.5890	1.0000		
BS	0.0769	-0.1739	-0.4770	-0.2845	-0.1746	-0.5808	-0.0979	0.6474	0.5603	1.0000	
BP	0.0919	0.1586	0.3463	-0.1502	0.1216	-0.3253	-0.4484	-0.3273	0.0746	-0.2822	1.000

Source: Author Own computation (2014)

4.3. Results of Regression Analysis

This section presents the empirical findings from the econometric results on the factors affecting private bank profitability in Ethiopia. The section covers the empirical regression model used in this study and the results of the regression analysis.

Empirical model: As presented in the methodological part of the study, the empirical model used in the study in order to identify the factors that can affect private commercial banks profitability is provided as follows:

ROA jt = $\beta 0 + \beta 1$ **CAPjt +** $\beta 2$ **ASETQt+** $\beta 3$ **BLjt +** $\beta 4$**LPjt +** $\beta 5$ **DFjt +** $\beta 6$ **ADMCOjt + $\beta 7$ IDjt + $\beta 8$ BRANjt + $\beta 9$ MEjt+ $\beta 10$BSjt+ B11BP+ εit**

ROE jt = $\beta 0 + \beta 1$ **CAPjt +** $\beta 2$ **ASETQt+** $\beta 3$ **BLjt +** $\beta 4$**LPjt +** $\beta 5$ **DFjt +** $\beta 6$ **ADMCOjt + $\beta 7$ IDjt + $\beta 8$ BRANjt + $\beta 9$ MEjt+ $\beta 10$BSjt+ B11BP+ εit**

The estimation result of the operational panel regression model used in this study is presented in table below. As shown in the table below, the R- squared result of 0.96 endorse that 96% of the variation in the dependent variable (return on asset) is

explained by the independent variables of the model. The remaining 4% of the variation in the dependent variable is left unexplained by explanatory variables of the study. The regression result of the study is presented as follows:

To examine the relationship between profitability measures and explanatory variables three regression analysis were run. The first regression analysis was undertaken to investigate the relationship between ROA and independent variables. This regression model was applied:

ROA jt = -32.5 + 0.08713 CAP -0.1412 ASETQ + 0.00257 BL+ 0.04089 LP+ 0.1040 DF - 4.172ADMCO + 2.00 ID -10.746 BRAN + 2.2186 MEjt+ 11.779 BS -0.2174BP+ εit

ROE jt = -20.5 + 0.073563 CAP -0.061778 ASETQ + 0.0126333 BL+ 0.017048 LP+ 0.1489454DF -0.0364709 ADMCO + 0.0131925 ID -0.0039184BRAN + 0.3104168 MEjt+ 1.108493 BS -0.2174086BP+ εit

Table 4: Regression analysis result between ROA and explanatory variables

ROA	Coefficient	Standard error	t-ratio	P value
Constant (C)	-32.50083	7.472096	-4.35	0.000
Capital Adequacy	0.0871357**	0.0434312	2.01	0.049
Asset quality	-0.1412159*	0.0483028	-2.92	0.005
Bank liquidity	0.0025724	0.0079104	0.33	0.746
Loan production	0.0408942**	0.0165792	2.47	0.016
Deposit fund	0.1040607*	0.0143209	7.27	0.000
Administration cost	-4.17201	2.896332	-1.44	0.978
Income diversification	2.0004501**	2.016085	2.03	0.005
Number of branch	-10.74605*	2.28365	-4.71	0.000
Managerial efficiency***	2.218668	4.623297	2.37	0.077
Bank size	11.77963*	2.306981	5.11	0.000
Bill purchase	-.2174086	.4817912	-0.45	0.653

Number of observation=78
R-squared =0.9606
Notes: *1% significance level; ** 5% significance level and *** 10% significance level
Source: Author own computation, 2014

Table 5: Regression analysis result (ROE as a dependent variable)

ROE	Coefficient	Standard error	t-ratio	P value
Constant (C)	-20.51892	5.541077	-3.7	0.000
Capital Adequacy	0.0735638**	0.0354517	2.08	00041
Asset quality	-0.061778*	0.0162816	-3.94	0.000
Bank liquidity	0.0126333	0.0083422	1.51	0.134
Loan production	0.017048***	0.0141315	2.21	0.231
Deposit fund	0.1489454**	0.603494	2.47	0.016
Administration cost	-0.0364709***	0.0194407	-1.88	0.064
Income diversification	0.0131925*	0.0185129	2.71	0.478
Number of branch	-0.0039184**	0.0019413	-2.02	0.047
Managerial efficiency	0.3104168*	0.1162444	-2.67	0.009
Bank size	1.108493*	0.2388472	4.64	0.00
Bill purchase	-0.2174086	0.4817912	-0.45	0.653

Number of observation=78
R-squared =0.5363
Notes: *1% significance level; ** 5% significance level and *** 10% significance level
Source: Author own computation, 2014

As shown from table 4 and 5 , the R-squared(R^2)result for both ROA and ROE model are 0.96 and 0.53 respectively which tells that 96% and 53% of the variation in the dependent variable of ROA and ROE respectively is explained by the independent variable . While the remaining 4% and 47% of the variation in the dependent variable of ROA and ROE respectively is left unexplained by variable of the study .

Following to the result obtained from the regression analysis as depicted in the above table, the next section tries to present the analysis concurrently with respect to each profit determents factors.

Asset Quality

The explanatory variable asset quality (ASQA) which is the ratio of nonperforming loan to loan , has highly statistical significant and negative impact on ROA and ROE at 1 percent and 5 percent significance level respectively.

The explanatory variable asset quality (ASQA) which is the ratio of nonperforming loan to loan , bears a statistically at 1 percent significance level and it has a strong negative relationship with the profitability of private commercial banks.

Asset quality, which measures how much a bank is not collecting in year t relative to its gross loans disbursed, is used to measure the impact of nonperforming loans on Ethiopian banks profitability. The negative coefficient of this ratio which was also in line with the prior expectation and theory for that matter indicated the existence of an inverse relationship between profitability and nonperforming loans. This implies that an increase in the ratio of nonperforming loans to gross loans, certainly lead to a decrease in profit as measured by ROA. The finding was in consistent to the results of Olweny & Shipho, (2011).

Moreover, the obtained result suggests that a lower credit quality could negatively influence the profitability since the actual impairment costs of non-repayment are likely to be higher for banks with a lower asset quality than for banks with higher asset quality. Therefore, increase of nonperforming loan is the main source profitability of banks to decrease. This relationship exists because an increase in the doubtful assets, which do not accrue income, requires a bank to allocate a significant portion of its gross margin to provisions to cover expected credit losses; thus, profitability will be lower. This was in line with the theory that increased exposure to non performing loan is

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normally associated with decreased firm profitability. This is mainly occurs due to weak inspection techniques of identifying potential borrowers. Moreover; poor asset quality trend may bring a series collapse against the sector as well as the nation economy Belayneh (2011). Previous studies of Kosmidou (2008) and Olweny & Shipho (2011) among others found a negative relationship between profitability and asset quality.

Bank capitalization /capital Adequacy

The explanatory variable bank capitalization is measured by the ratio of capital over total asset of a bank. The coefficient of the capital adequacy is positive and it statistically highly significant determinant of profitability for both ROA and ROE model at 5 percent significance level.

The explanatory variable bank capitalization is measured by the ratio of capital over total asset of a bank. The impact of this variable on private bank profitability is positive and statistically significant at 5 % level. This is because in our country commercial banks with higher level of capital have the legal right to lend a higher amount of money to a single borrower and they can increase their interest income and can reduce their transaction costs[2] 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.

Moreover, this is in line with the expectation as a bank with a sound capital position is able to pursue business opportunities more effectively and has more time and flexibility to deal with problems arising from unexpected losses, thus achieving increased profitability. In addition, it identifies which financing options are available for the entity. So from the findings we can conclude as capital strength was one of the main

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[2] National bank of Ethiopia directive number SBB/29/2002 limits the aggregate loan or extension of credit by any commercial bank to any single borrower at maximum of 25% of the total capital of the bank.

determinants of profitability of banks in Ethiopia. Further, the finding was also consistent with previous studies of Berger (1995b), Pasiouras & Kosmidou (2007), Athanasoglou et al. (2008), Ponce (2011) .

Bank Liquidity

Bank liquidity is measured by the ratio of current asset and current liability .It is known that a bank has to be liquid to meet payment obligation and financial commitments in a timely manner to depositors and creditors and it is a very critical for a bank to remain a going concern. When banks hold a lower amount of liquid assets they are more vulnerable to large deposit withdrawals. The finding of the study attest that bank liquidity and profitability in terms of ROA and ROE has positive relationship but it was not statistically significant even at 10 percent significance level and hence bank liquidity influence on profitability is negligible and has no a significant   impact. Thus the hypothesis that states there is a significant relationship between bank liquidity and profitability may be rejected or data did not support the hypothesis. The finding of the study also consistent with the study by Van (2011) which state that there is a significant positive relationship between liquidity and bank profits.

Loan Production

It is explained by the ratio of loan to total asset and as hypothesized, it has positive and   highly significant effect on ROA and ROE at 5 percent   and   10 percent significance level respectively It is explained by the ratio of loan to total asset and as hypothesized, it has significant positive relationship with profitability at 5 % significance level .The finding suggest that loan is one of the main income sources for banks from the   interest   what   they   give   the loan   to their customers. Traditionally, banks are intermediaries between lenders and borrowers and the more the deposits that are transformed into loans bank performance, the higher the level of profit will be, therefore, it is expected to have a positive relationship with profitability. This finding also consistent with the study conducted by Vong and Hoi Si Chan (2008)

and Rasiah (2010) indicates a positive relationship between the amount of loan provided and profitability.

Administration cost

Consistent with the expectation , the result of the study suggest that administration cost has a negative relationship with bank profitability but not significant as expected which implies banks that operate at low administration cost enables them to reduce their cost and increase their profit but the profit obtained by reducing of administration cost is insignificant. this finding consistent with Flamini et al. (2009) which state administration cost of the bank results in reduction of bank profitability but is not significant since the the major cost of the bank is interest expense rather administration cost .

However, administration cost has a negative and stiastically significant effect on ROE at 10 percent significance level which shows that administration cost enables banks profit to decrease and existence of inefficient cost management system in Ethiopian private commercial banks

Number of Branch

Consistent with expectations, number of branches found to be negatively related with profitability of banks and it is stastically significant determinant of profitability for both ROA and ROE variables at 1 percent and 5 percent respectively which suggest that banks with more branches are less profit efficient than those with lower number of branch. This finding is consistent with the reality that in this day's most of branches(especially branch outside of Addis Ababa) incur loss while their loss covered by the profit obtained by branches mainly found in Addis Ababa. Therefore, the negative relationship is due to the expansion of banks outside Addis Ababa and it is what expected that branches in the capital are more efficient than those in rural areas. It is obvious that banks with lower number of branches have a less number of branches

outside Addis Ababa. In addition branch expansion outside Addis Ababa results with more deposits mobilized (than with more outputs i.e. loan) and so the amount of profit the bank get become decrease.

Income Diversification

The ratio of non-interest income to total assets which is a measure of diversification and business mix have a positive effect on profitability, which is in agreement with a prior expectation. In addition, this variable was also statistically significant at 5% significance level in explaining the variability in ROA of private commercial banks in Ethiopia. In addition, this variable was also statistically significant at 5% and 1 % significance level in explaining the variability in ROA and ROE of private commercial banks in Ethiopia respectively.

This could be attributable to the fact that Ethiopian banking sector is undergoing a gradual transform away from the traditional business of deposit and lending, financial intermediation and towards provision of other financial services including foreign currency exchange, brokage, guarantee service, modern money transfer system etc. Besides, the result of this study was also in agreement with what is existed in reality in the Ethiopian context which shows the shifting of banks from interest based income to non-interest one as a result of relatively growing competition this days. This result was also consistent with the previous findings of Olweny & Shipo (2011) and Ponce (2012).

Bank size

A difference in the size of banks which is peroxide by the asset level of the bank , in terms of ROA and ROE and strongly significant at 1% significant level and thereby it appears to shows appositive relationship with profitability of the bank and strongly significant at 1% significant level and thereby it appears to support the economic scale arguments. 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. In addition, the positive coefficient between Ethiopian banks

size and profitability clearly indicated that larger banks of the country are better placed than smaller banks of the country in harnessing economies of scale in transactions. From this one can conclude that larger banks of the country experience more significant increases in profitability through economies of scale. The finding was in consistent with the findings of Ben-Khediri et al. (2005). That is Ethiopian banks profitability increases as the size of the banks increase, which strengths the fact that larger banks are enjoying higher profit than smaller banks of the country.

Managerial Efficiency (Management Quality)

It is measured by the ratio of operating expense to income and it is a proxy o to management quality .Consistent with the hypothesis, the finding of the study revealed that managerial efficiency has appositive relationship with profitability variables (ROA and ROE) stastically significant at 10% and 1% significance level respectively. . The positive relation of this variable with profitability indicate that in a bank where there is a management quality , there is efficiency in expense management which can reduce the cost of the bank which in turn increase the profitability of the bank. On the other hand, where management quality is low and managerial monitoring is imperfect, some lazy workers will not exert full effort on their duties and observing that the remaining good workers may discouraged for work. Finally the total sum effect will reduce profitability. Moreover, the management of the banking institution itself is a prerequisite for achieving profitability and stability of a bank. There is evidence that a good management raise profits and market shares (Athanasoglou *et al*., 2005).

Deposit fund

Deposit fund which is the ratio of deposit of the bank to total asset has a positive and significant effect on the ROA and ROE of Ethiopian private banks at 1% and 5% significance level respectively.Deposit fund which is the ratio of deposit of the bank to total asset and the finding of the study revealed that it has positive relation with profitability of the bank and it is significant at 1 percent significance level. It is known that

the primary function of the commercial banks are collecting deposits and giving loan to the public and finally they earn more interest income from their lending which in turn increase their profitability. Commercial banks, accepts cash and hold on to as much of it as possible because the more it has and can retain the more funds it can lend to the public. That is, the more cash a commercial bank has the greater is its capacity to make profits. Moreover, the commercial bank always utilizes its funds to the full in lending funds; the greater is the commercial banks' profitability. Hence, the competition for deposits is really a competition for profits. Commercial banks compete for deposits in order to become larger and thus to be able to supply more funds to the public and finally to generate more profit. Therefore, the competitiveness and the profitability of the bank is depend on the degree of well performing of this activity. Is finding consistent with the study of Rasiah(2010).

Moreover, empirical evidence from Goaied and Naceur (2001) indicates that the best performing banks are those who have maintained a high level of deposit accounts relative to their assets. Increasing the ratio of total deposits to total assets means increasing the funds available to use by the bank in different profitable ways such as investments and lending activities. In turn, this should increase the bank's returns on assets.

NBE Bill Purchase Policy

As far as the NBE bill policy concerned, the study indicates that this factor has negative impact on the profitability of commercial banks (in terms of ROA and ROE), however, it has no statistically significant impact on the profitability of commercial banks in Ethiopia even at 10 percent significance level. Moreover, the sign of this factor has important policy implications in order to make banks to more profitable.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

This study aims to identify the main factors that can affect Ethiopian private commercial banks profitability and to what extent these determinants affect on their profitability. In doing so, previous studies on bank profitability have been reviewed and profitability determent factors are identified. Therefore, this study specified an empirical framework to investigate the determinants of Ethiopian private commercial banks profitability from 2001 to 2013. The profit determinant factors that were used in this study include variables such as capital adequacy , asset quality ,administration cost ,bank liquidity ,managerial efficiency ,loan production , deposit fund ,income diversification, number of branch and size of the bank.

The empirical findings on the determinant of bank profitability in Ethiopian private commercial banks for the sample suggest the following conclusions

- ✓ The variable capital adequacy, as expected, is positive and statistically significant determinants determinant of profitability for both ROA and ROE model at 5% significance level. Therefore, it is concluded that with high capital ratio tend to earn more profit through translating the safety advantage into profit. The size of capital provides financial flexibility for bank and financial institution. It identifies which financing options are available for the entity.   Hence, capital adequacy is one of the main determinants factor for the profitability of private commercial banks in Ethiopia.
- ✓ The study confirms that poor asset quality has a negative effect on bank profitability and vice versa. This was in line with the theory which states that increased exposure to credit risk is normally associated with decreased firm profitability. Hence, it indicates that banks would improve profitability by improving screening and monitoring of credit risk.

- ✓ Regarding to loan production, it has positive and highly significant effect on ROA and ROE at 5 percent and 10 percent significance level respectively, therefore , it is concluded that loan and advance is the largest segment of interest bearing asset and that enables banks to generate more profit through interest income.

- ✓ Concerning deposit fund, it has positive and significant effect on profitability of private commercial banks. The result of the study indicates that the best performing banks are those who have maintained a high level of deposit amount relative to their assets. Increasing the ratio of total deposits to total assets means increasing the funds available to use by the bank in different profitable ways such as investments and lending activities. In turn, this should increase the bank's profitability.

- ✓ The study found that managerial efficiency (quality of management) has a positive and significant relationship with profitability of private commercial banks .Therefore, it is concluded that managerial efficiency is an important factor for the profitability of private commercial banks.

- ✓ Regarding to the size of the bank, it is found that bank size has positive and highly significant effect on profitability(in terms of both ROA and ROE) at 1% significant level. This positive relationship between bank size and profitability, suggesting that larger banks tend to earn higher profits through economies of scale. Moreover, This finding also consistent with the Market-Power (MP) hypothesis, which stated relative size of a firm expands its market power and profits increases. From this result the researcher concludes that, banks that have large size can generate more profit as compared to banks that have smaller size.

- ✓ Regarding to Income diversification, this study finds a positive and statistically significant at 5% and 1 % significance level in explaining the variability in ROA and ROE of private commercial banks in Ethiopia respectively.

- ✓ . This could be attributable to the fact that Ethiopian banking sector is undergoing a gradual transform away from the traditional business of deposit and leading,

financial intermediation and towards provision of other financial services including foreign currency exchange, guarantee service, modern money transfer system etc. Besides, the result of this study was also in agreement with what is existed in reality in the Ethiopian context which shows the shifting of banks from interest based income to non-interest one as a result of relatively growing competition this days.

✓ Number of branches found to be negatively related with profitability of banks and it is stastically significant determinant of profitability for both ROA and ROE variables at 1 percent and 5 percent respectively which suggest that banks with more branches are less profit efficient than those with lower number of branch.

✓ Administration cost is negativelyrelate with ROA but not significant. However, administration cost has a negative and stiastically significant effect on ROE at 10 percent significance level which shows that administration cost enables banks profit to decrease and existence of inefficient cost management system in Ethiopian private commercial banks

✓ On the other hand bank liquidity and managerial quality has positive impact on bank profitablity but not significant.

✓ Generally, according to the regression result capital adequacy, loan production ,deposit fund ,income diversification ,managerial efficiency and size of the bank have positive significant effects on the profitability of private commercial banks while asset quality and number of branch has a significant negative impact on profitability.

5.2. Recommendation

Based on the findings of the study the following possible recommendations were forwarded:

- ✓ In the study capital adequacy is found positively related with profitablity and hence, Banks should strive to improve their capital amount through mobilizing funds by issuing more shares to the new and existing share holders.
- ✓ Since bank Size is the main determint factor for thre profitabliyty of private commercial banks, Banks should strive to improve their level of asset.
- ✓ 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. Otherwise it may bring a series collapse against the sector as well as the nation economy.
- ✓ Since non interest income sources activities can be the main source of revenue and profitablity of private commercial banks, banks should improve and divertsify thire non interst income sources.
- ✓ The study confirm that having large amount of deposit enables private commercial banks to be more profitable.Therfore,banks to moblize large amount of deposit ,they should develop a strategy that enables them to collect large deposits(example- increase the amount of deposit interest rate and developing new finacial products)
- ✓ Though branch expansion is found negatively related with profitability of private commercial banks especially branches that are opened outside Addis Ababa, banks management have to take a detail feasibility study in opening of branches since there different branches outside Addis Ababa that can be profitable.

- ✓ Since managerial efficiency positively affect the profitability of private commercial banks , banks should hire good performer employees and provide trainings for those that are already hired in the bank to improve their skill and knowledge .

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Annex- 1

Annex 1 –The raw data that was used to analyze the variables which was used in the paper is presented as follows

A. Profit before Tax

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	36,745,083	35,000,000	14,000,000	8,000,000	18,000,000	28,141,359
2002	38,428,858	7,216,370	12,623,080	6,508,577	22,000,000	12,496,843
2003	36,858,503	7,644,321	15,189,865	7,431,736	19,000,000	22,032,622
2004	78,552,352	54,442,666	44,591,307	9,431,069	48,717,785	48,225,990
2005	97,603,572	82,040,574	63,293,152	42,888,665	65,696,103	63,110,445
2006	185,367,401	122,921,543	94,230,748	59,645,832	79,622,429	134,073,781
2007	259,147,659	94,980,332	152,280,865	86,860,143	105,355,223	179,328,874
2008	332,570,355	21,907,426	189,990,955	125,831,748	158,771,310	241,200,002
2009	352,488,395	145,399,775	256,101,454	133,543,017	219,768,667	303,071,129
2010	458,253,987	100,345,654	317,527,987	247,666,914	285,237,511	350,836,003
2011	480,236,859	150,321,963	369,258,456	260,123,654	321,963,852	396,258,456
2012	550,123,963	175,845,963	389,789,654	265,321,654	352,852,951	402,159,753
2013	632,642,557	351,467,528	449,667,409	374,162,288	378,573,939	530,018,555

B. Total Asset

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	1,235,456,835	896,000,000	583,000,000	226,032,606	336,000,000	1,100,658,489
2002	1,563,179,335	1,180,729,938	646,217,943	328,587,517	534,000,000	1,402,787,497
2003	1,991,471,836	1,422,498,744	889,076,457	469,770,394	885,000,000	1,830,200,053
2004	2,677,000,000	1,651,837,043	1,140,136,535	674,415,525	1,247,000,000	2,378,983,249
2005	3,419,808,716	2,230,722,739	1,615,652,586	1,072,932,254	1,731,903,754	2,989,810,984
2006	4,546,012,978	3,014,059,680	2,259,544,521	1,599,568,803	2,027,020,081	3,683,068,754
2007	6,039,408,979	3,577,964,010	3,480,280,390	2,182,743,809	2,606,596,372	4,783,061,527
2008	7,839,844,530	4,269,946,935	4,124,891,893	3,250,281,316	3,650,111,159	5,678,432,001
2009	9,732,583,441	5,476,625,540	5,118,311,459	4,652,443,000	4,806,507,027	7,132,572,134
2010	12,353,386,038	6,279,540,204	5,741,936,575	5,896,233,355	5,970,511,304	9,022,989,378
2011	15,098,654,321	6,954,212,206	6,123,998,787	6,321,856,987	6,852,639,410	9,874,536,205
2012	17,021,456,852	7,521,963,325	6,652,325,981	6,987,569,821	7,456,982,361	1,002,563,987
2013	19,234,246,242	10,160,113,834	10,393,803,401	9,977,673,169	9,144,543,615	17,783,926,770

C. Total Equity of the bank

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	50,000,000	120,000,000	46,000,000	63,000,000	52,000,000	97,848,000
2002	75,000,000	129,133,644	53,369,000	81,915,500	84,000,000	110,121,836
2003	75,000,000	131,826,919	76,948,000	82,996,900	105,000,000	116,737,054
2004	172,149,359	137,240,800	87,792,000	84,945,112	129,086,579	135,660,000
2005	100,000,000	165,726,575	110,994,000	87,664,950	160,000,000	158,440,195
2006	156,190,000	264,713,109	147,605,000	130,834,907	200,000,000	200,000,000
2007	282,210,000	265,000,000	233,139,000	259,326,669	297,573,500	282,300,378
2008	453,993,000	312,571,450	370,825,000	330,277,074	416,901,000	304,567,894
2009	500,456,321	313,141,425	517,618,000	355,202,724	487,129,000	445,483,236
2010	512,097,653	312,456,987	633,170,000	360,345,213	579,867,000	550,000,000
2011	600,123,765	320,564,123	670,478,906	372,345,609	592,368,759	590,341,233
2012	615,079,667	335,543,330	685,000,987	390,654,345	611,678,324	605,098,743
2013	836,879,133	407,634,593	830,424,820	401,148,139	665,929,319	766,218,968

D. Current Asset

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	1,197,431,296	884,000,000	574,000,000	219,032,606	333,000,000	1,072,340,530
2002	1,538,680,994	1,169,183,255	632,217,943	320,587,517	529,000,000	1,373,514,552
2003	1,965,557,279	1,410,825,784	874,076,457	460,770,394	879,000,000	1,789,548,178
2004	2,637,703,228	1,633,329,515	1,123,764,568	665,097,489	1,240,341,095	2,334,615,034
2005	3,374,017,064	2,195,926,151	1,594,629,891	1,062,207,129	1,721,718,586	2,937,997,127
2006	4,486,000,443	2,976,885,924	2,234,537,605	1,585,982,471	1,996,062,983	3,619,229,395
2007	5,950,260,193	3,536,652,309	3,447,401,163	2,151,194,217	2,590,485,491	4,689,869,142
2008	7,745,995,758	4,204,473,791	4,084,335,652	3,216,690,986	3,607,235,274	5,565,777,680
2009	9,622,842,544	5,400,627,145	5,076,508,681	4,612,007,973	4,750,276,939	6,985,410,391
2010	12,189,003,513	6,195,885,859	5,675,003,203	5,853,336,812	5,898,257,154	8,795,869,714
2011	14,203,609,582	6,958,214,230	6,123,678,520	6,579,123,654	6,845,696,123	9,630,025,698
2012	15,203,609,582	7,958,214,230	7,123,678,520	6,579,123,654	6,845,696,123	9,630,027,710
2013	9,255,731,556	1,971,208,911	2,228,368,992	8,979,905,853	3,986,387,357	16,005,534,093

E. Current Liability

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	1,146,879,307	748,883,446	300,000,000	163,232,208	274,000,000	972,976,505
2002	1,440,818,890	1,040,019,633	582,367,149	240,641,366	435,000,000	1,265,502,208
2003	1,000,331,984	1,273,786,954	794,718,126	423,240,540	760,000,000	1,676,021,225
2004	2,504,494,690	1,459,467,660	1,011,395,972	578,220,933	1,223,460,667	2,181,944,491
2005	3,176,925,702	1,977,494,722	1,435,472,826	948,055,869	1,508,940,608	2,748,644,091
2006	4,160,140,176	2176885481	2,004,876,253	1,408,209,165	1,734,489,839	3,341,309,875
2007	5,494,936,857	2,721,327,589	3,063,182,346	1,823,009,474	2,181,450,251	4,300,530,344
2008	7,109,234,873	3,849,866,780	3,519,443,105	2,782,409,379	3,051,986,485	4,300,530,344
2009	8,823,888,714	4,957,396,033	4,269,918,601	4,132,468,491	4,077,683,469	6,371,267,357
2010	11,230,038,407	5,694,048,517	4,679,145,255	5,258,679,129	5,054,002,878	8,063,640,435
2011	13,001,225,963	6,694,048,517	5,679,145,255	5,258,681,140	6,054,002,878	9,063,640,435
2012	15,000,569,321	7,694,048,517	6,679,145,255	6,258,681,140	7,054,002,878	10,063,640,435
2013	12,054,630,154	8,496,148,298	8,558,326,853	1,077,665,205	6,470,673,666	3,172,499,180

F. Non-interest expense

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	38,151,069	33,750,000	21,250,000	5,000,000	6,250,000	42,434,175
2002	44,496,240	42,003,536	25,395,918	7,738,014	12,500,000	32,013,960
2003	37,572,431	46,745,573	21,291,251	7,722,591	13,750,000	32,797,709
2004	50,954,318	35,897,548	22,983,718	13,719,475	19,238,438	41,654,530
2005	65,662,894	41,135,938	26,894,286	21,809,945	29,860,855	53,093,130
2006	83,609,773	50,964,180	43,192,290	35,691,293	41,368,029	68,154,350
2007	115,639,041	75,613,706	69,114,876	49,470,659	52,672,501	105,850,378
2008	202,685,633	116,754,393	112,096,394	78,536,964	77,772,123	126,121,543
2009	249,309,614	140,083,395	104,322,714	109,580,043	93,891,138	225,071,108
2010	310,246,759	143,595,293	94,678,540	110,122,793	94,678,540	193,654,183
2011	328,766,065	145,296,065	110,017,068	112,654,568	110,017,068	218,779,073
2012	341,282,454	149,046,065	117,123,155	117,370,570	117,123,155	225,295,570
2013	306,887,911	210,586,105	325741199	284645364	287665930	836682742

G.Total income

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	114,453,206	101,250,000	63,750,000	15,000,000	18,750,000	127,302,525
2002	133,488,720	126,010,609	76,187,753	23,214,041	37,500,000	96,041,880
2003	112,717,294	140,236,718	63,873,754	23,167,774	41,250,000	98,393,126
2004	152,862,953	107,692,643	68,951,153	41,158,425	57,715,313	124,963,590
2005	196,988,681	123,407,813	80,682,859	65,429,835	89,582,565	159,279,390
2006	250,829,318	152,892,540	129,576,870	107,073,878	124,104,086	204,463,050
2007	346,917,124	226,841,119	207,344,629	148,411,976	158,017,504	317,551,133
2008	608,056,898	350,263,178	336,289,181	235,610,891	233,316,368	378,364,628
2009	747,928,841	420,250,185	312,968,141	328,740,128	281,673,413	675,213,323
2010	930,740,276	430,785,878	284,035,620	330,368,378	284,035,620	580,962,548
2011	986,298,195	435,888,195	330,051,203	337,963,703	330,051,203	656,337,218
2012	1,023,847,361	447,138,195	351,369,465	352,111,710	351,369,465	675,886,710
2013	1,621,578,012	606,298,877	797,715,064	1,260,401,783	851188264	1,419,701,297

H.Provision for Doubtful loan

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	5,351,073	18,000,000	15,000,000	1,000,000	1,000,000	5,300,000
2002	4,126,798	38,169,958	20,393,338	2,549,462	3,000,000	20,500,000
2003	48,817,829	62,052,466	28,792,300	7,203,072	20,000,000	28,389,000
2004	63,469,000	73,023,911	42,845,660	15,732,633	30,425,505	9,154,530
2005	71,500,887	61,492,273	51,310,989	22,852,348	18,184,058	80,373,000
2006	83,877,287	61,047,503	29,070,829	29,243,948	9,170,090	23,755,730
2007	88,498,270	107,804,346	32,109,500	42,513,114	1,423,880	28,402,827
2008	101,548,280	250,575,687	138,850,988	66,459,183	19,035,151	34,000,000
2009	96,919,720	266,217,285	128,633,945	49,759,183	23,391,813	43,509,000
2010	106,944,940	268,000,000	98,246,888	50,000,000	99,305,083	17,899,000
2011	112,036,987	272,154,693	105,123,963	61,002,599	60,123,856	40,000,123
2012	115,012,569	280,145,963	111,256,789	65,236,145	68,012,852	45,123,963
2013	42,513,114	449,630	18,941,444	9,246,392	1,411,321	55,919,000

I.Total loan and advance

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	690,578,472	687,000,000	344,000,000	134,000,000	210,000,000	588,066,035
2002	845,024,455	631,368,143	385,828,794	160,725,849	324,000,000	661,161,593
2003	1,217,873,555	747,157,839	542,059,015	283,262,076	550,000,000	760,756,527
2004	1,627,369,334	889,373,273	695,226,066	368,661,808	756,474,284	1,068,603,405
2005	2,160,632,436	1,172,968,585	951,028,332	570,025,059	1,085,710,775	1,453,397,214
2006	3,080,263,248	1,901,466,545	1,516,839,343	974,949,418	1,418,648,451	2,354,977,415
2007	3,880,263,248	2,197,341,801	2,060,606,572	1,367,883,083	1,755,831,156	2,402,600,567
2008	3,889,003,611	2,566,577,377	2,207,928,130	1,809,902,837	2,033,788,606	2,483,295,834
2009	4,291,704,476	2,442,747,456	1,983,747,131	2,086,516,735	2,118,055,100	2,563,991,102
2010	4,876,345,096	2,504,662,417	2,375,625,606	2,654,209,651	2,118,055,100	2,997,376,967
2011	5,236,985,456	3,025,693,854	2,800,023,694	2,986,352,147	2,456,930,258	3,269,854,587
2012	5,523,697,852	3,526,974,123	3,021,045,698	3,259,871,456	2,856,931,265	3,698,712,456
2013	6,651,454,988	4,608,533,581	4,585,105,644	4,623,195,528	4,429,319,286	7,532,303,953

J.Operating Expense

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	30,520,855	27,000,000	17,000,000	4,000,000	5,000,000	33,947,340
2002	35,596,992	33,602,829	20,316,734	6,190,411	10,000,000	25,611,168
2003	30,057,945	37,396,458	17,033,001	6,178,073	11,000,000	26,238,167
2004	40,763,454	28,718,038	18,386,974	10,975,580	15,390,750	33,323,624
2005	52,530,315	32,908,750	21,515,429	17,447,956	23,888,684	42,474,504
2006	66,887,818	40,771,344	34,553,832	28,553,034	33,094,423	54,523,480
2007	92,511,233	60,490,965	55,291,901	39,576,527	42,138,001	84,680,302
2008	162,148,506	93,403,514	89,677,115	62,829,571	62,217,698	100,897,234
2009	199,447,691	112,066,716	83,458,171	87,664,034	75,112,910	180,056,886
2010	248,197,407	114,876,234	75,742,832	88,098,234	89,710,018	154,923,346
2011	263,012,852	116,236,852	88,013,654	90,123,654	92,569,852	175,023,258
2012	273,025,963	119,236,852	93,698,524	93,896,456	95,236,741	180,236,456
2013	21,515,429	39,576,527	84,680,302	66,887,818	93,403,514	83,458,171

K.Noninterest expense

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	30,520,855	27,000,000	17,000,000	4,000,000	5,000,000	33,947,340
2002	35,596,992	33,602,829	20,316,734	6,190,411	10,000,000	25,611,168
2003	30,057,945	37,396,458	17,033,001	6,178,073	11,000,000	26,238,167
2004	40,763,454	28,718,038	18,386,974	10,975,580	15,390,750	33,323,624
2005	52,530,315	32,908,750	21,515,429	17,447,956	23,888,684	42,474,504
2006	66,887,818	40,771,344	34,553,832	28,553,034	33,094,423	54,523,480
2007	92,511,233	60,490,965	55,291,901	39,576,527	42,138,001	84,680,302
2008	162,148,506	93,403,514	89,677,115	62,829,571	62,217,698	100,897,234
2009	199,447,691	112,066,716	83,458,171	87,664,034	75,112,910	180,056,886
2010	248,197,407	114,876,234	75,742,832	88,098,234	89,710,018	154,923,346
2011	263,012,852	116,236,852	88,013,654	90,123,654	92,569,852	175,023,258
2012	273,025,963	119,236,852	93,698,524	93,896,456	95,236,741	180,236,456
2013	175,023,258	92,569,852	90,123,654	93,698,524	119,236,852	199,447,691

L.Number of branch

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	22	13	20	9	6	24
2002	23	13	20	9	8	25
2003	28	14	23	11	11	29
2004	31	18	23	14	15	32
2005	34	21	27	16	18	35
2006	37	25	32	23	19	40
2007	42	29	38	33	28	47
2008	47	43	43	35	33	52
2009	52	46	48	40	43	61
2010	58	49	50	43	45	64
2011	64	55	60	50	52	69
2012	107	70	65	58	58	72
2013	117	89	79	73	73	102

M.Deposit

Year	Dashen Bank	Abyssinia Bank	Wegagen Bank	Hibret Bank	Nib International Bank	Awash international Bank
2001	861,232,052	651,000,000	449,000,000	129,000,000	208,000,000	820,766,409
2002	1,141,717,431	909,563,548	473,734,060	188,841,883	345,000,000	1,042,900,363
2003	1,621,384,984	1,076,170,314	646,651,106	287,453,095	588,000,000	1,346,327,307
2004	2,177,734,062	1,275,194,401	858,195,909	474,721,965	832,319,792	1,732,759,477
2005	2,833,007,115	1,627,627,080	1,230,004,473	746,432,689	1,224,176,766	2,212,884,506
2006	3,691,603,055	2,176,885,481	1,530,944,846	1,220,580,816	1,451,771,885	2,721,303,080
2007	4,860,547,506	2,721,327,589	2,236,538,813	1,541,089,453	1,878,934,559	3,419,197,707
2008	6,151,521,545	3,477,767,008	2,567,876,386	2,324,388,261	2,469,931,303	3,845,623,408
2009	7,925,210,289	4,494,186,427	3,550,855,857	3,381,837,372	3,296,389,970	4,962,410,454
2010	10,144,549,776	4,567,098,156	3,815,751,230	3,451,546,123	4,127,188,480	6,105,940,193
2011	13,253,218,987	4,890,003,321	4,012,306,582	3,698,654,213	4,536,215,753	6,321,856,954
2012	14,658,963,456	5,023,674,596	4,256,952,321	3,963,478,123	4,752,309,658	6,621,852,456
2013	12,030,178,912	6,682,213,457	4,536,215,753	4,494,186,427	5,023,674,596	7,925,210,289