THE RELATIONSHIP BETWEEN NON-PERFORMING LOANS AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN ETHIOPIA

BY

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DECLARATION

I declare that this is my original work and has not been submitted in any university for the award of degree.

Signed……Date……..……

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This project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this study to my dear husband Michael Abera, my daughter Lelo Michael and my son Kenawak Michael for their support, understanding and encouragement that they have provided during all the years of my studies.

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ABBREVIATION AND ACRONYMS

NBE:	National Bank of Ethiopia
CBs:	Commercial Banks
CR:	Credit Risks
CRM:	Credit Risk Management
GDP:	Gross Domestic Product
IMF:	International Monetary Fund
LLR/TLR:	Loan Loss Reserves to Total Loans Ratio
LSR:	Loan Serviceability Ratio
NBE:	National Bank of Ethiopia
NPA:	Non-performing Assets
NPLs:	Non-preforming Loans
RBI:	Reserve Bank of India
SIB:	Standard Investment Bank
US:	United State
ROA:	Return on Assets
ROE:	Return on Equity
NPM:	Net Profit Margin

ABSTRACT

Banks financial performance is adversely affected by the level of non-performing loans. Non-performing loans have been widely used as a measure of asset quality among lending institutions and are often associated with failures and financial crises in both the developed and developing countries. This study was carried out with the objective of finding out whether the financial performance and non-performing loans of commercial banks in Ethiopia has been related by using performance as well as to test the existence of the relationship between the Capital adequacy, Asset Quality, Management efficiency, and Liquidity with the profitability measures. Since two of the banks are less than five years in operation and the other three are not commercial banks, the study has conducted on the financial performance of fourteen commercial banks examined by using panel data from year 2011 to year 2015. The study used quantitative research approach and secondary financial data are analyzed by using multiple linear regression model for three profitability measures: ROE, R O A and NPM. Fixed effect regression model was applied to investigate the impact and relationship of: NPLR, capital adequacy, Asset Quality, Management efficiency, and Liquidity with bank profitability measures separately. The empirical result shows that Non – performing loans has negative relation whereas capital adequacy, and Management efficiency and liquidity have a slight positive relation, whereas asset quality shows a strong positive relationship with the mentioned profitability measures. Based on the findings, the study concludes that amount of the non-performing loans decreased significantly from the year 2011 to 2015 while the performance of the banks increased in the same period and this showed financial performance and non-performing loans have negatively related.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Non-performing Loans (NPLs) are loans whose payment of interest and principal are pass due by 90 days or more or at least 90 days of interest payment have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue. There are other good reasons to doubt that payment will be made in full (IMF, 2009). Hennie and Sonja (2009) define NPLs as assets not generating income or when principal or interest is due and left unpaid for 90 days or more. Loan defaults are inevitable in any commercial bank but they can be minimized. According to Wondemagen (2012), non-performing loans continues to be an issue of major supervisory concern in Ethiopia. Non- performing loans are also described as loans in arrears for at least ninety days (Guy, 2011).

Financial Performance in broader sense refers to the degree to which financial objectives being or has been accomplished and is an important aspect of finance risk management. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Vogiazas & Nikolaidou, 2011). Apart from ROE, ROA and NPM ,financial risk management is also one of the most important aspect of measuring financial performance.

Financial performance is affected by various factors apart from Non-performing loans both internally inside of the bank and externally, beyond the control of the bank:

internally it is about the cost efficiency of the banks and externally depend on the macro economic factors. Asset Quality is one among them, it determines the healthiness of financial institutions against loss. Management Quality, it is the efficiency of top management and board of directors. Because all the crucial decision is made by them. Capital adequacy of the bank and its liquidity are among the various factors affect banks performance.

This study is anchored on three theories namely; credit default theory, asymmetric information theory, and agency theory. Credit default theory assert that most existing credit default theories do not link causes directly the effect of default and are unable to evaluate credit risk in a rapidly changing market environment, as experienced in the recent mortgage and credit market crisis (sy,2007). Information asymmetric theory asserts that one party has different information to another. Asymmetric information is applicable in financial markets such as borrowing and lending. The theory tells us that it may be difficult to distinguish good from bad borrowers (Auronen, 2003and Rihcard,2011) In these markets the borrower has much better information about his/her financial state than the lender. Agency theory seeks to explain the relationship that exists between the management of an organization and the owners of the organization who are usually the people holding stocks for the organization (Macharia, 2012).

Bernarda and Wamua (2009) established that there is a slight positive relationship between them due to the foreclosure process of Nonperforming loans. Matu (2001) showed that the high level of non-performing loans puts pressure on the banks to retain high lending rates in an attempt to minimize losses associated with these loans.

Kiyai (2003) showed that a combination different techniques of enticing defaulting customers yield better results. He stated debt restructuring by redefining interest rates was the top preferred method of addressing the problem of NPLs. he also found out that no relationship existed between debt restructuring and the levels of non-performing loans

The level of non-performing loans has been increasingly steadily (National Bank supervision annual report 2014) even the best bank with good lending policies and procedures do become victims of non–performing loans in one way or another. The amount of non-performing loans worry bank policy makers. These loans have made some banks fall into liquidation and closure (National bank or central bank report, 2013), it reported that the banking industry had been registering high Non-performing loans (NPLs) in the last two years. According to the report there was a decrease in NPLs between 2010 and 2013. It is shows that in 2010/2011, NPLs were 5.6 billion birr (7.3%). In 2011/2012; NPLs were 3.3 billion birr (5%). In 2012/2013; NPLs were 2.7billiom birr (2.2%). Though there has been some decrease in non –performing loans, the figures still remain high. Therefore, non-performing loans have showed as one of the major cause of the bank inefficiency.

1.1.1 Non-Performing Loans

A loan is non-performing when payments of interest and principal are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full" (International Monetary Fund). It is a worldwide issue that NPLs affects the stability

of financial markets in general and the viability of the banking industry in particular. Njure (2014), argues that initially, NPLs may not seem to have a serious negative effect. Bank remain liquid and depositors retain their confidence in the system. Overtime, however, the size of the problem grows, especially if banks are allowed to accrue interest on their non-performing loans. It may also be that at least 90 days of interest payment have been capitalized, refinanced or delayed by agreement, or payment are less than 90 days overdue, but there are other good reasons to doubt that payment will be made in full. Therefore, the bank has always given provision for the loans that the principal and interest has not yet paid according to the original agreement.

Non-performing loans (NPLs) are important because they affect the financial intermediation of commercial banks which constitute the banks' main source of their income, and ultimately, the financial stability of an economy (Fafack, 2013). For this reason, NPLs have increasingly gain attention recognizing that a consequence of large amount of NPLs in the banking system is bank failure as well as a symptom of economic slowdown. This is largely because the financial performance of any commercial bank is measured in terms of profitability and NPLs have a direct adverse impact on the bottom line due to the provisions which the bare forced to make on account of NPLs (Ezeoha, 2011).

According to Hou (2012), a simple definition of non-performing loan is: A loan that is not earning income and full payment of principal and interest is no longer anticipated. Loans whose interest or principal payments are longer than three months in arrears of lending conditions are eased. The banks make 10%, 50% and 100% provision for the unsecured portion of the loans classified as substandard, doubtful and loss

respectively. On the other hand others researchers have observed that an increase in NPLs rate is a reflection of the failure of credit policy (sakina, 2012). Clara (2011) explains that high percentage NPLs are often associated with performance problems of banks and financial crises in both developing and developed countries.

1.1.2 Financial performance

Financial Performance in broader sense refers to the degree to which financial objectives being or has been accomplished and is an important aspect of finance risk management. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. The study of the stability of the financial sector has become the basis of most macroeconomic policy across the globe, (Vogiazas & Nikolaidou, 2011). This is especially true for economies world over because of the recent global financial crisis According to Waweru and Kalani (2009), crises do not occur without warning; the best warning signs of financial crises are proxies for the vulnerability of the banking and corporate sector. The most obvious indicators in the view that can be used to predict banking crises are those that relate directly to the soundness of the banking system, in (Waweru & Kalani, 2009). It is the goal of every banking institution to carry out its operations profitably so as to maintain stability and sustainable growth (Warue, 2013). This goal is, however, usually deterred by a variety of macro and micro-economic factors (Warue, 2013)

1.1.3. Non-Performing Loans and Financial Performance of Commercial Banks

Over the recent past, a strong association has been established between NPLs and banking crises. In a majority of the economies that have collapsed over the years, financial crises were preceded by credit risk. According to Khemraj (2005) in Chikoko, Mutambanadzo, and Vhimisai (2012), banking crises in East Asia and Sub-Saharan African countries were preceded by high NPLs.

Loan performance is tightly linked to the economic cycle, thus increase in NPLs increased the severity of the recession for a number of countries (Khemraj, 2005). In Latvia, for instance, real GDP shrunk by 18 per cent, yet during the same period, NPLs more than tripled (Dilip, 2004). Ahmad (2002) reported of the existence of a significant relationship between credit risk and financial crises (Joseph, 2012). The conclusion from the study was that a credit risk preceded the 1997 Asian financial crisis, and worsened as NPLs increased (Joseph, 2012).

In the United States, the level of non-performing loans started to increase substantially in 2006 in all sectors before the sub-prime mortgage market collapsed in August 2007 (Greenidge & Grosvernor, 2010). In the study of the Japan bubble burst, Nishimura (2001) concluded that some of the loans made to companies became non-performing. The Pakistani banking system is another illustration of the woes that face financial institutions of many developing economies. Like other countries in its category, the most destructive problem facing Pakistan in regards to its banking sector is the enormous amount of NPLs (Farhan, 2012).According to Masood (2009) in Farhan (2012) the volume Non Performing Loans in Pakistan are harming the Pakistani banking sector and hampering the country's economy (Khemraj, 2014).

On the other hand, Berger and DeYoung (1996) also suggest that efficiency of the banking firms might affect the non-performing loans in the banking industry. The bad management hypothesis was developed to explain this relationship. Auronen (2013), argued that bad management of the banking firms will result in banks inefficiency and affect the process of granting loans. The banks' management might not thoroughly evaluate their customers' credit application due to their poor evaluation skills. In addition the problem of asymmetric information between lenders and borrowers further complicates the matter, Fofact (2013), besides that the management might not be efficient in managing loan portfolios. Consequently, this leads to lower credit ratings for the approved loans and high probability of default resulting in higher non-performing loans. Therefore, banks poor quality management, the quality of assets and others factors might lead to high non-performing loans.

In light of the above facts and research gaps, the purpose of this study is to establish the relationship between non-performing loans and financial performance of commercial banks in Ethiopia. To this end, this study tried to provide real information about the relationship between non-performing loans and financial performance of commercial banks in Ethiopia and feasible recommendation for the impact of identified variable on the levels of NPLs. Therefore, the researcher used panel data for the period 2011 to 2015 that obtained from NBE.

1.1.4 Commercial Banks in Ethiopia

Banking sector in Ethiopia is guided by companies Act, Banking Act, the National Bank Act and other prudential guidelines. The National Bank is the chief controller of all commercial banks (NBE 2008). It formulates the monetary policies and control aspect such as liquidity, solvency and proper functioning of financial system in the country. The State Bank of Ethiopia had established 21 branches including a branch in Khartoum, Sudan and a transit office on Djibouti until it ceased to exist by bank proclamation issued on December, 1963. Then the Ethiopian Monetary and Banking law that came into force in 1963 separated the function of commercial and central banking creating National Bank of Ethiopia and commercial Bank of Ethiopia. Moreover it allowed foreign banks to operate in Ethiopia limiting their maximum ownership to be 49 percent while the remaining balance should be owned by Ethiopians (Yesuf, 2010).

According to Yesuf (2010), 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. Moreover, in the country, a rapidly growing industry is the banking sector.

Accordingly, banking industry in Ethiopian has its own unique features that distinguish them from other countries financial market. One of the feature is

the regulation of the country is not allowed foreign nations or organization to fully or partially acquire share of Ethiopian banks. Besides, there is no secondary market. Moreover, in the country, a rapidly growing industry is the banking sector. As a result, it is visible to conduct a study on the determinants of NPLs of commercial banks in Ethiopia which is crucial, (Greenidge & Grosvernor, 2010).

1.2 Research Problem

Banks financial performance is adversely affected by the level of non-performing loans. Non-performing loans have been widely used as a measure of asset quality among lending institutions and are often associated with failures and financial crises in both the developed and developing countries, (Guy, 2011). Because the loans supposed to be earned interest for financial institutions like banks, will turn to burden for the banks by adding additional cost in order to manage those collaterals until it will disposed in the form of sailing by auction or transferring the loan to other interested borrower by receiving a small part of the loans and rescheduling it again as a new loan. This will affects the quarterly, semi-annually, and annually income of the banks. As a result, the investment decision will be changed. The recognition of the time value of money and risk is extremely vital in financial decision-making. If the timing and risk of cash flows is not considered, the firm may make decisions that may allow it to miss objective of maximizing the owners' welfare, (IMPANDEY, 2010). Therefore, all researchers on the causes of banks and other financial institution failures find that failing institutions have a large proportion of non-performing loans

prior to failure and that asset quality is a statistically significant predictor of insolvency.

The study adopted the credit default theory, information asymmetry theory and the agency theory. Credit default theory is relevent for a situation where there is indrect relation to the effect of default that affect the financial performance. It has been postulated by Wilson Sy in 2007. The information assymetry occurs where one party has different information to another. Agency theory seeks to explain the relationship that exists between the management of an organization and the owners of the organization who are usually the people holding stocks for the organization.

The credit default theory is seen as the extent to which financial institutions bring deficit spending units and surplus spending units together (Ndebbio, 2004). The theoretical idea of micro credit theory has been derived from economic theory that forms the foundation of the credit business in non-communist society. Resource based theory stresses the importance of all the resources held by an enterprise. It suggests that access to resources enhances the individual's ability to detect and act upon discovered opportunities.

Non-performing loans is one of among the largest factor affecting the soundness of financial performance of commercial bank and financial system as a whole. Because the country's economy is largely relied on the banking industry (NBE 2010). Zemen bank (ZB) net non-performing loans and advance decreased by 27%(Birr 28,2 million for the year ended June 30, from (birr 28,2 million for the year ended June 30, from birr 39 million. Dashen bank non-performing loan decreased by 52% (birr 14,7 million) from 31 million). The NPLs of Awash International Bank increased by 45%

from (Birr 24 million) to birr 42 million. Non –performing loan of Oromia International Bank decreased by 12% (birr 3.3 million) from birr 2.9 million. The regulatory National Bank of Ethiopia annual report 2014/2015) also reported that the overall non-performing loans in Ethiopia is decreased by 5% from the previous years. This decrease level of non-performing loans has led to some improvement of the financial performance, but still the amount of non-performing loans remain big (NBE annual report 2012/2013).

Non-performing loans in Ethiopia are to a large extent attributed to three sectors; real estate, building and construction, and transport and communication (Mugwe, 2013). More than 20 per cent the NPLs recorded by commercial institutions are due to the lending to players in these sectors. While the National Bank of Ethiopia (NBE) has slashed its lending rates by 2.5 percent to 8.5 per cent from 11 per cent, commercial banks are yet to emulate this decrease. The current average lending rate for commercial banks in Ethiopia stands at 15 per cent (Mugwe, 2013). The rate of NPLs in commercial banks has been on a slow but steady rise (Mugwe, 2013). When NPLs are being continuously rolled over, resources that could otherwise be invested to profitable sectors of the economy become locked up (National Bank of Ethiopia, 2011). Intuitively, these NPLs hinder economic growth and impair economic efficiency (National Bank of Ethiopia, 2011). Ethiopians are expecting a marked rise in loan default for the remaining part of 2013 on the back of relatively high lending rates.

Worldwide and locally several studies have been conducted regarding non-performing loans and financial performance of commercial banks. Barth, Gerard, & Levine

(2013) revealed that more than 100 systemic banking crises have devastated economies around the world since 1970. The global banking crisis of 2007 – 2009 is still plaguing many European countries in 2013. According to Khemraj (2005) in Chikoko, Mutambanadzo, and Vhimisai (2012), banking crises in East Asia and Sub-Saharan African countries were preceded by high NPLs.

The profits of the bank have been increasing but so is the level of NPLs and the provisions and Interest in suspense for the bank .this increase is attributable to business growth and may not because of concern to the bank, the NPLs to loans and advance ratio is 0.053 indicating that only 5.3% of the total loans are bad loans .the level of increasing loan loss should however be watched to ensure that the banks performance is not negatively impacted by due to high levels of loan loss. (Bernarda Wamua, 2009).

Locally, several studies have been conducted on area of non-performing loans. Negera (2012) studied the determinant of Non-performing loans in Ethiopian banks and concluded that there are several factors like Bank size, management quality are among those causes' non-performing loans. Habtamu Gemechu (2015) conducted on ""factors affecting non-performing loans in private banks of Ethiopia" and concluded poor credit assessment, poor loan follow up, underdeveloped credit culture, lenient credit terms and conditions, knowledge limitation, compromised integrity are among factors that affect non-performing loans. However, none of these researchers has considered the Relationship between non-performing loans and financial performance of commercial banks in Ethiopia. This study therefor, seek to answer the question; what is the relationship between non-performing loans and financial performance of commercial banks in Ethiopia?

1.3 Research Objective

To establish the relationship between non-performing loans and financial performance of Commercial banks in Ethiopia

1.4. Value of the Study

The study will offer valuable contribution to theory and practice. First the result of the study will make the commercial banks management to appreciate the need to monitor and control Non-performing loans as it equally affects the profitability through provision made by the commercial banks. The finding will also encourage bank management to participate more in policy formulation as far as financial performance concerned; the study will also add value to the entire banking sector especially in the demanding concern s of non- performing loans and financial performance.

The research will enable the Government and other policy makers in the banking industry to devise new policies for regulating loans disbursements and come up with more effective methods of managing non-performing loans levels; the study will come in handy to support the Government as a regulator in its quest to streamline operation in the banking sector putting in mind that the entire economy depends on how the banking sector in the economy performs. Further, the research will shed light on importance of the level Non-performing loans, asset quality, capital adequacy, management quality and Bank liquidity in order to increase the financial performance of the banks. Finally, it will also form the basis of further research by identifying the knowledge gap that arises from this study. In addition, the study will create a forum

for further discussion and debate on non-performing loans and financial performance therefore making significant contribution by adding to the body of knowledge and theory that already exists.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The chapter provides and extensive literature review and research related to non-performing loans and financial performance of commercial banks. It contains section; 2.2. Theoretical Literature Review, 2.3. Determinant of Financial performance, 2.4 Empirical Literature Review, 2.5. Performance of Non-performing loans and financial performance of commercial banks in Ethiopia and 2.6.Summary of literature review.

2.2 Theoretical Literature Review

This section presents review of the relevant theories on which the study is anchored. The specific theories covered are; credit default theory, information asymmetric theory, and agency theory.

2.2.1 Credit Default Theory

This theory is relevent for a situation where there is indrect relation to the effect of default that affect the financial performance. It has been postulated by Wilson Sy in 2007. Most existing credit default theories do not link causes directly to the effect of default and are unable to evaluate credit risk in a rapidly changing market environment, as experienced in the recent mortgage and credit market crisis (Sy, 2007). The Credit Default Theory helps to explain lending risk systematically and ultimately to measure and manage credit risk dynamically for financial system stability. Sy (2007) hypothesizes that a credit default is caused by both delinquency and insolvency.

Delinquency is defined as a failure to meet a loan payment by a due date, whereas insolvency is defined as a situation where assets are less than liabilities. The term

credit default really revolve around the concept of delinquency. Delinquency occurs when a borrower is unable to make a loan payment by the due date, caused by liquidity failure. Delinquency triggers a solvency assessment which may lead to a conclusion of negative equity position causing loan termination and an expectation of loss by the lender. The theory proposes two cardinal ratios with regard to non-performing loans: Loan Serviceability Ratio(LSR) is defined as the maximum loan interest rate a owner-occupier borrower can service a loan amount from net disposable income after living expenses

LSR Evolution - The risk in loan serviceability comes from the fact that serviceability changes over time due changes in individual circumstances and changes in the economic environment. A loan which may have started off as being easily serviceable loan may become a struggle for the borrower due to unanticipated adverse developments. In summary this thory is seen to be in colloboration on study's on the relationship betwen non performing loans and financial performance as it notes that Delinquency occurs when a borrower is unable to make a loan payment by the due date, caused by liquidity failure.

2.2.2. Informantion Asymmetry Theory

This is a theory relevant for situation where there is imperfect knowledge. In particular, it occurs where one party has different information to another. Asymmetric information is a problem in financial market such as borrowing and lending. In this market the borrower has much better information about his financial stat than the lender. Akerlof (1970) first presented this theory in the easy; '' the market or Lemons". It is the single most important study in the literature on

economics of information. Karim, Chan and Hassan (2010) study Asymmetry of information related to access to information among participants in the process of making economic decisions. The proponents show that information sharing reduces adverse selection by improving banks information on credit applicants.

This theory of information asymmetric tells us that it may be difficult to distinguish good from bad borrowers (Auronen, 2003 and Richard,2011), which may result into adverse selection and moral hazards problems. The theory explains that in the market, the party that possess more information on a specific item to be transacted (in this case, the borrower) is in a position to negotiate optimal term for the transaction than the other party (in this case, the lender) (Auronen, 20013).The party that knows less about the same specific item to be transacted is therefore in a position of making either right or wrong decision concerning the transaction. Adverse selection and moral hazards have led to significant accumulation of Non- Performing loan in banks (Macharia 2012). Loan applicants normally have full information about their financial status and their ability to repay loans. However, when applying for loans, they may fail to make full disclosures to the bank so that they can access more financing than they could possibly qualify. This brings about information asymmetry and moral hazard.

In conclusion, information asymmetry theory is seen to be in line with the study as tells us that it may be difficult to distinguish good from bad borrowers which may result into adverse selection and moral hazards problems hence the need to the factors resulting to non performing loans and its influence on performance.

2.2.3. Agency Theory

The agency theory is gaining a lot of popularity in explaining the financial performance of organizations. The first scholars to propose, explicitly, that a theory of agency be created, and to actually begin is creation, were Ross (1973) and Mitnick (1973), independently and roughly concurrently. Ross (1973) is responsible for the origin of economic theory of agency and Mitnick (1973) for the institutional theory of agency, though the basic concepts underlying these approaches are similar. In fact, the approaches can be seen as complementary in their uses of similar concepts under different assumptions.

The theory seeks to explain the relationship that exist between the management of an organization and the owners of the organization who are usually the people holding stocks for the organization. The theory posits that here is an agency conflict. The management of an organization is usually considered as an agent who has been contracted by the stockholders to work towards enhancing the stockholder value through good financial performance. The management is therefore expected to act in the best interests of the owners and enhance the financial performance of the organization (Macharia, 2012)

However, the theory suggests that the mangers who are agents may be involved in activities that are aimed at serving personal interest at the expense of the owners of the organization. The theory suggests that when this happens, the financial performance of the organization may easily suffer. Stockholders therefore can employ a number of strategies to ensure the management acts in the interest of the organization (Munoz, 2013). The theory suggests that management can be rewarded

financially in order to motivate them to work for the interests of the company. The owners can also issue threats such as hostile takeover to force management of perform the required duties. In addition, the principal may also incur agency costs such as the audit fee to monitor the performance of the management.

In summary, this theory is seen to be in line with the study as it suggests that the mangers who are agents may be involved in activities that are aimed at serving personal interest at the expense of the owners of the organization.

2.3. Determent of Financial performance

The study sought to establish the determinants of financial performance. The main determinants noted were non performing loans, asset quality, management quality, liquidity and capital adequacy. The results are expounded on the following subsections as shown.

2.3.1 Non-performing loans

Non-performing loans (NPLs) are important because they affect the financial intermediation of commercial banks which constitute the banks' main source of their income, and ultimately, the financial stability of an economy (Fafack, 2013). For this reason, NPLs have increasingly gain attention recognizing that a consequence of large amount of NPLs in the banking system is bank failure as well as a symptom of economic slowdown. This is largely because the financial performance of any commercial bank is measured in terms of profitability and NPLs have a direct adverse impact on the bottom line due to the provisions which the bare forced to make on account of NPLs (Ezeoha, 2011).

2.3.2 Asset Quality

According to Grier (2007), "poor asset quality is the major cause of most bank failures". A most important asset category is the loan portfolio; the greatest risk facing the bank is the risk of loan losses derived from the delinquent loans. The credit analyst should carry out the asset quality assessment by performing the credit risk management and evaluating the quality of loan portfolio using trend analysis and peer comparison. Measuring the asset quality is difficult because it is mostly derived from the analyst's subjectivity.

Asset quality determines the healthiness of financial institutions against loss of value in asset as asset impairment risks the solvency of financial institutions. The Asset quality indicators highlight the use of non-performing loans ratios (NPLs) which are the proxy of asset quality and the allowance or provision to loan loss reserve. The bank is regulated to back up the bad debts by providing adequate provisions for loan loss. The ratio of provision for loan loss to total loans take in to account to measure the quality of loan portfolio. With this framework, the asset quality is assessed by taking the ratio of loan loss provision to total loan. The lower the loan loss provision to total loan ratio indicate the quality of the asset of the bank is relatively better than the other banks.

Frost (2004) stresses that the asset quality indicators highlight the use of non-performing loans ratios (NPLs) which are the proxy of asset quality, and the allowance or provision to loan losses reserve. As defined in usual classification system, loans include five categories: standard, special mention, substandard, doubtful and loss. NPLs are regarded as the three lowest categories which are past due or for which interest has not been paid for international norm of 90 days. In some countries

regulators allow a longer period, typically 180 days. The bank is regulated to back up the bad debts by providing adequate provisions to the loan loss reserve account. The allowance for loan loss to total loans and the provision for loan loss to total loans should also be taken into account to estimate thoroughly the quality of loan portfolio.

2.3.3 Management Quality

Management quality is basically the capability of the board of directors and management, to identify, measure, and control the risks of an institution‘s activities and to ensure the safe, sound, and efficient operation in compliance with applicable laws and regulations (Uniform Financial Institutions Rating System 1997, p. 6).

The top management with good quality and experience has preferably excellent reputation in the local communication. Management relates to the competency of the bank’s managers, using their expertise’s to make subjective judgments, create a strategic vision, and other relevant qualities. Management is the key variable which determines a banks’ success. The evaluation of the management is the hardest one to be measured and it is the most unpredictable (Golin, 2001). There are two ratios representing the management in the previous studies, operating costs to net operating income ratio, and operating expenses to assets ratio. The operating costs to net operating income ratio indicate the percentage of a bank’s income that is being used to pay operational costs. It offers information on the management efficiency regarding costs relative to the income it generates. Olweny (2011) adopted the ratio of operating costs to net operating income to indicate the operating efficiency for the commercial banks in Kenya, and he found that the operational costs inefficiency leads to poor profitability. The operating expenses to assets ratio indicate expenses in

relation to the size of a Bank. It was similar with cost to income ratio but it was not affected by the changes in Interest. Atikogullari (2009) observed the management quality situation of the northern Cyprus banking sector for the period of 2001 to 2007 by using operating expenses to Assets ratio. Management Quality can be measured by the following ratios:

2.3.4 Liquidity

There should be adequacy of liquidity sources compared to present and future needs, and availability of assets readily convertible to cash without undue loss. The fund management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss. The liquidity ratio expresses the degree to which a bank is capable of fulfilling its respective obligations. Banks makes money by mobilizing short-term deposits at lower interest rate, and lending or investing these funds in long-term at higher rates, so it is hazardous for banks mismatching their lending interest rate.

2.3.5. Capital Adequacy

Capital adequacy is the capital expected to maintain balance with the risks exposure of the financial institution such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution‘s debt holder. “Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element” (The United States. Uniform Financial Institutions Rating System 1997).

Karlyn (1984) defines the capital adequacy in term of capital-deposit ratio because the primary risk is depository risk derived from the sudden and considerably large scale of deposit withdrawals. In 1930, FDIC created a new capital model as capital-asset ratios since the default on loans came to expose the greatest risk instead of deposit withdrawals. To gauge the capital adequacy, bank supervisors currently use the capital risk asset ratio. The adequacy of capital is examined based upon the two most important measures such as Capital Adequacy Ratio (CAR) or Capital to Risk-weighted Assets ratio, and the ratio of capital to assets.

2.4. Empirical Literature Review

Kose (2003) compared the causes of non-performing loans in Germany after the credit boom of the late 1990s and Japan aftermath of the bubble burst in early 1990s. He argued that even though the German bank were in a better condition than Japanese banks, as the path of German's aggregate credit looked so similar to that of Japanese banks, as the path of German credit slowdown was entirely driven by demand, while that of Japan was caused by lack of supply. He further pointed out that the one of the main reasons in Germany for the credit crunch is the increased risk of non-performing loans, the study never included the relationship between non-performing loans and financial performance. In addition the study was carried out in Germany and Japan whose context is significantly different from Ethiopia.

Salas and saurian (2002) investigated the determinates of problem loans of Spanish commercial and saving banks using a dynamic model and panel dataset covering the period 1985-1997. The finding of the study was that real growth in GDP, rapid credit

expansions, bank size, capital ratio and market power all explain variation in non-performing loans with a panel dataset covering the period 1996-1999, used a regression analysis and analyzed the relationship between NPLs and ownership structure of commercial banks in Taiwan. The study showed that banks with higher government ownership recorded lower non-performing loans. The finding of the study showed that bank size is negatively related to NPLs while diversification may not be determinant. This study was only limited to commercial banks of Taiwan.

Wambugu (2010) sought to determine the relationship between non-performing loans management practices and financial performance of commercial banks in Kenya. Using a causal design, and population of all 43 commercial banks in Kenya. The study concluded that there is need for commercial bank to adopt non-performing loans management practices. Such practices include; ensuring sufficient collaterals, limiting lending to various kinds of businesses, loan securitization, ensuring clear assessment framework of lending facilities and use of procedures in solving on problematic loans among others. This study used causal effect design to study the relationship between non-performing loans which was the independent variable and financial performance which was the dependent variable. However, the study did not determine the effect of non-performing loans on financial performance.

Macharia (2012) studied the relationship between the level of non-performing loans and the financial performance of commercial banks in Kenya. The population of the study was all the financial performance of commercial banks in Kenya at the period of the study. The period of the study was 2005 to 2011. The data used was secondary from financial statement of the commercial banks for the years of the study. Data was also obtained from central Bank of Kenya. In the early years of the study, the levels

of non-performing loans were very high with the financial performance in terms of ROA being very low. With time however, the levels of non –performing loans significantly reduced with the profitability levels increasing significantly. Banks should therefore put emphasis on borrower analysis before issuing any loan.

Karim et al., (2010) in their study bank efficiency and non-performing loans: Malaysia and Singapore, had the objective to investigate the relationship between non-performing loans and bank efficiency in Malaysia and Singapore. The study established that there is no significant difference in cost efficiency between banks in Singapore and Malaysia although banks in Singapore exhibit a higher average cost efficiency score. The study clearly indicate that higher non-performing loan reduces cost efficiency. Likewise, lower cost efficiency increases non-performing loans. The result also support the hypothesis of bad management proposed by Berger and DeYoung (1992) that poor management in the banking institutions results in bad quality loans, and therefore, escalates the level of non-performing loans. Non-performing loans have been a hindrance to economic stability and growth of economies. The study concentrated on whether non-performing loans affect economic stability and growth. However, the study did not consider the relationship between non-performing loans and financial performance.

Negera (2012) sought to find out the determinants of non-performing loans in the case of Ethiopian banks, Ethiopia: using a causal design and a population of all banks in Ethiopia which is 19 in numbers. The period of the study was 2005-2010 only for eleven banks that were registered before 2007/08. He carried out the study based on the primary data and secondary data. The findings of the study shows that poor credit

assessment, failed loan monitoring, under developed credit culture, lenient credit terms and conditions, aggressive lending, compromised integrity, weak institutional capacity, unfair competition among banks, willful default by borrowers and their knowledge limitation, fund diversion for unintended purpose, over/under financing by banks ascribe to the causes of loan default. The study focused on the really causes of non-performing loans in the case of commercial banks of Ethiopia. However the study did not consider the relationship between non-performing loans and financial performance of commercial banks.

Habtamu Gemachu (2015) sought to find out bank specific factors affecting occurrence of NPLs in Ethiopian private banks. A survey study research design of six private Banks was employed in his study. Accordingly the findings of the study shows that the major factors affecting NPLs were poor credit assessment, poor loan follow up, underdeveloped credit culture, lenient credit terms and conditions, knowledge limitation, compromised integrity, unfair competition among banks, fund diversion for unintended purpose, shareholders influences are bank specific factors ascribed to the occurrence of loan default. On the other hand the finding of the document does not support that Bank size, credit growth, and interest rate charged by banks have relationship with the occurrence of non-performing loans. Based on the opinion of the respondents and interviewees' argument, the findings shows that occurrence of NPLs had high influence on the profitability of banks and it scarce the existence of credit of banks to the needy customers. The study focused on bank specific factors affecting occurrence of NPLs in Ethiopian private banks. However the study did not consider the relationship between non-performing loans and financial performance of commercial banks.

2.5. NPLs & Financial performance of Commercial Banks in Ethiopia

According to National Bank of Ethiopia Annual report 2015 total outstanding credit of the banking system including to the central government increased by 27.8 percent and reached Birr 231.7 billion at the end of June 2015. Specifically, outstanding claims on private sector rose by 31.1 percent, public enterprises (30.0 percent) and the central government (11.1 percent). Sectoral distribution of outstanding loans (excluding central government) indicated that credit to industry accounted for 39.7 percent followed by international trade (19.9 percent), domestic trade (11.74.percent New Lending Activities commercial Banks and the Development Bank of Ethiopia (DBE) disbursed Birr 75.5 billion in new loans to various economic sectors during the review fiscal year witnessing a 25.9 percent annual increase in line with higher deposit mobilization and collection of loans. Of the total new loans, about 44.5 percent was by private banks, and the rest by public banks. Regarding disbursement by sector, 31.1 percent of the loans went to industry followed by domestic trade (20.7 percent), agriculture (17.3 percent), international trade (11.1 percent) and housing and construction (8.9 percent) while the remaining balance went to other.

However, Financial performance of Commercial Banks in Ethiopia is affected by various factors apart from the level of non-performing loans, like Asset quality, Management quality liquidity and capital adequacy, income diversification, operating cost, ineffective tax rate, GDP growth, industry size, market share etc. are pooled to Return on Asset (ROA), Return on Equity (ROE) and Net profit Margin (NPM) which are partially relied on the amount of Non-performing loans of the banks. A large proportion of non –performing loans may imply that the financial performance of the banks are weakening. In addition to that non-performing loans leads to inefficiency in the banking sector as found by (Fan and Shaffer 2004).

2.6. Summary of Literature Review

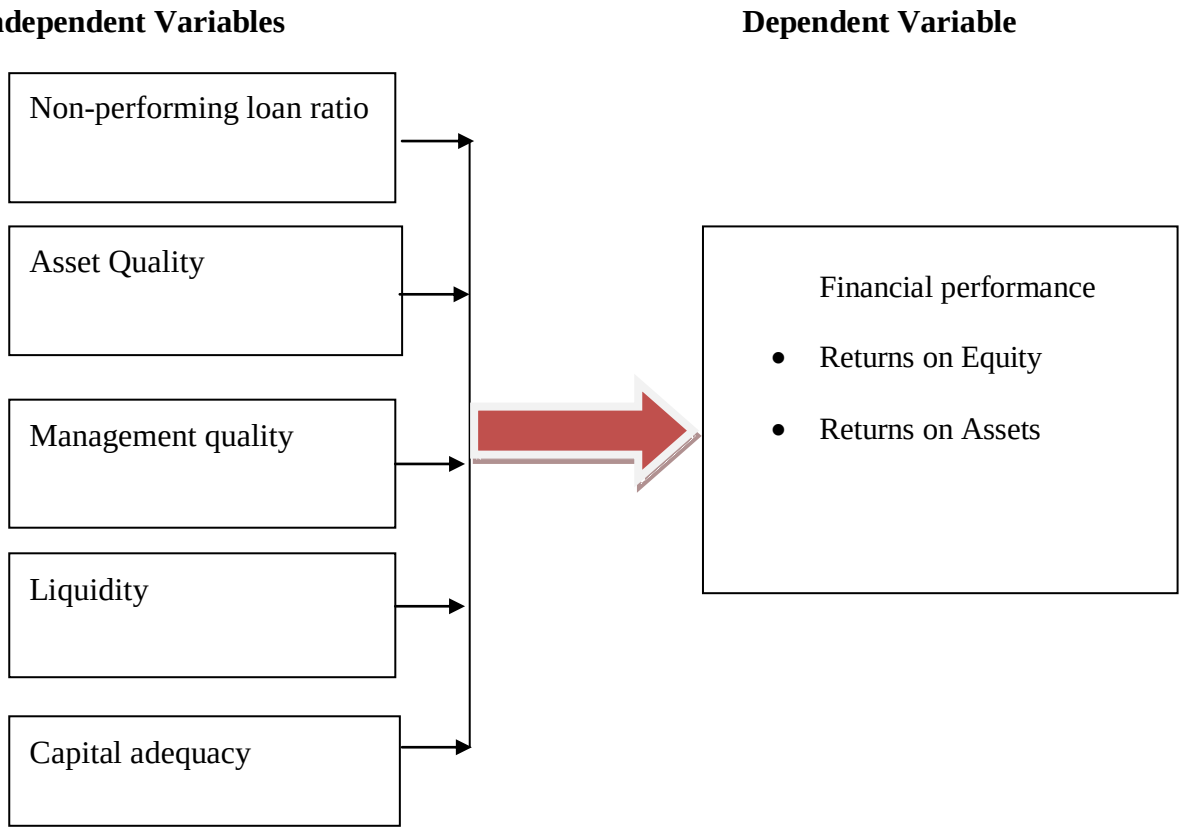
The chapter has extensively reviewed literature related to non-performing loans and financial performance of Commercial banks. Even though non-performing loans is not the only factors that affect the financial performance, for the purpose of this study the review of the literature has revealed that the internal factors financial performance and the level of non-performing loans as the determinant of financial performance. Non-performing loans in Ethiopia are to a large extent attributed to three sectors; real estate, building and construction, and transport and communication (Mugwe, 2013). More than 20 per cent the NPLs recorded by commercial institutions are due to the lending to players in these sectors.

Even though, the industry average ratio of non-performing loan is below the standard set by NBE, it is increasing in value from time to time in Ethiopia. This can be seen from all banks data, especially from Zemen Bank S.C, which is new entrant to the market of banking industry, which account 126,278 Million EBR or, 8.8% of its total loans, audited financial statement of 2013/14 fiscal year. Generally the amount of non-performing loan in Ethiopan commercial bank is still remain big despite majority of the banks NPls are reducing from time to time. Most of the studies are done in other countries whose strategic approach and financial footing is different from that of Ethiopia. There is therefore a literature gap on the Relationship between non-performing loans and financial performance of commercial bank in Ethiopia.

2.8 Conceptual Framework

To achieve the study objectives, the various aspects under study can be conceptualized as being in association as presented in figure 2.1 below.

Figure 2.1: Conceptual Framework



Source: Researcher 2016

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the Methodology the researcher employed in establishing the relationship between Non-performing loans and financial performance of commercial banks in Ethiopia. Among the elements that were discussed it encompasses the 3.2 research design, 3.3 target population, 3.4 data collection methods and 3.5 data analysis and presentation.

3.2 Research Design

Research design refers to the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to purpose with the economy in procedure (Mutua, 2008). The research was conducted using a descriptive research design.

This study adopted a descriptive research design. According to (Zinkmund, 2003), descriptive research design is a research design concerned with establishing what is happening as far as a particular variable is concerned. It also describes a population with respect to important variables. The design is used for various purposes one of which is to determine relationships between variables.

3.3 Target Population

Population is a well-defined or set of people, services, elements, and events, group of things or households that are being investigated (Orodho and Kombo, 2002). Target population is the specific population about which information is desired (Orodho, 2004). The population of interest should be homogeneous.

Target population is the specific population about which information is desired (Ngechu, 2004). The target population of this study consisted of all commercial banks in Ethiopia. There are 19 banks in Ethiopia as per the National Bank of Ethiopia Annual report of 2015. Data for the period 2011 to 2015 was analyzed. All these banks were studied since a conclusive and completely representative analysis needed to be arrived at.

3.4 Data Collection

This study made use of secondary date relating to non-performing loans, net income, total outstanding, total equity, and total assets among commercial banks was obtained from the National Bank of Ethiopia (NBE). This frequently involved the previous works from related articles including published Financial Reports from Banks and data related to those Banks available with the Commercial Bank of Ethiopia annual reports on their performance.

3.5 Data Analysis and Presentation

The data was analyzed using descriptive statistics. The descriptive statistical tools (SPSS version 22 and excel) helped the researcher to describe the data. The findings were thereafter presented using tables and graphs for further analysis and to facilitate comparison, while explanation to the table and graphs was given in prose.

3.5.1 Conceptual Model

The conceptual model of the study took the mathematical function of:

$$Y= \alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+ \beta_4X_4+ \beta_5X_5 + \varepsilon$$

Where: Whereby Y is financial performance, as measured by return on Asset (ROA), return on Equity (ROE) and net profit margin (NPM). While x1 is volume of non-

performing loans x_2 is Asset Quality, x_3 is Management quality, x_4 is liquidity and x_5 is Capital adequacy, ε = Constant (Co-efficient of intercept)

B_1 to B_5= Regression co efficient of four variables.

3.5.2 Analytical Model

The study further used inferential analysis. The panel data was analyzed using random effects model to estimate the predictive power of independent variables on financial performance. The model was useful in analyzing time dependent effects for each observation that are correlated with the regressors. The model is able to estimate the coefficients of the linear equation, involving one or more independent variables, which will best predict the value of the dependent variable (Cooper & Schindler, 2003).

The model will be as follows:

$$Y_{it} = \alpha + \beta_1 NPLR_{it} + \beta_2 AQ_{it} + \beta_3 MQ_{it} + \beta_4 L_{it} + \beta_4 CA_{it} + \upsilon_{it}$$

Y_{it} is financial performance of commercial banks measured as ROA, ROE and NPM for bank i and time t; $NPLR_{it}$ is non-performing loan ratio for bank i and time t; AQ_{it} is asset quality for bank i and time t, MQ_{it} is management quality for bank i and time t, L_{it} is liquidity for bank i and time t, CA_{it} is capital adequacy for bank i and time t and α is the intercept (constant); and β_1, β_2, β_3, β_4 and β_5 are beta coefficient and υ_{it} is the error term.

3.5.3. Test of Significance

R^2 is a statistical measure of how close the data are to the fitted regression line. It is also known as the coefficient of determination, or the coefficient of multiple determination for multiple regressions. R^2 is defined in terms of the variation about the mean of Y (Financial performance) so that the model is arranged and the

dependent variable changes R2 also change. It is thus goodness of fit static given by ration of the explained sum of squares.

Analysis of variance popularly known as the ANOVA is used in cases where there are more than two groups the technique is used to compare the means of more than two samples. F test was used to measure multiple variables. Under the F test framework, two regressions are required known as the restricted and unrestricted regressions. F calculated was tested against F critical to assess significance.

CHAPTER FOUR
DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents analysis of the data found on the relationship of nonperforming loans and performance of commercial banks. The study collected secondary data on the financial performance and lending and deposit interest rate from the data (NBE) for a 5 year period, 2011 to 2015. The variables were then regressed to show the relationship on the later on the former.

4.2 Performance of the Banks

Table 4.1: Profitability of the Banks

Year	No. of banks operational	Average annual profits (Millions)	R.O.A
2011	19	566.43	0.02434
2012	19	1027.628	0.0225
2013	19	1071.613	0.0226
2014	19	1161.48	0.0236
2015	19	1182.431	0.02271

Source: Author's Computation

Financial performance of the commercial banks that were in operations in 2015 averaged birr 1027.628 million, while in 2014 averaged birr 818.19 million as the Bunna International Bank started its operations in 2015. The operations of the commercial banks that were in operation in 2013 and 2012 resulted to average profits of birr 644.3 million and birr 465.75 million respectively. Net profits as a proportion of total assets for the banks averaged 0.02271 in 2011. Thus on average the profits of the banking industry increased during the period 2011 to 2015. The average

figures for each year take into account the number of institutions that were in operation in each of the years.

4.3 Descriptive Statistics

Table 4.2 presents the descriptive statistics and the distribution of the variables considered in this research: non-performing loans ratio, management quality, assets quality , liquidity and capital adequacy. The descriptive statistics considered were minimum, maximum, mean and standard deviation. Mean was used to establish the average value of the data, standard deviation gave the dispersion in the data.

Table 4.2: Descriptive Statistics

Statistics	Non-Performing Loans Ratio	Liquidity	Management Quality	Asset quality	Capital Adequacy
N	19	19	19	19	19
Mean (Br)	6.86	14.12	.4356	47,502.8	31.62
Std. Deviation (Br)	5.58	4.95	.5921	62,299.8	22.78
Minimum (Br)	0.00	6.60	.1020	2,259.6	13.47
Maximum (Br)	27.45	28.67	.1631	271,466.9	108.27
1st Quartile (Br)	3.26	10.66	.1296	8,591.5	16.73
2nd Quartile (Br)	4.79	13.21	.7729	19,338.7	24.32
3rd Quartile (Br)	10.66	16.75	.8411	67,948.6	35.14

Table 4.2 shows that Non Performing Loans Ratio had a mean of 6.86% and standard deviation of 5.58. That is, the commercial banks, on average, incurred loan default of Birr6.86 on every Brir100 advanced as loan or credit. However, there was much variability in loan default as some did not experience the same especially the banks that fully subscribed to the Sheriah laws (Islamic finance) while others incurred as high as 27.45% NPL. The first and the third quartile values were 3.26%

and 10.66% respectively showing that the first 25% of the banks incurred NPL of Birr.326 for every Birr given out as loan while the last 25% incurred between Birr 0.107 and Birr 0.275.

Mean value of liquidity was 19.01% which denotes that, in average the commercial banks had 19% liquidity. Liquidity had a standard deviation of 5.55%. Other commercial banks had as high as 41.45% liquidity. However, 75% had at most 20.80% liquidity.

Management Quality had a mean of .43. This depicts that banks on average the quality of management was estimated to be at 43% while the standard deviation calculated of .59 indicated high variability from the mean value. On assets quality, the mean value was Birr 47, 502, 800,000 and standard deviation of 62,299,800,000. A larger standard deviation than mean depict high variability in the commercial banks' sizes. Capital adequacy had a mean of 31.62 and standard deviation of 22.78.

4.3.1 Correlation Analysis

The study sought to establish the relationship between the independent and control variables and commercial banks' performance. Pearson Correlation analysis was used to achieve this end at 99% and 95% confidence levels. The correlation analysis enabled the testing of study's hypothesis that there is a significant relationship between non -performing loans and performance of commercial banks. Table 4.3 shows significant, positive and good linear relationships between banks' performance and: Non performing loans ratio ($R = 0.318$, $p = .029$); asset quality ($R = 0.297$, $p = .007$); Management quality ($R = 0.361$,

p < .001). The study also established a significant, positive and good linear relationships between banks' financial performance and: liquidity (R = 0.204, p = .044); and, capital adequacy (R = 0.568, p = .040). The study established low linear correlation among and between independent variables depicting lack of multicollinearity.

Table 4.3: Correlation Matrix of non-performing loans and financial performance

		NPLR	Asset Quality	Management Quality	Liquidity	Assets quality	Capital adequacy	
		1						
NPLR	Pearson	.663	1					
Asset quality	Pearson	.559	.390	1				
Management quality	Pearson	.567	.315	.195	1			
Assets Quality	Pearson	.539	.279	.109	.409	1		
Capital Adequacy	Pearson	.336	.297	.400	.361	.204	1	
Financial performance	Pearson	.318*	.297**	.403**	.361*	.204*	.568*	1

Source: Author's Computation

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

4.3.2 Results of Regression Analysis

Regression analysis was used to measure the relationship between individual independent (NPLR, asset quality, management quality, liquidity and capital adequacy) and dependent variable (Financial performance). The regression analysis was of the form:

Financial performance = $ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + ß_4X_4 + ß_5X_5 + e$

Whereby the dependent variable is financial performance, X_1 is the NPLR, X_2 is asset quality, X_3 is management quality, X_4 is liquidity, X_5 is capital adequacy, β_0 is regression constant, β_0 to β_5 is regression coefficients and ε is model's error term.

Table 4.4 illustrates that the strength of the relationship between Financial performance and independent variables. From the determination coefficients, it can be noted that there is a good relationship between dependent and independent variables given an R values of 0.800 and R-square values of 0.640. This shows that the independent variables accounts for 64% of the variations in financial performance of commercial banks.

The study also used Durbin Watson (DW) test to check that the residuals of the models were not auto correlated since independence of the residuals is one of the basic hypotheses of regression analysis. Being that the DW statistic were close to the prescribed value of 2.0 (2.192) for residual independence, it can be concluded that there was no autocorrelation.

Table 4.4: Model Goodness of Fit

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.800[a]	.640	.613	4.30321	2.192

Predictors: (Constant), NPLR, Asset quality, Management quality, Liquidity, Capital adequacy$_a$ Dependent Variable: Financial performance$_b$

Analysis of Variance (ANOVA) was used to make simultaneous comparisons between two or more means; thus, testing whether a significant relation exists between variables (dependent and independent variables). This helps in bringing out

the significance of the regression model. The ANOVA results presented in Table 4.5 shows that the regression model has a margin of error of $p < .001$. This indicates that the model has a probability of less than 0.1% of giving false prediction; this point to the significance of the model.

Table 4.5: Analysis of Variance

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	639.484	5	127.897	6.907	.000b
Residual	240. 734	13	18.518		
Total	880.218	18			

a. Dependent Variable: Financial performance
b. Predictors: (Constant), Asset quality, Management quality, Liquidity, Capital adequacy

Table 4.6 shows that the regression coefficients of independent variables. The following regression model was established:

Financial performance = 69.147 - 0.775*NPLR + 0.889*Asset quality + 2.327* Management quality +2.007* Liquidity+ 0.072* Capital Adequacy p<.001

From the equation, the study found that holding NPLR, Asset quality, Management quality, Liquidity and capital adequacy at zero financial performance will be 69.147. Additionally, when NPLR, Asset quality, Management quality, Liquidity and capital adequacy are constant, a unit increase in NPLR would lead to a 0.775 decrease in financial performance.

When NPLR, Management quality, Liquidity and capital adequacy are constant, a unit increase in Asset quality would lead to a 0.889 increase in

financial performance. Holding NPLR, Asset quality, Liquidity and capital adequacy constant, a unit increase in management quality would lead to a 2.327 increase in banks' financial performance. When NPLR, Asset quality, Management quality, Liquidity and capital adequacy are constant, a unit increase in Liquidity would lead to a 2.007 increase in financial performance. Moreover, holding NPLR, Asset quality, Management quality, Liquidity and capital adequacy constant, a unit increase in capital adequacy would lead to a 0.072 increase in banks' financial performance.

Table 4.6 Results of the Regression Analysis

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	69.147	17.253		4.008	.000
NPLR	.775	.312	.771	2.482	.018
Asset quality	.889	.365	.282	.869	.391
Management quality	2.327	.024	.102	.716	.479
Liquidity	2.007	.684	.536	3.401	.002
Capital Adequacy	.072	.047	.292	1.551	.130

a. Dependent Variable: Financial performance

4.3.3 Multicollinearity Test

The study conducted a multicollinearity tests to determine if two or more predictor (independent) variables in the multiple regression model are highly correlated. Tolerance indicates the percent of variance in the independent variable that cannot be accounted for by the other independent variable while variance inflation factor (VIF) is the inverse of tolerance. Table 4.7 shows that tolerance values ranged between 0.135 and 0.705 with corresponding VIF values ranging between 1.419 and 6.811.

Since tolerance values were above 0.1 and VIF below 10, there was no multicollinearity in the model.

Table 4.7: Collinearity Statistics

	Tolerance	**VIF**
NPLR	.147	6.811
Asset quality	.135	7.416
Management quality	.705	1.419
Liquidity	.572	1.749
Capital Adequacy	.399	2.506

4.4: Discussion of the findings

According to the study findings, Financial performance of the commercial banks that were in operations in 2015 averaged birr 1027.628 million, while in 2014 averaged birr 818.19 million as the Bunna International Bank started its operations in 2015. The descriptive statistics considered were minimum, maximum, mean and standard deviation. Mean was used to establish the average value of the data, standard deviation gave the dispersion in the data.

Non Performing Loans Ratio had a mean of 6.86% and standard deviation of 5.58. That is, the commercial banks, on average, incurred loan default of Birr6.86 on every Brir100 advanced as loan or credit. Mean value of liquidity was 19.01% which denotes that, in average the commercial banks had 19% liquidity. Liquidity had a standard deviation of 5.55%. Other commercial banks had as high as 41.45% liquidity.

Management Quality had a mean of .43. This depicts that banks on average the quality of management was estimated to be at 43% while the standard deviation calculated of .59 indicated high variability from the mean value. The study significant, positive and good linear relationships between banks' performance and: Non performing loans ratio ($R = 0.318$, $p = .029$); asset quality ($R = 0.297$, $p = .007$); Management quality ($R = 0.361$, $p < .001$). The study established a significant, positive and good linear relationships between banks' financial performance and: liquidity ($R = 0.204$, $p = .044$); and, capital adequacy ($R = 0.568$, $p = .040$). The study also noted that the independent variables accounts for 64% of the variations in financial performance of commercial banks. The study thus concluded that non performing loan ratio, asset quality, management quality, liquidity and capital adequacy all had a significant influence on financial performance of the Ethiopian banks.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter presents discussions of the key findings presented in chapter four, conclusions drawn based on such findings and recommendations there-to. This chapter will thus be structured into discussions, conclusion, recommendations and areas for further research.

5.2 Summary of the study

From the analysis of the commercial banks fluctuated during the period but on average increased marginally during the period 2011 to 2015. Thus on average the profits of the banking industry increased during the period 2011 to 2015. Mean value of liquidity was 19% which denotes that, in average the commercial banks had 19% liquidity. Liquidity had a standard deviation of 5%. Other commercial banks had as high as 41% liquidity. However, 75% had at most 20.80% liquidity.

Management Quality had a mean of .43. This depicts that on average, the quality of management was estimated to be at 43% while the standard deviation calculated of .59 indicated high variability from the mean value. On assets quality, the mean value was birr 47, 502, 800,000 and standard deviation of 62,299,800,000.

The study showed significant, positive and good linear relationships between banks' performance and: Non performing loans ratio (R = 0.318, p = .029); asset quality (R =

0.297, p = .007); Management quality (R = 0.361, p < .001). The study also established a significant, positive and good linear relationships between banks' financial performance and: liquidity (R = 0.204, p = .044); and, capital adequacy (R = 0.568, p = .040). The study established low linear correlation among and between independent variables depicting lack of multicollinearity.

The study noted strong positive relationship between the dependent and independent variables as shown by the regression coefficients. For instance, When NPLR, Management quality, Liquidity and capital adequacy are constant; a unit increase in Asset quality would lead to a 0.889 increase in financial performance. Holding NPLR, Asset quality, Liquidity and capital adequacy constant, a unit increase in management quality would lead to a 2.327 increase in banks' financial performance. When NPLR, Asset quality, Management quality, Liquidity and capital adequacy are constant, a unit increase in Liquidity would lead to a 2.007 increase in financial performance. Moreover, holding NPLR, Asset quality, Management quality and Liquidity constant, a unit increase in capital adequacy would lead to a 0.072 increase in banks' financial performance. Tolerance values ranged between 0.135 and 0.705 with corresponding VIF values ranging between 1.419 and 6.811. Since tolerance values were above 0.1 and VIF below 10, there was no multicollinearity in the model.

5.3 Conclusions

Based on the findings, the study concludes that amount of the non-performing loans decreased significantly from the year 2011 to 2015 while the performance of the banks increased in the same period and this can be contributed to the new measures put forth by the banks. The study therefore noted that there was 64% accountability of the non performing loans to the performance of the Ethiopian

commercial banks.

5.4 Recommendations

Since non-performing loans does influence financial performance and position of the banks, the study recommends that the management of the commercial banks and mortgage firms in Ethiopia should assess their clients and advance their loans to them according to the creditworthy of their clients, as non-performing loans can decrease the level of interest rates and consequently financial performance.

The various commercial banks in the country should review the procedures in which the non-performing loans are advanced to the clients and reduce their occurrences. Commercial banks should also apply rigorous policies on loan advances so as loans are awarded to those with ability to repay and mitigate moral hazards such as insider lending and information asymmetry.

5.5 Limitations of the Study

Due to inadequate resources, the researcher will conduct this research under constraints of finances. Some respondents are likely to be biased while giving information due to reasons such as victimization in the event the research findings turn sour.

Most of the data in their Ethiopian archives seem secured. Secondly the limitation of time was much pronounced since the sources of the data operate on working days and the researcher is equivalently an employee. The numbers of years of the study were also posing a challenge especially the year 2015 where most of the banks had not submitted their financial information in full.

5.6 Suggestions for Further Studies

The scope of the current study was limited to the secondary data obtained the relationship between non performing loans and financial performance of commercial banks. Future research could expand this scope to include other parameters that might affect the performance of these financial institutions such as the interest rates charged on the loans and how they relate to the overall performance of the commercial banks. The same study should be done on the Micro Finance Institutions and find out if the same results would be achieved.

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Appendix I: List of Banks in Ethiopia (2015)

1. Abay Bank S.C.
2. Addis International Bank
3. Awash International Bank
4. Bank of Abyssinia
5. Berhan International Bank
6. Bunna International Bank
7. Commercial Bank of Ethiopia
8. Construction and Business Bank
9. Cooperative Bank of Oromia
10. Dashen Bank
11. Debub Global Bank
12. Development Bank of Ethiopia
13. Enat Bank
14. Lion International Bank
15. Nib International Bank
16. Oromia International Bank
17. United Bank
18. Wegagaen Bank
19. Zemen Bank

Appendix II: Secondary Data Collection Format

Name of Bank ----------

	2011	2012	2013	2014	2015
Net Interest income					
Total Asset					
Total Equity					
Loan loss provision					
Total Loan					
Operating cost					
Net Operating Income					
Customer Deposit					

How to calculate the necessary data in order to conduct the analysis:

Capital adequacy = Capital to Asset ratio

Asset Quality = Loan loss provision to total loan

Management Quality= Non interest expense to net interest income

Liquidity = loan to deposit ratio or total customer deposit /Total Asset

ROA = Net Interest Income/Total Assets

ROE= Net Interest Income /Total Equity

NPM= Net profit or Profit after tax/ Total loans(sales)

Appendix III: Data

Bank	Year	ROA	ROE	Net Profit Margin	Capital Adequacy	Asset Quality	Management Quality	Liquidity	NPL Ratio
AB	2011	3.0199	0.0876	0.0873	0.3449	0.0101	3.5401	0.5765	0.0540
AB	2012	1.9510	0.0914	0.0534	0.2134	0.0115	1.6467	0.6291	0.0530
AB	2013	1.9491	0.1125	0.0451	0.1732	0.0066	1.4282	0.7564	0.0430
AB	2014	1.8128	0.1274	0.0391	0.1423	0.0051	1.4738	0.7926	0.0320
AB	2015	2.7378	0.1752	0.0543	0.1563	0.0048	1.1924	0.7908	0.0290
AIB	2011	3.2520	0.2698	0.0939	0.1205	0.0014	0.3485	0.6983	0.0550
AIB	2012	3.0051	0.2390	0.0736	0.1258	0.0021	0.5543	0.7013	0.0600
AIB	2013	2.4663	0.2123	0.0582	0.1162	0.0074	0.8986	0.7054	0.0313
AIB	2014	2.0949	0.1783	0.0516	0.1175	0.0027	0.8306	0.6803	0.0350
AIB	2015	12.6337	1.0000	0.2597	0.1263	0.0035	0.9736	0.7346	0.0420
BIB	2011	1.7807	0.1289	0.0420	0.1382	0.0056	2.3585	0.6421	0.0540
BIB	2012	2.0777	0.1681	0.0511	0.1236	0.0088	2.0018	0.5585	0.0450
BIB	2013	2.3797	0.1370	0.0544	0.1737	0.0094	1.3875	0.7250	0.0450
BIB	2014	3.1729	0.1611	0.0766	0.1970	0.0038	0.6971	0.7149	0.0420
BIB	2015	3.4722	0.1849	0.0809	0.1878	0.0047	1.1735	1.0676	0.0350
BOA	2011	2.5172	0.2501	0.0334	0.1006	0.0019	0.9951	0.7584	0.0550
BOA	2012	2.3960	0.2181	0.0316	0.1099	0.0026	1.0011	0.8865	0.0396
BOA	2013	2.6059	0.2390	0.0345	0.1090	0.0031	0.7834	0.8362	0.0420
BOA	2014	2.4007	0.1771	0.0337	0.1356	0.0034	0.8474	0.8067	0.0510
BOA	2015	2.1058	0.1590	0.0299	0.1325	0.0056	0.9579	0.8135	0.0320
BUIB	2011	2.0931	0.1690	0.0552	0.1238	0.0042	0.7504	0.5845	0.0540
BUIB	2012	2.1044	0.1811	0.0573	0.1162	0.0047	0.8182	0.4908	0.0467
BUIB	2013	2.1149	0.1214	0.0631	0.1743	0.0051	0.8461	0.5530	0.0510
BUIB	2014	2.6539	0.1547	0.0595	0.1716	0.0040	1.0206	0.7144	0.0390
BUIB	2015	2.9892	0.1985	0.0556	0.1506	0.0048	0.9097	0.7781	0.0320
CBE	2011	2.5060	0.4573	0.0865	0.0548	0.0641	0.3379	0.7713	0.0550
CBE	2012	3.4209	0.6793	0.0962	0.0504	0.0436	0.3092	0.7304	0.0001
CBE	2013	3.0078	0.6390	0.0866	0.0471	0.0439	0.3193	0.7879	0.0045
CBE	2014	2.8290	0.6226	0.0795	0.0454	0.0360	0.4524	0.7912	0.0330
CBE	2015	2.9329	0.5964	0.0789	0.0492	0.0419	0.4922	0.8401	0.0490
COB	2011	3.0155	0.2383	0.0909	0.1265	0.0029	0.9554	0.7127	0.0420
COB	2012	2.7788	0.2445	0.0748	0.1137	0.0029	1.1491	0.7621	0.0312
COB	2013	2.9004	0.2724	0.0912	0.1065	0.0079	0.8551	0.6830	0.0530
COB	2014	4.6807	0.3155	0.0944	0.1483	0.0088	0.7225	0.7415	0.0410
COB	2015	2.7258	0.2214	0.0476	0.1231	0.0158	0.8659	0.6428	0.0410

DB	2011	3.0741	0.3227	0.0740	0.0953	0.0028	1.1134	0.7941	0.0550
DB	2012	3.7215	0.3567	0.0820	0.1043	0.0024	0.8255	0.8028	0.0600
DB	2013	3.0726	0.2966	0.0700	0.1036	0.0021	0.9347	0.8027	0.0350
DB	2014	3.2441	0.2743	0.0756	0.1183	0.0014	1.0821	0.8051	0.0430
DB	2015	2.9443	0.2494	0.0643	0.1181	0.0019	1.1659	0.8001	0.0380
ENAT	2011	1.7799	0.0689	0.0692	0.2582	0.0141	0.0007	0.8554	0.0540
ENAT	2012	1.6806	0.0815	0.0805	0.2062	0.0162	0.0011	0.7288	0.0530
ENAT	2013	1.8417	0.0919	0.0680	0.2004	0.0133	0.9377	0.6862	0.0430
ENAT	2014	1.5859	0.0775	0.0444	0.2045	0.0101	1.1095	0.6558	0.0320
ENAT	2015	2.3188	0.1152	0.0452	0.2013	0.0059	1.1171	0.4780	0.0290
LIB	2011	3.1311	0.1591	0.0718	0.1969	0.0048	0.8712	0.6641	0.0420
LIB	2012	3.0615	0.1707	0.0789	0.1793	0.0055	0.9178	0.7051	0.0350
LIB	2013	3.7825	0.2054	0.0855	0.1842	0.0016	0.7828	0.7157	0.0540
LIB	2014	2.6729	0.1538	0.0627	0.1738	0.0033	1.0147	0.7436	0.0450
LIB	2015	3.4263	0.2442	0.0709	0.1403	0.0012	1.0277	0.7607	0.0340
NIB	2011	34.6207	0.2105	0.0929	1.6448	0.0058	0.9050	7.2455	0.0054
NIB	2012	3.4587	0.1873	0.0793	0.1846	0.0004	0.7739	0.7055	0.0032
NIB	2013	31.4568	1.4646	0.6463	0.2148	0.0028	0.7461	0.7313	0.0353
NIB	2014	2.1887	0.1197	0.0435	0.1828	0.0026	0.8496	0.7372	0.0309
NIB	2015	1.9063	0.1161	0.0367	0.1642	0.0015	0.7956	0.7373	0.0282
OIB	2011	2.2664	0.1502	0.0442	0.1509	0.0028	2.1648	0.7780	0.0060
OIB	2012	1.7705	0.1128	0.0490	0.1570	0.0061	1.6226	0.7596	0.0141
OIB	2013	1.9960	0.1426	0.0489	0.1400	0.0066	1.2685	0.7799	0.0341
OIB	2014	2.5090	0.2062	0.0613	0.1217	0.0040	1.0620	0.8134	0.0390
OIB	2015	2.3261	0.2234	0.0471	0.1041	0.0057	1.1066	0.8397	0.0320
WB	2011	4.0104	0.2417	1.1634	0.1659	0.1269	1.0074	0.7113	0.0550
WB	2012	4.0209	0.2092	0.0965	0.1922	0.0131	0.8350	0.6503	0.0036
WB	2013	3.2717	0.1858	0.0742	0.1761	0.0041	0.7886	0.6877	0.0380
WB	2014	2.7621	0.1485	0.0703	0.1860	0.0013	1.0041	0.6962	0.0430
WB	2015	2.5705	0.1460	0.0580	0.1761	0.0048	0.9867	0.6616	0.0310
ZB	2011	5.2487	0.3519	0.1337	0.1491	0.0087	2.5535	0.7203	0.0420
ZB	2012	3.6075	0.3078	0.0868	0.1172	0.0067	1.9217	0.7488	0.0390
ZB	2013	2.8982	0.1908	0.0751	0.1519	0.0787	1.6559	0.7711	0.0302
ZB	2014	3.2602	0.1948	0.0981	0.1674	0.0426	1.3224	0.7722	0.0390
ZB	2015	3.1445	0.2004	0.0711	0.1569	0.0204	1.3058	0.7836	0.0320