



Seek Wisdom, Elevate your Intellect and Serve Humanity

Addis Ababa University  
አዲስ አበባ ዩኒቨርሲቲ



**Determinants of Financial Reporting Quality: Evidence from Ethiopian  
Private Banks**

**Eden Sisay Hailu**

**A Thesis Submitted to the**

**Department of Accounting and Finance**

**College of Business and Economics**

**Presented in Partial Fulfillment of the Requirements for the Degree  
of Master of Science in Accounting and Finance**

**Addis Ababa University**

**Addis Ababa, Ethiopia**

**June 2017**

## **Statement of Declaration**

I, Eden Sisay, have carried out independently a research work on “Determinants of Financial Reporting Quality: Evidence from Ethiopian Private Banks” in partial fulfillment of the requirement of the MSc program in Accounting and Finance with the guidance and support of the research advisor.

This study is my own work that has not been submitted for any degree or diploma programs in this or any other institution, and that all reference materials contained therein have been duly acknowledged.

Name: Eden Sisay

Advisor Name: Laxmikantham P. (PhD)

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Addis Ababa University**

**School of Graduate Studies**

This is to certify that the thesis prepared by Eden Sisay, entitled: *Determinants of Financial Reporting Quality: Evidence from Ethiopian Private Banks* and submitted in partial fulfillment of the requirements for the degree of Master of Science in Accounting and Finance complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

External Examiner: Signature \_\_\_\_\_ Date \_\_\_\_\_

Internal Examiner: Signature \_\_\_\_\_ Date \_\_\_\_\_

Advisor: Laxmikantham P. (PhD) Signature \_\_\_\_\_ Date \_\_\_\_\_

---

Chair of Department or Graduate Program Coordinator

## **Abstract**

*This study intends to assess the impact of firm specific (profitability, liquidity, leverage, non-performing loan, bank age and auditor change) determinants of financial reporting quality in Ethiopian private banks. Accordingly, the study used document review of banks' audited financial statements. Using purposive sampling method, the study selected a sample of six private banks from a total population of sixteen private banks to conduct a study for the period of fifteen years (2002-2016) with the total of 90 observations. To test the hypotheses, the study adopted the quantitative research approach. The secondary data were analyzed using descriptive statistics, correlation matrix and multiple linear regression analysis and data from document reviews were interpreted qualitatively. The results of panel least square regression analysis show that profitability and non-performing loan have statistically significant and negative effect on Ethiopian private banks' financial reporting quality. On the other hand, liquidity and bank age have statistically significant and positive effect on Ethiopian private banks financial reporting quality. However, leverage and auditor change have statistically insignificant effect on financial reporting quality of Ethiopian private banks. In addition, the results of the analysis indicate that signaling theory is pertinent theory in Ethiopian banking industry, whereas there is little evidence to support the agency theory. Therefore, banks should give consideration to profitability, liquidity, non-performing loan and bank age in order to have better financial reports.*

*Keywords: financial reporting quality, firm specific attributes, earning management, abnormal loan loss provision.*

## **Acknowledgements**

First and foremost, I want to thank the Almighty God for endowing me the endurance and courage of going through in my whole life. Next to Almighty God, I would like to greatly express my deep sense of gratitude and indebtedness to my advisor, Laxmikantham .P (PhD) for his invaluable comments, encouragements and guidance at various stage of the study.

I gratefully acknowledge Addis Ababa University for giving me the scholarship and providing the necessary fund for the study.

My heartfelt thanks are also extended to the management and staff members of the Ethiopian private banks and the National Bank of Ethiopia for their support in providing me all the necessary data required for the study.

I owe more than thanks to my family, especially my mom Beti, Epherem, Dereje, Ayniye, Kuke, Helu and my darling sister Mimo for their unconditional love, unfailing support, prayers and continuous encouragement throughout my academic life. Their support has been unconditional all these years; they have cherished with me every great moment and supported me whenever I needed it. This accomplishment would not have been possible without them. Really, you deserve my gratitude and thank you very much indeed!

I owe my special thanks to my dad, Sisay Hailu (PhD) for his unstinted support and valuable suggestions that have been very helpful, sympathetic attitude and unfailing help during the entire study.

I would also like to convey my profound gratitude to Wonde, Haile and Masre for their constant encouragement, divine presence and supporting me spiritually through prayers.

I take this opportunity to express my deep sense of gratitude to Yodit and her husband Ato Ermias for accompanying and encouraging me during my study.

Last but not the least, my special thanks go to all my friends especially Konjit and Ayni, who as a good friend were always willing to help and support me spiritually throughout and for those who helped me in any form of assistance.

## Table of Contents

<b>Contents</b>	<b>Page</b>
Abstract.....	i
Acknowledgements.....	ii
Table of Contents.....	iii
List of Tables .....	v
List of Figures .....	vi
List of Acronyms & Abbreviations.....	vii
Chapter One.....	1
Introduction .....	1
1.1. Background of the Study.....	1
1.2. Statement of the Problem .....	3
1.3. Research Objective and Hypothesis Development.....	5
1.3.1. General Objective.....	5
1.3.2. Specific Objectives.....	5
1.3.3. Literature Driven Hypothesis .....	5
1.4. Significance of the Study.....	10
1.5. Scope and Limitation of the Study.....	11
1.6. Organization of the Paper .....	11
Chapter Two.....	12
Literature Review .....	12
Introduction .....	12
2.1. Theoretical Review.....	12
2.1.1. Concept of Financial Reporting Quality .....	12
2.1.2. Agency Theory.....	14
2.1.3. Signaling Theory.....	15
2.1.4. Legitimacy Theory .....	16
2.1.5. Proprietary Costs Theory .....	17
2.1.6. Positive Accounting Theory.....	17
2.2. Empirical Review .....	18

2.3. Conclusion and Knowledge Gap.....	22
2.4. Conceptual Framework.....	22
Chapter Three .....	24
Methodology.....	24
Introduction .....	24
3.1. Data Source and Collection Method.....	24
3.2. Nature of Data .....	24
3.3. Research Approaches.....	25
3.3.1. Research Approach Adopted .....	27
3.3.1.1. Quantitative Aspect of the Study.....	27
3.4. Sampling Design.....	27
3.5. Data Analysis and Presentation .....	29
3.6. Model Specification .....	30
3.7. Model Validity.....	33
Chapter Four .....	34
Results and Discussion .....	34
Introduction .....	34
4.1. Results.....	34
4.1.1. Descriptive Statistics .....	34
4.1.2. Classical Linear Regression Model Assumptions and Diagnostic Tests .....	37
4.1.2.1. Test of Heteroscedasticity .....	37
4.1.2.2. Test of Autocorrelation.....	37
4.1.2.3. Test of Normality .....	40
4.1.2.4. Multicollinearity.....	41
4.1.3. Correlation Analysis .....	42
4.1.4. Model Selection Test: Random versus Fixed Effect Model.....	43
4.1.5. Fixed Effect Regression Result .....	44
4.2. Discussion of the Result .....	46
4.3. Summary of Findings.....	52
Chapter Five .....	53
Conclusion and Recommendations .....	53
Introduction .....	53

5. 1. Conclusions ..... 53  
5.2. Recommendations ..... 55

**References**

**Appendices**

## List of Tables

Table 4.1 Summary of Descriptive Statistics .....	35
Table 4.2 Heteroscedasticity Test: White Test.....	37
Table 4.3 DW Test Result Test of Autocorrelation .....	40
Table 4.4 Correlation Matrix for Independent Variables.....	42
Table 4.5 Correlation Matrix of Dependent and Independent Variables.....	43
Table 4.6 Correlated Random Effect-Hausman Test.....	44
Table 4.7 Fixed Effect Regression Result.....	45
Table 4.8 Summary of Hypothesized and Actual Impact.....	51

## List of Figures

Figure 2.1 Conceptual Framework .....	23
Figure 4.1 Rejection, Non-Rejection, and Inconclusive Regions for DW Test .....	39
Figure 4.2 DW Test Result .....	39
Figure 4.3 Normality Test: Residual .....	41

## List of Acronyms & Abbreviations

ABLL	Abnormal Loan Loss Provision
AUDCH	Auditor Change
BAGE	Bank Age
CLRM	Classical Linear Regression Model
DW	Durbin Watson
FASB	Financial Accounting Standard Board
FRQ	Financial Reporting Quality
IASB	International Accounting Standard Board
JB	Jarque-Bera
LEV	Leverage
LLAB	Loan Loss Allowance at the Beginning
LLP	Loan Loss Provision
LIQ	Liquidity
NBE	National Bank of Ethiopia
NBLW	Net Bad Loans Written off
NPL	Non-Performing Loan
NPL	Change in Non-Performing Loan
ROA	Return on Asset
TOTL	Change in Total Loan

# **Chapter One**

## **Introduction**

This chapter introduces briefly about background of the study, statement of the problem, research objectives & hypothesis development. Apart from this, this chapter also identifies the significance of the study, scope and limitation of the study, organization of the paper and conceptual framework.

### **1.1. Background of the Study**

The study focused on providing empirical evidence on determinants of financial reporting quality (FRQ) of private banks operating in Ethiopia. Ethiopian private banks merit being the study subject for the fact that they are among the largest public interest companies with significant economic contributions. Thus, the results of the study have a practical contribution to the management, board members, investors, creditors and regulators to understand what determines financial reporting quality and how it is related to firm specific factors.

Financial reporting quality (FRQ) is the faithful representation of financial statements about the underlying performance and financial position of a company that are useful for sound decision making and which are not misleading for users. The disclosure principle in accounting requires that financial statements present the most useful amount of relevant information that is necessary in order not to be misleading. The financial reporting in an organization includes financial statement as well as any other relevant financial reports. Financial report of a company must provide useful information for sound decision making in an organization and it should not be misleading. However, even though companies may generate financial statements in accordance with different reporting standards, these reports may present differing levels of quality and may mislead the user.

The main objective of financial reporting is to provide information on the entity's financial statements, which is useful for making economic decisions (IASB, 2008). Providing quality financial reporting information is important because it will positively affect capital providers and

other stakeholders in making investment, credit, and resource allocation decisions at improving the efficiency of the overall market (IASB, 2008).

A company must prepare financial information with higher quality. Financial Reporting Quality (FRQ) is the faithfulness of the information conveyed by the financial reporting process. It is generally accepted that certain characteristics of the company have an impact on the level and quality of the financial information disclosed (Kirubel, 2016). What are the firm specific characteristics that are supposed to influence the level and the quality of financial information disclosed?

In financial reporting quality literatures we can find considerable research on determinants of financial reporting quality. Since FRQ cannot easily be quantified or observed directly, those studies suggest several proxies to use. The most commonly used proxy for earnings management and accrual quality in financial reporting quality literature is the modified Dechow and Dichev (2002) model. But as the banking industry is unique in nature, the proxy used for earning management in most studies is Abnormal Loan Loss Provisions (ABLL). And prior research indicates that banks use Loan Loss Provision (LLP) to manage earnings (Wahlen, 1994 and Kanagaretnam et al., 2003).

Bank managers have considerable discretion in estimating LLP. This discretion allows them flexibility in using LLP for income-increasing or income-decreasing earnings management, or for smoothing earnings. Prior research suggests several motives for bank managers' discretionary behavior with respect to LLP including, signaling, capital management, management compensation and income smoothing (Wahlen 1994; Collins et al., 1995 and Kanagaretnam et al., 2003). Income-increasing abnormal LLP may be related to incentives associated with meeting or just beating earnings benchmarks, management compensation and income smoothing. Income-decreasing abnormal LLP may be related to incentives associated with signaling, capital management and income smoothing. LLP is also by far the largest and most important accrual for banks, thus affording bank managers wide latitude in its use. Kanagaretnam, Krishnan and Lobo (2010) believe that abnormal LLP is a better proxy for earnings management than the abnormal accrual measures used in other researches. It is convenient to use ABLL as a proxy to earning management in this study too. Researchers that used ABLL as a proxy for earnings

management includes (Olowokure, Tanko and Nyor, 2015; Kanagaretnam, Krishnan and Lobo, 2010; and Dabor and Ibadin, 2013).

A number of researches have been conducted on determinants of financial reporting quality. Those studies show inconsistency and difference in results. Kirubel (2016) studied FRQ in Ethiopia and the study only focused on manufacturing firms. This study will bring insight for managers, regulators and company stakeholders to know what firm specific variables will influence FRQ in the banking industry. Therefore, the study was centered on examining whether financial reporting quality of Ethiopian private banks are likely to be influenced by their firm profitability, firm leverage, firm liquidity, firm non-performing loan, firm age and auditor change.

## **1.2. Statement of the Problem**

The goal of investors in profit seeking firms is to maximize wealth which means maximizing the present value of future cash flows. To achieve this goal, investors need information that would enable them to predict future cash flows from their investments and the associated risks (Grace and Ambrose, 2013). Investors often obtain such information from the firms' financial reports. The quality of these reports will strongly influence the decision made by the investors.

It has been noted that firms sometimes manipulate financial information to meet the expectation of investors or to reduce other financial burdens from authorities. Let alone Ethiopia, which has problematic accounting and reporting practice, countries with advanced practices could not stop their high profile companies from falling (Leilina, 2015). FRQ requires companies to voluntarily expand the scope and quality of the information they report, to ensure that market participants are fully informed in order to make well-grounded investment decisions. High quality information facilitates greater transparency, which in turn reduces information asymmetries and satisfies the needs of investors and stakeholders.

Ethiopia is one of the fastest growing economies in the world, and its economy is expected to shift from being agrarian to industrial by the end of the second GTP. Huge investment must be made in the various sectors to achieve this economic shift. With respect to mobilizing resources

and enhancing investments, banks have irreplaceable roles in economic growth and development of the country.

Banks in Ethiopia are required to operate within the rules and regulations set by the National Bank of Ethiopia (NBE). The current financial reports produced by different banks in Ethiopia are based on NBE's directives and regulatory laws. Per World Bank (2007) report, there are no extra requirements in the laws or directives of NBE for the preparation of financial statements. The applicable requirements for preparation of annual financial statements for banks are those provided in the Commercial Code. The Commercial Code has no requirement for compliance with any defined accounting standards. Therefore, while NBE's directives and regulatory laws are generally desirable, they do not guarantee high quality financial reports since there is no defined accounting standard and financial information can be manipulated to suit expectations of shareholders without violating NBE's directives and regulatory laws.

The banking industry in Ethiopia has generally been very profitable. Shareholders are accustomed to getting high returns on their investments. Relatively younger banks may become pressure to show returns that are comparable to their mature counterparts. Sometimes, driven by greed for own benefit or by the need to meet investors' expectations, management and/or board of directors may engage in activities that are not approved by NBE. A recent foreign currency handling malpractice seen at one of the private banks (Addis Fortune, 2015) is an example of such an activity.

Given the broad range of stakeholders to whom banks are ultimately answerable, from depositors and shareholders to employees and regulators, the quality of financial statements of banks plays an important role in the Ethiopian economy. To this researcher's knowledge, there is lack of studies on the FRQ of banks in Ethiopia. Ethiopian private banks merit being the subject of study since they are among the largest public interest companies with significant economic contributions.

Therefore, given such a unique reporting environment characterized by lack of accounting standard and lower reporting quality concern afforded in the country, it is imperative to investigate the factors that determine financial reporting quality and its implication in the Ethiopian private banks' context. Considering the need for high quality financial statements in

the Ethiopian economy, the determinants of FRQ of Ethiopian private banks need to be investigated. Past studies made on the manufacturing industry suggest that FRQ may be influenced by firm-specific characteristics such as firm size, firm age, profitability, leverage, board composition and audit firm. Therefore, the study will focus on examining whether FRQ of Ethiopian private banks is likely to be influenced by such firm-specific factors. Results of the study will provide practical information to stakeholders in understanding what determines FRQ and how it is related to firm specific factors.

### **1.3. Research Objective and Hypothesis Development**

In this section general objective, specific objective and literature driven hypothesis of the study are discussed.

#### **1.3.1. General Objective**

In the context of the problem highlighted above, the main objective of the study is to examine the determinants of financial reporting quality of Ethiopian private banks.

#### **1.3.2. Specific Objectives**

In line with the general objective mentioned above, the following specific objectives were developed.

- To identify the effect of profitability on financial reporting quality.
- To identify the effect of leverage on financial reporting quality.
- To identify the effect of liquidity on financial reporting quality.
- To identify the effect of non-performing loan on financial reporting quality.
- To identify the effect of bank age on financial reporting quality.
- To identify the effect of auditor change on financial reporting quality.

#### **1.3.3. Literature Driven Hypothesis**

In order to achieve the objectives of the study concerning the determinants of financial reporting quality of Ethiopian private banks, the following hypotheses were developed based on review of related literatures.

## **Financial Reporting Quality vs Profitability**

Firms' profitability has been argued to have an influence on the quality of financial reporting. The signaling theory implies that if a company is profitable, it could disclose more information to indicate the credibility of its reported earnings, to increase its reputation and to avoid undervaluation of its equity (Inchausti, 1997). Alsaeed (2006) argued that a profitable firm may feel proud of its achievements and therefore would wish to disclose more information to the public in order to promote positive impressions of its performance. According to Kirubel (2016), profitability indicates efficiency of management in operating the business. Kirubel (2016) argued that if the management of the company is efficient in managing its operation and achieved its objective, it could disclose more information to indicate the credibility of its reported earnings. Kirubel (2016) found profitability has a statistically significant positive impact on financial reporting quality of large manufacturing share companies in Ethiopia. However, even though studies by Kirubel (2016) and Patton and Zelenka (1997) did find a significant positive relationship, a study by Alsaeed (2006) on the other hand had found insignificant relationships. The above arguments lead the researcher to predict a positive and significant effect of a firm's profitability on financial reporting quality.

*H1: Profitability has a positive and significant effect on financial reporting quality.*

## **Financial Reporting Quality vs Leverage**

Leverage refers to the percentage of debt financing in the capital structure of a firm. It is measured by long term debt-to-fixed asset ratio. Agency theory has largely been used to explain the relationship between firm leverage and financial reporting quality. According to the agency theory (Jensen and Meckling, 1976), a company with a higher debt ratio has an incentive to disclose more information. Extant literatures have suggested that there is a significant relationship between firm's leverage and financial reporting quality. Waweru and Riro (2013) asserted that highly leveraged firms are more likely to engage in earnings management than firms that are not highly leveraged. Bassiouny et al., (2016) and Shehu and Ahmad (2013) found that there is a significant positive relationship between firms' financial leverage and earnings management. Shehu (2013) using the modified Dechow and Dichev's (2002) model on 32 listed manufacturing firms in Nigeria finds a significant relationship between the degree of leverage

and the level of financial reporting quality. Standing on the above theoretical explanations, the researcher developed the following hypothesis.

*H2: Leverage has a positive and significant effect on financial reporting quality.*

### **Financial Reporting Quality vs Liquidity**

According to economic theory, voluntary disclosures and increased information quality reduce information asymmetries among principals and agents. This reduction in information asymmetries increases the firm's liquidity (Hassan and Bello, 2013; Easley and O'Hara, 2004). Cooke (1989) argued that the soundness of the firm as portrayed by high liquidity is associated with greater disclosure level. Overall, the empirical evidence suggests that disclosures and accounting information of higher quality are related to improved liquidity. This leads the researcher to assume that quality of financial reporting increases when the company has an improved liquidity.

*H3: Liquidity has a positive and significant effect on financial reporting quality.*

### **Financial Reporting Quality vs Non-Performing Loan (NPL)**

Non-performing loans are those loan facilities which borrowers often have difficulties in repaying. Financial performance relating to banks is based on performances which are deeply rooted in the expectations of stakeholders and which are, in turn, based on financial transparency. The high incidences of NPLs hinder the achievement of government objectives which affects the ability of banks to compete effectively in the international market. The pervasive incidence of non-performing loan is one of the prime causes of failure in the banking system. The provision for bad and doubtful loans rises steadily when there are high non-performing loans in banks' annual reports which send bad signals to the investors within the economy.

Luizis et al., (2012) found a negative relationship between profitability and non-performing loans for the Greek banking system. This implies that when non-performing loan is low bank performance will increase and vice versa. According to signaling theory bank's top management may be tempted to manipulate financial statements in order to project a positive image of the

company to principals. This leads to a conclusion that when a banks' performance is bad which means when non-performing loan is high, bank managers may be tempted to manipulate financial reports produced that leads to low financial reporting quality. This leads the researcher to assume that quality of financial reporting increases when the company has an improved non-performing loan. Based on the above explanation the study forecasts that non-performing loan has a positive effect on abnormal loan loss provision and accordingly negative and significant effect on the quality of financial reports produced.

*H4: Non-performing loan has a negative and significant effect on financial reporting quality.*

### **Financial Reporting Quality vs Bank Age**

As time passes, firms discover what they are good at and learn how to do things better as they specialize more and new techniques are found to standardize, coordinate, and speed up their production processes, as well as to minimize costs and improve quality (Arrow, 1962 and Ericson and Pakes, 1995). Based on prior research, firms that have been in the market for long times tend to have low level of earnings management than beginners as they are well known companies, that have a great value in the market and they have a reputation to protect, also they are aware of the rules and codes that govern their practices. Moreover, long established firms might have improved their financial reporting practices over time (Alsaeed, 2006) and try to enhance their reputation and image in the market (Akhtaruddin, 2005) so the older the firm, the less tendency to perform earnings management practices and the higher the financial reporting quality. When a firm is familiar in the market, debates exist on whether this will lead to the unwillingness of external parties to question the firm or not. Usually, long established firms are audited by one of the big auditing firms and based on (DeAnglo, 1981) big audit firms have incentive to report material misstatements in order to protect their reputation. In addition, governmental agencies always pay attention to firms that have been in the market for a long time more than the newly entered firms. Therefore, when the age increases, the firm tends to improve its governance by issuing high quality financial reports without manipulations (Chalaki et al., 2012).

The other thing is that the age of the firm is a major determinant of the strength of a firm's internal control, while a strong internal control is associated with financial reporting quality (Huang, Rose-Green and Lee, 2012). It is believed that the internal control system of a firm

becomes better structured as years pass by and a well-structured internal control should naturally guarantee the integrity of the financial report (Huang, Rose-Green and Lee, 2012). Moreover, with the passage of time, firms are more likely to improve their governance and are more likely to be exposed to political risk. This is because government may not pay attention to new firms while firms that have been around for some time are always on the radar of government agencies. These factors are likely to affect their reporting practices (Chalaki, Didar and Riahezhad, 2012). Chalaki, Didar and Riahezhad (2012) investigated the effect of corporate governance attributes on financial reporting quality in 136 firms listed on Tehran Stock Exchange during the period of 2003 to 2011, the result of the study showed that there is no significant relationship between firm age and financial reporting quality. Huang, Rose-Green & Lee (2012) also found an insignificant relationship between firm age and financial reporting quality using the year of incorporation of such firms to measure the firm age. This study will like to validate or disprove these previous findings using data from Ethiopian private banks.

*H5: Bank age has a positive and significant effect on financial reporting quality.*

### **Financial Reporting Quality vs Auditor Change**

According to Dabor and Ibadin (2013) change in auditor will increase abnormal accruals. This implies that a change in auditor will aggravate earnings management. This suggests that a change in auditor should constrain fraudulent financial reporting. The thinking is that a change in auditor will improve audit quality as it removes the familiarity thrust threat. On the other side of the divide, the argument is that a change in auditor will imply learning by the new auditor and therefore provides opportunity for management to engage in earnings management because of the ignorance of the new auditor. Hence, management may be able to manipulate accounting numbers when switching between auditors (Nelson, Elliott and Tarpley, 2002; Kim and Kross, 1998). Dabor and Ibadin (2013) found a positive relationship between auditor change and earnings management. This study supports the finding that auditor change brings earnings management. Carcello and Nagy (2004) found that duplicitous financial reporting occurs early in an auditor-client relationship. Geiger and Raghunandan (2002) found that corporate failure occurs significantly more often in the first five years of an auditor-client relationship. Myers, Myer and Omer (2003) found risky accounting choices to be constrained more effectively by

longer auditor tenure. Finally, Gosh and Moon (2005) found proof that investors and rating agencies depend on audited financial reports more intensely as auditor tenure increases. All these studies point to the fact that the longer the auditor tenure or the auditor change, the higher the audit quality and in addition the lower the tendency for earnings management. The conclusion is that the presence of an auditor for long time in a given company is associated with less earnings management and accordingly enhances the quality of financial information produced. From these explanations, we expect that the change of an auditor has a positive effect on abnormal loan loss provision and accordingly negative and significant effect on the quality of financial reports produced.

*H6: Auditor change has a negative and significant effect on financial reporting quality.*

#### **1.4. Significance of the Study**

A stable banking system is of top interest to the economy where everyone is a stakeholder. Specifically, this study will be a main interest to government, shareholders, creditors and company stakeholders. The core purpose of this research study is to find out the determinants of financial reporting quality by collecting evidence from Ethiopian private banks. Consequently, a study in the area are very useful in giving an insight for both managers and company stakeholders as to knowing the determinant factors affecting financial reporting quality in Ethiopian banks for several reasons:

- ✓ The policy makers and the regulatory bodies will use the study findings in building and widening the awareness of financial reporting quality and to maintain trust among the various stakeholders. The study, therefore, will inform on where more efforts should be intensified in an attempt to improve the quality of financial reporting in the banking industry.
- ✓ The result of this study, will serve as a framework to enable banks to report qualitative and reliable information that will ensure informed decision and creates meaningful awareness among the concerned body about financial reporting for optimal reporting quality.
- ✓ The study finding will help scholars to add more knowledge on the area of reporting quality in many other industries.

## **1.5. Scope and Limitation of the Study**

The study focused on banking industry because the industry is showing high growth and the government is giving special attention to the sector. The scope of this study was limited to the relationship between FRQ and firm specific determinants of FRQ of Ethiopian private banks over the period 2002 to 2016. The scope of study was limited to six sampled private banks that were in existence over the selected sample periods and whose published annual reports and financial statements and other necessary information were available and accessible over the time frame of the study. This includes: Awash International Bank, Bank of Abyssinia, Dashen Bank, Nib International Bank, United Bank and Wegagen Bank. In addition, the results of the study may suffer from some limitations. First, this paper examines only firms-specific determinant factors (profitability, leverage, liquidity, non-performing loan, bank age and auditor change) that affect financial reporting quality of Ethiopian private banks due to the nature of the research. However, the effect of various firm specific and macroeconomic characteristics of that could have a role in determining the financial reporting quality does not give due consideration in this study. Other limitations that hamper the study were lack of prior research studies on the topic in Ethiopian context, unavailability of some data and unavailability of active secondary market to measure the dependent variable.

## **1.6. Organization of the Paper**

The study is made up of five chapters. Chapter One presents introduction, background of the study, statement of the problem, research objectives and hypothesis development, significance of the study, scope and limitation of the study. The second chapter presents the literature review part of the study which includes the theoretical review in its first section followed by empirical review of previous studies related to the area, conclusion and knowledge gap and conceptual framework. Chapter Three discusses the methodology that is used by the researcher in order to achieve the objectives of the study. It describes the research approach, research design, the sample size, sampling technique, data sources and collection instruments, as well as methods of presenting, interpreting and analyzing the findings. Then Chapter Four presents results and analysis of the study and finally, Chapter Five presents' conclusions and possible recommendations.

## **Chapter Two**

### **Literature Review**

#### **Introduction**

This chapter presents the synthesis of theoretical review, empirical review, conclusion and knowledge gap and conceptual framework. The theoretical review aims at giving the definition of basic terminologies and review theories that help in defining and understanding determinants of financial reporting quality. The empirical review section is a review of different literatures that are related to the study. The last part is the conclusion and knowledge gap and conceptual framework.

#### **2.1. Theoretical Review**

The literature shows the existence of different theories related to financial reporting quality and concepts of financial reporting quality. These theories include agency theory, signaling theory, legitimacy theory, proprietary costs theory and positive accounting theory. The purpose of this section is, hence, to review these theories of financial reporting quality in an orderly manner.

##### **2.1.1. Concept of Financial Reporting Quality**

Financial reporting quality (FRQ) is defined as the faithfulness of the information conveyed by the financial reporting process (Martinez-Ferrero, 2014). The characteristic of the word faithfulness is relevance, reliability, transparency and clarity (Jonas and Blanchet, 2000). Relevant information means that the financial statement should contain enough information that the different users of the financial statement will find useful which will assist them in their decision making process and that the information is provided in a timely manner when they are still “news”. Reliability is what assures the users that the information is reasonably free from error or bias and that it truly represents what it is intended to represent. Information in a financial report will be reliable to the extent that users can depend on it to judge the economic conditions or events that it purports to represent (Shehu, 2013). Transparency means that the figures are true reflections of the economic activities of the enterprise during the period. Clarity is focused on

how the figures are presented. The format and language of presentation is also very important. Financial reporting should therefore provide information to help investors, creditors, and other users to project the amounts and timing of future cash flows to the enterprise (Waweru and Riro, 2013). For Jonas and Blanchet (2000), financial reporting is not only a final output; the quality of this process depends on each of its parts, including disclosure of the company's transactions, information about the selection and application of accounting policies and knowledge of the judgments made.

The objective of financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decision about providing resources to the entity (FASB, 2010). These users of financial information want to make decisions about buying or selling both equity and debt instruments, they want to know how much interest or dividend to expect, they also want to know when to expect the payment of these interest and dividends. Other users that may also find general purpose financial reporting useful are regulators, customers, government agencies and general public (FASB, 2010).

Financial reporting quality requires companies to voluntarily expand the scope and quality of the information they report, to ensure that market participants are fully informed in order to make well-grounded decisions on investment, credit, etc. This high quality information facilitates greater transparency and this greater transparency reduces the information asymmetries and satisfies investors and stakeholders' needs.

Numerous advantages of providing high-quality information have been cited: FRQ reduces information risk and liquidity (Lambert et al., 2007), prevents managers from using discretionary power for their own benefit and helps them make efficient investment decisions (Chen et al., 2011). Specifically, one of the main benefits of better FRQ is based on the minimization of asymmetric information problems that arise from conflicting agency between agents and principals (Rajgopal and Venkatachalam, 2011).

Lambert et al., (2007) obtained empirical evidence that the quality of accounting information can influence the cost of capital, both directly, by affecting market participants' perceptions about the distribution of future cash flows, and indirectly, by affecting real decisions that alter the distribution of future cash flows. Chen et al., (2011) found that FRQ positively affects private

firms investment efficiency in emerging markets and that this effect enhances bank financing and decreases incentives to minimize earnings for tax avoidance purposes.

The quality of financial reports will be determined by its fitness for purpose which is referred to as usefulness in sound decision making by the framework. The financial information that will be useful for decision making must be relevant and should faithfully represent what it purports to represent.

### **2.1.2. Agency Theory**

Corporate governance literature views shareholders as the principal and manager as their agent and describes the relationship as principal-agent relationship. “An agency relationship is defined as one in which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent (Hill and Jones, 1992)”. Shareholders (principals) delegate tasks to be performed by management (agents) on their behalf to meet their objectives.

The divergence of interest between the owners and the managers, due to the separation of ownership from control, results in the agency costs. Dealing with the agency problem is not free. Unfortunately, there is an agency cost associated with coping with the agency problem. Agency costs usually fall under the category of operating expenses.

Under this agency relationship, both the agents and the principals are assumed to be motivated solely by self-interest. As a result, when principal delegates some decision making responsibility to the agents, agents often use this power to promote their own well-being by choosing such actions which may or may not be in the best interests of principals (Barnea, Haugen and Sanbet, 1985; Bromwich, 1992 and Roychowdhury, 2004).

The most important basis of agency theory is that the managers are usually motivated by their own personal gains and work to exploit their own personal interests rather than considering shareholders’ interests and maximizing shareholder value whereas stakeholders act in a relational way to maximize their personal utility (Toukabri, Ben and Julani, 2014).

The agency relationship leads to the information asymmetry problem due to the fact that managers can access information more than shareholders (Nermeen, 2014). This will allow pursuit of self-interest which increases costs to the firm, which could include the costs of the formation of contracts, loss due to decisions being taken by the agents and the costs of observing and controlling the actions of the agents. Leuz, Nanda and Wysocki (2003) assert that the effects of such behavior are ultimately reflected in the company earnings. Consequently, management has an incentive to manage the company's reported earnings in order to meet or beat earnings targets and, thus, to receive any bonuses that may be tied to the company's earnings (performance-related pay). This creates an information asymmetry in that managers can exercise the discretion they have on accruals, which in turn reduces the relevance and reliability of reported earnings, and the whole financial statements (Leilina, 2015). Most of researchers that conducted a study on the determinants of financial reporting quality relied upon agency theory (Kirubel, 2016; Ahmed, 2012; Hassan and Bello, 2013; Fathi, 2013 and Dechow, Ge and Schrand, 2010).

### **2.1.3. Signaling Theory**

The signaling theory describes the behavior of two parties with access to different information. In this context, one party (the sender) must choose whether and how to communicate (or signal) that information and the other party (the receiver) must choose how to interpret the signal (Kamwenji, 2014). Companies with superior performance may use financial reporting to signal to the market while adoption of accounting standards may signal the company's good management (Oluoch, 2014). The theory is applicable in the context that top management of banks may be tempted to manipulate financial statements in order to project a positive image of the company to agents.

The signaling theory argues that the existence of information asymmetry can also be taken as a reason for good companies to use financial information to send signals to the market (Ross, 1977). Information disclosed by managers to the market reduces information asymmetry and is interpreted as a good signal by the market. Although the signaling theory was originally developed to clarify the information asymmetry in the labor market (Spence, 1973), it has been used to explain voluntary disclosure in corporate reporting (Ross, 1977).

Empirically, several studies have been done on signaling influence on disclosure. These are Watson, Shrivs and Marston (2002) and Haniffa and Cooke (2002). The disclosure literature identifies several variables as a proxy for signaling theory including profitability, liquidity and leverage. The theory argues that directors who believe their company can perform better than other companies will want to signal this to shareholders in order to attract more investments. Signaling theory suggests that when a corporation's performance is good, managers will signal the company's performance to their investors, stakeholders and the market by making disclosures that companies with poor performance cannot make. By improving disclosures, directors wish to receive more benefits: a better reputation and the firm's value will increase (Abdulla, 2011). In contrast, firms with poor performance may choose to keep silent rather than reveal unflavored performance. However, investors may misinterpret this silence as withholding the worst possible information (Verrecchia, 1983).

#### **2.1.4. Legitimacy Theory**

According to Toukabri, Ben and Julani (2014) the theory of legitimacy is based on two fundamental ideas; companies need to legitimize their activities, and the process of legitimacy that confers benefits to businesses. Thus, the first element is compatible with the idea that social disclosure is related to the social pressure. In this context, we say that the need for legitimacy is not the same for all companies due to the degree of social pressure to which the company is exposed, and the level of response to this pressure.

There are a number of factors that determine the degree of social pressure on companies, and responses to that pressure. These factors are potential determinants of corporate social disclosure. The second component is based on the idea that companies can expect to benefit by a legitimate behavior based on the social responsibility activity.

Since the objective of accounting is providing users with information that helps in decision-making, i.e., satisfy social interests, the theory has been integrated in accounting studies as a "means of explaining what, why, when and how certain items are addressed by corporate management in their communication with outside audiences" (Magness, 2006). Those external perceptions about companies could be ways by the management of corporate disclosure policies

(Deegan, 2002). Then the companies could have a strategy legitimacy and choice and change their legitimacy status and consequently the external perceptions (Aerts and Cormier, 2009).

Normally the legitimacy theory is used to explain social and environmental reports disclosure. But the legitimacy theory can also be used in corporate report, suggested by Woodward, Edwards and Birkin (1996), as one possible legitimacy/accountability reporting framework, to communicate with the shareholders and clarify the importance of this relationship. Damaso and Lourenco (2011) have concluded that the organizational legitimacy is a useful concept to explain corporate report behavior.

### **2.1.5. Proprietary Costs Theory**

Teixeira and Lima (2007) stated that proprietary costs theory considers the costs of disclosures as well as its benefits. Managers take into account the costs of disclosing information and do not disclose when costs outweigh the benefits. These costs include not only those of preparing and disseminating the information, but also costs of appropriation of the information by competitors. Investors know this and do not apply adverse selection. Proprietary cost theory applied to disclosure is analytically developed by Verrecchia (1983), Dye (1985), Darrough and Stoughton (1990) and Wagenhofer (1990).

### **2.1.6. Positive Accounting Theory**

Positive Accounting Theory is concerned with predicting actions such as the choices of accounting policies by firm managers and how managers will respond to proposed new accounting standards. The term “positive” refers to a theory that attempts to make good predictions of real world events (Scott, 2003). Watts and Zimmerman (1978) developed a positive theory of the determination of accounting standards. This theory was developed in a deductive and normative interaction, and considers that the choice of accounting methods by companies is a reflection of agency relationships within the enterprise, and political costs they may incur. The main results presented by Watts and Zimmerman (1978) showed that the accounting disclosures published by companies have information content for the financial markets. Thus, the results unanticipated by the market produce abnormal returns in the same direction and with variations connected. However, Watts and Zimmerman (1978) point out that

financial and extra financial disclosure have no informational content to the extent that they provide information about the cash flows of companies.

Hassan (2008) argues that positive accounting theory helps to explain how a conflict of interest between managers, shareholders and debt holders influences the corporation's accounting practices. According to the politico-contractual theory, highly leveraged firms adopt accounting methods that increase their profits. In the same line of ideas, Toukabri, Ben and Julani (2014) argue that firms that undertake specific expenditures putting out their commitment in social responsibilities, have a primary objective of change in accounting period results and clauses in their contract debt.

## **2.2. Empirical Review**

Olowokure, Tanko and Nyor (2015) have studied the relationship between firm structural characteristics and Financial Reporting Quality of Listed Deposit Money Banks in Nigeria. Using secondary data from the published reports of thirteen listed deposit money banks in Nigeria for over a period of ten years between 2005 and 2014, their paper seeks to find the determinants of financial reporting quality and reports the findings of the impact of structural characteristics like age, size and level of leverage on financial reporting quality. Using prior studies as a guide, they developed a model for loan loss provisions and generated the residuals, using these residuals known as abnormal loan loss provisions as the dependent variable for the multiple regression analysis. In their study they did not find any evidence of significant relationship between firm age, size, leverage and financial reporting quality.

Adebiyi and Olowookere (2015) have studied the relationship between corporate ownership structure and financial reporting quality among Deposit Money Banks in Nigeria. The study analyzed whether a firm's ownership structure (measured with three variables: managerial ownership, foreign ownership and institutional ownership) improves the quality of the financial reporting or not. Whereas financial reporting quality is measured by modified Jones model, the researchers used discretionary accruals as a proxy for financial reporting quality. The data are extracted from a sample of all Deposit Money Banks listed on Nigerian Stock Exchange for nine years between 2005 and 2013, using Ordinary Least Square Regression technique as a tool of analysis for the study. The result showed that financial reporting quality is positively related to

managerial ownership and relates negatively to institutional and foreign ownership. This result is consistent with the alignment of interest hypothesis that suggests that managers who own a significant portion of the equity in a firm have less incentive to manipulate reported accounting information. The study's result suggests that managerial ownership improves the quality of annual earnings by reducing the levels of financial reporting manipulation.

Younis et al., (2013) conducted a study to examine the impact of corporate governance measures on earnings quality of the manufacturing firms listed on Karachi Stock Exchange. Earnings quality of the firms has been addressed by earnings management and discretionary accruals used to measure the level of earnings management. The independent variables used in the study to capture the effect of corporate governance are audit quality, CEO duality, board size and gender diversity and two control variables -- firm size and leverage. To calculate discretionary accruals, Jones model was used. The result reveals significant negative impact of audit quality and board size on earnings management. And also the study found significant positive relationship between firm size and earnings management.

Kirubel (2016) has studied to assess the determinants of financial reporting quality in large manufacturing share companies in Addis Ababa, Ethiopia. The sources of data in the study were documentary analysis of companies' audited financial statements and in depth interview with directors/officials of manufacturing firms. The study adopted simple random sampling method, and selected a sample of fourteen companies to study them for the period of five years (2010-2014) with the total of 70 observations. The results of the study using panel least square regression analysis show that firm profitability, type of auditor and share dispersion, have statistically significant and positive relationship with manufacturing share companies' financial reporting quality. On the other hand, firm size has a negative and statistically significant relationship with manufacturing share companies' financial reporting quality. The study suggests stakeholders to consider intensive investigation on the financial information conveyed by low performing large manufacturing share companies and maintaining internal control over financial reporting further, employing large audit firms to improve the quality of information produced.

Onuorah, Anastasia and ImeneOghenefegha (2016) have conducted a study to determine the level of performance of some selected companies ranging from commodities, brewery, banking,

oil and gas and beverages in terms of corporate governance measure indicators on the firm quality of financial reporting in Nigeria. They collected data from 2006 to 2015. Econometric analysis were conducted and the result suggests that the correlation among corporate governance indicators of board structure (Board Size and Board Independence), audit quality (audit committee size), the quality of external audit as measured by the presence of an auditor among the big-4, board experience and financial reporting quality is 93.47%. According to their result the independent variables can explain the variation in the financial reporting quality by 54.29%. There is overall significance among the parameters measuring financial reporting quality as discretionary accruals of firm. The result of the study show that board structure, board experience and the quality of external audit have positive impact on the financial reporting quality measured by the discretionary accruals of firm by 16.01, 0.05 and 2.75. However, independent directors on the board of firm and audit quality (audit committee size) negatively affect financial reporting quality measured by the discretionary accruals of firm as much as 0.99 and 20.01. The result reveals that Guarantee Trust Bank Plc. among the five selected companies of the study in Nigeria has better performance of financial reporting based on board structure (Board Size) and audit committee size. This result revealed that there is short run relationship among audit quality measured by audit committee size and the quality of external audit as measured by the presence of an auditor among the big-4 and financial reporting quality as discretionary accruals of firm. The study recommended that greater focus on corporate governance indicators so as to bring about global standard financial reporting in the Nigerian emerging market for investment opportunity.

Hassan and Bello (2013) have conducted a study on the effect of firm characteristics on financial reporting quality of listed manufacturing firms in Nigeria. This study investigated firms' characteristics from perspective of structure (using firm size and leverage as proxies), monitoring (using board composition and institutional shareholding as proxies) and performance elements (using profitability, liquidity and growth as proxies). The quality of financial reporting was measured by modified model of Dechow and Dechev (2002) of listed manufacturing firms in Nigeria. The study adopted correlational research design with pooled balanced panel data of 24 firms that served as sample of the study using multiple regression as a tool of analysis.

The result reveals that larger and more leveraged firms in Nigerian manufacturing sector are less likely to manage earnings and increase in sales as well as institutional investors serve as a monitoring tool of preventing managers from opportunistic behavior in managing earnings. In addition, profitability and independent directors are positively associated with earnings quality while liquidity is inversely related with quality of financial reporting despite significant at 1% level of significance. In sum, firm characteristics of listed manufacturing firms in Nigeria have impacted significantly on their financial reporting quality. Therefore, it is recommended among others that the shareholders of Nigerian listed manufacturing firms should ensure all the seven firm characteristics used in this study and keep on improving to decrease manipulative accounting and increase the quality of financial reporting.

Atanasko (2013) conducted a study to examine the degree and quality of disclosures of financial information related to fair value by Macedonian listed entities and associations with several corporate attributes. An unweighted disclosure index comprising 51 disclosed information in audited financial statements of 32 listed entities for 2010 was composed. The association between the disclosure index of each company and various corporate characteristics (size, industry, ownership concentration, type of auditor, internationalization, leverage and prospects for future growth) was examined through multiple regression analysis. It was concluded that the size of the listed company, type of engaged audit firm and the leverage of the company are associated with the degree and quality of disclosed information on fair value. The research also reveals areas of improvement for listed companies reporting of fair value information in financial statements.

Fathi (2013) examined the relationship between the quality of financial information disclosed and governance mechanisms on certain features of the board, ownership structure and control system for French companies listed on the SBF 250 for a period of five years from 2004 to 2008. The quality of financial information is approximated by the discretionary accruals and with a disclosure index with 78 items. The result shows a positive effect of certain variables such as the size of the board of directors, the members' attendance at board meetings and the presence of the Big 4 and the presence of a dual listing have on the quality of information disclosed.

### **2.3. Conclusion and Knowledge Gap**

Financial reporting quality has been the focus of theoretical and empirical accounting research in many countries. Plenty of studies investigated the determinants of a financial reporting quality in different countries. Only a limited study had been conducted in the area from developing countries as far as the researcher knowledge is concerned. Different researchers have found inconsistent results on the linkage between financial reporting quality and its determinant factors.

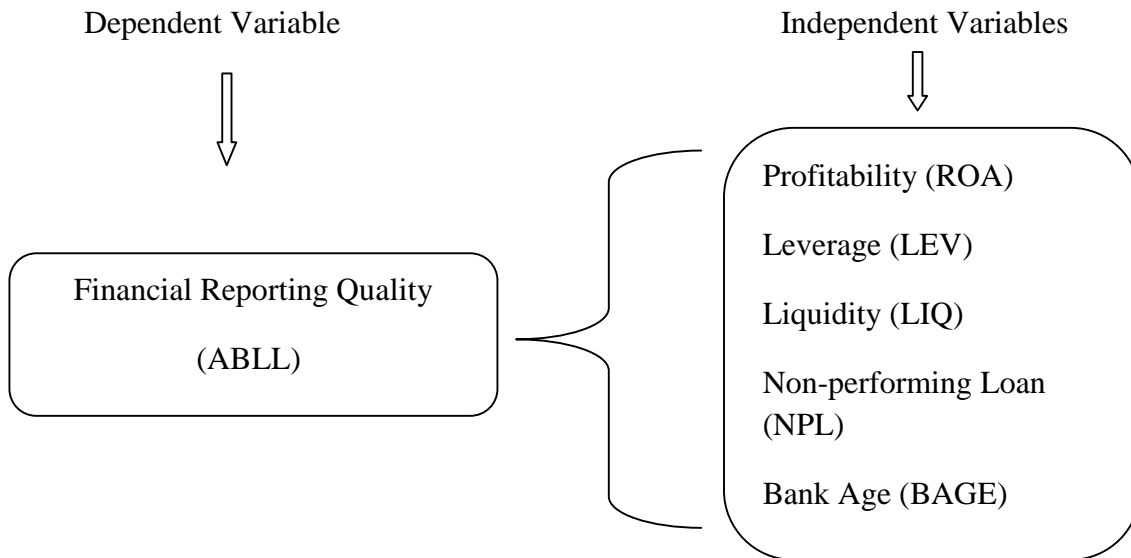
In the context of Ethiopia, the related study conducted by Kirubel (2016) assessed the determinants of financial reporting quality in manufacturing companies in Addis Ababa-Ethiopia. The study limits its scope only on investigating determinants of financial reporting quality of manufacturing share companies. To the best of the researcher's knowledge, limited studies in Ethiopia were conducted on the determinants of financial reporting quality of the banking industry. In view of this, the study will fill the gap by examining the effect of firm characteristics on the financial reporting quality of Ethiopian private banks.

### **2.4. Conceptual Framework**

To achieve part of the research objective and to test the research hypotheses, this study developed conceptual framework. Since the banks financial reporting quality is influenced by various factors, Ethiopian private banks need to understand what influences their FRQ to reach optimal level of financial reporting.

Financial Reporting Quality (FRQ), which is the dependent variable, was represented by Abnormal Loan Loss Provision (ABLL) as a proxy for earnings management, while the independent variables are profitability (ROA), liquidity (LIQ), leverage (LEV), non-performing loan (NPL), bank age (BAGE) and auditor change (AUDCH). The Abnormal Loan Loss Provision (ABLL) determines the accrual quality, the larger the ABLL, the lower the financial reporting quality (FRQ) and vice versa.

**Figure 2.1: Conceptual Framework:** Relation between Financial Reporting Quality (FRQ) and its determinants.



Source: Based on Empirical Literature

# **Chapter Three**

## **Methodology**

### **Introduction**

The preceding chapter tried to present the literature review along with the knowledge gap that this study will be filling. The purpose of this chapter is to discuss the research methodology along with the detailed methods planned to be used in the study. The chapter is organized in four sections. The first section 3.1 presents the data source and collection method. The second section 3.2 presents nature of data. Section 3.3 presents the research approaches including research approach adopted and quantitative aspect of the study. Section 3.4 presents sampling design. Data analysis and presentation is presented in section 3.5. Finally, model specification and model validity are presented in section 3.6 and 3.7 respectively.

### **3.1. Data Source and Collection Method**

In this study secondary data were used. Secondary data were obtained from audited annual reports of the banks and National Bank of Ethiopia (NBE). The researcher considered fifteen years (2002-2016) secondary data for the study. A secondary source of data was preferred by the researcher since it is less expensive in terms of time and money while collecting. And also, it affords an opportunity to collect high quality data (Saunders et al., 2009). Availability over a long period of time is also another reason.

Accordingly, the secondary data collection was carried out by means of a document review. The data related to a documentary analysis which is necessary to undertake this study were gathered from the annual reports and financial statements of six private banks and NBE for fifteen consecutive years (2002-2016).

### **3.2. Nature of Data**

This study used panel data. The researcher prefers to use panel data since panel data can take heterogeneity among different units into account over time by allowing for individual-specific variables. Besides, by combining time series and cross-section observations, it gives more

informative data. Furthermore, panel data can better detect and measure effects that simply cannot be observed in pure cross-section or pure time series data (Gujarati, 2004). Accordingly, the researcher used secondary sources of data that is panel in nature.

### **3.3. Research Approaches**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Claire Selltitz, 1962). Research design is a master plan specifying the methods and procedures for collecting and analyzing the required data. In fact, research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data (Kothari, 2004). Research design is classified into quantitative research design, qualitative research design and mixed research design.

Quantitative research engages studies that make use of statistical analyses to obtain their findings. Key features include formal and systematic measurement and the use of statistics. Quantitative research is the systematic and scientific investigation of quantitative properties and phenomena and their relationships. As noted by (Greener, 2008) quantitative research is associated with a deductive approach to testing theory, often using number or fact. Jonker and Pennink (2010) contended that the essence of quantitative research is to use a ‘theory’ to frame and thus understand the problem at hand. It is grounded in the basic attitude that knowledge about reality can also be obtained ‘through the eyes of the researcher’. It is he who elaborates theory based on findings. In order to make this happen, theory is most often translated into a conceptual model and elaborated predominantly by means of hypotheses. For the researcher conducting quantitative research it implies the need to carefully operationalizing a theory and subsequently measuring it by means of variables and questions. Quantitative research is an approach for testing objective theories by examining the relationship among variables. These variables, in turn, can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures. The final written report has a set structure consisting of introduction, literature and theory, methods, results, and discussion. Like qualitative researchers, those who engage in this form of inquiry have assumptions about testing theories deductively, building in protections against bias, controlling for alternative explanations, and being able to generalize and replicate the findings

Qualitative research involves studies that do not attempt to quantify their results through statistical summary or analysis. Qualitative studies typically involve interviews and observations without formal measurement. A case study, which is an in-depth examination of one person, is a form of qualitative research. Qualitative research is often used as a source of hypotheses for later testing in quantitative research. Qualitative research is an approach for exploring and understanding the meaning of individuals or groups ascribed to a social or human problem. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the meaning of the data. The final written report has a flexible structure. Those who engage in this form of inquiry support a way of looking at research that honors an inductive style, a focus on individual meaning, and the importance of rendering the complexity of a situation.

Mixed research is an approach to inquiry involving collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks. The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone. It tries to mix the best of qualitative and quantitative research into research studies. Mixed research uses both deductive and inductive methods, obtains both quantitative and qualitative data, attempts to corroborate and complement findings, and takes a balanced approach to research. A mixed methods approach is one in which the researcher tends to base knowledge claims on pragmatic grounds (e.g., consequence-oriented, problem-centered, and pluralistic).

As noted by Kothari (2004), explanatory research design examines the cause and effect relationships between dependent and independent variables. Therefore, since this study examined the cause and effect relationships between financial reporting quality and its determinant, it is an explanatory research.

The objective to be achieved in the study is a base for determining the research approach for the study. In case, if the problem identified is factors affecting the outcome having numeric value, it is quantitative approach (Creswell, 2003). Therefore, the researcher employed quantitative research approach to see the regression result analysis with respective empirical literatures on the

determinants of financial reporting quality. Thus, the researcher used a panel data from 2002 to 2016 period.

### **3.3.1. Research Approach Adopted**

The major objective of this panel study was to assess the financial reporting quality determinants in Ethiopian private banks based on factors which are found to significantly influence financial reporting quality in prior studies. The research problem tends to be explanatory which seeks to explain the relationship between financial reporting quality and firm level factors. The research approach used in the study was quantitative research approach to understand the research problem. The study followed explanatory research design. Explanatory research aims at establishing the cause and effect relationship between variables. The researcher used the facts or information already available to analyze and make a critical evaluation of the data. These research designs were appealing for this study to achieve the objectives of the study and to test the hypotheses.

The study employed strategies of inquiry that involve collecting data sequentially to best understand research problem. The data collection involved gathering numeric information (document review) and finally the database represented quantitative information.

#### **3.3.1.1. Quantitative Aspect of the Study**

For the purpose of quantitative analysis, secondary data is used. Secondary data may either be published or unpublished data (Kothari, 2004). Accordingly, secondary data was obtained from the audited annual financial statements of the concerned private banks in Ethiopia. The secondary data is bank specific and was obtained from National Bank of Ethiopia, which regulates the banking sector of the country and the head office of each sample private banks. For this study, 15 years of data (2002-2016) were considered.

### **3.4. Sampling Design**

As noted in Jonker and Pennink (2010) it is clear that researchers are typically unable to study the entire population. Therefore, researchers typically study a subset of the population which is known as a sample. A sample is a portion of the population that infer about the population.

However, it is important that the sample be representative of the population from which it was selected. Sample design deals with sample frame, sample size and sampling technique. Sampling is a technique of selecting a suitable sample for the purpose of determining parameters of the whole population. Population is the list of elements from which the sample may be drawn (John, 2007). A sample is drawn to overcome the constraints of covering the entire population with the intent of generalizing the findings to the entire population.

As of 2016, there are eighteen banks in Ethiopia. These are Commercial Bank of Ethiopia, Awash International Bank, Bank of Abyssinia, Wegagen Bank, United Bank, Nib International Bank, Dashen Bank, Development Bank of Ethiopia, Cooperative Bank of Oromia, Lion International Bank, Zemen Bank, Oromia International Bank, Buna International Bank, Berhan International Bank, Abay Bank S.C, Addis International Bank S.C, Debub Global Bank S.C and Enat Bank. However, from all the above listed banks, Development Bank of Ethiopia and Commercial Bank of Ethiopia are not private banks ([www.nbe.et](http://www.nbe.et)).

The population of this study was private banks operating in Ethiopia. According to the records held by NBE, there are 16 private banks in the country. The study employed purposive sampling technique to select the required sample of banks from the above total population of private banks. Purposive sampling is a non-probability sampling that conforms to certain criteria. Accordingly the researcher employed judgmental sampling technique which is one of the purposive sampling techniques. Besides, judgmental sampling offers the researcher to deliberately select items for the sample concerning the choice of items as supreme based on the selection criteria set by the researcher. Judgmental sampling is a cross-section of the sample selected by the researcher conforming to some criteria. The selection criteria set by the researcher was first the required banks have to be private banks operating in Ethiopia. Second, those private banks should have audited financial statements and annual reports for at least fifteen consecutive years (2002 to 2016) to allow the researcher to obtain sufficient data for calculating the representative data from each bank. Out of the total population, the researcher selected sample banks that were in existence over the selected sample periods and whose published annual reports and audited financial statements were available and accessible over the time frame of the study.

Therefore out of the sixteen private banks, the researcher judgmentally selected six private banks; those private banks being studied fit a specific purpose or description that was necessary to conduct the research. Those private banks selected as a sample size are Awash International Bank, Bank of Abyssinia, Dashen Bank, Nib International Bank, United Bank, and Wegagen Bank. This is due to the fact that since the primary aim of this study is to examine the determinants of financial reporting quality of private banks in Ethiopia, it is better to make generalization for the banking sector of the country based on data drawn from sample banks which were much more experienced in the industry.

In addition, judgmental sampling technique was used because the researcher set a time frame of study and categorized banks into private and non-private banks. Also it is less time consuming and convenient to use.

### **3.5. Data Analysis and Presentation**

In order to achieve the objective of the study the researcher analyzed the secondary data collected from NBE and the head office of each respective sampled private banks.

Thus, this study utilized both descriptive and inferential statistics based on a panel data from 2002-2016 to examine the relationship between financial reporting quality and its determinant factors in private banks of Ethiopia. The financial statements of sampled private banks for the period of 2002- 2016 were analyzed using panel data model. As noted on Brooks (2008) panel data embody information across both time and space. Importantly, a panel keeps the same individuals or objects and measures some quantity about them over time. The quantitative data analysis was undertaken by using EViews 9 statistical package and it included the descriptive statistics, correlation matrix analysis and panel data regression.

First, descriptive statistics is used to highlight the nature of data and describe the variables used in the study, in terms of average and variation among the cross section. The descriptive statistics include mean, maximum, minimum and standard deviation to describe the characteristics of variables under study. Second, correlation matrix was used to identify the relationship of each independent variable among them and with dependent variable. This would help to get an initial picture as to the nature of the relationship among the variables before proceeding to regression analysis.

Finally, panel least square regression analysis is used to determine the significant relationships between Ethiopian private banks financial reporting quality and the identified independent firm specific variables.

The panel data regression is undertaken by using fixed effect model by checking fitness of the methods using Hausman Test to examine the effect of each explanatory variable on financial reporting quality of the private banks. Then before running panel data regression, the necessary diagnosis test such as heteroscedasticity, autocorrelation, normality, and multicollinearity were conducted to proof the validity of the model and to fulfill the assumption of classical linear regression model. The objective of this analysis was to make a prediction about the dependent variable based on its relationship with all the concerned independent variables. Finally regression results were presented in a tabular form with the appropriate test statistics and then an explanation of each parameter were given in line with the evidence in the literature.

### **3.6. Model Specification**

Under this section definition of each independent variables and dependent variable is presented. The first section presents the definition of the dependent variable and the proxy used to measure financial reporting quality. This is followed by the definition and measurement of independent variables in section II. Finally, model specification is presented in section III.

#### **I. Dependent Variable: Loan Loss Provision**

In financial reporting quality literature the most commonly used proxy for earnings management and accrual quality is the modified Dechow and Dichev (2002) model. But as the banking industry is unique in nature, the proxy used for earning management in most studies is Abnormal Loan Loss Provisions (ABLL). Asokan, Iftekhar and Cornelia (2007) reported that most listed banks in Australia use Loan Loss provisions to aggressively manage earnings; furthermore, Dabor and Ibadin (2013) used Abnormal Loan Loss Provisions (ABLL) as a proxy for earnings management. In line with Dabor and Ibadin (2013) and Olowokure, Tanko and Nyor (2015) financial reporting quality was represented by abnormal loan loss provision as a proxy for earnings management. Abnormal loan loss provision, which is a proxy for earnings management is related to bank specific characteristics. In particular, abnormal loan loss provision (ABLL) is

measured as a modification of Kanagaretnam et al., (2010) by Dabor and Ibadin (2013) as follows:

$$LLP_{it} = \beta_0 + \beta_1 LLAB + \beta_2 NBLW + \beta_3 NPL + \beta_4 TOTL + e_{it} \quad (1)$$

The residual from equation above are the abnormal loan loss provision where;

LLP = Loan loss provisions,

LLAB= Loan Loss Allowance at the Beginning,

NBLW = Net Bad Loans Written Off,

NPL = Change in Non-performing Loans,

TOTL = Change in Total Loan

The residual from model (1) above after inserting the sampled banks data represents the abnormal component of LLP, referred to as Abnormal Loan Loss provision (ABLL) which is a proxy for financial reporting quality. However, the residual determines the accrual quality, the larger the residuals, the lower the quality of financial reporting and vice versa.

The researcher expects a negative coefficient on LLAB (i.e., the accumulated LLP less write-offs at the beginning of the year) as a higher initial loan loss allowance will require a lower LLP in the current period. Consistent with prior research the researcher expects a positive sign for  $\beta_2$  and  $\beta_3$ . The amount of Net Bad Loans Written off (NBLW) is positively related to LLP. As indicated by Beaver and Engel (1996), because current loan written-off can provide information about future loan written-offs, they may influence expectations of the collectability of current loans and hence current LLP. Higher levels of nonperforming loans indicate problems with the loan portfolio and require higher loss provisions. Change in nonperforming loans (NPL) in the current period will also have a positive effect on LLP because an increase in nonperforming loans will require a higher loan loss provision in the current period. There is no prediction for  $\beta_4$  because the effect of change in total loan (TOTL) portfolio on LLP is unpredictable due to the uncertainty in the quality of incremental loans. These expectations are supported by Kanagaretnam et al., (2010) and Dabor and Ibadin (2013).

## II. Independent Variables

**Bank Profitability:** Profitability of the bank is measured by return on asset ratio.

**Bank Leverage:** Leverage is measured as the ratio of total liabilities to total asset.

**Bank Liquidity:** Liquidity is measured by loan to deposit ratio.

**Non-Performing Loan:** Non-performing loan is measured by total non-performing loan amount.

**Bank Age:** The age of the bank is measured as the year of incorporation.

**Auditor Change:** Auditor change is measured by dummy variable, 1 if auditor was changed in the year and 0 otherwise.

## III. Model Specification

The researcher collected data that include financial statements of Ethiopian private banks from 2002 to 2016 for analysis. The nature of data that was used in this study enabled the researcher to use panel data, which is deemed to have advantages over cross sectional and time series data. The model has dependent and independent variables. The dependent variable which is financial reporting quality was represented by abnormal loan loss provision (Olowokure, Tanko and Nyor, 2015; Dabor and Ibadin, 2013; and Kanagaretnam, Krishnan and Lobo, 2010). Based on previous studies and availability of data, six independent variables were selected as proxies for firm's characteristics. These variables include: profitability, leverage, liquidity, non-performing loan, bank age and auditor change.

To study the determinants of financial reporting quality of Ethiopian private banks the following general empirical research model was developed based on empirical studies of (Kirubel, 2016; Olowokure, Tanko and Nyor, 2015; Ahmed, 2012; Hassan and Bello, 2013; Fathi, 2012; Dechow, Ge and Schrand, 2010; Atanasko, 2013; and Ferrero, 2014).

$$FRQ_{it} = \beta_0 + \beta_1(ROA_{it}) + \beta_2(LEV_{it}) + \beta_3(LIQ_{it}) + \beta_4(NPL_{it}) + \beta_5(BAGE_{it}) + \beta_6(AUDCH_{it}) + e_{it}$$

Where;

FRQ<sub>it</sub> = Financial Reporting Quality of bank i at time t

$\alpha_0$  = Is the Intercept

$ROA_{it}$  = Bank profitability measured as return on asset ratio of bank i at time t

$LEV_{it}$  = Bank leverage measured as the ratio of total liabilities to total asset of bank i at time t

$LIQ_{it}$  = Bank liquidity measured as loan to deposit ratio of bank i at time t

$NPL_{it}$  = Non-performing loan measured as total non-performing loan of bank i at time t

$BAGE_{it}$  = Bank age measured as the year of incorporation of bank i at time t

$AUDCH_{it}$  = Auditor change is measured by dummy variable, 1 if Auditor was changed in the year and 0 otherwise of bank i at time t

$\beta_{1-6}$  = is the coefficient parameter of the independent variables,

$e_{it}$  = error term; where i is bank and t is year

### **3.7. Model Validity**

Diagnostic test is made to make sure that the classical linear regression model assumption is violated or not and to get reliable output from the study. In this study an attempt is made to test heteroscedasticity, autocorrelation, normality and multicollinearity assumptions are violated or not which are presented in chapter four. To test for the presence of heteroscedasticity, the popular white test was employed. It is a test made to check whether error terms variance is constant (homoscedasticity) or not (heteroscedasticity). The presence of autocorrelation was tested by Durbin-Watson (DW) test of autocorrelation. Durbin-Watson is a test for first order autocorrelation, i.e., it tests for a relationship between an error and its immediate previous value. To test the normality assumption whether it is violated or not in this study, the researcher applied the Jarque-Bera (JB) test. It is a test made to check normal distribution of the residuals. In order to examine the possible degree of multicollinearity among the explanatory variables, correlation matrix between the independent variables was used. Hausman test is also performed to choose the appropriate model for the study and fixed effect model is found to be more appropriate than the random effect model. Fixed Effect Ordinary Least Square regression method is applied to determine the significance of the effect of the explanatory variables on the dependent variable.

# **Chapter Four**

## **Results and Discussion**

### **Introduction**

The preceding chapters presented the background of the study, literature review and the research methodology adopted in the study to achieve the objectives of the study and to test the research hypotheses thereon. This chapter presents results and analysis of data collected from documentary analysis. The chapter is organized into two sections. The first section presents the result which includes descriptive statistics, CLRM Assumptions and Diagnostic tests, correlation analysis and the regression results. This is followed by the discussion of result of documentary analysis (structured review of documents) in the second section.

### **4.1. Results**

This section aims to explain the results of the analysis performed and compare the results of this study to existing literature on the issue at hand i.e. the quality of financial reporting. Accordingly, the results of the analyzed data through various statistical tools were presented in the following subsections. Section 4.1.1 presents the descriptive statistics which focuses on the mean, maximum, minimum and standard deviation. Section 4.1.2 presents tests for the classical linear regression model assumptions followed by the correlation analysis among the dependent and independent variables in section 4.1.3 of the study. The model selection test and outcomes of the regression result with discussion are presented in section 4.1.4 and 4.1.5 respectively

#### **4.1.1. Descriptive Statistics**

The study examined the determinants of financial reporting quality for six private banks over the time period from 2002-2016. The total number of observation for the study was 90 (data for 6 private banks for the period from the year 2002 to 2016). The dependent variable of this study is financial reporting quality and explanatory variables are profitability, leverage, liquidity, non-performing loan, bank age and auditor change. The descriptive statistics of the dependent and explanatory variables for the sample banks were summarized in Table 4.1 below. Moreover, the

table also shows the mean, minimum, maximum and standard deviation values for the dependent and independent variables.

Table 4.1: Summary of Descriptive Statistics

	FRQ	ROA	LEV	LIQ	NPL	AUDCH	BAGE
Mean	1.33E-08	0.024925	0.873948	0.668565	1.47E+08	0.195402	12.32184
Maximum	62378635	0.040209	0.935685	0.985420	3.60E+08	1.000000	22.00000
Minimum	-53787648	-0.002084	0.732351	0.466283	25635773	0.000000	3.000000
Std. Dev.	26904734	0.008481	0.035116	0.128795	76558080	0.398809	4.619207
Observations	87	87	87	87	87	87	87

Source: Output of EViews 9

As shown in Table 4.1 above, the dependent variable of this study, financial reporting quality (FRQ), have a mean value of  $1.33 \times 10^{-8}$  almost zero as expected and standard deviation of 26904734. This implies that during the study period the sampled private banks have abnormal accrual, on average, with a value of  $1.33 \times 10^{-8}$ . On the other hand, the minimum and maximum value of  $-53787648$  and  $62378635$  indicate that from the sampled private banks a private bank with  $62378635$  maximum has the highest financial reporting quality while a private bank with  $-53787648$  has a minimum financial reporting quality. The entire figure shows that the Ethiopian private banks have averagely negative  $1.33 \times 10^{-8}$  of abnormal loan loss provision, which implicates financial reporting quality.

The first explanatory variable of the study, profitability, measures return on asset and shows how much return the bank has generated from the asset employed. In this case, return on asset has a mean value of 2.49 percent and standard deviation of 0.848 percent. Thus, the management of the private banks has generated on average 2.49% return for each asset employed and the deviation from the mean value was 0.848 %. Besides, the minimum and maximum amount of return on asset of the sampled private banks is -0.2084 percent and 4.0209 percent, respectively. This indicates that there is a private bank with a maximum return on asset ratio of 4.0209 percent and a bank with a minimum return on asset ratio of -0.2084 percent.

Leverage, as demonstrated in Table 4.1 above has a minimum value and maximum value of 0.732351 and 0.935686, respectively. These imply that there is a bank out of the selected private banks with the maximum leverage or ratio of total liabilities to total asset of 0.935686 and a private bank with a minimum of 0.732351 ratios of total liabilities to total asset during the study period. Yet, the ratio of total liabilities to total asset has a standard deviation of 0.035116 from its mean value of 0.873948. The average leverage ratio is reported to be 87.39% during the review period. According to this the private banks finance their long term debt 87.39% from total asset.

Liquidity is another indicator of financial reporting quality in this study. It is computed by dividing total loan to total deposit. As reported in Table 4.1 above its mean value and standard deviation are 0.668565 and 0.128795, respectively. The maximum and minimum values for liquidity ratio are 0.985420 and 0.466283, respectively. This implies that the private banks' management uses on average 66.86 % of total deposits to cover their current loan request.

The non-performing loan, another explanatory variable of the study, as shown on the Table 4.1 has an average value of 147,000,000 that clearly shows in this study period the sample private banks have on average 147,000,000 non-performing loans. The minimum and maximum non-performing loan value for this private banks is reported to be 25,635,773 and 360,000,000, respectively, which implies from the sample private banks one bank has a minimum non-performing loan amount of 25,635,773 and at least one bank has a maximum amount of 360,000,000 non-performing loan from the sampled private banks. Standard deviation value of 76,558,080 reveals the average spread from the mean value of the private banks non-performing loan.

The auditor change shows the change of an audit firm for a given bank in a given year while providing external audit service. The mean of this variable for the selected private banks stands at 0.195 which implies that the average period of a given bank changes its audit firm. The minimum and maximum value for the variable is 0 and 1 respectively with a standard deviation of 0.398. The minimum value implies that there is a private bank which did not change an audit firm within the study period and the maximum value indicates that there is a private bank which changed its audit firm within the study period.

As shown in Table 4.1 above, the independent variable bank age has a mean value of 12.32 and standard deviation of 4.619. The mean value implies that the sampled private banks have average age of 12.32 years. On the other hand, the sampled private banks have the minimum and maximum value of 3 and 22 indicate that from the sampled private banks there is a private bank with minimum 3 years of incorporation at the time of the starting of the sample period and a there is a private bank from the sampled banks with a maximum 22 years of operation.

#### **4.1.2. Classical Linear Regression Model Assumptions and Diagnostic Tests**

Diagnostic test is made to make sure that the classical linear regression model assumption is violated or not and to get reliable output from the study. In this study an attempt is made to test heteroscedasticity, autocorrelation, normality and multicollinearity which are presented and discussed as follows. Accordingly, the following sub-section presents tests of CLRM.

##### **4.1.2.1. Test of Heteroscedasticity**

One of the key assumptions of classical linear regression model is the assumption of homoscedasticity. It has been assumed thus far that the variance of the errors ( $\sigma^2$ ) is constant -- this is known as the assumption of homoscedasticity. If the errors do not have a constant variance, they are said to be heteroscedastic (Brooks, 2008). It is a test made to check whether error terms variance is constant (homoscedasticity) or not (heteroscedasticity). To test for the presence of heteroscedasticity, the popular White test was employed.

As presented in Table 4.2, both the F-statistic and Chi-Square versions of the test statistic gave the same conclusion that there is no evidence for the presence of heteroscedasticity in this particular study, since the p-values are considerably in excess of 0.05. Therefore, the null hypothesis that the variance of the errors is constant (homoscedasticity) should not be rejected.

Table 4.2: Heteroscedasticity Test: White Test

Heteroskedasticity Test: White			
F-statistic	0.982201	Prob. F(26,60)	0.5039
Obs*R-squared	25.97394	Prob. Chi-Square(26)	0.4645
Scaled explained SS	18.30427	Prob. Chi-Square(26)	0.8644

Source: Output of EView 9

#### 4.1.2.2. Test of Autocorrelation

The other assumption of classical linear regression model is autocorrelation. According to Brooks (2008),  $cov(u_i, u_j) = 0$  for  $i \neq j$  that is made of the CLRM's disturbance terms is that the covariance between the error terms over time (or cross-sectionally, for that type of data) is zero. In other words, it is assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are 'autocorrelated' or that they are 'serially correlated'. A test of this assumption is therefore required. Again, the population disturbances cannot be observed, so tests for autocorrelation are conducted on the residuals,  $\hat{u}$ . This assumption was tested by Durbin-Watson (DW) test of autocorrelation. Durbin-Watson is a test for first order autocorrelation, i.e., it tests for a relationship between an error and its immediate previous value. One way to motivate the test and to interpret the test statistic would be in the context of a regression of the time  $t$  error on its previous value.

$$u_t = \rho u_{t-1} + v_t$$

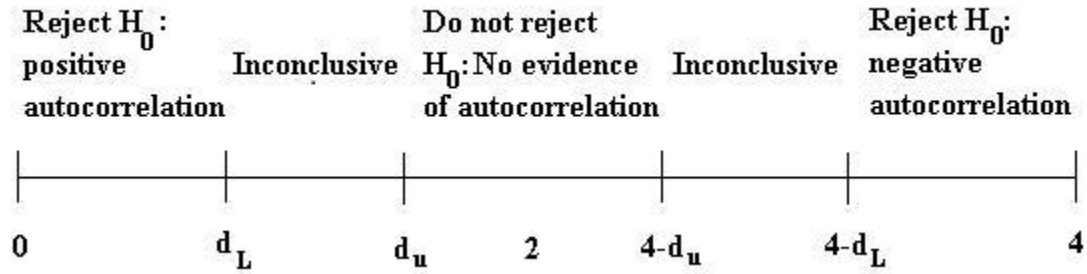
Where  $v_t \sim N(0, \sigma^2 v)$  and  $\rho$  is the coefficient of autocorrelation. The DW test statistic has as its null and alternative hypotheses. Under the null hypothesis, the errors at time  $t-1$  and  $t$  are independent of one another (the errors at time  $t-1$  and  $t$  are uncorrelated), and the alternative hypothesis says the errors at time  $t-1$  and  $t$  are dependent (the errors at time  $t-1$  and  $t$  are serially correlated). Therefore

$H_0: \rho = 0$  (no autocorrelation)

$H_1: \rho \neq 0$  (autocorrelation)

DW has 2 critical values: an upper critical value ( $d_U$ ) and a lower critical value ( $d_L$ ), and there is also an intermediate region where the null hypothesis of no autocorrelation can neither be rejected nor not rejected. The rejection, non-rejection, and inconclusive regions are shown on the number line in Figure 4.1.

Figure 4.1: Rejection, Non-Rejection, and Inconclusive Regions for DW Test



According to Brooks (2008) the following is the decision rule to reject and not to reject the null hypothesis:

- ) The null hypothesis is rejected and the existence of positive autocorrelation presumed if DW is less than the lower critical value  $d_L$ ; the null hypothesis is also rejected and the existence of negative autocorrelation presumed if DW is greater than 4 minus the lower critical value  $d_L$ .
- ) The null hypothesis is not rejected and no significant residual autocorrelation is presumed if DW is between the upper critical value  $d_U$  and 4 minus the upper critical value  $d_U$ .
- ) The null hypothesis is neither rejected or fails to be rejected if DW is between lower critical value  $d_L$  and the upper critical value  $d_U$  or if DW is in between 4 minus the upper critical value  $d_U$  and 4 minus the lower critical value  $d_L$ .

The DW test table value of  $d_L$ ,  $d_U$ ,  $4-d_U$  and  $4-d_L$  at N 90, and K 6 for this study is presented graphically below in Figure 4.2.

Figure 4.2: DW Test Result



Table 4.3: DW Test Result of Autocorrelation

Test	DW Test Statistics
DW Result	1.56

Source: Output of Eviews 9

As indicated in Table 4.3, the Durbin-Watson test statistic value is 1.56. With 90 number of observations and 6 explanatory variables excluding the constant term, the relevant lower and upper critical values for the test are  $dL=1.52$ ,  $dU=1.80$ ,  $4 - dU = 4-1.80=2.20$  and  $4 - DL= 4-1.52= 2.48$ , respectively. Thus the Durbin-Watson test statistic value of 1.56 is clearly between the lower limit ( $dL$ ) which is 1.52 and the upper limit ( $dU$ ) which is 1.80 indicating that the null hypothesis of no autocorrelation is within the inconclusive region. Therefore, there is no significance evidence for the existence of autocorrelation in the study. Thus the null hypothesis is neither rejected nor not rejected.

#### 4.1.2.3. Test of Normality

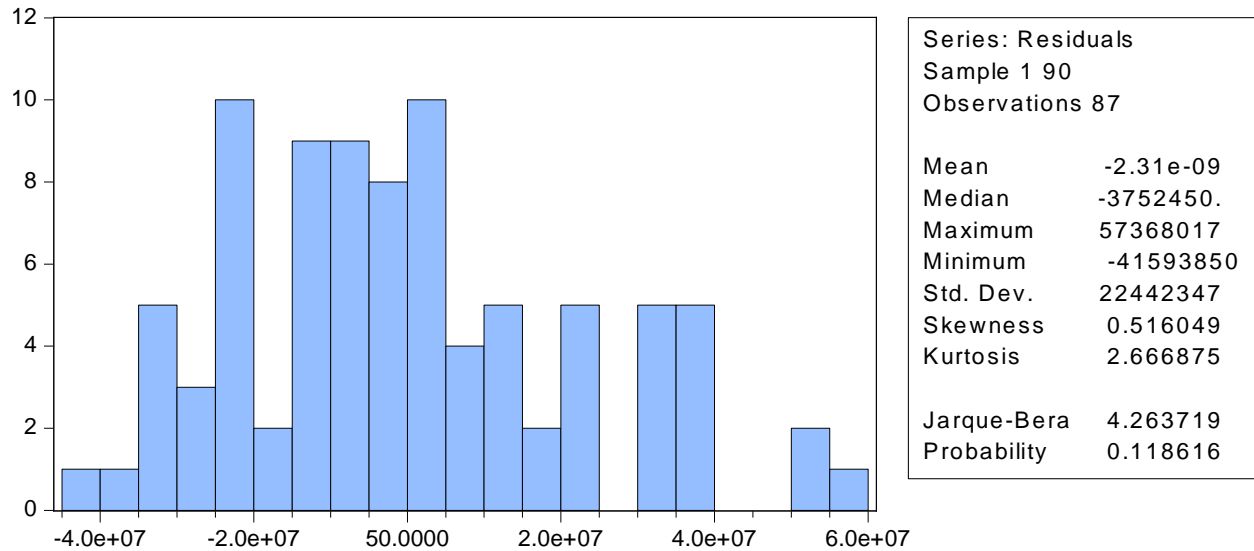
The other classical linear regression model assumption is normal distribution of the residual (normality). The classical normal linear regression model assumes that each  $u_i$  is distributed normally with mean and standard deviation values near to 0 and 1, respectively, Gujarati (2004).

To test the normality assumption whether it is violated or not in this study, the researcher applied the Jarque-Bera (JB) test. As noted by Brooks (2008), JB uses the property of a normally distributed random variable that the entire distribution is characterized by the first two moments, the mean and the variance.

The standardized third and fourth moments of a distribution are known as its skewness and kurtosis. Skewness measures the extent to which a distribution is not symmetric about its mean value and kurtosis measures how fat the tails of the distribution are. If the residuals are normally distributed, the histogram should be bell-shaped and the Jarque-Bera statistic would not be significant. This means that the p value given at the bottom of the normality test screen should be bigger than 0.05 to not reject the null of normality at the 5% level.

As clearly plotted in Figure 4.3 the kurtosis is close to 3. The normality test for this study shows a P-value of Jarque-Bera 0.12 which is greater than 0.05 and the histogram is also bell-shaped implying that the residuals of this study is normally distributed and consistent with a normality assumption.

Figure 4.3 Normality Test: Residual



Source: Output of Eviews 9

#### 4.1.2.4. Multicollinearity

The other very important assumption of the classical linear regression model is multicollinearity. According to Gujarati (2004) one of the assumptions of the classical linear regression model is that there is no multicollinearity among the explanatory variables, the X's. Broadly interpreted, multicollinearity refers to the situation where there is either an exact or approximately exact linear relationship among the explanatory variable. To test the multicollinearity problem the current study used correlation matrix between the explanatory variables.

In order to examine the possible degree of multicollinearity among the explanatory variables, correlation matrixes of the selected explanatory variables were presented in Table 4.4. Usually the multicollinearity problem exists when the correlation coefficient between two independent variables is greater than 0.7 (Kennedy, 2008). Table 4.4 below shows the correlation coefficient among explanatory variables in this study. The highest correlation coefficient in this study is -

0.69 that is between LIQ and BAGE, which is less than 0.7. Therefore, there is no evidence for presence of multicollinearity problem in this study model. As it appears in the correlation matrix table 4.4, there were no such high correlation between the explanatory variables.

Table 4.4: Correlation Matrix for Independent Variables

	ROA	LEV	LIQ	NPL	AUDCH	BAGE
ROA	1.000000					
LEV	-0.274030	1.000000				
LIQ	-0.253163	-0.089043	1.000000			
NPL	-0.010654	0.207418	-0.327780	1.000000		
AUDCH	-0.083623	0.016567	0.063481	0.223524	1.000000	
BAGE	0.406207	-0.024369	-0.694328	0.502564	-0.021911	1.000000

Source: Output of Eviews 9

### 4.1.3. Correlation Analysis

The purpose of correlation matrix in this particular study was to show the linear association between the dependent and independent variables. As noted in Brooks (2008), correlation between two variables measures the degree of linear association between them. Values of the correlation coefficient are always between positive one and negative one. A correlation coefficient of positive one indicates a perfect positive association between the two variables; while a correlation coefficient of negative one indicates a perfect negative association between the two variables. A correlation coefficient of zero, on the other hand, indicates that there is no linear relationship between the two variables.

Table 4.5 presents the correlation coefficients between the explanatory variables and financial reporting quality in the model. To find the association of the independent variables with financial reporting quality, Pearson product moment of correlation coefficient was used. As exhibited in Table 4.5, almost all the variables correlated with financial reporting quality, auditor change (AUDCH, 0.12) showing the lowest correlation coefficient and the variable LIQ showing a negative correlation with financial reporting quality. The highest positive correlation coefficient is between profitability (ROA, 0.336) and financial reporting quality. This relationship suggests

initial picture as to the nature of the relationship between explanatory variables and financial reporting quality. As the correlation matrix indicates, profitability is the most dominant determinant of financial reporting quality, which is reflected in the table by the very strong positive correlation between ROA and the dependent variable (i.e. FRQ). This correlation clearly shows that, as a bank becomes profitable, the financial reporting quality of a given bank will also decrease.

Table 4.5: Correlation Matrix of Dependent and Independent Variables

	FRQ	ROA	LEV	LIQ	NPL	AUDCH	BAGE
FRQ	1.000000						
ROA	0.336378	1.000000					
LEV	0.179967	-0.274030	1.000000				
LIQ	-0.300050	-0.253163	-0.089043	1.000000			
NPL	0.254648	-0.010654	0.207418	-0.327780	1.000000		
AUDCH	0.123505	-0.083623	0.016567	0.063481	0.223524	1.000000	
BAGE	0.194421	0.406207	-0.024369	-0.694328	0.502564	-0.021911	1.000000

Source: Output of Eviews 9

#### 4.1.4. Model Selection Test: Random versus Fixed Effect Model

This study used panel data models where the random effect or fixed effect models could be used to estimate the coefficients of variables. As noted by Gujarati (2004) if T (the number of time series data) is large and N (the number of cross-sectional units) is small, there is likely to be little difference in the values of the parameters estimated by fixed effect model and random effect model. Hence, the choice here is based on computational convenience. The best alternative to make a choice between fixed effects and random effects model is conducting Hausman specification test. In this study the Hausman specification tests is utilized to decide which model is appropriate to fit the sample data. Hausman specification test is the classical test of whether the fixed or random effects model should be used. Running a Hausman specification test at five percent level enables the researcher to choose between fixed effects and random effects models. The hypothesis for Hausman specification test is:

Null hypothesis: Random- effect model is more appropriate

Alternative hypothesis: Fixed-effect model is more appropriate

Decision rule: if the P-value from the Hausman test is statistically significant (less than five percent) the fixed-effect model is preferred in favor of random effect, otherwise the random effect model is selected.

In order to choose the appropriate model for the study the Hausman's specification test was used. Table 4.6 presents the Hausman specification test which suggests rejecting the null hypothesis that random effect model is more appropriate than fixed effect model as the p-value (0.0000) is less than 0.05 for dependent variables in this regression analysis. This implies that a fixed effect model is more appropriate than random effect model to undertake the panel regression estimation in this study.

Table 4.6: Correlated Random Effects-Hausman Test

Correlated Random Effects - Hausman Test  
Equation: Untitled  
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	41.288572	6	0.0000

Source: Output of Eview 9

#### 4.1.5. Fixed Effect Regression Result

This study used panel data models where the random effect and fixed effect models could be used to estimate the relationships among dependent and independent variables. An appropriate model for this analysis, testing random versus fixed effects models, was selected. To perform this comparison, the character of the individual effects was tested through the Hausman's specification test. According to Hausman test results shown in Table 4.6, the fixed effects were found to be more appropriate for the model at the 5 percent level. Thus, the relationship between financial reporting quality and the explanatory variables were examined by the fixed effects model in this study. The result obtained by the fixed effect model is presented in Table 4.7.

Accordingly, this section presents a fixed effect model regression result to examine the impact of explanatory variables (ROA, LEV, LIQ, NPL, BAGE and AUDCH) on the financial reporting quality of Ethiopian private banks.

Table 4.7: Fixed Effect Regression Result

Dependent Variable: FRQ  
Method: Panel Least Squares  
Date: 05/30/17 Time: 00:45  
Sample: 2002 2016  
Periods included: 15  
Cross-sections included: 6  
Total panel (unbalanced) observations: 87

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA	2.16E+09	2.88E+08	7.474924	0.0000
LEV	42009259	75354158	0.557491	0.5789
LIQ	-76309113	20262251	-3.766073	0.0003
NPL	0.154253	0.036190	4.262332	0.0001
BAGE	-4377849.	734790.0	-5.957959	0.0000
AUDCH	7936247.	4880026.	1.626271	0.1081
C	-9760345.	73424152	-0.132931	0.8946

Effects Specification

Cross-section fixed (dummy variables)			
R-squared	0.671166	Mean dependent var	1.36E-08
Adjusted R-squared	0.622937	S.D. dependent var	26904734
S.E. of regression	16520974	Akaike info criterion	36.20560
Sum squared resid	2.05E+16	Schwarz criterion	36.54573
Log likelihood	-1562.944	Hannan-Quinn criter.	36.34256
F-statistic	13.91624	Durbin-Watson stat	1.560233
Prob(F-statistic)	0.000000		

Source: Output of Eviews

Note: Since the dependent variable is measured as discretionary accrual, which is abnormal loan loss provision, implying lack of quality, positive coefficient show inverse relationship while negative coefficient shows a direct relationship.

The estimation result of the panel regression model used in this study is reported in Table 4.7. Accordingly, the R-squared statistics and the adjusted-R squared statistics of the model are 0.671 and 0.622 respectively. These indicate that explanatory variables included in this model could explain variation in the dependent variable by about 67 percent and 62 percent respectively. The

remaining 38 percent can be taken as the role of explanatory variables that are not included in this model but that have impact on the financial reporting quality.

The null hypothesis of F-statistic (the overall test of significance) that the  $R^2$  is equal to zero is rejected at 1% as the p-value is sufficiently low. Pro (F-statistics) of 0.000000 indicates that the model fit the sample data well and the explanatory variables are jointly significant. All the independent variables jointly have statistically significant impact on financial reporting quality of Ethiopian private banks. As shown in the above table leverage and auditor change have no statistical significant effect on financial reporting quality at 0.05 significance level which is in contrary to the expectation of the researcher. Whereas all the other variables with exception to profitability and non-performing loan have statistically significant positive effect on financial reporting quality. Profitability and non-performing loan have statistically negative significant effect on financial reporting quality of Ethiopian private banks.

## **4.2. Discussion of the Result**

Under this section, specifically the researcher analyzed in detail the regression result of fixed effect model. The current study shows that all variables in the model except leverage and auditor change affect financial reporting quality of private banks in Ethiopia. More specifically, the regression result indicates that profitability, liquidity, non-performing loan and bank age has significant impact on the financial reporting quality of Ethiopian private banks.

The study found that leverage and change of auditor do not have statistically significant effect on financial reporting quality of Ethiopian private banks. However, there are findings that are in contrary to the expectations of the researcher, findings that are consistent with the results existing in the literature and findings that are inconsistent with the existing result in the literature. These are discussed one by one as follows:

### **Profitability and Financial Reporting Quality of Private Banks in Ethiopia**

Profitability was considered to be one of the key factors that can affect the financial reporting quality of private banks in Ethiopia. The regression result above shows that profitability, measured by return on asset has a statistically significant negative impact on financial reporting quality of private banks in Ethiopia. The result of this study was not in accordance with the

expected sign by the researcher and inconsistent with the signaling theory that argues directors who believe their company can perform better than other companies will want to signal this to shareholders in order to attract more investments. Signaling theory suggests that when a corporation's performance is good, managers will signal companies' performance to their investors, stakeholders and the market by making disclosures that poorer companies cannot make. By enhancing disclosures, directors wish to receive more benefits: a better reputation and the firm's value will increase (Abdulla, 2011).

The results of fixed effect model indicated that the relationship between profitability and ABL, which is a proxy for FRQ was found to be positive and statistically significant ( $p$ -value = 0.0000) at 1%, 5% and 10% significance level. Results of the regression analysis shows that ABL, which is a proxy of FRQ and profitability is positively correlated, which means that the more profitable a bank, the higher the ABL and accordingly the lower the financial reporting quality. The finding implies that as banks become more profitable, management's incentive to manage earnings and affect them deliberately increases, resulting in the delivery of lower financial reporting quality. The reason could be the more the banks become profitable the bank management fears the response of the shareholders to large tax obligations which result in manipulation of earnings. This manipulation of earnings by managers leads to low financial reporting quality of the banks.

However, the sign is in contrary to the expectation of the researcher and inconsistent with the signaling theory and inconsistent with the existing findings in the literature, working hypothesis of the research, profitability has a positive and significant effect on financial reporting quality is not rejected.

### **Leverage and Financial Reporting Quality of Private Banks in Ethiopia**

Financial leverage is a measure of long term debt financing that banks use. In this study, it is measured by the ratio of total liabilities to total assets. The regression result of fixed effect model as reported in Table 4.7 above clearly shows that financial leverage as measured by ratio of total liabilities to total assets has no statistically significant positive impact on financial reporting quality of private banks in Ethiopia.

The insignificant result indicates that the null hypothesis of the study is rejected since the p-value is greater than 0.05. This implies that, in Ethiopian private banks, financial reporting quality will not be influenced by the companies' financing decision which leads us to reject the working hypothesis of the study that leverage has a positive and significant effect on financial reporting quality. The finding is inconsistent with agency theory that a company with a higher debt ratio has an incentive to disclose more information.

This regression result is consistent with some existing findings in the literature. A study by Kirubel (2016), Camfferman and Cooke (2002), Ali, Ahmed and Henry (2004), AlSaeed (2006) and Fathi (2013) have revealed that financial leverage as represented by the ratio of long term debt to long term finance has no significant impact on financial reporting quality.

However, there are also some existing findings in the literature that are inconsistent with the current finding. According to the finding of Hossain, Tan and Adams (1994), Naser, Al-Khatib and Karbhari (2002), Hassan, Percy and Stewart (2006) and Adelo (2010), financial reporting quality is positively influenced by a firm's leverage decision.

### **Liquidity and Financial Reporting Quality of Private Banks in Ethiopia**

Liquidity in this particular study was measured by loan to deposit ratio. The regression result shows that liquidity is directly related with financial reporting quality and inversely related with ABLL but significant at 5% level of significance. According to the finding of the study liquidity has statistically significant and positive effect on financial reporting quality of Ethiopian private banks with a p-value of 0.0003 which is less than 0.05 significance level. The finding of the study suggests that quality of financial reporting increases when the bank has an improved liquidity. This result reveals that the higher the liquidity the lower the abnormal loan loss provision and the higher the financial reporting quality. It can also be argued that an optimal level of liquidity or when excess liquidity is maintained by the banks it is advantageous since managers would signal the information to third party which leads to higher financial reporting quality. This suggests that there is a direct association between financial reporting quality and liquidity.

The result of this study was consistent with the signaling theory that argues directors who believe their company can perform better than other companies will want to signal this to shareholders in

order to attract more investments. The theory suggests that when a corporation's performance is good, managers will signal the company's performance to their investors, stakeholders and the market by making disclosures that companies with poor performance cannot make. The finding of the study is also consistent with economic theory of voluntary disclosures and increased information quality reduces information asymmetries among principals and agents. This reduction in information asymmetries increases the firm's liquidity (Hassan and Bello, 2013; Easley and O'Hara, 2004). Overall, the empirical evidence suggests that disclosures and accounting information of higher quality are related to improved liquidity.

Among the various previous studies, a study conducted by Hassan and Bello (2013) shows that there is negative relationship between liquidity ratio and financial reporting quality. Hassan & Bello (2013) argument is also supported by Easley and O'Hara (2004) who have found the same result.

Empirical research supporting the researcher's findings of a significant relationship between financial reporting quality and liquidity include among others Easley and O'Hara (2004), Bildersee (2005), Catagna and Matoksy (2008), Leuz and Verrecchia (2000), Oyeleret et al., (2000) and Kamaruzamanet et al., (2009). Therefore the working hypothesis three of the research, liquidity has positive and significant effect on financial reporting quality is not rejected.

### **Non-Performing Loan and Financial Reporting Quality of Private Banks in Ethiopia**

Non-performing loan was considered to be one of the key factors that can affect the financial reporting quality of private banks in Ethiopia. The results of the regression analysis shown in Table 4.7 revealed that there was a strong relationship between non-performing loan and financial reporting quality, with a regression coefficient of 0.154, t-statistic of 4.26 and P-value of 0.0001. This indicates that non-performing loan was significant even at 1% to further the relationship with financial reporting quality since the p value is less than 0.01. The significant result indicates that non-performing loan is considered as a proper explanatory variable of financial reporting quality in Ethiopian private banks showing that an increase in non-performing loan will lead to an increase in abnormal loan loss provision and accordingly a decrease to the financial reporting quality produced. The reason could be when non-performing loan is high; bank performance will become low which leads managers to earnings management practices in

order to send a good signal to shareholders, investors, stakeholders and the market and accordingly bank managers may be tempted to manipulate financial reports produced that leads to low financial reporting quality and high abnormal loan loss provision. This is in agreement with a prior expectation that the higher the non-performing loan, the higher the incidence of abnormal loan loss provision and accordingly the lower the financial reporting quality. Accordingly, the findings of the regression result show non-performing loan in influencing the level of quality of financial reports of private banks in Ethiopia. Hence, the result is consistent with the working hypothesis of the study that financial reporting quality is negatively related to non-performing loan is not rejected.

There is some empirical research supporting the researcher's finding of a significant relationship between profitability and non-performing loan. Luizis et al., (2012) found a negative relationship between profitability and non-performing loans for the Greek banking system. Therefore the working hypothesis of the research that non-performing loan has negative and significant effect on financial reporting quality is not rejected.

### **Bank Age and Financial Reporting Quality of Private Banks in Ethiopia**

Bank age was considered to be one of the key factors that can affect the financial reporting quality of private banks in Ethiopia. The results of the regression analysis shown in table 4.7 revealed that there was a statistically significant and positive relationship between bank age and financial reporting quality, with a regression coefficient of -4377849, t-statistic of -5.96 and P-value of 0.0000. The significant result shows that bank age is considered as a proper explanatory variable in influencing the level of financial reporting quality in Ethiopian private banks. The finding implies that bank age and financial reporting quality are positively correlated, which means that the longer the age of the bank, the lower the abnormal loan loss provision and accordingly the higher the financial reporting quality. This finding suggested that banks that have been in the market for long time tend to have low level of earnings management or abnormal loan loss provision than beginners as they are well known banks that have a great value in the market, have a reputation to protect, and are aware of the rules and codes that govern their practices which leads to have higher financial reporting quality. Moreover, long established banks might have improved their financial reporting practices over time and try to enhance their reputation and image in the market, So the older the bank, the less tendency to perform earnings

management practices and the higher the financial reporting quality. Hence the result is consistent with the working hypothesis of the study, bank age has a positive and significant effect on financial reporting quality is not rejected.

### **Auditor Change and Financial Reporting Quality of Private Banks in Ethiopia**

The fixed effect regression result indicates that auditor change had no statistically significant effect on financial reporting quality of Ethiopian private banks with a regression coefficient of 7936247, t-statistic of 1.63 and P-value of 0.1081. The result was not in accordance with the working hypothesis which argued that financial reporting quality is negatively related to auditor change. This implies that in Ethiopian private banks financial reporting quality will not be influenced by the change of auditor in a given year. On the other hand, the results contradicted with the findings obtained by researchers that the auditor change may lead to earnings management which affects the financial reporting quality. This argument is supported by (Nelson, Elliott and Tarpley, 2002; Kim and Kross, 1998).

Table 4.8: Summary of Hypothesized and Actual Impact

Independent Variables	Measurement	Hypothesized	Actual Impact
Profitability	Return on asset	Positive and significant	Negative and significant
Leverage	Ratio of total liability to total asset	Positive and significant	Negative and insignificant
Liquidity	Loan to deposit ratio	Positive and significant	Positive and significant
Non-Performing Loan	Non-performing loan amount	Negative and significant	Negative and significant
Bank Age	The year of incorporation of bank	Positive and significant	Positive and significant
Auditor Change	1 if Auditor was changed in the year and 0 otherwise.	Negative and significant	Negative and insignificant

### **4.3. Summary of Findings**

This study discussed the results of documentary analysis results and then presented the discussions of these results using the appropriate method. Accordingly, the study presented the results of the hypotheses of the independent variables tested on the dependent variable (FRQ). Empirical results provided detailed discussions on sample descriptive statistics and mean comparison between FRQ and independent variables (profitability, leverage, liquidity, non-performing loan, bank age and auditor change) followed by correlation analysis to determine the relationship between dependent variable and towards independent variables.

Regression analysis was also used to describe the financial reporting quality among Ethiopian private banks. The results show that profitability, liquidity, non-performing loan and bank age are the most important factors affecting financial reporting quality of private banks in Ethiopia.

However, the results show that there is no relationship between leverage and financial reporting quality of Ethiopian private banks. Similarly, the results show that there exists no relationship between auditor change and financial reporting quality of private banks in Ethiopia. The next chapter presents conclusions and recommendations of the study.

## **Chapter Five**

### **Conclusion and Recommendations**

#### **Introduction**

The preceding chapter presented the results and discussion, while this chapter deals with the conclusions and recommendations based on the findings of the study. Accordingly, this chapter is organized into two sub-sections. The first section presents the conclusions and the second section presents the recommendations.

#### **5. 1. Conclusions**

Financial reporting is central to economic activities. Recently there is an increasing interest in research on financial reporting quality. Nevertheless, the characteristics or determinants of financial reporting quality are not well understood in the current accounting literature because the meaning of quality in accounting is rather different from those in many other fields. Furthermore, different accounting environments and regulations are one of the main causes and consequences of the variety of quality level in financial reporting. The basic question is can we measure financial reporting quality and identify its determinants. Extensive research has attempted to identify these factors; however, the findings of prior empirical studies have provided varying evidence related to the impact of these factors on financial reporting quality. Furthermore, the majority of these studies have been conducted in developed countries that have many institutional similarities and developed regulatory framework.

In light of the above, the main objective of this study was to examine the relationship between financial reporting and firm specific (Profitability, Leverage, Liquidity, Non-performing loan, Bank age and Auditor Change) determinants of financial reporting quality in Ethiopian private banks. To achieve the intended objective, the study used quantitative research method. The quantitative data were collected through survey of document reviews from a sample of six private banks over the time period from 2002-2016. The collected data were analyzed by employing panel least square using statistical package EViews 9.

In order to conduct the empirical analysis, one dependent variable (FRQ), and six independent variables were selected from prominent previous research works on financial reporting quality; namely profitability, leverage, liquidity, non-performing loan, bank age and auditor change.

The results of the fixed effect model showed the existence of the following relationship between FRQ and independent variables: Surprisingly, profitability had statistically significant negative effect on FRQ, which was not in line with prior expectation and inconsistent with the signaling theory. Leverage had statistically insignificant negative effect on FRQ, which was not in line with prior expectation. The finding is inconsistent with agency theory that a company with a higher debt ratio has an incentive to disclose more information. Similarly, auditor change had a negative and statistically insignificant effect on FRQ, which was not also in line with expected result. The result suggests that auditor change will not influence the FRQ of private banks in Ethiopia.

Regarding the effect of liquidity on the financial reporting quality of private banks in this study, the result shows that there was positive and statistically significant relationship with FRQ, which is in line with signaling theory and in line with prior expectation. Besides, the results of different studies indicated that liquidity had statistically significant and positive effect on FRQ.

The relationship between financial reporting quality and age of bank is positive and statistically significant in private banks of Ethiopia. This result was also consistent with other studies which revealed significant impact.

The effect of non-performing loan is negative and statistically significant. The relationship between non-performing loan and financial reporting quality in Ethiopian private banks is significant. This result is also consistent and in line with prior expectation and other studies which revealed significant impact.

In conclusion, the finding of the study suggests that profitability, liquidity, non-performing loan and bank age influence Ethiopian private banks' financial reporting quality. However, there were no effect of leverage and change of auditor on financial reporting quality of private banks in Ethiopia. The results also confirm that signaling theory and agency theory are pertinent theories in Ethiopian banking industry.

## 5.2. Recommendations

The findings of this study indicated that the variables of profitability, liquidity, non-performing loan and bank age were significantly related to financial reporting quality. Therefore, banks should pay greater attention to these significant variables in determining their financial reporting quality. The following recommendations are made based on results of this study.

- ) It is noted that highly profitable banks may have lower quality financial reports than lower performing banks. The reason could be that as a bank's profits increase, management may fear the response of shareholders to large tax obligations and may engage in manipulation of earnings. This manipulation of earnings by management leads to low financial reporting quality of the banks. It is therefore recommended that auditors, analysts and regulators should consider intensive investigation on the financial information conveyed by low performing private banks. NBE should also set defined accounting standards in the Commercial Code in order to prevent manipulation of accounting figures by managers.
- ) Since liquidity positively affects the financial reporting quality of private banks in Ethiopia, it is recommended that private banks should significantly improve their liquidity management systems through broadening and diversifying of funding sources and shortening asset maturities which leads to a better quality of financial reports.
- ) Non-performing loans have a significant negative effect on the financial reporting quality of Ethiopian private banks. This suggests that banks should control the level of non-performing loans in order to avoid the existence of poor financial reporting practice, and provides a guide to stakeholders to focus and understand the non-performing loan levels of the bank before taking any decision. Therefore, it is recommended that banks should put in place a vibrant credit process that would encompass issues of proper customer selection, robust credit analysis, authentic sanctioning process, proactive monitoring and follow up and clear recovery strategies as this tends to mitigate the incidence of high non-performing loans. Specifically shareholders should place emphasis on non-performing loans and should be ready to meet agency costs to reduce manager's information asymmetry by hiring competent internal and external auditors in order to prevent earnings management by managers to maintain better quality financial reports.

- ) It was found that the older the banks, the better the quality of their financial reports. Therefore, it is recommended that NBE prescribe a minimum standard for the internal control of the private banks in Ethiopia so that both new and old banks will achieve a minimum level of quality in their financial reporting practices. Furthermore, banks should have a well-structured and strong internal control as soon as they start operation in order to maintain the quality of their financial reports.
- ) Because of resource and time limitation, this study examined only firm specific determinants of financial reporting quality of private banks in Ethiopia. Furthermore, this study explained only 62% of variation in FRQ. Therefore, future researchers may address these deficiencies by identifying other firm specific and macroeconomic factors for reporting quality and conducting more qualitative investigation of each bank.

## References

- Abdulla, M. (2011) An empirical analysis on the practice and determinants of risk disclosure in an emerging capital market: the case of United Arab Emirates. University of Ports Mouth.
- Adebiyi, W. K. & Olowookere, J. K.(2015) Ownership structure and the quality of financial reporting: Evidence from Nigerian deposit money banks, *International Journal of Economics, Commerce and Management*, Vol. IV, Issue 1, January 2016, pp, 541-552.
- Adelopo, I. (2010) The impact of corporate governance on auditor independence: a study on audit committees in UK listed companies, De Montfort University, Leicester, UK. <http://dora.dmu.uk/ismail>. [20 December, 2016].
- Addis Fortune, (2015) Storm at Oromia Coop Bank. vol. 16, No. 804, September 28, 2015.
- Aerts, W. & Cormier, D. (2009) Media legitimacy and corporate environmental communication, *Accounting, Organizations and Society*, 34, 1–27.
- Ahmed, A. (2012) Disclosure of financial reporting and firm structure as a determinant: a study on the listed companies of DSE, *ASA University Review*, Vol. 6 No. 1, January–June, 2012.
- Ahmed, K. & Nicholls, D. (1994) The impact of non-financial company characteristics on mandatory disclosure compliance in developing countries: the case of Bangladesh’, *The International Journal of Accounting*, 29(1). pp. 62–77.
- Ali, M. J., Ahmed, K., & Henry, D. (2004) Disclosure compliance with national accounting standards by listed companies in South Asia, *Accounting and Business Research*, 34(3), 183-199.
- Alsaeed, K. (2006) The association between firm-specific characteristics and disclosure: the case of Saudi Arabia, *Managerial Auditing Journal*, Vol. 21 No.5, pp 476-496.
- Arrow, K. (1962) Economic implication of learning by doing, *Review of economic studies*, vol. 29, no. 3, pp 155-173

- Asokan, A., Iftekhar, H., & Cornelia, M. (2007) Use of Loan Loss Provisions for Capital, Earnings Management and Signalling by Australian Banks. *Journal of Accounting and Finance*, 47(3), 357-379. <http://dx.doi.org/10.1111/j.1467-629X.2007.00220.x>
- Atanasko, (2013) Determinants of financial reporting quality for listed entities in Macedonia: evidence from fair value accounting, *UDC 658.14/.17:005.336.3* (497.7).
- Barnea, A., Haugen, R.A., & Senbet, L.W. (1985) *Agency Problems and Financial Contracting*, Prentice-Hall publisher, ISBN 0130188549, 9780130188540.
- Bassiouny, S.H., Soliman, M.M. & Ragab, A. (2016) The impact of firm characteristics on earnings management: an empirical study on the listed firms in Egypt, *The Business and Management Review*, Vol7.No 2, pp 91-101.
- Beaver, W.H. & Engel, E.(1996) Discretionary behavior with respect to allowances for loan losses and the behavior of security prices. *Journal of Accounting & Economics*. No. 22 (August-December): 177-206.
- Bildersee, V.L. (2005) The Association between Firm Value and Financial Variables. *Journal of accounting review* 1(2), pp. 81-99.
- Bromwich, M. (1992) *Financial Reporting, Information and Capital Markets*. London: Pitman.
- Brooks, C.(2008) *Introductory econometrics for finance*, 2nd edn. Cambridge University Press, New York.
- Camfferman, K. & Cooke, T. (2002) An analysis of disclosure in the annual reports of U.K. and Dutch companies. *Journal of International Accounting Research*, Vol. 1, No. 0, pp. 3-30.
- Carcello, J.V. & Nagy, A.L. (2004) Audit firm tenure and fraudulent financial reporting. *Auditing Journal of Practice & Theory*, 23, 55-69.
- Catagna A.D. & Matoksy, Z.P. (2008) The Relationship between Accounting variables and Earnings Quality and the Prediction of Systematic Risk. *Australian Journal of Management*, pp. 13-26.

- Chalaki, P., Didar, H. & Riahyezhad, M. (2012) Corporate Governance Attributes and Financial Reporting Quality: Empirical Evidence from Iran. *International Journal of Business and Soicial Science*, 3(15), 223-229.
- Chen, F., Hope, O.K., Li, Q. & Wang, X. (2011) Financial reporting quality investment
- Claire, S. (1962) Research methods in social sciences. (New York: Holt, Rinehart and Winston, Inc.) Efficiency of private firms in emerging markets. *The Accounting Review*. no.4, vol.86.
- Collins, J.H., D.A. Shackelford & J.M. Wahlen. (1995) Bank differences in the coordination of regulatory capital, earnings, and taxes. *Journal of Accounting Research* 33 (Autumn): 263-291.
- Cooke, E. (1989) Voluntary corporate disclosure by Swedish companies, *Journal of International Financial Management and accounting*, 1 (2), 171 – 195.
- Creswell, J. (2009) *Qualitative, quantitative and mixed methods approaches*, 3rd edn, SAGE Publication Inc., United State of America.
- Dabor, E. L. & Ibadin, P. O. (2013) An Evaluation of the Implications of Earnings Management Determinants in the Banking Industry: The Case of Nigeria. *African Journal of Social Sciences*, 3(3), 118-129.
- Damaso, M. & Lourenco, I. (2011) Legitimacy Theory and Internet Financial Reporting.
- Darrough, N. & Stoughton, M. (1990) Financial Disclosure Policy in an Entry Game. *Journal of Accounting and Economics*. Vol. 12, 1-3, 219-243.
- Datar, S., Feltham, G. & Hughes, J. (1991) The role of audits and audit quality in valuing new issues. *Journal of Accounting and Economics*. 14(1), 3-49.
- Dechow, P. & Dichev, I. (2002) The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, 77 (Supplement), 35–59.
- Dechow, P.,Ge,W. & Schrand, C. (2010) Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, 50 (2010) 344 – 401.

- Deegan, C. (2002) The legitimising effect of social and environmental disclosures –a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282-311.
- Dye, A. (1985) Disclosure of non-proprietary information. *Journal of Accounting Research*, Vol. 23, 1, 123-145.
- Easley, D. & O'Hara, M. (2004) Information and the cost of capital. *The Journal of Finance* 59(4): pp 1553-1583.
- Ericson, R. & Pakes, A. (1995) Markov-perfect industry dynamics: a framework for empirical work. *The Review of economic studies*. Vol. 62, no.1, pp. 53-82
- FASB (2010) *Conceptual Framework for Financial Reporting: The Objective of Financial Reporting and Qualitative Characteristics of Useful Financial Information*. Norwalk, Connecticut: Financial Accounting Foundation.
- Fathi, J. (2013) The determinants of the quality of financial information disclosed by French listed companies. *Mediterranean Journal of Social Sciences*. Vol 4, No 2, ISSN 2039-2117.
- Ferrero, J. (2014) Consequences of financial reporting quality on corporate performance evidence at the international level. *Estudios De Economia*, vol. 41, no. 1, p: 49 -88.
- Geiger, M.A. & Raghunandan, K. (2002) Audit tenure and audit reporting failures. *Auditing Journal of Practice & Theory*, 21, 67-78.
- Gosh, A., & Moon, D. (2005) Auditor Tenure and Perceptions of Audit Quality. *Accounting Review*, 80, pp, 585-612.
- Grace, K. & Ambrose, J. (2013) Institutional investors' perceptions on quality of financial reporting in Kenya. *International journal of Humanities and social science*, vol. 3, No. 21, ISSN 2220-8488.
- Greener, S. (2008) *Business research methods*, ventus publishing apps.
- Gujarati, D.N. (2004) *Basic econometrics*, 4th edn, the MacGraw Hill, New York.

- Haniffa, M. & Cooke, E. (2002) Culture, Corporate Governance and Disclosure in Malaysian Corporations. *Journal of Accounting and Public Policy*, 12, 31-44.
- Hassan, K. (2008) The level of corporate risk disclosure in UAE, Proceedings of the British accounting association conference, Paramount Imperial Hotel, Blackpool.
- Hassan Sabri, M., Percy, M. & Goodwin-Stewart, J. (2006) The transparency of derivative disclosures by Australian firms in the extractive industries' *Corporate Ownership and Control*, vol 4, no. 2 C, pp. 257-270.
- Hassan, S. & Bello, A. (2013) Firm characteristics and financial reporting quality of listed manufacturing firms in Nigeria. *International Journal of Accounting, Banking and Management*, Vol. 1, No. 6, November 2013, P: 47 – 63.
- Hill, W.L. & Jones, T.M. (1992) Stakeholder Agency-Theory. *Journal of Management Studies*, 29 (2), pp. 131-154.
- Hossain, M., Tan, L. M. & Adams, M. (1994) Voluntary Disclosure in an Emerging Capital Market: Some Empirical Evidence from Companies Listed on the Kuala Lumpur Stock Exchange. *The International Journal of Accounting*, 29, 334-351.
- Huang, H. W., Rose-Green, E. & Lee, C. C. (2012) CEO Age and Financial Reporting Quality. *Accounting Horizons*, 26(4), 725-740. <http://dx.doi.org/10.2308/acch-50268>.
- IASB (2008) Exposure draft on an improved conceptual framework for financial reporting: the objective of financial reporting and qualitative characteristics of decision-useful financial reporting information, London.
- Inchausti, G. (1997) The Influence of Company Characteristics and Accounting Regulation on Information Disclosed by Spanish Firms. *The European Accounting Review*, Vol. 6, No. 1, 1997.
- Jensen, M. & Meckling, W. (1976) Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, Vol. 3(4) 305-360.
- John, A. (2007) *Research Methods for Graduate Business and Social Science Students*.

- Jonas, G. & Blanchet, J. (2000) Assessing quality of financial reporting. *Accounting Horizons*, 14(3).
- Jonker, J. & Pennink, B. (2010) *The essence of research methodology: a concise guide for masters and PhD students in management science*, Springer, Heidelberg.
- Kamaruzaman, A.J., Mazlifa, M.D. & Maisarah, A.R. (2009) The association between firm characteristics and financial statements transparency: The case of Egypt. *International Journal of Accounting*, 18(2), 211-223.
- Kamwenji, J. (2014) The Effect of Adoption of International Financial Reporting Standards on the Quality of Accounting Information of Deposit Taking Saccos in Nairobi County. *International Journal of Business and Management Invention*, 1(1), 36–45.
- Kanagaretnam, K., G. Lobo, & R. Mathieu. (2003) Managerial incentives for income smoothing through loan loss provisions. *Review of Quantitative Finance and Accounting* 20: 63-80.
- Kanagaretnam, K., Krishnan, G. V. & Lobo, G. J. (2010) An Empirical Analysis of Auditors Independence in the Banking Industry. *The Accounting Review*, 85(6), 2011-2046. <http://dx.doi.org/10.2308/accr.2010.85.6.2011>
- Kennedy, P. (2008) *A guide to econometrics* 6th edn, Malden, Wiley-Blackwell.
- Kirubel, A. (2016) *Determinants of Financial Reporting Quality: Evidence from Large Manufacturing Share Companies of Addis Ababa*. Addis Ababa University.
- Kim, M. & Kross, W. (1998) The impact of the 1989 change in bank capital standards on loan loss provisions and loan write-offs. *Journal of Accounting and Economics*, 25, 69-99.
- Kothari, C. R. (2004), *Research Methodology: Methods and Techniques*, (Second Edition), New Age International Publishers.
- Lambert, R., Leuz, C. & Verrecchia, R.E. (2007) Accounting information, disclosure and the cost of capital.

- Leftwich, R., Watts, R. & Zimmerman, J. (1981) Voluntary corporate disclosure: the case of interim reporting. *Journal of Accounting Research*, 50-77.
- Leilina, B. (2015) The determinants of external audit quality evidence from manufacturing share companies of Addis Ababa Ethiopia. Addis Ababa University.
- Leuz, C., Nanda, D. & Wysocki, D. (2003) Earnings management and investor protection: an international comparison. *Journal of Financial Economics*.
- Leuz, C., & Verrecchia, R. (2000) The economic consequences of increased disclosure. *Journal of Accounting Research*. 38(Suppl.), 91-124.
- Louzis, D. P., Vouldis, A. T. & Metaxas, V. (2012) Macroeconomic and bank-specific determinants of nonperforming loans in Greece: a comparative study of mortgage, business and consumer loan portfolios. *Journal of banking and finance*. 36(4), 1012-1027.
- Magness, V. (2006) Strategic posture, financial performance and environmental disclosure: an empirical test of legitimacy theory. *Accounting, Auditing and Accountability Journal*. 19(4), pp. 540–563.
- Malone, D., Fries, C. & Jones, T. (1993) An empirical investigation of the extent of corporate financial disclosure in the oil and gas industry. *Journal of Accounting, Auditing and Finance*. 8(3), 249-273.
- Martinez-Ferrero, J. (2014) Consequences of Financial Reporting Quality on Corporate Performance; Evidence at International Level. *Estudios de Economia*, 41(1), 49-88. <http://dx.doi.org/10.4067/S0718-52862014000100002>
- McNichols, M. (2002) Discussion of the quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*. 77 (Supplement): 61–69.
- Myers, J.N., Myers, L.A. & Omer, T.C. (2003) Exploring the term of the auditor-client relationship and the quality of earnings: A case for mandatory auditor rotation. *Accounting Review*. 78,779-799.

- Naser, K., Al-Khatib, K., & Karbhari, Y. (2002) Empirical evidence on the depth of corporate information disclosure in developing countries: The case of Jordan. *International Journal of Commerce and Management*. 12(3), 122-155.
- Nelson, M., Elliott, J. & Tarpley, R. (2002) Evidence from auditors about managers' and auditors' earnings management decisions. *The Accounting Review*.77 (Supplement), 175–202.
- Nermeen, (2014) Theories and Determinants of Voluntary Disclosure. *Accounting and Finance Research*. Vol. 3, No. 1; 2014.
- Olowokure, O.A., Tanko, M. & Nyor, T. (2015) Firm Structural Characteristics and Financial Reporting Quality of Listed Deposit Money Banks in Nigeria. *International Business Research*; Vol. 9, No. 1; 2016 ISSN 1913-9004, E-ISSN 1913-9012, pp. 106-122.
- Oluoch, O. (2014) Demographic Diversity in Top Management Team. *Corporate Voluntary Disclosure, Discretionary Accounting Choices and Financial Reporting Quality in Commercial State Corporations in Kenya*. *International Journal of Business and Management*, 2(3), 25–30.
- Onuorah, Anastasia. Ch. & Imene, O. F. (2016) Corporate governance and financial reporting quality in selected Nigerian company, *International Journal of Management Science and Business Administration*, Volume 2, Issue 3, February 2016, Pages 7 – 16.
- Oyelere, B.P., F. Laswad & R.T. Fisher (2000) Determinants of Internet financial reporting by New Zealand companies. *Journal of International Financial Management and Accounting*. 14(1), pp. 26-63.
- Patton, J. & Zelenka, I. (1997) An empirical analysis of the determinants of the extent of disclosure in annual reports of joint stock companies in the Czech Republic. *The European Accounting Review*. vol 6, n°4, pp. 605-626.
- Pearce II, J. A. & Zahra, S. A. (1992) Board Composition from a Strategic Contingency Perspective. *Journal of Management Studies*. 29(4), 411–438.

- Rajgopal, S. & Venkatachalam, M. (2011) Financial reporting quality and idiosyncratic return volatility. *Journal of Accounting and Economics*. Vol. 51 No. 1-2, pp. 1-20.
- Ross, A. (1977) The Determination of Financial Structure: The Incentive-Signaling Approach. *Bell Journal of Economics*. Vol. 8,(10), 23-40.
- Roychowdhury, S. (2004) Management of earnings through the manipulation of real activities that affect cash flow from operations. *Journal of Accounting and Economics*. 42 (3): 335-70.
- Saunders, M., Lewis, P. & Thornhill, A. (2009) *Research methods for business students* Pearson. 978-0-273-71686-0
- Scott, W. (2003) *Financial accounting theory*. 3rd edn, Toronto: Pearson Education Inc.
- Shehu, & Ahmad. (2013) Firm Characteristics and Financial Reporting Quality of Listed Manufacturing Firms in Nigeria. *International Journal of Accounting, Banking and Management*. 1(6), 47-63.
- Spence, M. (1973) Job Market Signaling. *Quarterly Journal of Economics*. 87, 296–332.
- Teixeira, P. & Lima, L. (2007) Accounting for Financial Instruments: An analysis of the determinants of disclosure in the Portuguese stock exchange. *The International Journal of Accounting*. 42, 25-56.
- Toukabri, M., Ben, O. & Julani, F. (2014) Corporate social disclosure: Explanatory theories and conceptual framework. *International Journal of Academic Research in Management*. 3(2), 208-225.
- Van Beest, F., Braam, G., & Boelens, S. (2009) Quality of Financial Reporting: Measuring Qualitative Characteristics. *Nijmegen Center of Economics Working Paper*, 09-108.
- Verrecchia, R. (1983) Discretionary Disclosure. *Journal of Accounting and Economics*. Vol. 5, 3, 179-194.
- Wagenhofer, A. (1990) Voluntary Disclosure with a Strategic Opponent. *Journal of Accounting and Economics*. Vol. 12, 4, 341-363.

- Wahlen, J.M. (1994) The nature of information in commercial bank loan loss disclosures. *The Accounting Review* 69 (July): 455-478.
- Watson, A., Shrives, P. & Marston, C. (2002) Voluntary disclosure of accounting ratios in the UK. *The British Accounting Review*. Vol. 34, 4, 289-313.
- Watts, R. & Zimmerman, J. (1978) Towards a positive theory of the determination of accounting standards. *The Accounting Review*. LIII(1), 112-134.
- Waweru, N. M. & Riro, G. K. (2013) Corporate Governance, Firm Characteristics and Earnings Management in an Emerging Economy. *Journal of Accounting Research*. 11(1), 43-64.
- Woodward, D., Edwards, P. & Birkin, F. (1996) Organizational legitimacy and stakeholder information provision. *British Journal of Management*. 7, 329-347.
- World Bank, (2007) Report on the observance of standards and codes (ROSC) Ethiopia.
- Younis, S.A., Hashmi, S.H., Khalid, G.K. & Nazir, M. I. (2013) Impact of Corporate Governance Measures on Earnings Quality: Evidence from Pakistan, *Research Journal of Finance and Accounting*, [www.iiste.org](http://www.iiste.org) ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol.7, No.3, 2016, pp, 9-16.

## APPENDICIES

### Appendix 1: Regression output for FRQ from Eviews

Dependent Variable: FRQ  
 Method: Panel Least Squares  
 Date: 05/30/17 Time: 05:22  
 Sample: 2002 2016  
 Periods included: 15  
 Cross-sections included: 6  
 Total panel (unbalanced) observations: 87

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA	2.16E+09	2.88E+08	7.474924	0.0000
LEV	42009259	75354158	0.557491	0.5789
LIQ	-76309113	20262251	-3.766073	0.0003
NPL	0.154253	0.036190	4.262332	0.0001
BAGE	-4377849.	734790.0	-5.957959	0.0000
AUDCH	7936247.	4880026.	1.626271	0.1081
C	-9760345.	73424152	-0.132931	0.8946

#### Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.671166	Mean dependent var	1.36E-08
Adjusted R-squared	0.622937	S.D. dependent var	26904734
S.E. of regression	16520974	Akaike info criterion	36.20560
Sum squared resid	2.05E+16	Schwarz criterion	36.54573
Log likelihood	-1562.944	Hannan-Quinn criter.	36.34256
F-statistic	13.91624	Durbin-Watson stat	1.560233
Prob(F-statistic)	0.000000		

### Appendix 2: Heteroscedasticity Test for FRQ

Heteroskedasticity Test: White

F-statistic	0.982201	Prob. F(26,60)	0.5039
Obs*R-squared	25.97394	Prob. Chi-Square(26)	0.4645
Scaled explained SS	18.30427	Prob. Chi-Square(26)	0.8644

Test Equation:

Dependent Variable: RESID^2  
 Method: Least Squares  
 Date: 05/24/17 Time: 08:21  
 Sample: 1 90

Included observations: 87

Collinear test regressors dropped from specification

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.06E+16	4.90E+16	0.216015	0.8297

ROA^2	1.15E+18	2.03E+18	0.564510	0.5745
ROA*LEV	-2.95E+17	4.22E+17	-0.698620	0.4875
ROA*LIQ	-1.46E+16	1.26E+17	-0.115640	0.9083
ROA*NPL	2.43E+08	2.08E+08	1.164551	0.2488
ROA*BAGE	-5.28E+15	5.91E+15	-0.893744	0.3750
ROA*AUDCH	3.51E+15	2.65E+16	0.132338	0.8952
ROA	2.32E+17	4.14E+17	0.560712	0.5771
LEV^2	2.65E+15	5.77E+16	0.045945	0.9635
LEV*LIQ	1.17E+16	3.67E+16	0.319020	0.7508
LEV*NPL	-85932213	57142037	-1.503835	0.1379
LEV*BAGE	2.16E+15	1.35E+15	1.595323	0.1159
LEV*AUDCH	-5.28E+15	8.54E+15	-0.618998	0.5383
LEV	-1.58E+16	9.80E+16	-0.160775	0.8728
LIQ^2	-1.68E+15	8.11E+15	-0.206638	0.8370
LIQ*NPL	36268358	18678755	1.941690	0.0569
LIQ*BAGE	-3.81E+14	4.03E+14	-0.946635	0.3476
LIQ*AUDCH	-1.22E+15	2.29E+15	-0.531179	0.5973
LIQ	-7.36E+15	3.71E+16	-0.198489	0.8433
NPL^2	0.039759	0.019974	1.990542	0.0511
NPL*BAGE	-359319.2	539060.9	-0.666565	0.5076
NPL*AUDCH	1512414.	4191891.	0.360795	0.7195
NPL	35905149	54828566	0.654862	0.5151
BAGE^2	-1.95E+12	8.03E+12	-0.242593	0.8091
BAGE*AUDCH	-3.25E+13	7.80E+13	-0.416532	0.6785
BAGE	-1.34E+15	1.32E+15	-1.016035	0.3137
AUDCH^2	5.43E+15	7.99E+15	0.679528	0.4994
<hr/>				
R-squared	0.298551	Mean dependent var	4.98E+14	
Adjusted R-squared	-0.005410	S.D. dependent var	6.47E+14	
S.E. of regression	6.48E+14	Akaike info criterion	71.29763	
Sum squared resid	2.52E+31	Schwarz criterion	72.06291	
Log likelihood	-3074.447	Hannan-Quinn criter.	71.60578	
F-statistic	0.982201	Durbin-Watson stat	1.380351	
Prob(F-statistic)	0.503894			

### Appendix 3: Hausman Test for FRQ

Correlated Random Effects - Hausman Test

Equation: Untitled

Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	41.288572	6	0.0000

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
ROA	645423067. 635060	1336982524. 254201	10217774436 7272660	0.0305
LEV	214062862. 372875	149099313.4 48090	41419054209 41958.8	0.0000

	35160090.2	63279427.42	82262715078	
LIQ	02637	6495	0945.00	0.3269
NPL	0.080416	0.086143	0.000245	0.7145
	7379355.81	1593134.076	24164702806	
BAGE	3792	334	10.9737	0.0000
	2845156.46	7067601.178	28184975755	
AUDCH	7696	411	35.3675	0.0119

#### Appendix 4: Regression output for Proxy- LLP from Eviews

Dependent Variable: LLP

Method: Panel EGLS (Period random effects)

Date: 06/09/17 Time: 01:24

Sample: 2002 2016

Periods included: 15

Cross-sections included: 6

Total panel (unbalanced) observations: 88

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LLAB	0.916499	0.042573	21.52787	0.0000
NBLW	-0.008409	0.090246	-0.093178	0.9260
_NPL	0.093300	0.028596	3.262670	0.0016
_TOTL	0.008201	0.003169	2.587687	0.0114
DUMMY1	80090784	13672317	5.857880	0.0000
DUMMY6	-50182262	13228233	-3.793572	0.0003
C	10165477	3517015.	2.890370	0.0049

Effects Specification		S.D.	Rho
Period random		5541790.	0.1659
Idiosyncratic random		12425469	0.8341

Weighted Statistics			
R-squared	0.911379	Mean dependent var	63373410
Adjusted R-squared	0.904815	S.D. dependent var	40724403
S.E. of regression	12551982	Sum squared resid	1.28E+16
F-statistic	138.8345	Durbin-Watson stat	2.128495
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.926962	Mean dependent var	93317354
Sum squared resid	1.53E+16	Durbin-Watson stat	2.066799

## Appendix 5: Heteroscedasticity Test for Proxy-LLP

Heteroskedasticity Test: White

F-statistic	1.310654	Prob. F(16,71)	0.2152
Obs*R-squared	20.06515	Prob. Chi-Square(16)	0.2173
Scaled explained SS	18.31894	Prob. Chi-Square(16)	0.3056

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 06/09/17 Time: 01:21

Sample: 1 90

Included observations: 88

Collinear test regressors dropped from specification

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.23E+13	8.45E+13	-0.737126	0.4635
LLAB^2	-0.013937	0.017057	-0.817134	0.4166
LLAB*NBLW	0.011101	0.320382	0.034650	0.9725
LLAB*_NPL	-0.006989	0.020212	-0.345803	0.7305
LLAB*_TOTL	0.001051	0.001834	0.572898	0.5685
LLAB*DUMMY1	-8870649.	8485096.	-1.045439	0.2994
LLAB*DUMMY6	-2411038.	1937686.	-1.244288	0.2175
LLAB	4074012.	2515582.	1.619511	0.1098
NBLW^2	0.010821	0.061463	0.176065	0.8607
NBLW*_NPL	0.126203	0.097306	1.296962	0.1988
NBLW*_TOTL	-0.030845	0.013930	-2.214235	0.0300
NBLW	14839278	32935688	0.450553	0.6537
_NPL^2	0.001895	0.007090	0.267235	0.7901
_NPL*_TOTL	-0.000335	0.001274	-0.262885	0.7934
_NPL	955703.4	1775206.	0.538362	0.5920
_TOTL^2	-8.98E-05	8.60E-05	-1.043766	0.3001
_TOTL	48387.32	182041.3	0.265804	0.7912

R-squared	0.228013	Mean dependent var	1.72E+14
Adjusted R-squared	0.054044	S.D. dependent var	2.53E+14
S.E. of regression	2.46E+14	Akaike info criterion	69.28483
Sum squared resid	4.31E+30	Schwarz criterion	69.76341
Log likelihood	-3031.533	Hannan-Quinn criter.	69.47764
F-statistic	1.310654	Durbin-Watson stat	2.245319
Prob(F-statistic)	0.215241		

## Appendix 6: Hausman Test for Proxy-LLP

Correlated Random Effects - Hausman Test

Equation: Untitled

Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	7.620089	6	0.2673

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LLAB	0.930881	0.916499	0.000873	0.6264
NBLW	-0.000686	-0.008409	0.000689	0.7685
_NPL	0.128058	0.093300	0.000282	0.0386
_TOTL	0.010707	0.008201	0.000006	0.3113
DUMMY1	74409447.6	80090783.71	35956506228	
	08514	3568	847.719	0.3434
	-	-		
DUMMY6	49597371.8	50182261.89	17918691632	
	64798	9377	753.188	0.8901

Period random effects test equation:

Dependent Variable: LLP

Method: Panel Least Squares

Date: 06/09/17 Time: 01:24

Sample: 2002 2016

Periods included: 15

Cross-sections included: 6

Total panel (unbalanced) observations: 88

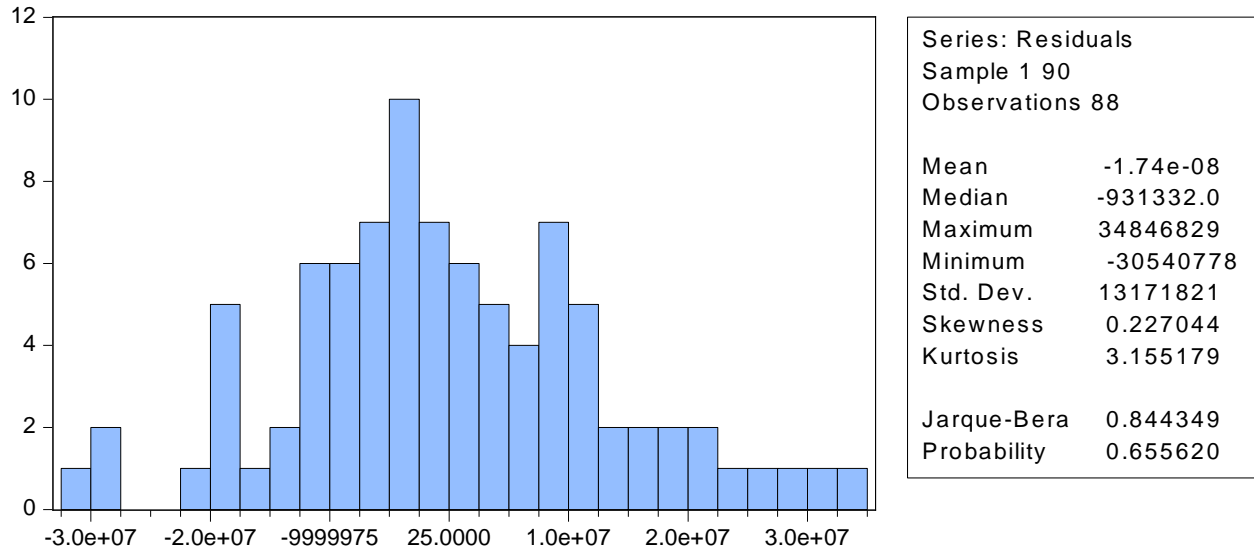
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6729550.	4205138.	1.600316	0.1142
LLAB	0.930881	0.051821	17.96334	0.0000
NBLW	-0.000686	0.093985	-0.007296	0.9942
_NPL	0.128058	0.033166	3.861093	0.0003
_TOTL	0.010707	0.004021	2.662524	0.0097
DUMMY1	74409448	14929459	4.984069	0.0000
DUMMY6	-49597372	13889019	-3.570977	0.0007

#### Effects Specification

Period fixed (dummy variables)

R-squared	0.950536	Mean dependent var	93317354
Adjusted R-squared	0.935771	S.D. dependent var	49028357
S.E. of regression	12425469	Akaike info criterion	35.71302
Sum squared resid	1.03E+16	Schwarz criterion	36.30421
Log likelihood	-1550.373	Hannan-Quinn criter.	35.95120
F-statistic	64.37646	Durbin-Watson stat	2.317076
Prob(F-statistic)	0.000000		

### Appendix 7: Jarque-Bera Normality Test for Proxy-LLP



### Appendix 8: Multicollinearity Test for Proxy-LLP

	LLAB	NBLW	_NPL	_TOTL
LLAB	1			
NBLW	0.1096	1		
_NPL	-0.0104	-0.2658	1	
_TOTL	0.6257	-0.0810	0.1192	1