

Addis Ababa
University
(Since 1950)



EFFECT OF COMPENSATION ON FINANCIAL PERFORMANCE OF BANKS: CASE STUDY OF PRIVATE BANKS

BY
SENAIT AWOKE ZEWDE

A Thesis Submitted to the Department of Accounting and Finance of
Addis Ababa University in Partial Fulfillment of the Requirements for
the Degree of Master of Science in Accounting and Finance

June, 2017

Statement of declaration

I declare that the thesis for the MSc degree at Addis Ababa University, hereby submitted by me, is my original work and has not been previously submitted for a degree at this or any other university, and that all reference materials contained therein have been duly acknowledged.

Senait Awoke Zewde

Signature: _____

Statement of certification

This is to certify that Senait Awoke has carried out a thesis on the topic entitled “Effect of compensation on financial performance of banks: case study of private banks” under my supervision. This work is original in nature and it is sufficient for submission for the partial fulfillment for the award of MSc. in Accounting and Finance.

Advisor: Habtamu Berhanu(PhD)

Signed.....

Date

Addis Ababa University

School of Graduate Studies

This is to certify that the thesis prepared by Senait Awoke, entitled: “Effect of compensation on financial performance of banks: case study of private banks” and submitted in partial fulfillment of the requirements for the Degree of Masters of Science (Accounting and Finance) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Approved by:

Signed by the Examining Committee:

Advisor	Signature	Date
Internal examiner	Signature	Date
External examiner	Signature	Date

Abstract

The purpose of this study is to examine the effect of compensation on financial performance of Ethiopian commercial banks. In light of this objective the study adopted mixed research approach using 12 commercial banks in Ethiopia. These banks are operates in the industry for the last 7 years i.e. from 2010 up to 2016 and are chosen purposively. Thus, the study used a total of 84 observations. The study used documentary reviews of annual reports and in-depth interviews to test stated research hypotheses and to answer the research questions. The data was mainly analyzed on quantitative basis using OLS regression analysis. The results showed that compensation has no effect on financial performance of Ethiopian commercial banks. However, the result showed a significant relationship between Operational efficiency, Asset Quality, capital adequacy ratio, GDP, inflation, Earning Management and financial performance. In addition, the study found insignificant relationship between Liquidity Management and financial performance. Thus, focusing and reengineering the institutions alongside these indicators could enhance the profitability as well as the performance of the commercial banks in Ethiopia.

Keywords: *compensation, financial performance, Operational efficiency, Asset Quality, Liquidity Management, Earning Management, capital adequacy ratio, GDP, inflation.*

Acknowledgements

First, I am indebted to the all-powerful GOD for all the blessings he showered on me and for being with me throughout the study.

Next, this research project is as a result of many contributions from various people. I am deeply obliged to my research advisor Dr. Habtamu, for his exemplary guidance and support.

With sincere appreciation, I would like to take this opportunity to express my deep gratitude to my loving family and friends.

Finally, yet importantly, I owe my gratitude to my brother Sisay Awoke, who in all way a constant source of motivation and for his never ending support and encouragement during this project and through the entire program.

Last but not least, my deep gratitude goes to Addis Ababa University (AAU) for giving me scholarship chance to study the MSC program.

Table of Contents

<i>Abstract</i>	i
Acknowledgements.....	ii
Appendices.....	vii
List of figures.....	viii
List of tables	ix
List of Acronyms.....	x
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study.....	1
1.2 Statement of the Problem	3
1.3 Research Question	6
1.4 General Objective of the Study.....	6
1.4.1 Specific Objective of the Study	6
1.5 Research Hypothesis.....	6
1.6 Significance of the Study	6
1.7 Scope of the Study	7
CHAPTER TWO	9
LITERATURE REVIEW	9
2.1 Theoretical Review.....	9
2.1.1 The Concept of Compensation.....	9
Purpose of compensation	11
Forms of compensations and incentive programs.....	12
2.1.2. Theories related to compensation management	17
2.1.3. Determinants of Banks Profitability.....	21
2.1.3.1. Bank Specific Factors/Internal Factors.....	21
2.1.3.2. External Factors/ Macro-economic Factors.....	22
2.2. Empirical review.....	22
2.2.1 Panel Country Studies	22
2.2.2 Single country studies	26
2.2.3 Review of previous empirical studies on Ethiopia	32
Conceptual framework	37

Research Gaps.....	37
CHAPTER THREE	39
RESEARCH METHODOLOGY	39
Introduction	39
3.1. Research Design	39
3.2. Data Collection Methods:	39
3.3 Sample and Sampling Techniques	40
3.4. Methods of Data Analysis	40
3.4.1. Panel data	41
3.5. Research hypotheses and description of variables.....	41
3.5.1. Model Specification:	41
Dependent Variable	42
Independent variable.....	44
3.5.2. Model Assumptions:	48
CHAPTER FOUR	49
RESULTS AND DISCUSSIONS.....	49
4.1. Descriptive statistics of the data.....	49
4.1.1 Compensation package given by Ethiopian private banks	50
4.1.2 Factors that trigger on the increment of compensation package in Ethiopian private banking industry	51
4.1.3 Descriptive statistics for the dependent and independent variables.....	53
4.2. CLRM Assumption and Diagnostic Test.....	56
4.2.1. Heteroskedasticity Test.....	57
4.2.2. Autocorrelation test.....	57
4.2.3. Multicollinearity test.....	58
4.2.4. Normality test	60
4.3 Correlation analysis.....	61
4.4 Fixed effect and random effect model specification Test	62
4.5. Regression result and discussion	63
Chapter Five	69
Conclusions and Recommendations.....	69
5.1. Conclusions	69

5.2 Recommendation.....	71
Reference	1
APPENDICES	8

Appendices

Appendix # 1: Summary of descriptive statistics

Appendix #2: Heteroskedasticity - Breusch-Pagan / Cook-Weisberg

Appendix #3: Autocorrelation: - Durbin Watson

Appendix # 4: Normality: Shapiro-Wilk test

Appendix # 5: Multicollinearity test

Appendix # 6: Hausman specification test

Appendix # 7: Random effect regression result

Appendix # 8: Pearson correlation coefficient for ROA

Appendix # 9: Contents of Unstructured Interview

List of figures***Page No.***

<i>Fig 2.1: conceptual framework of the study</i> -----	37
<i>Fig 4.1: ROA model normality</i> -----	61

List of tables

Page No.

Table 3.1 Relation between the research question/ hypotheses and source of data-----	39
Table 3.2 Description of the variables and their expected relationship-----	47
Table 4.1 Summary of descriptive statistics-----	54
Table 4.2 Heteroskedasticity Test Breusch-Pagan / Cook-Weisberg-----	57
Table 4.3 Autocorrelation Durbin Watson-----	58
Table 4.4 variance inflation factor (VIF) of independent variables-----	59
Table 4.5 Normality test Shapiro-Wilk test-----	60
Table 4.6 Pearson correlation coefficient matrix for ROA-----	62
Table 4.7 Hausman test-----	63
Table 4.8 Regression Result for factors affection Ethiopian banks profitability-----	64
Table 4.9 Summary of actual and expected signs of explanatory variables on the Dependent variables-----	68

List of Acronyms

AIB	Awash International Bank S.C.
AQ	Asset Quality
BIB	Berhan International Bank S.C.
BOA	Bank of Abyssinia S.C.
BUIB	Bunna International Bank S.C.
CAR	Capital Adequacy Ratio
CBB	Construction and Business Bank
CBE	Commercial Bank of Ethiopia
CBO	Cooperative Bank of Oromia S.C.
CLRM	Classical Linear Regression Model
COM	Compensation
DB	Dashen Bank S.C.
DW	Durbin-Watson
EQua	Earning Quality
FE	Fixed Effects
GDP	Gross Domestic Product
HR	Human Resource
INF	Inflation
LIB	Lion International Bank S.C.
LM	Liquidity Management
ME	Management Efficiency
NBE	National Bank of Ethiopia
NIB	Nib International Bank S.C.
NIM	Net Interest Margin
NITE	Non Interest Expense to Gross Expense
OE	Operational Efficiency
OIB	Oromia International Bank S.C.
OLS	Ordinary Least Square

PAT	Profit after Tax
PBT	Profit before Tax
PERF	Performance
RE	Random Effects
ROA	Return on Assets
ROAA	Return on Average Bank Asset
ROAE	Return on Average Equity
ROC	Return on Capital
ROE	Return on Equity
SPSS	Statistical Package for Social Science
UB	United Bank S.C.
WB	Wegagen Bank S.C.
ZB	Zemen Bank S.C.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Banks play a key role in controlling the economic activities of a country. As the National bank of Ethiopia (NBE) implements monetary policies, the private banking industry has been expanding in Ethiopia. Following the Monetary and Banking Proclamation of 1994 a number of private banks have been opened in Ethiopia (Alemayehu, 2001). The national bank of Ethiopia (NBE) which is, the regulatory authority in the industry, reveals that banks increased in number from 3 in 1991 to 19 banks in 2012 both government and private banks. Following the alignment between CBE and CBB in March, 2016 currently 18 banks operate in the country. From the current banks, 16 are private banks and 2 are government-owned banks (www.nbe.com). Those banks, indeed, created a lot of employment opportunity to the nation but they have challenged by the incidences of employee turnover.

According to F. John Reh when employees leave a company and have to be replaced, that's called turnover. A certain amount of turnover is unavoidable, but too much can ruin a company. High turnover rate is problematic and have a negative impact on an organization's performance (Sharmistha, 2010).

It is argument that mostly individuals that getting higher education they are not satisfied to their jobs and their turnover is more. So to overcome that problem, organizations are design different kind of human resource strategy and compensation plan, to retain the employees as well plays more to attract, retain and motivate man power (Bratian & Gold 1995).

In the world of today, for any organization to have competitive edge amidst its competitors, there must be in place a formidable compensation strategy to attract, motivate people to join the firm. This should also reduce the turnover intent from the employees.

Human resource is considered to be the center of all development processes of economy. But today's competitive business scenario is deteriorating social conditions of human resources,

hence causing employee turnover (Shukla and Sinha, 2013). The need for organizations to develop a program that will facilitate a performance-enhancing system leading to the best management and development of employees and thus increase their competitive advantage has made the links between human resource management and organizational performance a prominent issue in the field of human resource management across the core functional areas of human resource practices. These practices range from staffing, performance appraisals, training and development, manpower planning, worker's management participation and compensation management (Tsai, 2005).

It is generally believed that if there is proper management of compensation, individuals can be motivated to perform and thus have a resultant positive effect on the organizational performance (Tsai, 2005). Notably, the relationship between compensation management and performance has been visible in the management literature and attract different authors to study on this area.

Armache (2012) on his study of effect of compensation and other motivational techniques on organizational productivity found that there is a corollary effect on organizational performance when employees are well compensated and highly motivated. In addition, a study conducted by Katua et al (2014) on effect of reward and compensation strategies on the performance of commercial banks in Kenya reveal that reward and compensation strategies have a significant positive effect on performance of commercial banks in Kenya. Compensation is one of the primary reasons for employees to seek employment. It refers to the benefits (cash, vacation, etc.) that an employee receives in exchange for the service they provide to their employer.

Employees in Ethiopian financial institutions switch working places primarily in search of better pays and benefit packages. This was aggravated as banks, particularly public-owned ones, didn't put in place effective staff retention strategies. However, several of these banks have recently started to offer attractive salary and benefit packages. The move is helping the banks to stay competitive. (Berihun Mekonnen, 2014)

The high increase of salaries and benefit packages is, however, becoming a critical challenge for new entrant banks. These banks have two options: offering higher, often exaggerated salaries and benefits to the few skilled professionals in the industry or devote resources to train fresh

graduates. Although both options have merits and demerits, human resource experts' advice a right mix of strategies. (Berihun Mekonnen, 2014)

Now a days, it is common to hear salary and benefit increment news from new entrant banks which increase the industry average salary and doubt the capacity of the bank to sustain with this new salary and benefit adjustment. Therefore, it is worthy if a study is conduct on effect of compensation on banks performance. In addition to the shortage of studies on same title, to the researcher knowledge, there is no published research on the effect of compensation on banks performances in Ethiopia. Thus, in light of that, the general objective of the study was to assess the effect of compensation on financial performance of Ethiopian private banks.

1.2 Statement of the Problem

No resource is more critical to an organization's success than its human resources are (DeNisi & Griffin, 2008); people are the only strategic weapon a company has that cannot be copied by its competition (DeCenzo & Robbins, 2010). In any profit-oriented organization, employment relationship is seen as an exchange process where employees provide inputs in terms of skills and expertise in return for various compensations from the employer.

According to Barney, (2000) firms that use resources and capabilities to exploit opportunities and neutralize threats will see an increase in their net revenue or a decrease in their net costs or both and vice versa. However, it may not be very easy to establish the contribution of each resource to performance of employees and the organization. This is because performance is affected by how you utilize each resource and thus the various resources (human, financial, physical and technological) support each other and it may not be easy to single out one resource and give credit to it.

There is need for a theoretical link on how specific human resources management strategies and performance are related. Cook (2000) argues that there is a symbiotic relationship between human resources strategy and performance. Other scholars such as Armstrong (2010) argue that human resources management practices can improve productivity by: (1) increasing employee skills and abilities (2) promoting positive attitudes and increasing motivation and 3) providing employees with expanded responsibilities so that they can make full use of their skills and

abilities. However still much has not been done to establish the role of specific human resource strategies on performance of banks where compensation plan strategy is the major.

One of the more important, but least analyzed, factors affecting organizational behavior is the internal incentive structure which includes the management of human resources in general and compensation policies in particular. A thorough understanding of internal incentives is critical to developing a viable theory of the firm, since they largely determine how individuals behave in organizations.

Ethiopian banking industry is suffering with high labor turnover and has high flow of employees from one bank to another bank to facilitate their life style by comparing their bank pay scale and benefit package with other banks. Considering these, different banks give different kind of compensation to their employees. (Berihun Mekonnen, 2014)

According to Bernadin, (2007) Compensation as a concept refers to all forms of financial returns and tangible benefits that employee receives as part of employment relationship. Whereas Compensation management is an integral part of human resource management approach to managing people (Armstrong, 2005). It deals with the design, implementation and maintenance of compensation systems that are geared to the improvement of organizational, team and individual performance.

As the business environment increasingly becomes complex and global, the challenge to create and maintain effective compensation programs, given cost constraints, also requires greater professional expertise, organizational understanding, creativity and vision than ever before.

From the perspective of the employee, pay has an important influence on Standard of living, status, and security. Employees typically depend on wages, salaries, and so forth to provide a large share of their income and benefits to provide income and health security. For employers, compensation decisions influence their cost of doing business and thus, their ability to sell at a competitive price in the product market. In addition, compensation decisions influence the employer's ability to compete for employees in the labor market (attract and retain) as well as their attitudes and behaviors while with their employee. Therefore, companies should have strong compensation management.

The job market of Ethiopian banks and insurance is overwhelmingly vulnerable in nature. The common trend has been seen in employees to change jobs frequently rather than growing up with one company throughout the whole employment life. This kind of voluntary turnover directly affects the performance of the organization (Berihun Mekonnen, 2014). It is needless to say, healthy banking system and country's economy usually work together. As a result, HR managers of 21st century are deeply concerned about the ways of keeping their valuable employees for life time. As banking industry is one of the vital service industries for any country and it contributes significantly to the country's economy as a whole, HR managers of the said industry should have greater understanding about the impact of compensation management on retaining valuable employees permanently and increase performance of the bank. Furthermore, the researches in this area are very limited and insufficient. Therefore, a study on the effect of compensation on performance of Ethiopian private banks can be pertinent and worthwhile.

Despite differences in their approaches all actors in the Ethiopian banking industry seems to agree on the significance of human resources and the changing trends of HR development. It is an industry that employs close to 60,000 individuals. The banking industry seems to have undergone some shift when it comes to the wellbeing of their employees. Employees are also finding the most preferred or perceived compensation and benefit management system this may affect the productivity of the organization. For instance, the 14-year-old Nib International Bank (NIB), which was pursuing a branch expansion program, recruited 308 workers to reach a total number of 2,278. This was part of what fuelled its total expenses of 472.6 million Br in the 2012/13 fiscal year – 102.7 million Br more than last year, with salaries and benefits alone growing by 24.3 million Br. (Dawit Endeshaw, 2016)

Berhan International Bank (BIB), on the other hand, saw its staff and administrative expenses soar by an eye-popping 70.6% within just one year. It recruited 120 additional employees to reach a total of 409 – a 41.5% boost compared to 2011/12. Being one of the youngest banks in the country, its expansion is also unlikely to slow down at anytime soon.

In addition to this Oromia International Bank (OIB), another of the younger banks saw its expense for salaries and benefits grow by 31.1 million Br, or 62%. It employed 250 more people in 2012/13, pushing the total number of employees up to 1,336. (Dawit Endeshaw, 2016)

Every year banks salary and benefits expense show a huge increment and raise a question that whether this increment gives the proposed return and if the banks benefited from this strategy. Based on this, this research was intended to assess the effect of compensation on financial performance of Ethiopian private banks and to answer the following research questions.

1.3 Research Question

1. What are the compensation packages available to the personnel in Ethiopian private banks?
2. Does compensation has effect on financial performance of Ethiopian private banks?
3. What factor(s) is (are) triggering on the increment of compensation package in Ethiopian private banking industry?

1.4 General Objective of the Study

The general objective of the study was to examine the effect of compensation on financial performance of Ethiopian private commercial banks and to identify the significant determinants of their financial performance.

1.4.1 Specific Objective of the Study

1. To identify what compensation packages available to the personnel in Ethiopian private banking industry.
2. To identify if compensation (salary and benefit) has effect on financial performance of Ethiopian private banking industry.
3. To identify the factor(s) that is (are) triggering on the increment of compensation package of Ethiopian private banking industry.

1.5 Research Hypothesis

H1: There is a positive relationship between COM and banking financial performance.

1.6 Significance of the Study

Every organization should build an effective compensation management system in order to sustain in the competitive world. It may be financial or non-financial compensation. It is useful to attract, retain and motivate individuals towards higher performance. In order to get work done, organizations need to pay the required amount of wages and salaries in the form of

compensation. This system is important for every country and industry and Ethiopian banking industry is not an exception.

The study will give insight about the effect of compensation on financial performance of private commercial banks of Ethiopia. It will help the stakeholders to examine effect of compensation on financial performance of private commercial banks of Ethiopia. The findings of the study will also be important for compensation planners of public and private commercial banks in improving the compensation strategy and compensation packages for better performance of their organization.

Beside, this study is benefited the human resource management of public and private commercial banks in Ethiopia to improve their compensation strategy and to check its overall human resource management strategy. Finally, this study is served as a ground work for further studies to be carried out in this line.

1.7 Scope of the Study

The scope of the research was limited to the effects of compensation on performance of private commercial banks of Ethiopia. This study was confined itself to twelve selected private commercial banks of Ethiopia. The study uses 7 years' panel data from secondary sources mainly from annual reports of the selected banks from 2010-2016 GC.

The research was relying on the bank for vital information as well as information from secondary source.

1.8 Limitation of the study

The main limitation of the study is associated with source of data, i.e. due to the absence of research made in Ethiopian case; there is a shortage of reference to develop the literature review. Also, due to shortage of detailed data only general salary and benefit were used as a proxy to compensation.

In addition, the study was focused on the quantitative measure of compensation, thus non-financial measure that was not include on the study may have influence and need a further investigation. The other limitation of the study emanates from that even if there are many variables that affect commercial banks profitability the study was only concentrated on nine

variables (Compensation, Operating Efficiency, Asset Quality, Capital Adequacy Ratio, Liquidity Management, Earning Quality, Management Efficiency, Gross Domestic Product and Inflation Rate).

CHAPTER TWO

LITERATURE REVIEW

Human resources are a significant organizational asset if properly used and managed. The application of appropriate strategies for the development of human resources can lead to improvement of corporate performance both in the short and long term. This chapter describes available literature in the topic. It also offers a critical analysis of previous studies that have been done by other scholars in the area. It finally presents the research gap which the research intends to explore.

2.1 Theoretical Review

2.1.1 The Concept of Compensation

Compensation like any other human resource management concept has different meanings. Of course, this is due to the diverse conceptualizations often ascribed to the concept. Understanding the meaning and usage of the concept also indicates its components. Armstrong and Brown (2001) in defining compensation conceptualized it as an adequate and equitable remuneration for employees due to their contributions to achieving organizational objectives.

Compensation as it were being a complex topic that has significant impact on organizational success (Dessler, 2005), and for any organization to succeed, it must not look up to capital investment but to its employees as the fundamental source of improvement with the understanding that the human element and the organization are synonymous (Tella and Popoola, 2007). According to Cascio (2003), the objective of the design of compensation program is divided into two, which are, direct and indirect forms of compensation. Direct compensation has to do with wage and / or salary aspect while indirect compensation is the fringe benefits a worker enjoys as a result of working in an organization. Integrating the two into a package, that will encourage the achievement of an organizations goal, is what compensation is all about.

In the words of McNamara (2006), compensation includes issues regarding wage and/ or salary programs and structures accruing from job descriptions, merit-based programs, bonus-based programs, commission based programs and so on, while benefits typically refer to retirement

plans, health life insurance, disability insurance, vacation, employee stock ownership plan and so on. Mejia, Balkin and Cardy (2006) view employee compensation as comprising of base pay and fringe benefits. Base pay or cash pay is the direct pay provided by employers for work performed and these include salary, overtime pay, shift allowance, uniform allowances and pay contingent on performance like merit awards, incentive pay, bonuses and gain sharing while fringe compensating include required programs such as social security, health benefits, pension plans, paid time off, tuition reimbursement, foreign service premiums and so on.

Employee benefits, though apart of total compensation embraces non-monetary form of compensation ranging from health care plans, to pension or retirement plans, social security, insurance, family and medical leave (Bernadin, 2007), severance pay, payments for time not worked (vacations, sabbatical, holidays), worker's compensation, that is, those injured on the job (Cascio, 2003), foreign service premiums, child care, tuition reimbursement and on campus accommodation (Noe et al 2006).

The definition by Naukrihub (2007) that compensation is an integral part of human resource management which helps in motivating the employees and improving organizational effectiveness, was quite similar. These arguments suggest that there is a link between compensation and job performance. Others argue that compensation must be holistic packages beneficial to both employees and employers. Monday (2008) also argues that compensation is a total of all rewards given to employees in return for their services rendered. Compensation implies having organizational policies and procedures in which the employees who perform better are paid more than the average performing employees (Pearce, 2010; Hewitt, 2009). This suggests that compensation is often concerned with human resource management strategies that compensate employees fairly, equitably and consistently in accordance with their value to the organization (Armstrong, 1999).

Compensation packages: is sum of direct benefits (such as salary, allowances, bonus, and commission) and indirect benefits (such as insurance, pension plans, vacations) that an employee receives from an employer. Compensation practices vary significantly across employing organizations and to some degree, across jobs. Previous studies have explored the compensation packages available to employees in organizations. Broadly, many researchers argue that compensation should be a package comprising financial and non-financial, direct and indirect

compensation (Armstrong and Brown, 1998; Namasivayam et al., 2006; Sturman, 2001). Specifically, others argue that a typical compensation package should include base pay, commissions, overtime pay, bonuses, profit sharing, merit pay, stock options, travel and meals, housing allowance, benefits including dental, insurance, medical, vacation, leaves, retirement, tax freedom (Atchison et al., 2010; Noe et al., 1994; Milkovich and Newman, 1993; Gerhart and Milkovich, 1992). Bernadin (2007) also argues that employee benefits, though a part of total compensation, embraces non-monetary forms of compensation ranging from health care plans to pension or retirement plans, social security, insurance, family and medical leave. Cascio (2003) indicates that compensation packages such as severance pay, vacations and sabbatical, holidays and workers' compensation are legally mandated to be enjoyed by employees. However, these compensation packages are often designed by organizations to enhance employees' job performance.

Purpose of compensation

In every organization it is essential to understand the importance of compensation and the flexibility the hiring managers can have in designing a compensation package that can in turn attract, retain and develop a quality talent pool.

The very beginning purpose of compensation is to Attract & retain employees, Motivate workforce & sustain high morale, Meet legal requirements and Motivate personal growth.

But as Singh (2007) stated, compensation is provided with two basic objectives; as a reward for the past service to the organization and as a stimulus to increase performance in future. It can also create a system of rewards that is equitable to the employer and employees alike, so that the employee is attracted to do a good job for the employer.

The progressive organizations are utilizing compensation and rewards system as effective tools to develop, build and maintain "human capital" for competitive advantages by the following ways (Singh, 2007):

- ❖ Compensation can serve to attract qualified applicants to the organization. Other things being equal, an organization offering a higher level of pay can attract a larger number of qualified applicants than its competing units.

- ❖ Compensation helps to retain competent employees in the organization. Although retaining competent is contingent in many factors, compensation policies help by maintaining a fair internal pay structure and by providing attractive benefits. Turnover is thus reduced, along with costs associated with recruiting, selecting, and training replacements.
- ❖ Compensation serves as incentives to motivate employees to put forth their best efforts. Manufacturing and sales organization, for example, use monetary incentives to attain higher level of production and sales without hiring additional employees. When employees put forth their best efforts, average productivity of labor increases. With increased productivity, fewer employees are needed to achieve the same level of output. Thus, labor costs are reduced and organizational profitability is increased.
- ❖ Compensation systems must be consistent with the existing legislation in the areas of Labor Standards, equal pay, Human Rights, Employment Insurance, pension or retirement benefits, labor relations and Occupational Health and Safety.

Forms of compensations and incentive programs

According to Perkins and White (2011), employee compensation, remuneration or reward may be defined as “all forms of financial returns and tangible services and benefits employees receive”. Different scholars divided Compensation in to various parts from different perspectives.

One-way Compensation can be divided into fixed-pay, flexible-pay and benefits (Beard, 1986 as cited by Khan and Mufti, 2012). Fixed pay is the compensation given to employees as their base salaries *e.g.* promotions, merit increase and cost of living increase. These come under fixed pay because all of them become part of the employee’s base salary after its effect. Flexible pay consists of two components in itself, variable pay and deferred Income. Variable pay relates to commissions, bonuses, gain sharing, goal-based pay *etc.* where, the amount of pay is variable or its distribution is not certain, which is given usually to salespeople. Deferred income is long-term organization pay schemes *e.g.* profit sharing, company savings plans, employee stock ownerships *etc.* Finally, we have Benefits, which include things like vacations, sick leave, company car, company house, severance pay, medical insurance, retirement benefits *etc.* The

other way is to divide Compensation as (Taylor, F.1911) in to two parts, Performance-based pay and Non-performance based pay.

The other view to divide compensation is non- monetary, monetary/grant-date pay/ and equity rights/ realized pay/ (Örn and Konkell, 2009) and it can also be divided into direct and indirect (Singh, 2007).

The third approach of classification of compensation more specifically monetary pay would be used in this research. In the following sections, non-monetary, monetary and equity rights pays are discussed in more detail:

1. Non- Monetary compensation

Non- Monetary compensation is a form of compensation that includes benefits, increased responsibility, new assignments and educations that improve one's competences and/or it includes any satisfaction which employees receive from the job, such as the need for recognition, responsibility, personal growth and the like or from environment in which they work including comfortable working condition, competent supervision, pleasant work companion and other related physical and social needs of Employees (kelil, 2010).

Benefits and other forms of non-monetary compensation are becoming more appropriate forms of compensation for employees in today's workplace.

2. Monetary compensations

Monetary compensation, in the context of employment, is money paid to an employee in exchange for the use of the employee's labor, as opposed to non-monetary compensation such as health insurance. There are several different ways an employer can structure monetary compensation. Many of these forms of compensation can be used together. The most common monetary compensations are further described below:

Basic salary and Wages

Salary is the amount received by the employee in lieu of the work done by him/her for a certain period say a day, a week, a month, etc. It is the money an employee receives from his/her employer by rendering his/her services. Basic salary and wages are usually the largest component of a compensation package, and are the most common point of comparison used by employees and potential employees.

Salary should be tied to a person's skills and experience. Subsequent increases need to be based on an employee's performance, value, and contribution to an organization (Sigler, 2011).

Of all the different types of compensation, wages are the most common and the reason why most people work. Wages are often called the total cash compensation paid to an employee. Most employees are paid an hourly or annual salary. Others are paid a variable rate that is based on the performance of the employee. A great example of this is a car salesperson. Their wages (or commission) are based on the number of cars they sell during each pay period.

A basic salary is regarded as a “fixed” element of pay and wages depends on hours work and both do not normally vary in relation to company performance.

Minimum Wage

The minimum wage is the lowest wage an employer can legally offer to his or her employees. It is enforced by federal law, and can vary by state, as long as the state amount is higher than the federal amount. Minimum wage tends to increase as inflation rises; however, this is often not the case, and is a subject of heavy debate.

Investopedia <http://www.investopedia.com>

Allowances

Allowance is a fixed monetary amount paid by the employer to the employee (over and above basic salary) for meeting certain expenses, whether personal or for the performance of his duties. These allowances are generally taxable and are to be included in gross salary unless specific exemption is provided in respect of such allowance. For the purpose of tax treatment, allowances are categorized into three: fully taxable cash allowances, partially exempt cash allowances and fully exempt cash allowances (Kaur, 2012).

Bonuses

Companies set up long- and short term goals to improve the state of the company. A legible connection to reach these goals is through different types of bonus systems given to employees for the achievement of a certain result. Bonuses are part of the salary received in addition to the fixed wage, often called variable wages, and consist of options, profit sharing, cash bonuses etc. (Smitt, 2002).

Bonuses scheme provide cash payments to employees that are related to the performance of themselves, their organization or their team, or a combination of two or more of these. Bonuses are often referred to as 'variable pay' or 'pay at risk' since, the size of bonuses can fluctuate due to the expected results, bonuses can raise or fall at any point in time. (Armstrong and Murlis, 2007).

Bonuses are often used as motivational incentives when companies have short term goals and need to enhance i.e. incomes in short perspective. Goals that are related to bonuses do not necessarily have to be set in monetary terms, but can for example be in fields of customer satisfaction and increased good will. The board of directors normally set these goals and determines what variables to be measured. Bonuses do not have to be paid if the goals are not achieved, and furthermore, bonuses are an income that is hardly ever entitled to pensions (Örnand Konkell, 2009).

Profit sharing foundations

Profit sharing foundation is another type of compensation paid to employees by companies. It is a sample system to award employees' for jointly performed work. Its purpose is to motivate employees by offering shares of the profit. The system is based on an idea that the company should allocate capital from their profit to a foundation that manages the employees profit shares. (Örn and Konkell, 2009).

The aim is to manage the capital with emphasis on long term value enhancement and to have advantage of profit-sharing plan:

- **Profit sharing makes the link between work and reward.** If you are going to ask the most from your employees, they will expect something in return. Increasingly, pay is not enough. A plan that rewards employees with a share of the fruits of their labor draws a direct connection between work and reward.
- **Profit sharing helps create a culture of ownership.** When employees are rewarded based on their contributions to the company's success, employees feel like owners. As owners, employees have more incentive to increase the company's profitability. However, this strategy will work only if the company and its management create ways for employees to understand the company's challenges and contribute to the solutions.

Open two-way communication, flat management structure and employee involvement foster such a culture.

Every employee has the right to his or her certain share of the value depending on number of years worked within the company and other factors. Such foundations are common in companies with large number of employees at several levels. The underlying argument behind this system is that the performed results that exceed the competitors' are due to the employees' hard work (Örn and Konkell, 2009).

The disbursement of the profit shares varies between companies, but the employees can usually choose withdrawing everything at once or split up the disbursements during at interval of time.

1. Equity based compensations

Monetary based compensation may not necessarily enhance shareholder's values, rather resulted in short term thinking among managers. Therefore, many companies have implemented stock related incentive programs or options because they have high correlations between performance measure and shareholder's values (Örn and Konkell, 2009).

Option provides the holder the right to buy or sell a specified quantity of an underlying asset at a fixed price, at or before the expiration date of the option; since it is a right and not an obligation, the holder can choose not to exercise the right and allow the option to expire or throw it.

Laietu and Mellado, (2009) describe that all kinds of options to be considered as deferred bonuses related to development of the share price. The most common equity based compensations are further described below:

Convertible securities

Convertible securities, also called convertibles, mean that the companies borrow money from their employees, who receive a security in exchange. The holder of the security then has the right to convert this security into shares of the company at expiration date. By implementing convertibles as incentives program, the employees will have the opportunity to buy shares at a price lower than the market price, without risk of losing the money up to that date. Companies also benefit from using this type of program since they get hold of liquid assets. However, it is important to know that the employees risk losing money if the company goes bankrupt (Örn and Konkell, 2009).

Warrants

Warrants are similar to convertibles in terms of that the company borrows money from their employees, who receive a security in exchange. However, warrants are in contrast to convertibles tied to a right of option for a future new share issue in the company. Thus, a warrant gives its holder to subscribe for an issue of new shares at advanced set price. If the holder of the warrant chooses to exercise the option, newly issued shares will be subscribed, which means that existing shareholders' share of the stock capital will be diluted. Companies use warrants as an incentive package and remuneration, mainly for senior executives (Örn and Konkell, 2009).

Call options

A call option gives the owner of the right to buy an asset at a fixed price at a given time. The asset traded on a normal basis is the exchange of options on stocks and bonds, although any kind of asset can be traded (Ross et al, 2005 as cited by Laietu and Mellado, 2009). At the end of the expiration time, the holder of the call option is not obliged to exercise the option and will only do so if the value of the share is higher than the advanced set price. The holder of the call option will not notice any difference compared to if they had used a warrant, and since a call option concerns acquisitions of existing shares, dilution of the stock capital will be avoided (Arvidsson, 2004 as cited by Örn and Konkell, 2009).

Synthetic Options

A synthetic option is very much alike a call option but it gives the opportunity of not realizing any stock on the expiration date. Instead there is a payment in cash, regulated on a predetermined moment. Synthetic options are issued by the company or a shareholder of the company i.e. if there is a corporate group. The amount received corresponds to the difference between the market share value at expiration date and share value that was decided at the date of issuance. This type of option has a few advantages when trading them, one of them being the benefit of not forcing a new share issue as options are exercised, thus the dilution of stocks is avoiding. Despite what is said above, option programs have become less popular since they received negative reviews during the 90s due to a direct influence on company profits and difficulties in calculating costs reliably (Smitt, 2002 as cited by Laietu and Mellado, 2009).

2.1.2. Theories related to compensation management

Theory of expectancy and reinforcement comes for first and for most in compensation theories, which speaks about the behavior of the employee to be considered as rewarding experience. This

theory is mainly related to the motivational aspect of human behavior. Behavior reinforcement theory is similar to that of operant conditioning. If a person is rewarded for a particular behavior, he or she is more likely to perform those actions again. The implication of reinforcement theory for compensation is that better performance is followed by a monetary reward. As a result, the employee is consequently encouraged to do better. In case a high performance is not followed by reward, it may not generate better result in the future. Similarly, the expectancy theory focuses on the link between rewards and behavior. Again it falls under motivation, which is explained as the product of expectancy.

Equity theory

Equity theory suggests that employee perceptions of what they contribute to the organization, what they get in return, and how their return -contribution ratio compares to others inside and outside the organization, determine how fair they perceive their employment relationship to be (Adams, 1963). It suggests that employees' actions will be changed based on their perception of how they are paid in comparison to their coworkers.

Perceptions of inequity are expected to cause employees to take actions to restore equity. Unfortunately, some such actions (e.g., quitting or lack of cooperation) may not be helpful to the organization.

Agency theory

Agency theory, until recently best known in the economics, finance, and law literatures, focuses on the divergent interests and goals of the organization's stakeholders, and the ways that employee compensation can be used to align these interests and goals (Eisenhardt, 1989; Fama & Jensen, 1983). Ownership and management (or control) is typically separate in the modern corporation, unlike the days when the owner and manager was often the same person.

Agency theory, attempts to use pay in order to get the different interests of people involved with the company to become one in the same. There are many categories of people within a company and each has their own set of priorities:

- Employees wish to have a safe workplace, to be paid fairly based on their level of effort and maybe even share in company profits if the company is successful. (After all, the company could not make profits without employees.)
- Management seeks to increase the productivity of employees and to be paid fairly based on their level of expertise within the organization.
- Stockholders want the company to maximize profits by reducing costs (including labor expenses) while increasing the value and reputation of the company.

As you can see, the priorities of each group can be in direct conflict. The agency theory of compensation management can make it a priority to maximize productivity, performance and the reputation of the company so that employees, management and stockholders all ultimately have the same goals.

Subsistence theory (by David Ricardo): this theory states that: “the laborers are paid to enable them to subsist and perpetuate the race without increase or diminution.” The theory was based on the assumption that if the workers were paid more than subsistence wage, their numbers would increase as they would procreate more; resulting in a spurt in supply of labor and this would bring down the rate of wages. If the wages fall below the subsistence level, the number of workers would decrease – as many would die of hunger, malnutrition, disease, cold, etc. and many would not marry, when that happened the wage rates would go up (Singh, 2007).

The **just price theory** (by Plato and Aristotle): This theory suggests that each person born into the world is foreordained to occupy exactly the same status and to enjoy the same creature comforts as did his or her parents. Therefore, society owes these individuals sufficient compensation to maintain exactly the same position of life into which they were born (Bhattacharya and Sengupta, 2009).

Wages fund theory – (by Adam Smith): The basic assumption of this theory is that wages are paid out of a pre-determined fund, which is laying surplus with wealthy persons/employer – as a result of organizational savings. This fund could be utilized for employing laborers for work. If the fund was large, wages would be high if it was small, wages would be reduced to the

subsistence level. The demand for labor and wages that could be paid them was determined by the size of the fund (Goel, 2008).

The residual claimant theory (by Francis A. Walker): according to this theory, four factors influence production/ business activity, namely land, labor, capital and entrepreneurship. Wages represent the amount of value created in the production, which remains after payment has been made for all these factors of production. In other words, labor is the residual claimant (Goel, 2008).

The surplus value theory of wages (Marxian): this theory owes its development to Karl Marx.

According to this theory, the labor is an article of commerce, which could be purchased on payment of subsistence price. The price of any product is determined by the labor time needed for producing it. The labor is not paid in proportion to the time spent on work, but much less, and the surplus went over, to be utilized for paying other expenses (Singh, 2007).

Managerial productivity theory (by Philips Henry and Bates Clark): According to this theory, wages are based upon an entrepreneur's estimate of the value that will probably be produced by the last or marginal worker. Their assumption was that wages depend upon the demand for, and supply of, labor. Consequently, workers are paid what they are economically worth. The result is that the employer has a larger share in profit as has not to pay to the non-marginal workers. In addition, it advocates the marginal productivity concept because as long as each additional worker contributes more to the total value than the cost in wages, it pays the employer to continue hiring where it becomes uneconomic, and the employer may resort to superior technology (Goel, 2008).

The bargaining theory of wages (by Jhon Davidson): According to this theory, wages are determined by the relative bargaining power of workers or trade unions and of employers. When a trade union is involved, basic wages, fringe benefits, job differentials and individual difference tend to be determined by the relative strength of the organization and the trade union (Goel, 2008).

Employment theory (supply and demand theory): it is based on the inter-relation between wages and employment. According to it, unemployment would disappear, if workers were to accept a voluntary cut in wages, pleaded for wage flexibility for promoting employment at a time of organization depression. These wage cuts would bring down costs and thereby fall in price. This lowering in prices would cause additional demand, which will increase production. This will increase employment of workers (Singh, 2007).

Competitive theory: The force on which economists have traditionally laid the greatest stress in wage determination is demand and supply. Adam Smith argued that if wages were fixed in accordance with demand and supply, workers would be attracted by high wages to industries and places where the supply of labor was greater than demand. More precisely, the basic assumption of competitive theory is that employers compete among themselves by offering a higher wage to attract employees; while the employees compete with one another for jobs by offering their services for a lower wage. Competition, then, is essentially a disequilibrium process by which excess demand and excess supply cause changes in wages (Singh, 2007).

Behavioral theories (by Marsh and Simon, Robert Dubin, Eliot Jacques): This theory is based on employee acceptance of wage level, internal wage structure, and wage and other incentives. Employee acceptance of wage level deals with factors that induce an employee to stay on with a company. Internal wage structure deals with the factors that affect internal wage structure of an organization. Wage and other incentives are based on basic needs of man. The basic needs of a man made available through the purchasing power provided by monetary income-wages, merit increases, bonuses are based on performance (Barpanda, 2013).

2.1.3. Determinants of Banks Profitability

Commercial banks profitability determinants can be grouped namely into internal factors which are under the management control as well as the external factors which are ahead of the management control (Nassreddine (2013).

2.1.3.1. Bank Specific Factors/Internal Factors

Bank specific variables are variables that affect the profitability of a specific bank. These factors are within the scope of the bank and are easy to be manipulated and differ from bank to bank. Athanasoglou et al, (2006) argued that profitability is a function of internal factors that are

mainly influenced by a bank's management decisions and policy objectives such as the level of liquidity, provisioning policy, capital adequacy, expense management and bank size.

2.1.3.2. External Factors/ Macro-economic Factors

External factors are said to be the factors that are beyond the control of the management of commercial banks. The external determinants of commercial banks profitability are indirect factors, which are uncontrollable, but have an enormous impact on bank's profitability. According to Nassreddine et.al in Onuonga (2014), the external determinants of bank profits are related to both the economic and legal environments in which the banks operate. According to Karkrah and Ameyaw (2010) macroeconomic variables has been a major components of the external profit determinants in most studies. The most external factors that have been presented in most studies includes competition/market share/firm size, inflation, GDP growth, and interest rate; Haron, Sudin (2004).

2.2. Empirical review

There are numerous studies which deal with bank profitability where some of them are focusing on a single country, while others on a panel of countries. Following previous studies from both panel countries and single countries are presented.

2.2.1 Panel Country Studies

Goddard et al (2004) investigate the profitability of European banks during the 1990s using cross-sectional, pooled cross-sectional time-series and dynamic panel models. Models for the determinants of profitability incorporate size, diversification, risk and ownership type, as well as dynamic effects. Despite intensifying competition there is significant persistence of abnormal profit from year to year. The evidence for any consistent or systematic size–profitability relationship is relatively weak. The relationship between the importance of off-balance-sheet business in a bank's portfolio and profitability is positive for the UK, but either neutral or negative elsewhere. The relationship between the capital–assets ratio and profitability is positive. The growth regressions reveal little or no evidence of mean-reversion in bank sizes. Profit is an important prerequisite for future growth. Banks that maintain a high capital-assets ratio tend to grow slowly, and growth is linked to macroeconomic conditions. Otherwise, there are few systematic influences on bank growth. The persistence of profit appears higher for savings and

co-operative banks than for commercial banks. Banks that maintain high capital assets or liquidity ratios tend to record relatively low profitability. There is some evidence of a positive association between concentration and profitability, but little evidence of a link between bank level x-inefficiency and profitability.

The aim of the study made by Athanasoglou et al. (2005) is to examine the effect of bank specific, industry-specific and macroeconomic determinants of bank profitability, using an empirical framework that incorporates the traditional Structure-Conduct-Performance (SCP) hypothesis and they apply a GMM technique to a panel of Greek banks that covers the period 1985-2001. They used independent variables like Capital, credit risk, productivity, expense management, size, ownership, concentration, inflation and business cycle. According to the empirical results, capital is important in explaining bank profitability and that increased exposure to credit risk lowers profits. Additionally, labor productivity growth has a positive and significant impact on profitability, while operating expenses are negatively and strongly linked to it. The estimated effect of size does not provide evidence of economies of scale in banking. Likewise, the ownership status of the banks is insignificant in explaining profitability, denoting that private banks do not in general make relatively higher profits, at least during the period under consideration. Also, the SCP hypothesis is not verified, as the effect of industry concentration on bank profitability was found insignificant.

Kosmidou et al., 2007 seek to investigate the factors of profitability of banks from Greece operating abroad. They work on an unbalanced panel consisting 19 Greek bank subsidiaries working in 11 nations for a period of 1995-2001. The findings reveal that the operating experience and the level of profits of the parent bank have a positive impact on the profitability of subsidiaries in abroad, while the size of subsidiary bank has a negative impact on profitability. Liquidity, concentration or market share, domestic stock market developments, cost efficiency and loan loss provisions in the host nations are found as insignificant factors for subsidiary banks' profitability.

Pasiouras and Kosmidou (2007) examined how bank's specific characteristics and the overall banking environment affect the profitability of commercial domestic and foreign banks operating in the 15 European Union countries over the period 1995-2001. This study used return on

average assets (ROAA) to evaluate bank's performance. Four bank characteristics are used as internal determinants of performance. These are the bank's total assets, the cost to income ratio, the ratio of equity to assets, the ratio of bank loans divided by customers and short term funding and bank size. In addition, six external determinants are used to examine the impact of environment on bank's performance. Two sets of variables have been considered in this study, indicating macroeconomic conditions and financial structure characteristics which are gross domestic product growth and inflation. In order to examine, this study used the ratios stock market capitalization to GDP, stock market capitalization to total assets of deposit money banks, total assets of deposit money banks to GDP and banking industry concentration. Their sample is a balanced panel data set of 584 commercial banks operating in the 15 EU countries over the period 1995-2001 consisting of 4088 observations. Banks were split according to their ownership resulting in two sub-samples of 332 domestic and 218 foreign banks. All financial and ownership data of individual banks as well as information concerning market concentration were drawn from Bank Scope database. Country and market specific data were obtained from Euro Monitor International Database (EMID) which collects data from sources such as International Monetary Fund's (IMF), International Financial Statistics (IFS), World Economic Outlook (WEO)/National Statistics (UNS) and World Bank (WB). The results indicated that profitability of both domestic and foreign banks is affected not only by bank's specific characteristics but also by financial market structure and macroeconomic conditions. Capital strength and efficiency in expenses management were found to be the main determinants of ROAA in all cases as the relatively high significant coefficients of the equity to assets and cost to income ratios showed. Equity to assets was positively related to ROAA and appeared to be the most significant determinant of profitability. The impact of the indicators of macroeconomic conditions on ROAA is significant in all cases.

Heffernan and Fu (2008) identified the determinants of South Asian banks performance and assessed whether recent reforms had any effect. The sample covered 76 banks between 1999 and 2006. Most of the data used here come from Bank Scope. Ten bank-specific independent variables and three macroeconomic explanatory variables were analyzed in this study. While four dependent variables Economic Value Added (EVA), Return on Average Assets (ROAA), Return on Average Equity (ROAE), and Net Interest Margin (NIM) used in this study as the

performance measures of banks. This study employed the system Gaussian Mixture Model (GMM) model to assess the determinants of South Asian bank performance. A fixed effects panel data model is also estimated to allow comparison of results, and as a robustness check. Among the results obtained are cost to income ratio is negatively signed and significant to profitability. On the contrary, Loan Loss Reserve Ratio (LLR) produced a positive and significant coefficient. The results also reported that the macroeconomic variable that performed best in this study is the real GDP growth rate, followed by the unemployment rate. From the results it is confirmed that the system Gaussian Mixture Model (GMM) model is the preferred method of estimation. The study also looked at the question of which of four performance measures work best. Based on diagnostics and the significance of coefficients, the results suggested the best dependent variables are Economic Value Added (EVA) and the Net Interest Margin (NIM), as against Return on Average Assets (ROAA) or Return on Average Equity (ROAE).

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

Masood and Ashraf (2012) undertook study on the determinants of Islamic banks profitability in case of different countries by taking 25 banks out of 12 countries for the period of 2005-2010. The objective of their study was to inspect whether bank-specific and macro-economic determinants influence Islamic banks' profitability in the selected countries of different regions by using the balanced panel data regression model. They used ROA and ROE as profitability

measure and considered both micro and macro variables as determinants of profitability. The micro determinants include asset size, capital adequacy, asset quality, liquidity, deposits, Assets Management, Operating efficiency, Gearing Ratio, Financial Risk and macro factors included GDP growth and inflation rate. Their study results reveals that, banks with larger assets size and with efficient management lead to greater return on assets and also their result shows that management efficiency regarding operating expenses positively and significantly affects the banks' profitability.

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

2.2.2 Single country studies

Trujillo-Ponce (2010) also conducts a study on what determines the profitability of banks in Spain. The paper analyzes empirically the factors that determine the profitability of Spanish banks for the period of 1999-2009. The results obtained by applying the system-GMM estimator to a large sample of Spanish banks indicate that the high bank profitability during those years was associated with a large percentage of loans in total assets, a high proportion of customer deposits, good efficiency, and a low credit risk. In addition, higher capital ratios also increase the

bank's return, although that finding applies only when using return on assets (ROA) as the profitability measure. The researcher found no evidence of either economies or diseconomies of scale or scope in the Spanish banking sector. On the other hand, all industry and macroeconomic determinants, with the exception of interest rate, affect bank profitability in the anticipated ways. Finally, the study reveals differences in the performance of commercial and savings banks.

Naifar (2010) studies the determinants of bank performance that analyze the theory and practice in the case of an emerging market. The aim of that paper was to explain empirically the determinants of bank performance using pooled time-series and cross-section data. The existing theories and most of the empirical studies focus mainly on developed markets. Therefore, they choose an emerging market, Tunisia, to examine the validity of these studies. The Tunisian business environment is motivating because of the institutional reforms that have been successfully implemented since 1987. The study analyses Tunisian bank performance from 1999 to 2007. The findings show that bank performance is mainly explained by expenses management, ownership structure and bank loans. Consequently, reducing state ownership and expanding openness to foreign capital would encourage product innovation and competitive advantage and then, lead to a superior performance.

Sufian (2011) also investigated the profitability of the Korean banking sector for the period of 1992- 2003 and he comes up with the following findings. The banking system in Korea impulses profitability when there is low liquidity in their assets and their macroeconomic determinants especially inflation have a significant impact on bank profitability. However, the impact of credit risk and cost are always negative. Furthermore, it is observed that on average the Korean banking sector is relatively more profitable during the pre-crisis period under both profitability measures, i.e., ROA and ROE.

Erina and Lace (2013) also conducted a study of Commercial Banks Profitability Indicators Empirical Evidence in Latvia. The aim of their study was to determine the impact of the external and internal factors of bank performance on the profitability indicators of the Latvian commercial banks in the period from 2006 to 2011. On the basis of research conducted abroad on bank and macroeconomic profitability indicators, in order to obtain research results the author's evaluated return on assets (ROA) and return on equity (ROE) indicators of the Latvian

commercial banks. The authors conducted the survey of scientific literature and analyzed profitability indicators of commercial banks using descriptive methods, as well as SPSS data analysis methods, data correlation and regression analysis. On the basis of the obtained results, the authors have concluded that profitability has had a positive effect on operational efficiency, portfolio composition and management, while it has had a negative effect on the capital and credit risks, as measured according to ROA, while according to ROE, positive influence is exerted on composition of the capital portfolio and negative on operational efficiency and credit risk. With regard to macroeconomic indicators, the authors have revealed that GDP has a positive impact on profitability as measured by ROA and ROE. The methodology the researchers used in their research can be applied to determine not only profitability indicators of some commercial bank in particular, but also to compare performance indicators of several banks.

Agbeja (2014) conducted a study on a title of an Empirical Analysis of the Main Determinants and the Relative Contributions of Changes in Bank Capital Base to the Efficiency of Nigerian Commercial Banks. The paper examined and analyzed the main determinants and the changes in capital base to the efficiency of Nigerian Commercial Banks. The study utilized secondary data covering 16 years on the commercial banks in existence between 1992 and 2007. Data on key performance indicator of the banks such as total income, interest rates, total credits, and branch networks were sourced from the “fact books” published by the Nigerian Stock Exchange (NSE) and official publications of the selected banks. Econometrics techniques were used to appraise the main determinants and the relative contributions of changes in capital base to the efficiency of Nigerian Commercial Banks over the studied period. The results showed that capital base requirement was ineffective in reducing distress in the banking industry. More important, bank capital was a major determinant of bank performance and efficiency. Also, the capital base requirement by the Central Bank of Nigeria lagged behind the average capital base of the banks. The study concluded that the Central Bank of Nigeria could use the regulatory power of raising the capital base of banks to stimulate greater profitability and efficiency in the banking sector.

Grove et al. (2014) conduct a research on the profitability and performance measurement of U.S. regional banks using the predictive focus of the “Fundamental Analysis Research”. Their paper examines the profitability and performance measurement of U.S. regional banks during the period 1994-2011, using the GMM estimator technique. Their study extends prior research by

including several factors not previously considered using U.S. data. They use bank-specific, industry-specific, and macroeconomic determinants of profitability contemporaneous with their performance indicators. They follow the accounting fundamental analysis path in explaining the bank performance. Their study revealed that among the performance measures, the efficiency ratio and provisions for credit losses are negatively and equity scaled by assets is positively related to profitability. However, these relationships either reverse (efficiency ratio and provisions for credit losses) or become insignificant (equity scaled by assets) when the target becomes change in profitability. The level of nonperforming assets is negatively related to profitability across all measures of profitability used. Macroeconomic variables are largely unrelated to profitability during the year they are measured. However, they have a significant relationship with earnings change measures, suggesting they have a lagged effect on profitability.

The study of Frederick (2014) seeks to establish the underlying factors responsible for performance of domestic commercial banks in Uganda. The factors are analyzed in the light of structure–conduct performance (SCP) and Efficiency hypotheses (ES). This is supplemented by Global advantage theory together with Home field theory. The study analyses performance of all licensed domestic and foreign commercial banks independently on average basis. Using Linear multiple regression analysis over the period 2000-2011, the study found that, management efficiency; asset quality; interest income; capital adequacy and inflation are factors affecting the performance of domestic commercial banks in Uganda over the period 2000-2011.

Kwakwa (2014) studied Determinants of Performance of Commercial Banks in Ghana. The study sought to examine the determinants of commercial banks profitability and the extent to which they impact on performance. The empirical estimation is based on a panel regression analysis of the relationship between profit variables and expenses to income ratio, capital adequacy, liquidity measure, asset quality, income diversification ability, gross domestic product, money supply, size of the bank and inflation. The results suggest that expenses to income ratio, capital adequacy, asset quality, income diversification ability, money supply, and size of the bank influences the banks profit in the statistically significant manner. The outcome shows that income diversification and size of the bank have improved banks profit level whiles efficiency of expenditure, capital adequacy, asset quality and money supply had reduced the banks profit level. However, of the extent of influence, income diversification in a form of fees

and commissions' income has had a greatest impact i.e. contributing significantly to the profit of banks. One that has been reducing the banks profit level significantly is expenses to income ratio (expenses).

Samad (2015) studies Determinants Bank Profitability Empirical Evidence from Bangladesh Commercial Banks. The researcher empirically examines the impact of bank specific characteristics and macroeconomic variables in determining the banks' profitability of Bangladesh banking industry with a panel data. A total of 42 Bangladesh commercial banks' financial reports were analyzed; and bank specific characteristics such as bank financial risk, bank operational efficiency, and bank sizes as well as macroeconomic variables such as economic growth are examined to estimate their impact of bank profits. Results indicate that bank specific factors such as loan-deposit ratio, loan-loss provision to total assets, equity capital to total assets, and operating expenses to total assets are significant factors. Bank sizes and macroeconomic variable show no impact on profits.

Khalfaoui & Ben Saada (2015) study The Determinants of Banking Performance. Their work aims to identify the determinants of performance of the Tunisian banking sector. The results found, following an empirical study using panel data of Tunisian banks listed on the stock market over the period 2000-2013, show that credit risk, liquidity, total assets and disclosure of information relating to credit are the main determinants of banking performance.

Nouaili et al. (2015) in their study of The Determinants of Banking Performance in Front of Financial Changes Case of Trade Banks in Tunisia, studies the internal and external determinants of bank performance in Tunisia during the period after financial reforms. They used regression analysis and panel data technique with the linear model of Bourke (1989) and followed the methodology employed by Demirgüç-Kunt and Huizinga (1999) and Dietrich and Wanzenried (2011) in order to address the issue. The empirical results showed that bank performance is positively related with capitalization, privatization and quotation. While, bank size, concentration index and efficiency are negatively related with performance indicators (measured by net interest margin, LIQ, return on assets and return on equity). As for the macroeconomic determinants, their analysis showed that the business cycle, measured by the growth of the gross domestic

product is supposed to be favorable to the improvement of the performance of the banks and negative relationship was found with inflation rate.

Ameer (2015) also studies determinants of banking sector performance in Pakistan in the year 2015. The purpose of that research was to examine the relationship between bank-specific and macro-economic indicator over bank performance by using data of ten Pakistani banks including five conventional banks and five Islamic banks over the period 2010-2014. The researcher used Return on assets and Return on Equity as Dependent variable to measure the Banking Sector performance. The independent variable taken for that study included bank specific factors (Size, Capital, Loan, Deposits, Expenses, Credit Risk and Liquidity) and macroeconomic factors (Gross Domestic Product, Foreign Direct investment and Inflation). The researcher used the correlation and regression method.

The empirical results have found strong evidence that both internal and external factors have a strong influence on the performance. A result of study denotes that credit risk, expenses and inflation have indirect link with the bank performance, whereas size of bank, capital, deposit and loan have a significant positive relation with bank's performance and liquidity have insignificant positive relation with Performance of bank. This study reveals the positive insignificant relation between GDP and performance but significant relation between FDI and performance and indirect relation between inflation and profitability.

Rahman et al. (2015) study Determinants of Bank Profitability Empirical Evidence from Bangladesh. This study attempts to investigate capital strength, credit risk, ownership structure, bank size, non-interest income, cost efficiency, off-balance sheet activities, liquidity as potential bank specific determinants as well as growth in gross domestic products, inflation as potential macroeconomic determinants of bank profitability by taking 25 commercial banks from Bangladesh for a period ranges from 2006 to 2013. Three different measures of profitability namely return on assets (ROA), net interest margin over total assets (NIM) and return on equity (ROE) are used in the study. The empirical findings suggest that capital strength (both regulatory capital and equity capital) and loan intensity has positive and significant impact on profitability. Results also show that cost efficiency and off-balance sheet activities have negative and significant impact on bank profitability. The impact of other variables is not uniform in respect

of different measures of profitability. Non-interest income, credit risk and GGDP are found as important determinant for NIM. Size has a positive and significant impact on ROA. Finally, inflation has a negative and significant impact on ROA and ROE.

İslatince (2015) has studied Analysis of the Factors that Determine the Profitability of the Deposit Banks in Turkey. That study investigated the effects of internal factors under the control of deposit banks in Turkey and external factors that reflect the financial system in countries and that are beyond the control of the banks on the profitability of the banks. For this purpose, a multi-linear regression analysis was carried out using the data of Turkish deposit banks of the period between 2008 and 2014. As a result, it was determined that there is a high correlation between the asset profitability and equity profitability of the banks, and micro variables are more effective in the determination of a bank's performance when compared to macroeconomic variables. It was further detected that liquidity, which is determined as a macro variable, has a negative effect on equity profitability, and the expense management of the bank is the only variable affecting a bank's profitability and equity profitability.

2.2.3 Review of previous empirical studies on Ethiopia

Belayneh (2011) examine the impact of bank-specific, industry specific and macroeconomic determinants of Ethiopian commercial banks profitability that covers the period 2001- 2010 by applying the balanced panel data of seven Ethiopian commercial banks. He used the ROA as a dependent variable and capital, size, loan, deposits, non-interest income, noninterest expense, credit risk, market concentration, economic growth, inflation and saving interest rate as independent variables. The estimation results show that all bank-specific determinants, with the exception of saving deposit, significantly affect commercial banks profitability in Ethiopia. Market concentration is also a significant determining factor of profitability. Finally, with regard to macroeconomic variables, only economic growth exhibits a significant relationship with banks' profitability.

Amdemikael (2012) carried out study to examine the bank-specific, industry-specific and macro-economic factors affecting bank profitability for eight commercial banks operating in Ethiopia, covering the period of 2000-2011. He adopts a mixed research approach by combining documentary analysis and in-depth interviews. He used ROA as a dependent variable and capital

strength, operational efficiency, income diversification, liquidity risk, bank size, asset quality, industry concentration level, real GDP growth and inflation as independent variables. The findings of the study show that capital strength, income diversification, bank size and gross domestic product have statistically significant and positive relationship with banks' profitability. On the other hand, variables like operational efficiency and asset quality have a negative and statistically significant relationship with banks' profitability. However, the relationship for liquidity risk, concentration and inflation is found to be statistically insignificant.

The purpose of the study made by Habtamu (2012) is to investigate determinants of private commercial banks profitability in Ethiopia by using panel data of seven private commercial banks from year 2002 to 2011. He used quantitative research approach and secondary financial data are analyzed by using multiple linear regressions models for the three bank profitability measures; Return on Asset (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). He applied Fixed effect regression model to investigate the impact of capital adequacy, asset quality, managerial efficiency, liquidity, bank size, and real GDP growth rate on major bank profitability measures i.e., (ROA), (ROE), and (NIM) separately. Beside this, he used primary data analysis to solicit managers perception towards the determinants of private commercial banks profitability. The empirical results show that bank specific factors; capital adequacy, managerial efficiency, bank size and macro-economic factors; level of GDP, and regulation have a strong influence on the profitability of private commercial banks in Ethiopia.

The study carried out by Mohana et al. (2012) was to explore the key determinants of profitability of commercial banks operating in Ethiopia by using unbalanced panel data set of banks over the period 1999/00-2008/09. They used internal factors like capital adequacy, liquidity, credit risk, loan portfolio, asset quality, and expense management and external factors related to the industry and the macroeconomic factors within which the banks operate. Moreover, ROAA was used as dependent variable. In their analysis the fixed effects model is used to control the unobservable bank specific characteristics.

The result of the study reveals that Capital adequacy (equity to asset ratio), diversification (non-interest income to total income) and bank size (log of total assets) are among the internal factors that have positive and significant impact on the profitability of Ethiopian commercial banks.

Moreover, the loan loss reserve to total loans is also found to have negative impact on profitability though it is statistically insignificant. In addition to this, liquidity and operational efficiency are among the internal factors that negatively affect the profitability of the banks. Finally, the macroeconomic factors have insignificant impact on the commercial banks profitability in Ethiopia.

The main objective of the study made by Birhanu (2012) is to examine the effect of bank specific, industry-specific and macroeconomic determinants of Ethiopian commercial banking industry profitability from the period 2000 - 2011 by using OLS estimation method to measure the effects of internal and external determinants on profitability in terms of average return on asset and net interest margin. The result reveals that, all bank-specific determinants, with the exception of bank size, expense management and credit risk, affect bank profitability significantly and positively in the anticipated way. However, bank size, expense management and credit risk affect the commercial banks profitability significantly and negatively. In addition to this, no evidence is found in support of the presence of market concentration. Finally, from macroeconomic determinants GDP has positive and significant effect on both assets return and interest margin of the bank. But interest rate policy has significant and positive effect only on interest margin.

Abebe (2014) also conducted a research on Determinants of Financial Performance an Empirical Study on Ethiopian Commercial Banks. This study examines the determinants of financial performance of commercial banks in Ethiopia by using panel data of banks over the period 2002-2013. Since the data is secondary in nature, the quantitative approach to research was considered. Besides, the fixed effect model was used. The fixed effect model is preferred to the random effect model based on the hausman specification test. Under that study, both internal and external factors were included. The internal factors used in that study include capital structure; Income Diversification, operating cost and bank size whereas the external factors are effective tax rate, real GDP growth and inflation. Moreover, ROA and NIM were used as the performance measure. Based on the regression result, all bank specific variables except bank size affect performance of the bank significantly but negatively. However, bank size affects performance significantly and positively. In addition to this, macro-economic factors have no significant

effect on the performance of banks except the tax rate which negatively but significantly affects ROA.

Kebede, 2014 conducted a study on The Impact of National Bank Regulation on Banks Performance. The main objective of this study was to examine the impact of NBE regulations on private banks performance through the significant regulatory variables explaining the NBE directives, using bank-specific and macroeconomic variables as control variables. Balanced fixed effect panel regression was used for the data of six private commercial banks in the sample covered the period from 2004 to 2013. Three regulatory factors affecting banks performance in terms of return on asset and net interest margin were selected and analyzed. The results of panel data regression analysis showed that NBE Bill and Credit cap had negative and statistically significant impact on banks profitability but reserve requirement had negative and insignificant impact on profitability. While measuring banks cost of intermediation through Net Interest Margin three of the regulatory variables (i.e. NBE Bills, Reserve requirement and credit cap) had negative and statistically significant effect on net interest margin. Among the control variables bank size had positive and statistically significant effect on both performance measures, which means ROA & NIM. Operating efficiency and GDP had positive and statistically insignificant effect on ROA but both were statistically significant on NIM. Equity had positive and significant effect on ROA but had negative and statistically insignificant on NIM. Inflation had positive and insignificant effect on ROA but had positive and significant effect on NIM.

Alemu (2015) conducted a research on the Determinants of Commercial Banks Profitability the Case of Ethiopian Commercial Banks. The purpose of this study was to investigate determinants of commercial banks profitability in Ethiopia by using panel data of eight commercial banks from year 2002 to 2013. The study used mixed research approach and secondary financial data were analyzed by using multiple linear regressions models for the bank profitability measure, Return on Asset (ROA). Fixed effect regression model was applied to investigate the impact of bank size, capital adequacy, liquidity risk, operating efficiency, management efficiency, employee efficiency, funding cost, banking sector development, real GDP, inflation rate and foreign exchange rate on Return on Asset (ROA) and also primary data was used to support the result of the documentary analyses. The findings of the study show that bank size, capital adequacy and gross domestic product have statistically significant and positive relationship with

bank's profitability. On the other hand, variables like liquidity risk, operational efficiency, funding cost and banking sector development have a negative and statistically significant relationship with banks' profitability. However, the relationship for Management efficiency, employee efficiency, Inflation and foreign exchange rate is found to be statistically insignificant.

The study of Fekadu (2016) examines the determinants of financial performance of commercial banks in Ethiopia by using panel data of seven sample commercial banks out of eighteen commercial banks operated in Ethiopia over the period 2000-2014. Since the data is secondary in nature, he used quantitative research approach and random effect model. Under this study, both internal and external factors were included. The internal factors used in this study include capital adequacy, Asset quality, Earning ability, liquidity management and Bank size whereas, the external factor is foreign exchange rate. Moreover, ROA, ROE and NIM were used to measure the financial performance. This study runs a redundant fixed effects test using Hausman specification test. Hence based on the result random effect model was adopted. Based on the regression result; asset quality, earning ability and bank size have a significant influence on the financial performance of Ethiopian commercial banks measured by return on asset, return on equity and net interest margin.

Conceptual framework

The conceptual framework for the relationship between compensation and private banks financial performance based on the theoretical perspective and the empirical results are described in Figure 2.1.

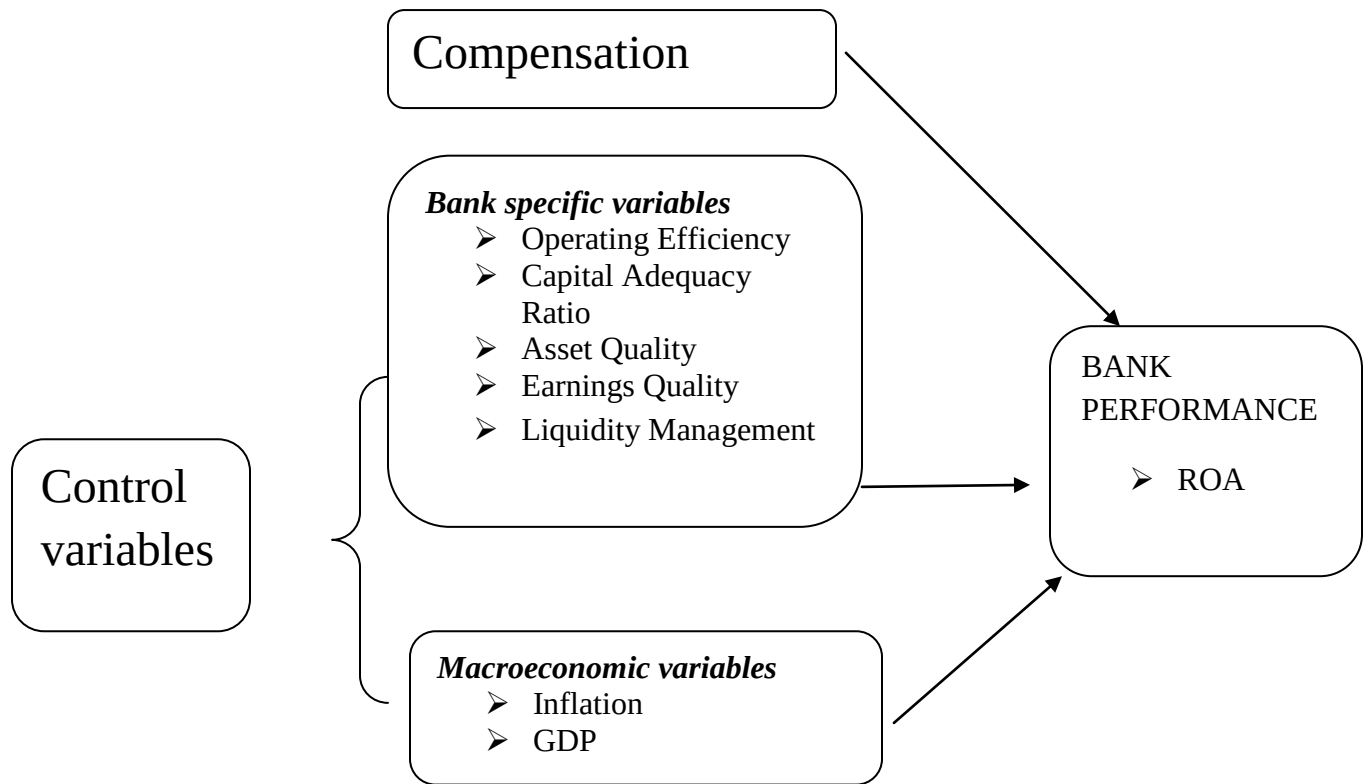


Figure 2.1: Relation between Compensation, Bank specific variables, Macroeconomic variables and Banks Financial Performance

Research Gaps

A number of studies have been done on determinant of bank performance in Ethiopia and other countries, and therefore it's possible to see the existence of knowledge gap. Even though studies were undertaken by Belayneh (2011), Amdemikael (2012), Habtamu (2012), Mohana etal. (2012), Birhanu (2012), Abebe (2014) and Alemu (2015) on the determinants of Ethiopian banking performance, they all fails to include the important variables like compensation. Because these variables are very important variables which can significantly affects the performance of Ethiopian banking industry.

Many researchers' studies relation between compensation and performance but it's mostly focus on how performance affects compensation. A study on the other side of it, which is the effect of compensation on performance, is limited.

Armache (2012) studied the effect of compensation and other motivational techniques on organizational productivity and found that there is a corollary effect on organizational performance when employees are well compensated and highly motivated. Ude and Coker (2012) found that incentive schemes impacts highly on employee's motivation and productivity in both the organized private sector and public sector organizations in Nigeria.

On a study conducted by Katua et al. (2014) on effect of reward and compensation strategies on the performance of commercial banks in Kenya, revealed that reward and compensation strategies have a significant positive effect on performance of commercial banks in Kenya. But to the researcher knowledge, there is no published studies found in Ethiopian that include compensation as independent variable cases which are different from other countries in operation of banking industries.

In addition, a lot of literatures are developed to examination the determinants of banks performance but those studies show different and even contradictory results. This shows that there is no consensus in the banking literature on the determinants of bank performance.

To fill the gaps, the study aims at determining the effect compensation on performance of private commercial banks in Ethiopia controlling mentioned bank specific and macro-economic variables.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

An important part of the research activity is to develop an effective research design which shows the logical link between the data collected, the analysis and conclusions to be drawn. This design satisfies the most suitable methods of investigation, the nature of the research instruments, the sampling plan and the types of data (De Wet, 1997). The previous chapter indicated the literature on the relationship between compensation and banks performances, and pointed out that, to the researcher knowledge, there is no research conducted in Ethiopia in this area. In this section the research design, sampling type, research instrument, the dependent and independent variables applied throughout the research, and finally the model specifications used for data analysis which are applicable and use in the study are included.

3.1. Research Design

The study is expected to assess the effect of compensation on performance of Ethiopian private commercial banks. In doing so, the study adopted explanatory approach by using balanced panel data from 2010-2016.

3.2. Data Collection Methods:

The data used to conduct this study are primary data obtained through unstructured interview and secondary data obtained from the annual audited financial statements, which were calculated in Ethiopian Birr as of June 30 of each year for the twelve Ethiopian banks, and the macroeconomic variables data (inflation and GDP) were gathered from National Bank of Ethiopia.

Table 3.1 Relation between the research question/ hypotheses and source of data

Research question/hypotheses Items in in-depth interviews and in	documentary reviews
RQ1: What are the compensation packages available to the personnel in Ethiopian private	In-depth interviews content 1 & 2

banks?	
RQ2: What factor(s) is (are) triggering on the increment of compensation package in Ethiopian private banking industry?	In-depth interviews content 3, 4, 5, & 6.
H1: There is a positive relationship between COM and banking financial performance	Reviews of banks' income statement, balance sheet and note to the financial statement. Specifically, salary and benefit.

Source: own computation

3.3 Sample and Sampling Techniques

Among 18 commercial banks in Ethiopia, 12 banks (Abyssinia, Awash, Dashin, United, Nib, OIB, Zemen, Bunna Wegagen, CBO, BrIB, and LIB) were selected as the sample for the study. Since the study covered seven years' data (from 2009/10– 2015/16), the remaining 4 banks: Debeb Global Bank, Abay Bank, Addis International Bank and Enat Bank were excluded because they have less than seven years' data until 2016. This means that the study covers 75% of the population (commercial banks in Ethiopia).

3.4. Methods of Data Analysis

Since it is all about the determinant of private commercial banks performance in Ethiopia, the appropriate type of data for the study will be more of a quantitative. But also the research attempt to identify the available compensation packages and triggering factor on the increment of compensation package to the personnel of private commercial banks in Ethiopia, for that qualitative data also needed. Therefore, mixed method of data analysis is used.

It can be of great value to the researcher who is attempting to draw meaningful results on determinant factors on any subject area from a large body of data. This study employed 'Stata' statistical package for reporting the summary results in numerical terms with a specified degree of confidence. Balanced panel data used therefore each cross-sectional unit of the study has the same number of time series observations. And also, the Statistical Package for Social Sciences (SPSS) version 20 and Excel were used for the data analysis.

3.4.1. Panel data

The panel data was adopted for conducting our econometric modeling. This is because of panel data have space and time dimensions and panel data can take heterogeneity explicitly into account, give more variability, less co-linearity among variables, more df and more efficiency (Gujarati, 2004).

3.5. Research hypotheses and description of variables

This study aims to examine the effect of compensation on financial performances of private commercial banks of Ethiopia; particularly ROA of private commercial banks operate in Ethiopia. Therefore, the following discussion covers the hypotheses that this study attempted to test and the description of variables.

3.5.1. Model Specification:

The nature of data used in this study enabled to use panel data model which is deemed to have advantages over cross sectional and time series data. Panel data involves the pooling of observations on the cross-sectional over several time periods.

Regression is more powerful than correlation. According to Brooks (2008), unlike correlation, in the case of regression if x has significant impact on y, thus change in y is influenced by change in x. Therefore, to see the impact of compensation on banks performance, the significant factors affecting banks performance will have used as the representatives for the variation in performance. Therefore, the following regression models were used to see the effect of compensation, bank specific and macroeconomic variables on banks performance.

The following model is formulated for this research in order to test the research hypothesis set earlier. The regression model for the panel data is described in the following equation as adopted the skeleton from Brooks (2008):

$$Y_{it} = \alpha + \beta x_{it} + \varepsilon_{it}$$

Where:

Y_{it} = is the dependent variable

α = is the intercept term

β = is a $K \times 1$ vector of parameters to be estimated on the explanatory variables

x_{it} = is a 1xK vector of observations on the explanatory variables, $t=1...T; i=1,...N$.

ε_{it} = the normal error term.

The performance indicator utilized for this particular study is Return on Assets (ROA) and the major determinants (independent variables) considered were Compensation, Operational Efficiency, Capital Adequacy Ratio, Asset Quality, Management Efficiency, Earning Quality, Liquidity Management, GDP, and Inflation. Hence, the econometric model utilized for regression analysis is depicted here below:

$$ROA_{it} = \beta_0 + \beta_1 Com_{it} + \beta_2 OE_{it} + \beta_3 CA_{it} + \beta_4 AQ_{it} + \beta_5 EQ_{it} + \beta_6 LM_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

Where:

ROA_{it} = Performance of Bank i at time t as expressed by ROA

β_0 = Intercept

Com_{it} = compensation of bank i at time t

OE_{it} = Operating Efficiency

CA_{it} = Capital Adequacy ratio

AQ_{it} = Asset Quality

EQ_{it} = Earnings Quality

LM_{it} = Liquidity Management

GDP_{it} = Gross Domestic Product of the country i at time t

INF_{it} = Inflation i at time t

ε_{it} = Error term where i is cross sectional and t time identifier

$\beta_1 - \beta_8$ = Coefficients parameters

Dependent Variable

Financial performance

In the literature, bank performance is usually measured by profitability. Various literatures written by academicians also assert that profitability is the bottom line or ultimate performance result showing the net effects of bank policies and activities in a financial year. As a matter of fact, numerous factors such as inflation, accounting policy, high level of competition, etc., may have an influence on a bank's profitability. In due course, wide varieties of ratios are discussed and different measures of profitability of commercial banks have been suggested.

For instance, Net Interest Margin (NIM), Return on Assets (ROA), and Return on Equity were identified by Ahmed (2003) are in use in the literature since then. Profitability measures according to Akinola (2008) include Profit before Tax (PBT), Profit after Tax (PAT), ROE, Rate of Return on Capital (ROC) and ROA. Some other, studies on profitability have also used returns on average bank assets (ROAA), net interest margin (NIM) and return on average equity (ROAE) to measure profitability according to Francis (2013). However, owing to divergent views among scholars on the superiority of one indicator over the others as measures of profitability, there is no clear cut stand as to which best fits. Nonetheless, most literatures confine the profitability measure only to the three widely used measures namely Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). Accordingly, some scholars select either of the three and some others preach to select three of them at once. Accordingly, the researcher has used ROA as measure of profitability for this particular study owing to the limitations of NIM & ROE.

Generally, ROA shows the ability of banks management to generate profits from the banks' assets, which may be biased due to off-balance-sheet transactions. On the other hand, ROE, which is often referred to as bank's equity multiplier, indicates the return to shareholders on their equity and it equals return on assets times the total assets-to-equity ratio. Banks with high equity and low leverage in the capital structure usually report high ROA, but low ROE. However, the analysis of return on equity (ROE) ignores the high risk associated with high leverage, and bank financial leverage is usually determined by monetary authorities. Hence, ROA emerges as the key ratio for analyzing bank profitability (IMF, 2002).

Additionally, ROE is unable to indicate risky assets and their solvency situation. And it is failed to discriminate the best performing banks from the others in terms of sustainability of their results especially in the 2008 banking crises. Further, ROE is a short term indicator and must be interpreted as a snapshot of the current health of institutions. It does not take into account either institution's long term strategy or the long term damages caused by the crisis. Its weaknesses are even more obvious in times of stress, when there is a climate of uncertainty surrounding the medium term profitability of institutions (ECB, 2010). But ROA measurement includes all of a business's assets including those which arise out of contribution by investors. Moreover, the inclusion of liabilities makes ROA even more valuable as an internal measurement tool,

particularly in evaluating the performance of different departments or divisions of a company.
www.referenceforbusiness.com

On the other hand, NIM is reported to have two major limitations. First, it doesn't measure the total profitability of the bank as most of them earn fees and other non-interest income through service like brokerage and deposit account services without taking account operating expenses, such as personnel and facilities costs, or credit costs. Besides, net interest margin of two banks can't be contrasted as both the banks are poles apart in their own way in the nature of their activities, composition of customer base, etc. [http:// www.readyratios.com](http://www.readyratios.com)

Bank performance indicators are dependent variables. Several measures of performance are available, including conventional measures, such as ROA and ROE. Here the researcher uses ROA as a measurement of performance.

Return on Assets (ROA) shows the ability of management to acquire deposits at a reasonable cost and invest them in profitable investments. This ratio indicates how much net income is generated per dollar (birr) of assets. The higher the ROA, the more the profitable the bank will be. This is probably the most important single ratio in comparing the efficiency and operating performance of banks as it indicates the returns generated from the assets that bank owns (Tan *et al.* 2012). ROA is the most comprehensive accounting measure of a bank's overall performance (Birhanu 2012).

$ROA = \text{net profit} / \text{total assets}$

Independent variable

The independent variables are categorized into three groups as compensation (main variable), bank specific and macroeconomic.

Compensation

One of the major characteristics of compensation is it enhances improvement of both individual and organizational performance Muchinsky *et al.*, (1998).

The relationship between compensation management and performance has been visible in the management literature. It is generally believed that if there is proper management of

compensation, individuals can be motivated to perform and thus have a resultant positive effect on the organizational performance (Tsai, 2005)

Therefore, it is the basis for formulation of hypothesis number 1:

H1: There is a positive relationship between compensation and banking performance.

A. Bank specific Factors

Operating Efficiency: Cost Income Ratio (CIR) reflect bank's operational efficiency and it is defined as non interest costs (operating cost, such as administrative costs, staff salaries and property costs excluding bad debts and doubtful expenses) divided by total of interest income and non-interest income (Dietricha and Wanzenriedb, 2009). Operating Efficiency measures how the bank is managing its operating costs. It used as an indicator of management's ability to control costs and is expected to have a negative relation with profits, since improved management of these expenses will increase efficiency and therefore raise profits (Guru et al. 2002).

Asset Quality: The asset side of a bank's balance sheet is another bank specific variable that affects the profitability of a bank. Moreover, the quality of assets is an important parameter to examine the degree of financial strength. Thus, total non-performing loans to gross loans ratio is considered like studies of (Nazir, 2010; Dang, 2011; Ongore & Gemechu, 2013). Poor asset quality and subsequently credit risk can have rippling effect and thus lead to insolvency (Bessis; 2002). From the literature review, the higher the ratio, and the poorer the quality and therefore the higher the risk of the loan portfolio will be. On one hand, the risk-return hypothesis implies a positive relationship between risk and profits. On the other hand, bad asset quality may have a negative impact on bank profitability by reducing interest income revenue and by increasing the provisions costs.

Capital Adequacy Ratio: it refers to the book value of equity divided by total assets. It is the sufficiency of the amount of equity to absorb any shocks that the bank may experience. Availability of capital affects every aspect of banking either directly or indirectly. Some theories (Berger, 1995 and others) suggest that well-capitalized banks are subject to less expected bankruptcy costs and hence lower cost of capital. According to this view, higher bank equity ratios may influence bank performance positively when loan rates do not vary much with bank

equity. According to Kosmidou (2008), it is expected that the higher the equity to assets ratio, the lower the need for external funding and therefore the higher the profitability of the bank. But that is not all. Bank with higher capital to asset ratio are considered relatively safer and tend to have a better margin of cushion, remaining profitable even during economically difficult times. Conversely, banks with lower capital adequacy are considered riskier relative to highly capitalized banks. Thinking in line with the conventional Risk-Return Hypothesis, we anticipate an inverse relationship between capital adequacy and profitability.

Liquidity Management: Liquidity indicates the ability of the bank to meet its financial obligation. A lot of approaches are there in the literature to address liquidity ratio in banks, however, Liquid Assets to total deposit ratio (LADP) has been considered so as to comply with the regulatory organ (Misra & Aspal, 2013; Tesfaye, 2014). Holding assets in a highly liquid form tends to reduce income as liquid asset are associated with lower rates of return. It would therefore be expected that higher liquidity would negatively correlate with profitability. Indeed, Molyneux et al., (1992) and Guru et al., (1999) discovered that negative correlation exists between the level of liquidity and profitability.

Earning Quality: It is primarily determining the profitability of a bank and explains its sustainability and growth. Interest income to total income ratio is considered to check the earning quality. (Misra & Aspal, 2013)

C. Macroeconomic Factors (control variable)

From several macroeconomic factors that affect banks performance, factors that mostly affected and usually used, gross domestic product (GDP) growth and inflation will be used.

Gross Domestic Product

In theory, real GDP growth affects positively banking performance through three main channels: net interest income, loan losses improving, and operating costs (Jiménez et al., 2009; Bolt et al., 2012; Calza et al., 2006). Firm's profitability increases during economic expansion, and declines in recession's period. Thus, a higher GDP growth causes firms loans and deposits to increase and make bank's net interest income and loans losses to improve. Also, a higher GDP growth implies

a higher disposable income and lower unemployment, and reduces defaults on consumer loans number. Net interest income and loan losses are therefore pro-cyclical with GDP growth.

However, the relation between banks' operating costs and GDP growth is ambiguous. Bolt et al. (2012) show that unfavorable economic conditions, such as lower GDP growth rates may decrease deposits and loans and its managing costs as well. These conditions may also it possible raise the costs of collecting payments on loans.

Inflation (INF): The relation between inflation and banking performance has been introduced in the theory by Revell (1979). He shows that inflation affects bank's profitability through its effect on overhead costs, in particular salaries and operating costs. If inflation rate increases, it may raise salaries and operating costs, and therefore decrease bank's profitability. They further concluded that the volume of bank lending and performance in turn tend to decrease as the rate of inflation rises in a given economy. This further affects the volume of equity market trading in the long run. Boyd et al. (2001) found a non-linear, significant negative relationship between inflation and banking sector. They attested the existence of the rapid diminishing trend on banking lending activities as inflation increases marginally that leads to a discrete drop in the financial sector performance.

In the words of Bettencourt (2010) high and uncertain inflation rate is found based on both time series and panel approaches to be detrimental to stable financial sector performance. Thus, low level of inflation serves as a prerequisite condition for attaining a stable and deep financial sector.

Table 3.2 Description of the variables and their expected relationship

Variables	Measure	Notation	Expected sign
Dependent variables			
Return on Asset	Net profit/ Total asset	ROA	NA
Independent Variables			
Major Variables			
Compensation	Natural log of Salary and Benefit	COM	+/-

Source: - own computation

3.5.2. Model Assumptions:

The following diagnostic tests were carried in order to ensure the data is in conformity with the basic assumptions of classical linear regression model.

- ☐ Heteroscedasticity (To detect the problem of heteroscedasticity of disturbance terms)
- ☐ Normality test: (To check for normality, i.e., kurtosis and skewness of the distribution of the data will be examined) descriptive statistics were used.
- ☐ Multicollinearity (To check whether there is a strong correlation among the independent variables exists or not)
- ☐ Auto correlation (To check whether there exists a serial relationship in the error terms)

CHAPTER FOUR

RESULTS AND DISCUSSIONS

The previous chapter presented the methodology used in the thesis. More specifically, the chapter showed the adopted research approaches, methods of data collection, and analysis in the study. The purpose of this chapter is to present the results of the different methods used. This chapter analysis the effect of compensation on, and determinants of commercial banks financial performance, using the annual balanced panel data, where all the variables are observed for each cross-section and each time period. The study has a time series segment spanning from the period 2010 up to 2016 and a cross section segment which considered twelve Ethiopian commercial Banks, Such as: AIB, DB, UB, WB, BoA, NIB, CBO, OIB, ZB, BuIB, BrIB, and LIB.

The current chapter has four sections. Under the four sections in section 4.1 the descriptive statistics of the compensation package, triggering factors of compensation package increment, dependent and independent variables were presented. The test for the classical liner regression model/CLRM was presented under section 4.2. Section 4.3 presents correlation analysis of dependent and independent variables followed by section 4.4 of fixed - random model specification. Then finally, the results of the regression analysis were presented under section 4.5.

4.1. Descriptive statistics of the data

As stated in chapter one the broad objective of this study was to examine the effect of compensation on financial performance of Ethiopian private commercial banks and to identify the significant determinants of their financial performance. Further, as noted in the previous chapters (chapter one and three), in order to achieve this broad objective, the study developed those five research questions.

In order to be able to address the specific research question presented in chapter one the researcher conduct an in-depth interview with the HR manager of the sampled banks and the next section presents the analysis concurrently.

4.1.1 Compensation package given by Ethiopian private banks

In order to achieve the first objective, the researcher passes thorough an in-depth interview with the HR manager of the sampled banks. Before going to ask the banks what kind of compensation package they provide for their employees, the researcher tries to ask and brief what compensation means in their respective bank context.

Even if most of the sampled banks and many literatures define compensation as financial and non-financial benefit given to employee in return of the service they give, Dashin bank and Nib International bank define it as a payment given to compensate some mistreated employee. Here we can see difference in the concept of compensation between private commercial banks. That's why some of the banks listed compensation as a part of compensation package in their annual report. Therefore, one has to have caution when they read about banks compensation because they have different context.

Therefore, taking the definition of compensation as financial and non-financial benefit for the employee, Ethiopian private banks have more of similar compensation package. Ethiopian private commercial banks have a compensation package that include

- salary
- Cash Indemnity Allowance
- fuel, transport and representation allowance
- Overtime
- provident fund and pension contribution
- leave pay
- Medical
- staff insurance
- Disturbance Allowance
- Funeral Allowance
- Housing Allowance
- Living Allowance
- Position allowance

- Utilities Allowance
- other allowances and benefits
- training and education
- Bonus
- Uniforms
- Maternity Pay
- Tuition
- Staff Loans: - banks lend money with and without interest for their employees. The entire banks have the same name but somehow different amount of loan.
 - i. Staff emergency loan: - all of the banks give four to six months' salary of their employee to their staff as an emergency loan when their employees get sudden need of cash. This loan is returnable between 12-48 months' period without interest.
 - ii. Personal loan: - it is a loan given to employees of the bank to buy house equipment. It amounted from six months to one-year salary of the employee.
 - iii. Vehicle loan: - all of sampled Ethiopian private banks give vehicle loan to their employee. Here the loan has interest lesser than external borrowers. The interest rate is different within the banks and it is returnable within 10 years' period.
 - iv. House loan: - it is a loan Ethiopian private banks give to their employee to improve their live standard. It is interest bearing and returnable within 25 years.

Only Wegagen bank, Awash International bank and Bank of Abyssinia paid severance pay from the sampled banks giving the reason that those banks that pay provident fund and pension contribution don't obliged to pay in NB regulation.

And also all of the banks don't give equity compensation except Wegagen Bank which facilitates the opportunity for the management staff to buy 25 shares of the banks from their provident fund saving.

4.1.2 Factors that trigger on the increment of compensation package in Ethiopian private banking industry

All of the sampled banks adjust their employee compensation package based on different factors. Most of the banks don't have fixed time to adjust their compensation package. However, they

have fixed adjustment time for salary. 67% (DB, AIB, WB, NIB, ZB, LIB, BuIB and OIB) of the sampled banks adjust their salary between two or three years. But now a day when the staff turnover increases so badly and the banks competition of human resource become big, they change their strategy and start adjusting their compensation package particularly salary of the employee to yearly base.

The Sampled banks consider different factors when they adjust their employee compensation package. Those factors can be broadly classified in to two, internal and external factors.

Internal factors: - are factors that are in the control of the bank that the banks consider when they adjust their employee compensation package. These are the banks overall strategy, human resource and compensation strategies and Ability of the bank to pay the compensations.

External: - are factors that are not in the hand of the particular bank. These are Laws and Requirements of the government (legal authority), Economy of the country (GDP), availability of qualified personnel in the Labor market, cost of living or Inflation.

Ethiopian banks adjust their compensation package almost all the time when the industry average payment of compensation increase considering their compensation strategies and ability to pay. When the employee turnover is too much they study the industry average and adjust their package. At this point only Birhan International Bank are not adjusting its package and give the reason they don't face the big turn over yet.

Surprisingly all the sampled banks never consider the below points: -

- performance
- Experience
- Seniority and
- Potential of their employees to adjust their package.

Most of the banks adjust their compensation on July 1st of 2016 for the last time during making of this research. At that period most of them adjust their package because the industry average was changed. Here also BrIB are exception that adjusts the packaged in 2014 lastly giving the same reason.

4.1.3 Descriptive statistics for the dependent and independent variables

The descriptive statistics for the dependent and independent variables are presented below. The dependent variable is bank performance, measured by regular measure of profitability which is Return on Asset (ROA). The independent variables were classified in to three the bank specific and macro-economic factors and the main variable was Compensation which were used to see the impact of Compensation on banks performance.

Descriptive analysis shows the mean, median and standard deviation of the different variables of interest computed from the financial statement of the various banks considered in the study. It also presents the minimum and maximum values of the variables. This was generated to give overall description about data used in the model and served as data screening tool to spot unreasonable figure.

Table 4.1 Summary of descriptive statistics

Variable		Mean	Std. Dev.	Min	Max	Observations	
ROA	overall	.0268145	.0089149	-.0158202	.0524869	N =	84
	between		.005095	.0179487	.0355553	n =	12
	within		.0074427	-.0069543	.0492444	T =	7
COM	overall	18.31508	1.126187	15.20804	20.23763	N =	84
	between		.8457386	17.02524	19.36138	n =	12
	within		.7776436	16.49787	20.17359	T =	7
OE	overall	.3900406	.1665927	.2027424	1.503626	N =	84
	between		.0888507	.2658521	.5425164	n =	12
	within		.1429313	.1629692	1.35115	T =	7
AQ	overall	.0062547	.0100891	-.0027447	.0786931	N =	84
	between		.0055103	.0018723	.0220709	n =	12
	within		.0085804	-.0158162	.0628769	T =	7
CAR	overall	.1486171	.0436294	.0907939	.3522117	N =	84
	between		.0348416	.1068522	.2141552	n =	12
	within		.0278809	.0752848	.2866736	T =	7
LM	overall	.3191043	.1234224	.1356117	.5789397	N =	84
	between		.0388729	.2454268	.3880449	n =	12
	within		.1176062	.1473415	.5618867	T =	7
EQua	overall	.5630188	.1095909	.2331334	.7973641	N =	84
	between		.0684851	.3948845	.6610464	n =	12
	within		.0875157	.3939525	.7695503	T =	7
INF	overall	13.42857	9.5983	2.8	34.1	N =	84
	between		0	13.42857	13.42857	n =	12
	within		9.5983	2.8	34.1	T =	7
GDP	overall	9.871429	1.077768	8	11.4	N =	84
	between		0	9.871429	9.871429	n =	12
	within		1.077768	8	11.4	T =	7

According to the above table, all variables comprised 84 observations in 12 banks within 7 years' period. The profitability measure used in this study namely; ROA indicates that the Ethiopian banks attained, on average, a positive after tax profit over the last seven years. For the total sample, the mean of ROA was 2.68% with a minimum of -1.58% and a maximum of 5.25%. That means the most profitable bank among the sampled banks earned 5.25% of profit

after tax for a single birr invested in the assets of the firm. On the other hand, the least profitable bank of the sampled banks losses 1.58% for each birr invested in the assets of the firm. The overall standard deviation statistics for ROA was (0.0089). This indicates that the profitability variation between the selected banks was very small. The most and the least profitable banks from the sample are Zemen Bank and Birhan International Bank respectively. The ROA between the 12 banks deviate by 0.0051 with a minimum mean of 0.0179 and a maximum mean of 0.0355. And it is also deviate by 0.0074 within the period 2010 to 2016 with a minimum mean of -0.0069 and a maximum mean of 0.049. The result implies that these banks need to optimize the use of their assets to increase the return on their assets.

Continuing to the explanatory variables of the model, compensation's overall mean value equals 18.315 with a minimum of 15.21 and a maximum of 20.24. The overall standard deviation statistics for COM was (1.126). This indicates that the paid compensation variation between the selected banks was very large. The COM between the 12 banks deviate by 0.8457 with a minimum mean of 17.025 and a maximum mean of 19.36. Even though there is a big difference in their number of employees, the first and the last compensation paying banks are Dashin Bank and Birhan International Bank respectively. And it is also deviate by 0.7776 within the period 2010 to 2016 with a minimum mean of 16.50 and a maximum mean of 20.17. The least compensation payment was seen in the year 2010. This is because every year number of employees increases so does compensation.

On the other hand, the mean value of Operating Efficiency for the last seven years between the 12 banks was 0.39 with a minimum of 0.20 and a maximum of 1.50. This means value deviate by (0.1666). The mean value of Operating Efficiency between the twelve banks has a minimum value of 0.266 and a maximum value of 0.54 that deviate by 0.0888. Operating Efficiency, that we compute using the ratio of operating expense to the total income, measure how the bank manages its operating expenses with this respect the most and the least operationally efficient banks are Birhan International Bank and Zemen Bank respectively.

Table 4.1 also shows that Asset Quality has an overall mean value of 0.0062 with a minimum of -0.0027 and a maximum of 0.0787. Whereas, the variable Capital Adequacy Ratio which is calculated as the ratio of equity to total assets has the mean value of 0.1486 with a minimum of 0.091 and a maximum of 0.352. This indicates the average extent to which the banks' equity to

absorb any shocks that may happen is 14.86%. This overall mean value of AQ and CAR has also a standard deviation statistics equals 0.01 and 0.436 respectively.

The banks that have the best asset quality and capital adequacy ratio are Zemen Bank & Bunna International bank with a value of 0.22 and 0.214 respectively. And also the least quality of asset and capital adequacy ratio are found in a Dashin bank with a value of 0.0019 and 0.107 respectively. On the other hand, Earnings Quality has a mean value of 0.563 with a minimum of 0.23313 and a maximum of 0.79736. This value was deviate by 0.11 for the last seven years between those sampled banks. The most and the least earning quality banks are Abyssinia bank & Zemen bank with an average value of 0.661 and 0.395 respectively.

Another important variable, Liquidity Management has a mean value of 0.319 with a minimum of 0.135 and a maximum of 0.579. This value was deviate by 0.12 for the last seven years between those sampled banks. The banks that have the most and the least liquidity management are Birhan International bank & Awash International bank with an average value of 0.388 and 0.245 respectively.

One of the Macro-economic variables employed in this study, Inflation, has a mean value of 13.43 with a minimum of 2.80 and a maximum of 34.10. The minimum and the maximum inflation rate occurred in the year 2010 & 2012 respectively. The last but not the least macroeconomic variable employed in this study GDP has a mean value of 9.87 with a minimum of 8.00 and a maximum of 11.40.

The above table also presents for INF and GDP a very large standard deviation of 9.6 and 1.08 respectively. This implies that inflation rate and economic growth in Ethiopia during the period of 2010 to 2016 remains unstable.

4.2. CLRM Assumption and Diagnostic Test

In this subsection, four different results of CLRM tests of the study are presented. First, the test results for homoscedasticity assumption are presented. Then, the test results of autocorrelation and multicollinearity are presented separately. Finally, the results of normality tests are presented.

4.2.1. Heteroskedasticity Test

The first diagnostic test conducted in this study is heteroskedasticity test of ordinary least square (OLS) estimation. Theoretically, the variance of the errors is constant, which is known as the assumption of homoskedasticity. If the errors do not have a constant variance, they are said to be heteroskedastic. Thus, H_0 of the assumption states that the errors do have a constant variance (Brooks, 2008).

To achieve this, Breusch-Pagan/Cook-Weisberg test can be used. Thus, in this study Breusch-Pagan / Cook-Weisberg is used to test of homoskedasticity.

Table 4.2 Heteroskedasticity Test ROA

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance	
Variables: fitted values of ROA	
chi2(1)	= 0.04
Prob > chi2	= 0.8508

Source: stata 12 computed result

As indicated in the above, χ^2 versions failed to reject the null hypothesis even at 10% significant level, this indicates the variance of the errors is constant thus, there is no problem of homoskedasticity for the equation.

4.2.2. Autocorrelation test

The second diagnostic test conducted in this study is autocorrelation test. The assumption states that the errors are uncorrelated with one another. If the errors were not uncorrelated with one another, it would be stated that they are ‘auto correlated’ or that they are ‘serially correlated’ (Brooks, 2008). To test this assumption the Durbin–Watson (DW) statistical test was applied.

Durbin Watson (DW) is a test for first order autocorrelation, i.e. it tests only for a relationship between an error and its immediately previous value. DW is approximately equals to $2(1 - \hat{\rho})$, where $\hat{\rho}$ is the estimated correlation coefficient between the error term and its first order lag (Brooks 2008). The null hypothesis for the DW test is no autocorrelation between the error term and its lag.

Table 4.3 Durbin Watson

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.841a	.708	.677	.0050668	1.101

Source: SPSS output

In this test, the null hypothesis of no autocorrelation is rejected in the tests. This indicates the presence of first order positive autocorrelation problem on the model. Even though, the equations indicate that positive first-order autocorrelation is present, this does not imply that the estimates are inconsistent.

Inconsistency would be implied if second-order autocorrelation were present (Verbeek, 2004, as cited by Tsehay, 2012). Scholars of the field recommended the concept of lagged variables can solve the problem of autocorrelation (Brooks, 2008). Similarly in this research one period lagged dependant variable used to solve the problem of autocorrelation.

$$ROA_{it} = \beta_0 + \gamma ROA_{it-1} + \beta_1 Com_{it} + \beta_2 OE_{it} + \beta_3 CA_{it} + \beta_4 AQ_{it} + \beta_5 EQ_{it} + \beta_6 LM_{it} + \beta_7 GDP_{it} + \beta_8 INF_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

Where: ROA_{it-1} is one-period lagged ROA

4.2.3. Multicollinearity test

The third important diagnostic test conducted in this study is multicollinearity test and it is used to identify the correlation between explanatory variables and to avoid double effect of independent variables from the model (Brooks, 2008).

Multicollinearity means the existence of a “perfect” or exact, linear relationship among some or all explanatory variables (Gujarati, 2004). As noted in Gujarati (2004) if multicollinearity is perfect, the regression coefficients of the explanatory variables are indeterminate and their standard errors are infinite. If multicollinearity is less than perfect, the regression coefficients, although determinate, possess large standard errors (in relation to the coefficients themselves), which means the coefficients cannot be estimated with great precision or accuracy.

According to Gujarati (2004), the standard statistical method for testing data for multicollinearity is analyzing the explanatory variables correlation coefficients (CC); condition index (CI) and

variance inflation factor (VIF). Therefore, in this study variance inflation factor for nine of the independent variables shown below in the table had been estimated.

Table 4.4. variance inflation factor (VIF) of independent variables

Variable	VIF	1/VIF
LM	4.32	0.231438
COM	3.8	0.257003
<i>EQua</i>	2.66	0.375479
INF	2.48	0.403844
ROA-1	2.46	0.406246
GDP	2.12	0.472013
<i>OE</i>	1.92	0.521708
CAR	1.77	0.566000
AQ	1.26	0.795986
Mean VIF	2.54	

Source: stata 12 result

As shown in the above table the average VIF is 2.54. Variance inflation factor (VIF) is used to test multicollinearity problem. Since the result is below ten (2.54) and tolerance is near to one, there is no multicollinearity problem in the study.

Furthermore, as shown in correlation matrix (see appendix 6) the correlation among the explanatory variables was less than 0.75. Hair *et al* (2006) argue that correlation coefficient below 0.9 may not cause serious multicollinearity problem. Additionally Malhotra (2007) stated that multicollinearity problem exists when the correlation coefficient among variables is greater than 0.75. Our correlation matrix shows there is no higher correlation among the explanatory variables. This reveals that there is no multicollinearity problem.

4.2.4. Normality test

The final test conducted in this study is the normality assumption, which tests whether errors are normally distributed. Thus, H_0 of the assumption states that the errors are normally distributed. A normal distribution is not skewed or the skewness is close to 0 and is defined to have a coefficient of kurtosis of 3 (Brooks, 2008). Shapiro-Wilk W test is commonly applied tests for normality test. Thus, in this study Shapiro-Wilk W test is used to test for normality.

Table 4.5 Normality test -Shapiro-Wilk W test

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
RES_3	84	0.97347	1.896	1.405	0.07997

Source: stata 12 computed result

That is the p-value of the test is bigger than 5% (0.07997) and it failed to reject the null hypothesis of normality at the 5% significant level. Thus, the residuals are normally distributed in this study, and concluded that there is no problem of normality on the model.

Furthermore In this study to check whether the normality test was adequately meet, the histogram was used. If the residuals are normally distributed, the histogram should be bell-shaped (Brooks, 2008). The shape of the histogram in Figure 4.1 indicates that the residuals are normally distributed around its mean of zero.

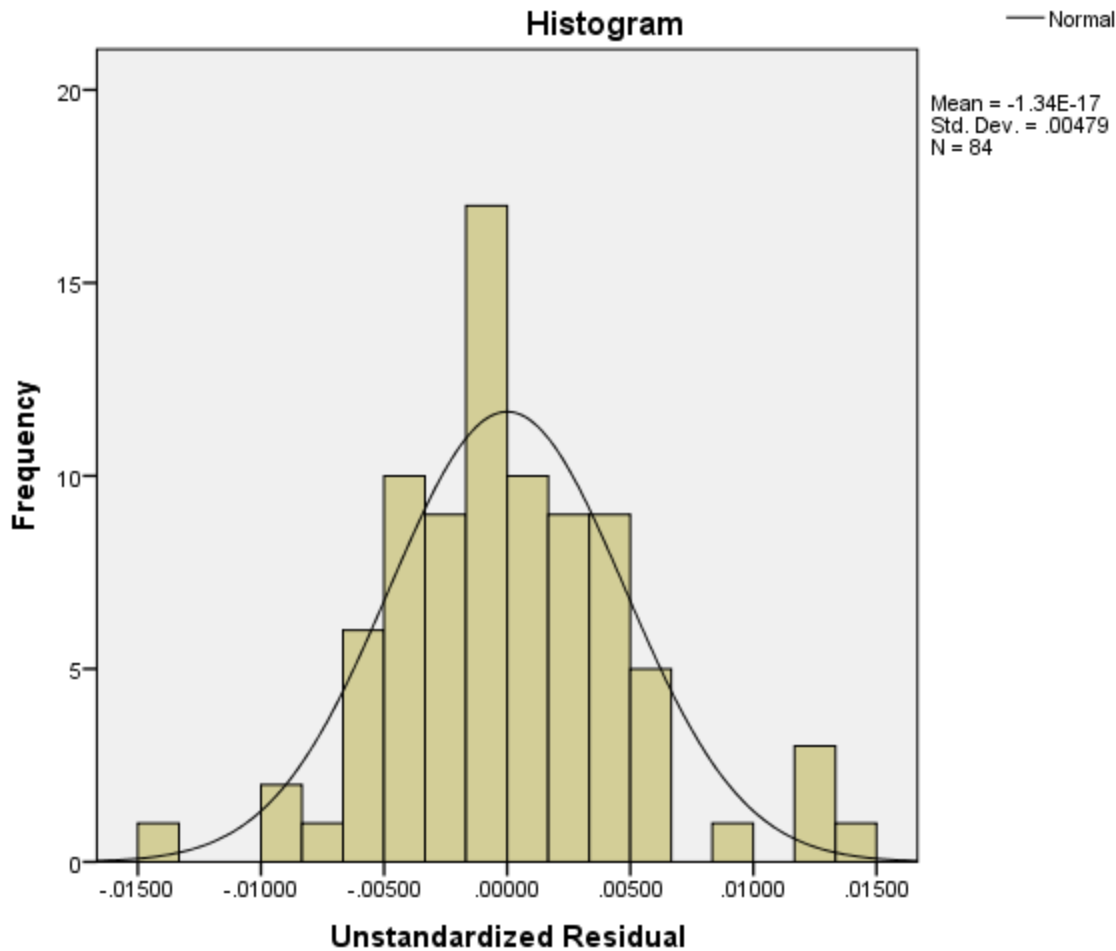


Figure 4.1 ROA model normality
Sources: SPSS output

4.3 Correlation analysis

Correlation is a way to index the degree to which two or more variables are associated with or related to each other. The most widely used bi-variant correlation statistics is the Pearson product-movement coefficient, commonly called the Pearson correlation which was used in this study.

Based on the table 4.6, compensation, real GDP growth and inflation rate were positively correlated with ROA. These correlations clearly shows that, as the compensation, real GDP growth and inflation rate increases, ROA also moves in the same direction. On the other hand, the operational efficiency, asset quality, liquidity management and earning quality were

negatively correlated with ROA. This clearly shows that, as the operational efficiency, asset quality, liquidity management and earning quality increases, ROA moves in opposite direction.

Table 4.6 Pearson correlation coefficient matrix for ROA

	ROA	COM	OE	AQ	CAR	LM	EQua	INF	GDP
ROA	1.0000								
COM	0.1962	1.0000							
OE	-0.7766	-0.2563	1.0000						
AQ	-0.0479	-0.2092	0.0356	1.0000					
CAR	-0.2701	-0.5495	0.4113	0.0738	1.0000				
LM	-0.0130	-0.7218	0.0375	0.0677	0.2513	1.0000			
EQua	-0.4170	0.5373	0.2711	-0.2764	-0.1567	-0.6524	1.0000		
INF	0.2532	-0.1424	-0.3206	-0.1151	-0.0214	0.0381	-0.1230	1.0000	
GDP	0.0667	-0.3632	-0.0104	-0.0015	0.1237	0.5421	-0.4114	-0.3075	1.0000

Source: stata 12 computed result

4.4 Fixed effect and random effect model specification Test

To test the relationship between the private commercial banks performance and explanatory variables a theoretical model is developed. The model used panel data of commercial banks. There are two broad classes of panel data estimator approaches that can be employed in empirical research, fixed effects models and random effects models. The choice between the two models was made based on the Hausman test. According to Brooks (2008), if the p-value for the hausman test is less than 1%, this shows that the random effects model is not appropriate and that the fixed effects model is to be preferred. According to this test the null hypothesis says that fixed effects model is appropriate than the random effects model. As indicated by the Hausman test shown in table 4.7, the equation provides evidence in favor of FE model. The p-value for the test is less than 1% (0.0000), indicating that the fixed effects model is appropriate, since the null hypothesis is rejected at 1% significant level. Thus the study used the FE model.

Table 4.7 Hausman test

---- Coefficients ----				
	(b) fixed_group	(B) random_group	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
COM	-.002178	.0006635	-.0028415	.0012746
OE	-.0213123	-.0282224	.0069101	.0003788
AQ	-.0986789	-.100399	.0017201	.
CAR	-.0773398	-.0049511	-.0723887	.0121467
LM	-.0030702	.007317	-.0103872	.0031897
EQua	-.0415959	-.0304423	-.0111536	.0051679
INF	-.0003045	-.0002265	-.000078	.0000523
GDP	-.0017112	-.0010385	-.0006726	.0003182
ROA1	.4148535	.3676377	.0472158	.0336547

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned}\chi^2(9) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 50.85\end{aligned}$$

$$\text{Prob}>\chi^2 = 0.0000$$

The researcher used fixed effects model. Thus the study used the one period lagged dependent variable. The consideration of this will be used to avoid the autocorrelation problem by being uncorrelated dependent variable with the independent variables, since the autocorrelation exists due to the dependent variable is based on its first order lagged value.

4.5. Regression result and discussion

Under the following regression outputs the beta coefficient may be negative or positive; beta indicates that each variable's level of influence on the dependent variable. P-value indicates at

what percentage or precession level of each variable is significant. R^2 values indicate the explanatory power of the model and in this study.

Table 4.8 Regression Result for factors that affect Ethiopian banks profitability

Fixed-effects (within) regression Number of obs = 84

Group variable: Bank Number of groups = 12

R-sq: within = 0.8226 Obs per group: min = 7

between = 0.5211 avg = 7.0

overall = 0.7147 max = 7

F(9,63) = 32.45

corr(u_i, Xb) = -0.2291 Prob > F = 0.0000

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
COM	-.002178	.0015095	-1.44	0.154	-.0051944	.0008384
OE	-.0213123	.0038551	-5.53	0.000	-.0290161	-.0136085
AQ	-.0986789	.0476716	-2.07	0.043	-.193943	-.0034148
CAR	.0773398	.0185834	-4.16	0.000	-.1144757	-.0402039
LM	-.0030702	.0084036	-0.37	0.716	-.0198635	.0137231
EQua	.0415959	.0086002	-4.84	0.000	-.0587821	-.0244097
INF	-.0003045	.000092	-3.31	0.002	-.0004883	-.0001207
GDP	.0017112	.000700	-2.44	0.017	-.0031099	-.0003124
ROA-1	.4148535	.0707825	5.86	0.000	.2734059	.5563011
_cons	.122682	.0351035	3.49	0.001	.0525334	.1928307
sigma_u	.00382323					
sigma_e	.00359848					
rho	.53025471 (fraction of variance due to u_i)					

F test that all u_i=0: F(11, 63) = 3.46 Prob > F = 0.0008

Source: stata12 computed result

As shown in the above RE regression table, the F statistic for the basic model is 3.46 and strongly significant at 1% significant level supporting the validity and stability of the model relevant for the study. The explanatory power of the model in terms of R^2 is high (71%), which means the variable in the model explain 71% of the model. When the coefficients are substituted, the model equation 1 become as follow:

$$ROA_{it} = 0.122682 + 0.4148535ROA_{it-1} - 0.002178Com_{it} - 0.0213123OE_{it} + 0.0773398CAR_{it} - 0.0986789AQ_{it} + 0.0415959EQ_{it} - 0.0030702LM_{it} + 0.0017112GDP_{it} - 0.0003045INF_{it} + \varepsilon_{it}$$

ROA suggested that all bank specific variables, except liquidity management and macro economic factors have significant relationship with bank financial performance. Among them AQ and GDP are significant at 5% level whereas other bank specific variables and INF are significant at 1% that shows they are the most critical determinants in the ROA model. However compensation and liquidity management are not significant even at 10% level.

The result indicates a negative and significant relationship between ROA and OE, AQ, INF and positive and significant relationship with CAR, EQ, ROA-1, and GDP. ROA has negative insignificant relation with COM, and LM.

Thus, the following sections discussed about the regression results of all variables.

COMPENSATION

The natural logarithm of total salary and benefit (COM) was used as proxy for compensation in the regression model. The coefficient of compensation is negative and it is statistically insignificant determinant of financial performance. The negative sign implies that the bank's profitability decrease when it increases its compensation given to its employees. This finding is not consistent with previous studies of (Armache, 2012), (Ude and Coker, 2012) and (Katua et al., 2014). But it is not significant therefore, it does not determine profitability in Ethiopian banks context.

OPERATIONAL EFFICIENCY

The operational efficiency provides information on the efficiency of management regarding expenses relative to income. The beta coefficient of the ratio of cost to income, was negative and statistically significant at 1% significance level (p-value=0.000) which is in line with a prior

expectation and makes the variable an important determinant of Ethiopian banks profitability. The result of the study implies that more operationally efficient commercial banks reported higher profits than those commercial banks that have poor expense management over the study period. Therefore, one of the factors that negatively affect the banks' profitability is the failure of management to control cost. The result of the study is consistent with studies of Amdemikael (2012), Frederick (2014) and Alemu (2015) but not consistent with Erina and Lace (2013), Kwakwa(2014) and Kebede (2014). Thus, this study accepted the hypothesis which stated there is a negative relationship between operational efficiency and bank performance in Ethiopia.

CAPITAL ADEQUACY RATIO

The finding of the study also shows that equity to asset ratio (CAR) is positively and statistically significant at 1% significance level with ROA. The relationship between capital adequacy and profitability indicates that Ethiopian commercial banks in the study period were focusing on making sound lending decisions which reaffirms that banks with more capital tended to engage in higher loan risk lending for higher profits. The positive coefficient for capital adequacy was in favor of the signaling or bankruptcy costs hypotheses and in opposite to the risk-return trade-off hypothesis. Further, the finding was also consistent with previous studies of Khalfaoui & Ben Saada (2015), Ongore & kusa (2013) and Fikadu (2014).

Thus, the hypothesis which states there is a significant relationship between capital adequacy ratio and performance is not rejected.

ASSET QUALITY RATIO

The above table presented also that the coefficient of Asset Quality (AQ) measured by non-performing loans to total loans is **-0.0986789** and its P-value are 0.043. Holding other independent variables constant at their average value, when Asset Quality (AQ) increased by one percent, return on asset (ROA) of sampled Ethiopian commercial banks would be decreased by 9.9 percent and statistically significant at 5% level of significance.

The relationship is negative as expected and this negative relationship between AQ and ROA could be attributed to the fact that a bank which has high non-performing loans has low financial performance (ROA). This finding is consistent with previous studies of Sufian (2010),

Davydenko (2011), Amdemikael (2012), Ongore and Kusu (2013), Frederick (2014), Fekadu 2014, and Kwakwa (2014),

Poor asset quality is major causes of bank failures. High non-performing loan associated with low financial performance (ROA).

Therefore, the researcher failed to reject the null hypothesis that asset quality has a negative effect on ROA.

LIQUIDITY MANAGEMENT

Liquidity management, liquid assets to total assets ratio, found to have negative and statistically insignificant relation with ROA even at 10% significance level (p-value= 0.716). The negative correlation between liquidity and bank profitability reveals that the more liquid a bank is the less profitable it will be. This implies that high figures for this variable mean low profitability. Since high figures for this variable denotes low liquidity, higher liquidity is associated with lower profitability. The result is consistent with the assertion that holding assets in a highly liquid form tends to reduce income. Here one has to interpret the result with caution. Of course, a bank should be liquid enough to meet its depositors' demand of withdrawing money at any time they want to withdraw. The lower ratio of this reveals that the bank will face difficulty in meeting payments in the right time. A lower ratio of this would also mean that the bank will not effortlessly get funds or else at an extremely high rate of interest which will mount the cost of funding and eventually invade profitability of the bank. On the other hand, if the bank is excessively liquid, it means that the bank is in "liquidity trap" and is keeping its productive assets idle. This ultimately put the bank's profitability at risk because an extremely higher ratio of this would mean that the bank has kept excess liquid assets inactive and hence losing interest income.

But it is not significant therefore, it does not determine profitability in Ethiopian banks context.

EARNING QUALITY

The above table additionally presents that the coefficient of earning Quality (EQ) measured by Interest Income to Total Income is 0.0415959 and its P-value are 0.000. Holding other independent variables constant at their average value, when earning quality (EQ) increased by one percent, return on asset (ROA) of sampled Ethiopian commercial banks would also be increased by 4.2 percent and statistically significant at 1% level of significant.

The relationship is positive as expected and this positive relationship between EQ and ROA could be attributed to the fact that a bank more concentrated on interest income source than other income source has higher financial performance (ROA). This finding is not consistent with previous studies of (Rasiah, 2010), (Sufian F., 2011), (Belayneh, 2011) and Fekadu (2014) which is focused on non-interest income.

INFLATION

Turning to the macroeconomic variables, the researcher observed that inflation has a negative and significant impact on Ethiopian commercial banks profitability having p-value of 0.002. The findings also suggested that inflation is important determinant of bank's profitability in Ethiopia.

GDP

In addition, the researcher observes that real GDP growth has a positive and significant impact on Ethiopian commercial banks profitability having p-value of 0.017. These results about GDP support the argument of the positive association between economic growth and the financial sector performance. This shows as the stimulated Ethiopian economy over the study period creates a new and potential demand for financial services. This is because the default risk is lower in upturn than in downturn economy and another important point is higher economic growth may lead to a greater demand for both interest bearing and non-interest bearing financial services. This positive coefficient finding is consistent with Kebede (2014), Alemu (2015) and Ameer (2015).

Table 4.9 Summary of actual and expected signs of explanatory variables on the Dependent variables

Explanatory variables	Expected impact on Profitability (ROA)	Actual impacts
COM	Positive/negative & Significant	Negative & insignificant

Source: own computation

Chapter Five

Conclusions and Recommendations

The previous chapter presented the analysis of the findings, while this chapter deals with the conclusions and recommendations provided based on the findings of the study. The following sections discussed about the final conclusion remarks of the study and applicable recommendations. Accordingly this chapter is organized into two sections. The first section, section 5.1 presents the conclusions whereas the second section, section 5.2 presents the recommendations.

5.1. Conclusions

The purpose of this study is to examine the relationship between compensation and financial performances of Ethiopian commercial banks. The study examines the statistical significance between compensation and financial performances, particularly on Return on Asset (ROA).

One main variable (Compensation) affecting banks performance was chosen and analyzed. The panel data was used for a sample of twelve private commercial banks in Ethiopia from 2010 to 2016. The study adopted mixed research approach to test the research hypotheses and to answer the research questions. Specifically, the study used documentary reviews of annual report and in-depth interview. Consequently, the study used a total of 84 observations. Data was presented by using descriptive statistics, the balanced correlation and regression analysis for major performance measures ROA was conducted. Before performing OLS regression the models were tested for the classical linear regression model assumptions, which is vital for regression analysis, and except the autocorrelation problem, all others diagnostic tests are fulfilled. Fixed effect model/FEM was used based on the result of hausman test. Variables were classified in to three as compensation, bank specific and macroeconomic. From the list of possible explanatory (independent) variables, most of them are statistically insignificant and the results of models enable us to make following conclusions.

- The study sought that Ethiopian private banks have same type of compensation package. They give different amount but same type of compensation.
- The study revealed that Ethiopian private banks consider different internal and external factors to adjust their compensation package. From the internal factors banks consider

their ability to pay the compensation and its consistency with human resource, compensation, and the overall bank strategies. And from external factors banks consider Laws and Requirements of the government (legal authority), Economy of the country (GDP), availability of qualified personnel in the Labor market and cost of living or Inflation. The study shows that the banks don't consider individual employee performance appraising when they adjust their compensation package.

- The study found that compensation is not significant determinant of financial performance. It is statistically insignificant.
- The study also found that the coefficient of lagged dependent variables ROA (ROA_{it-1}) is statistically significant. Thus, financial performance of the banks is determined by the one period lagged value of ROA.
- The result showed a negative relation between operational efficiency and profitability with strong statistical significance as expected. This shows that decrease in expenses increases the performance of the commercial banking industry in Ethiopia. This indicates that the commercial banks in Ethiopia have much to profit if they are able to exercise efficient cost management practices. Therefore, one of the factors that negatively affect the banks' profitability is the failure of management to control cost.
- The result showed a negative relation between asset quality and profitability with statistical significance also as expected. This shows that a bank which has high non-performing loans has low financial performance.
- The result showed a positive relation between earning quality and profitability with strong statistical significance as expected. This shows that a bank that more concentrated on interest income source than other income source has high financial performance.
- The other bank specific variables capital adequacy ratio has a positive and significant effect on Ethiopian commercial banks financial performance.
- The other bank specific variables liquidity management has a negative and insignificant effect on Ethiopian commercial banks financial performance. This implies that we cannot determine banks financial performance by looking liquidity management of banks.
- On the other hand the macroeconomic factors GDP growth and annual inflation has a positive and negative and significant effect on Ethiopian commercial banks performance respectively.

Generally, according to the regression result, operational efficiency, asset quality, capital adequacy ratio, lagged value of ROA, earning quality, GDP growth and annual inflation, has significant impact on financial performance. However, variables like compensation, liquidity management, have no impact on financial performance. Thus, the financial performance did not vary with the change in compensation.

5.2 Recommendation

Based on the study findings the following recommendations are forwarded:

Ethiopian private commercial banks focus on giving financial compensation. Only one bank from the entire sampled banks gives equity compensation. Therefore banks should study not only the turnover rate of the employee but also why the employee need to leave and what is really retains them. The study also suggests banks managers to consider individual employees performance improvement and acknowledge them timely.

In order to hold up risky surprises and maintaining financial stability, it is vital to identify the determinants that mostly influence the overall performance of Ethiopian commercial banks. Their performance is dominated by bank-specific factors which are on the hands of the management of the banks and other macro economic factors. So, the study suggests to the banks' managers and policy makers to give high concern on these factors of profitability and set direction to manage the most determinant factors of performance. Operational efficiency, Asset quality, capital adequacy ratio, earning quality, GDP, and inflation are significant key internal drivers of profitability of commercial banks in Ethiopia. Indeed focusing and reengineering the institutions alongside these indicators could enhance the profitability as well as the performance of the commercial banks in Ethiopia.

There is a possibility for banks to be benefited from exercising efficient cost management practices. So the study suggests the managers to focus on properly managing expenses (costs).

Minimizing non-performing loans has a great contribution in profitability of Ethiopian commercial banks. Therefore, the study provides suggestion for managers to work more on reducing non-performing loans.

Income diversification is the one of income generating area that positively and significantly affects the bank's profitability. Therefore, the study suggests the management bodies to continue concentrating their source of income on interest earnings.

From the macroeconomic factor the study only examine GDP growth rate and inflation rate which are strongly significant to determine Ethiopian sampled private commercial banks. But the banks should also consider other macro economic factors like foreign exchange rate, and industry specific factors like Concentration, Industry Growth and Ownership too because they may have significant effect on financial performance.

Finally, the study sought to investigate the effect of compensation on performance of commercial banks in Ethiopia and see other factors that influence it. However, the variables used in the statistical analysis did not include all factors that can affect Ethiopian banks performance. Thus, future research could incorporate factors.

Reference

- Abebe 2014, Determinants of Financial Performance: An Empirical Study on Ethiopian Commercial Banks, MSc thesis paper, Jimma University
- Adams S (1963). Toward an understanding of inequity. *J. Abnor. Soc. Psychol.* 67(4):422-436.<http://dx.doi.org/10.1037/h0040968>.
- Addison T, Alemayehu G (2001). “Ethiopia’s New Financial Sector and its Regulation”, Discussion Paper No. 2001/55, World Institute for Development Economic Research (Wider).
- Aktar, S., Sachu, M. K., & Ali, E. M. (2012). The impact of rewards on employee performance in commercial banks of Bangladesh: An empirical study. *IOSR Journal of Business and Management (IOSR-JBM)*, 6(2), 9-15.
- Alemu 2015, Determinants of Commercial Banks Profitability: The Case of Ethiopian Commercial Banks, Msc Thesis Paper, Addis Ababa University
- Aloysus, S. H. (2007), ‘Relationship Between Rewards and Employee’s Motivation in the Nonprofit Organizations in Pakistan’, *Business Intelligence Journal*, 4, 327–334.
- Amdemikael 2012, Factors affecting profitability: an empirical study on Ethiopian banking industry, MSc thesis paper, Addis Ababa University
- Armache, J. (2012). Effect of compensation and other motivational techniques on organizational performance. *Franklin Business and Law Journal*, March (1), 88-96.
- Armstrong M (1999). *Employee Reward*. (2nd edn). Institute of Personnel and Development, London.
- Armstrong M, Brown D (1998). Relating competencies to pay: The UK experience. *Compen. Benef. Rev.* May/June, 28-39.
- Armstrong M, Brown D (2001). *Pay: The new dimensions*. CIPD, London. Namasivayam K, Miao L, Zhao

- Armstrong, M. and H. Murlis, Reward Management: A Handbook of Remuneration Strategy and Practice, Revised 5th Edition, Kogan Page Limited, London, UK, 2007. Authenticity Consulting LLC
- Athanasoglou, P. Brissimis, S. and Delis, M. 2008, bank specific, industry specific and macroeconomic determinants of bank profitability. 18 (2) pp, 121-136.
- Barpanda, S. 2013, 'Compensation management', Available on <http://www.slideshare.net/saswatbarpanda/compensation-management-17721628>
- Belayneh (2011), determinants of commercial banks profitability: an empirical review of Ethiopian commercial banks, MSc thesis paper, Addis Ababa University
- Ben S., Barney E., marius V. W, Heinz S. (2003) "South African Human Resource Management: Theory and Practice, Third Edition, PP 328-329.
- Berihun Mekonnen (2014), Ethiopian Business Review No. 16
- Bernadin HJ (2007). Human resource management: An exponential approach. (4th edn.). New York: McGraw-Hill Irwin:253-277.
- Bettencourt, M. (2010). Inflation and financial development: Evidence from Brazil. Economic Modelling, 28, 91 – 99.
- Bhattacharya M. S. and Sengupta, N. 2009, Compensation management, Excel Books, New Delhi.
- Birhanu 2012, determinants of commercial banks profitability: empirical evidence from the commercial banks of Ethiopia, MSc thesis paper, Addis Ababa University
- Boyd, J. H., Levine, R. & Smith, B. D. (2001). The impact of inflation on financial sector performance. Journal of monetary economics, 47, 221 – 248.
- Cascio, W. F. (2003). Managing human resources: Productivity, Quality of work, life, Profits. 6th ed. New-York: McGraw-Hill Higher Education.

- Cook, L. F., (2000). Human Resources Strategy to improve organizational performance: A case of British firms. 9(3), 171-197.
- Dawit Endeshaw (2016), Addis Fortune Journal Vol 17, No 849
- De Wet, J.H.v.H. and De Toit, E. (2007), “Return on equity: A popular, but flawed measure of corporate financial performance”, Department of Financial Management, University of Pretoria.
- DeCenzo D. A. and Robbins S. P. (2010). Fundamentals of Human Resource Management (10th ed.), Hoboken, NJ: John Wiley & Sons, Inc.
- DeNisi A. S. and Griffin R. W. (2008). Managing Human Resources (3rd ed.), Boston: Houghton-Mifflin.
- Deshpande, R. and Farley, J. 1999. Executive insights; corporate culture and market orientation; comparing Indian and Japanese firm. Journal of International Marketing, 4 (71). 111-127.
- and Webster, F. E. Jr. 1989. Organizational culture and marketing: defining the research agenda. Journal of Marketing, 53 : 3-15.
- Dessler, G. (2007), Human resource management. New Delhi: Prentice Hall of India Private Limited.
- Dessler, G. (2005). Human Resource Management. 10th ed. Prentice-Hall, pp. 390.
- Droar, D. (2006). “Expectancy Theory of Motivation.” Retrieved October 2, 2010, from http://www.arrod.co.uk/archive/concept_vroom.php
- Durai, P. 2010, Human Resource Management, Pearson Education India.
- Eisenhardt, K.M. (1989). Agency theory: An assessment and review. Academy of Management Review, 14, 57-74.
- English, W. B. (1999). Inflation and financial sector size. Journal of Monetary Economics, 44, 379 – 400.

- Ezra, M 2013, 'Determinants of Commercial Bank Profitability in Sub-Saharan Africa', International Journal of Economics and Finance, vol.5.
- Gerhart B, Milkovich GT (1992). Employee compensation: Research and practice. In Dunnette MD, Hough LM (Eds.), Handbook of industrial and organizational Psychology. (2nd edition). 481-569.
- Ghazanfar, F., Chuanmin, S., Khan, M.M., & Bashir, M. (2011). A study of relationship between satisfaction with compensation and work motivation. International Journal of Business and Social Sciences, 2(1), 120-131.
- Goddard, J., Molyneux, P. and Wilson, J. 2004, The profitability of European banks: A cross sectional and dynamic panel analysis, The Manchester School, 72(3), 363-381.
- Goel, D. 2008, Performance appraisal and compensation management: A modern approach, PHI Learning Pvt Ltd., New Delhi.
- Grobler, P. A., Wärnich, S., Carrell, M. R., Elbert, N. F., & Hatfield, R. D. (2011). Human resource management in South Africa (4th ed.). London: Cengage Learning.
- Habtamu 2012, determinants of bank profitability: an empirical study on Ethiopian private commercial banks, MSc thesis paper, Addis Ababa University
- Heffernan S and Fu, M 2008, the determinants of bank performance in China, Cass Business School, City University, UK.
- Henderson, R. I.(2003), Compensation Management in a Knowledge-Based World. 9th ed.
- Hewitt A. (2009). Managing performance with incentive pay. J. Pers. Manage. 7(1):20-31.
- Atchison TJ, Belcher DW, Thomsen DJ (2010). Internet based benefits and compensation administration. USA: ERI Economic Research Institute.
- Huybens, E. & Smith, B. (1999). Inflation, financial markets and long run real activity. Journal of Monetary Economics, 43, 283 – 315.
- Judge, T.A., & Bretz, R.D. Jr. (1992). Effect of values on job choice decisions. Journal of Applied Psychology, 77, 261-271.

- Kaur G. 2012, Lesson 4, Income under the head salaries – I, University of Delhi academic course materials.
- Kebede 2014, The Impact of National Bank Regulation on Banks Performance: Evidence from the Private Banks of Ethiopia, Msc Thesis Paper, Addis Ababa University
- Khalifaoui & Ben Saada / The Determinants of Banking Performance: Empirical evidence from Tunisian Listed Banks International Journal of Finance & Banking Studies Vol 4, No 2, 2015 ISSN: 2147-4486
- Khan W. and Mufti O. 2012, Effect of Compensation on Motivating Employees in Public and Private Banks of Peshawar(BOK and UBL), Journal of Basic and Applied Scientific Research, Vol. 2, no. 5, pp. 4616-4623.
- Kleiman, L. S.(2000), Human Resource Management: A Tool for Competitive Advantage.
- Kosmidou, K and Zopounidis, C 2008, 'Measurement of Bank Performance in Greece', South-Eastern Europe Journal of Economics 1, pp 79-95.
- Laietu, A. and Mellado, C. A. 2009, "Compensation and company performance within the banking sector: A case study on Chief Executive Officer compensation in relation to company performance measures", a thesis submitted to the partial fulfillment of Bachelor degree in Economics, School of Sustainable development of Society and Technology, Mälardalen University.
- Masood, O and Ashraf, M 2012, 'Bank Specific and Macroeconomic Profitability Determinants of Islamic Banks', The Case of Different Countries, Qualitative Research in Financial Markets, Vol.4, No.2/3.
- Mathis, R. L., and John H. J. (2006), Human Resource Management. 11th ed. Mason, OH: Thomson/South-Western.
- McCollum, J. S. (2001), Team-based rewards: current empirical evidence and directions for future research, Research in Organizational Behavior, 20.

- McNamara, C. (2008), Employee benefits and compensation: Basics about employee motivation: Nuts-and-bolts guide to leadership and supervision in business. Minneapolis, Minnesota: Authenticity Consulting LLC.
- Mengesha 2016, Financial Performance of Private Commercial Banks in Ethiopia: A CAMEL Approach, Msc Thesis Paper, Addis Ababa University
- Milkovich GT, Newman J (1993). Compensation. (4th edn.). BPI/Irwin: Homewood, IL.
- Mohana, K and Tekeste, B 2012, 'Determinants of profitability of Commercial Banks in Developing country', Evidence from Ethiopia, International Journal of Accounting and Finance, Vol.2, Issue 3.
- Monday RW (2008). Human resource management. (10th edn.). New Jersey: Pearson Prentice Hall. PMCID:PMC2258584.
- Nader Naifar, 2010 'The determinants of bank performance: an analysis of theory and practice in the case of an emerging market' Int. J. Business Environment, Vol. 3, No. 4.
- Ngui Thomas Katua, Elegwa Mukulu and Hazel Gachoka Gachunga: Effect of Reward and Compensation Strategies on the Performance of Commercial Banks in Kenya, International Journal of Education and Research Vol. 2 No. 1 January, 2014 ISSN: 2201-6333
- Noe RA, Hollenbeck JR, Gerhart B, Wright PM (1994). Human resource management: Gaining a competitive advantage. Burr Ridge, IL: Austen Press/Irwin. PMCID: PMC1137528.
- Nouaili et al.: The Determinants of Banking Performance in Front of Financial Changes: Case of Trade Banks in Tunisia International Journal of Economics and Financial Issues, 2015, 5(2), 410-417
- Nsambu Kijjambu Frederick: Proceedings of 25th International Business Research Conference 13 - 14 January, 2014, Taj Hotel, Cape Town, South Africa, ISBN: 978-1-922069-42-9
- Örn L. and Konkell, M. 2009, 'Is there a relationship between executive compensation and company performance? A study of four Swedish major banks', a thesis submitted to the

partial fulfillment of Bachelor degree in Business Administration, School of Business, Economics and Law, University of Gothenburg.

Örn L. and Konkell, M. 2009, 'Is there a relationship between executive compensation and company performance? A study of four Swedish major banks', a thesis submitted to the partial fulfillment of Bachelor degree in Business Administration, School of Business, Economics and Law, University of Gothenburg.

Palo Alto, CA: Consul. Psycho. Pr. Inc. Bernadin HJ (2007). Human resource management: An exponential approach. (4th edn.). New York: McGraw-Hill Irwin:253-277.

Parreault, D. W. and McCarthy, E. J (2006). Basic marketing: A global –Managerial Approach.

Pasiouras F and Kosmidou K 2007, Factors influencing the profitability of domestic & foreign commercial banks in the European Union, International Business and Finance, pp 222-237.

Pearce L (2010). Managerial compensation based on organization performance. J. Indus. Rel. 52:3-28.

Pearce, L. (2010). Managerial compensation based on organization performance, Journal of industrial Relation, 52:20-25.

Perkins, S. J., & White, G. (2008). Employee reward: Alternatives, consequences and contexts. Chartered Institute of Personnel and Development.

Sigler, K. J. 2011, 'CEO compensation and company performance', Business and Economics Journal, Vol. 2011: BEJ-31.

Singh, B D 2007, compensation and reward management, 1st ed., Excel Books, New Delhi .

Smit, P. J., Cronje, G. J., Dejong., Brevis, T., & Vrba, M. J. (2007). Management principles: A contemporary edition for Africa (4th ed.). Cape Town: Juta.

Stewart,M.(2001), Estimation of the Individual-level Employment Effects of the Introduction of the National Minimum Wage, Final Report to the Low Pay Commission, April.

- Stringer, C., Didham, J., & Theivananthampillai, P. (2011). Motivation, pay satisfaction, and job satisfaction of front-line employees. *Qualitative Research in Accounting and Management*, 8(2), 161-179.
- Sturman MC (2001). The compensation conundrum: Does the hospitality industry shortchange its employees and itself? *Compen. Ho. Rest. Adm. Q.* 47:70-76.
- Sufian, F and Shah, M 2009, 'Determinants of Bank Profitability in a Developing Economy', Empirical Evidence from Bangladesh, *Journal of Business Economics and Management*.
- Sutherland, M. (2011). Foreword. In M. Bussin (Ed.), *The remuneration handbook for Africa*. Randburg: Knowres Publishing.
- Taylor, F. 1911. *Principles of Scientific Management*. New York and London, Harper & brothers
- Tsai, C. (2005). Reward Incentive Compensation and Organizational Performance. Evidence from semi-conductor industry. *Performance and Reward Conference*, Manchester U.K.
- Ude, U. & Coker, M.A. (2012). Incentive schemes, employee motivation and productivity in organizations in Nigeria: Analytical linkages. *Journal of Business and Management*, 1(4), 32-39.
- X (2006). An investigation of the relationship between compensation practices and firm performance in the US hotel industry. *Int. J. Hosp. Manage.* 26:574-587. <http://dx.doi.org/10.1016/j.ijhm.2006.05.001>.

APPENDICES

Appendix # 1: Summary of descriptive statistics

Variable		Mean	Std. Dev.	Min	Max	Observations	
ROA	overall	.0268145	.0089149	-.0158202	.0524869	N =	84
	between		.005095	.0179487	.0355553	n =	12
	within		.0074427	-.0069543	.0492444	T =	7
COM	overall	18.31508	1.126187	15.20804	20.23763	N =	84
	between		.8457386	17.02524	19.36138	n =	12
	within		.7776436	16.49787	20.17359	T =	7
OE	overall	.3900406	.1665927	.2027424	1.503626	N =	84
	between		.0888507	.2658521	.5425164	n =	12
	within		.1429313	.1629692	1.35115	T =	7
AQ	overall	.0062547	.0100891	-.0027447	.0786931	N =	84
	between		.0055103	.0018723	.0220709	n =	12
	within		.0085804	-.0158162	.0628769	T =	7
CAR	overall	.1486171	.0436294	.0907939	.3522117	N =	84
	between		.0348416	.1068522	.2141552	n =	12
	within		.0278809	.0752848	.2866736	T =	7
LM	overall	.3191043	.1234224	.1356117	.5789397	N =	84
	between		.0388729	.2454268	.3880449	n =	12
	within		.1176062	.1473415	.5618867	T =	7
EQua	overall	.5630188	.1095909	.2331334	.7973641	N =	84
	between		.0684851	.3948845	.6610464	n =	12
	within		.0875157	.3939525	.7695503	T =	7
INF	overall	13.42857	9.5983	2.8	34.1	N =	84
	between		0	13.42857	13.42857	n =	12
	within		9.5983	2.8	34.1	T =	7
GDP	overall	9.871429	1.077768	8	11.4	N =	84
	between		0	9.871429	9.871429	n =	12
	within		1.077768	8	11.4	T =	7

.

Source: stata 12 computed result

Appendix # 2:Heteroskedasticity test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of ROA

chi2(1) = 0.04

Prob > chi2 = 0.8508

Source: stata 12 computed result

Appendix # 3: Autocorrelation test

Durbin Watson

Model Summary b

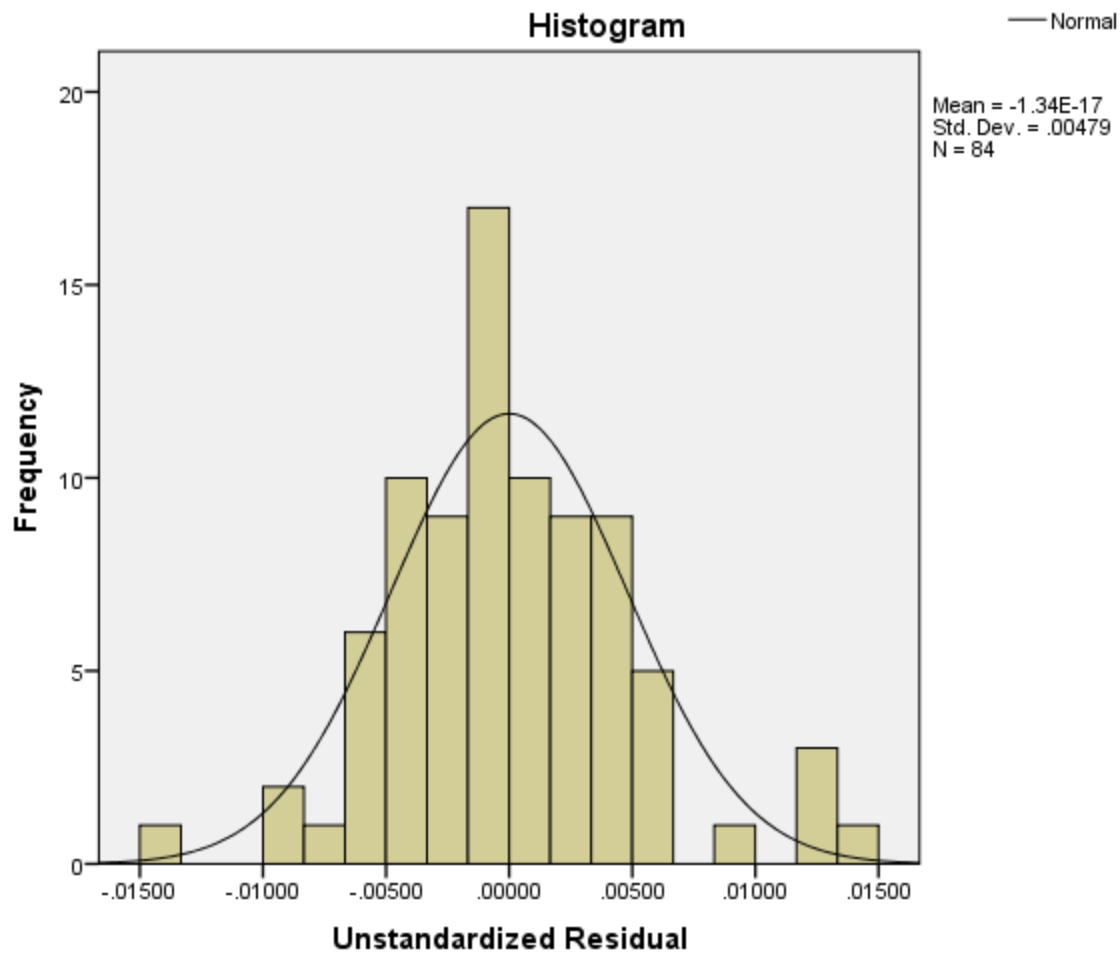
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.841a	.708	.677	.0050668	1.101

a. Predictors: (Constant), Gross Domestic Product Growth Rate, Asset Quality, Operating Efficiency, Capital Adequacy Ratio, Inflation , Liquidity Management , Earnings Quality, Compensation,

b. Dependent Variable: Return on Asset

Source: SPSS output

Appendix # 4: Normality test



Source: SPSS output

Normality test - Shapiro-Wilk W test

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
RES_3	84	0.97347	1.896	1.405	0.07997

Source: stata 12 computed result

Appendix # 5: Multicollinearity test

Variance inflation factor (VIF) of independent variables

Variable	VIF	1/VIF
LM	4.32	0.231438
COM	3.8	0.257003
<i>EQua</i>	2.66	0.375479
INF	2.48	0.403844
ROA-1	2.46	0.406246
GDP	2.12	0.472013
<i>OE</i>	1.92	0.521708
CAR	1.77	0.566000
AQ	1.26	0.795986
Mean VIF	2.54	

Correlation coefficient for independent variables

	COM	OE	AQ	CAR	LM	<i>EQua</i>	INF	GDP
COM	1.0000							
OE	-0.2563	1.0000						
AQ	-0.2092	0.0356	1.0000					
CAR	-0.5495	0.4113	0.0738	1.0000				
LM	-0.7218	0.0375	0.0677	0.2513	1.0000			
<i>EQua</i>	0.5373	0.2711	-0.2764	-0.1567	-0.6524	1.0000		
INF	-0.1424	-0.3206	-0.1151	-0.0214	0.0381	-0.1230	1.0000	
GDP	-0.3632	-0.0104	-0.0015	0.1237	0.5421	-0.4114	-0.3075	1.0000

Source: stata 12 computed result

Appendix # 6: Hausman specification test

---- Coefficients ----				
	(b) fixed_group	(B) random_group	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
COM	-.002178	.0006635	-.0028415	.0012746
OE	-.0213123	-.0282224	.0069101	.0003788
AQ	-.0986789	-.100399	.0017201	.
CAR	-.0773398	-.0049511	-.0723887	.0121467
LM	-.0030702	.007317	-.0103872	.0031897
EQua	-.0415959	-.0304423	-.0111536	.0051679
INF	-.0003045	-.0002265	-.000078	.0000523
GDP	-.0017112	-.0010385	-.0006726	.0003182
ROA1	.4148535	.3676377	.0472158	.0336547

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\chi^2(9) = (b-B)'[(V_b-V_B)^{-1}](b-B)$$

$$= 50.85$$

$$\text{Prob}>\chi^2 = 0.0000$$

Source: stata 12 computed result

Appendix # 7: Regression result

Fixed-effects (within) regression Number of obs = 84

Group variable: Bank Number of groups = 12

R-sq: within = 0.8226 Obs per group: min = 7

 between = 0.5211 avg = 7.0

 overall = 0.7147 max = 7

F(9,63) = 32.45

corr(u_i, Xb) = -0.2291 Prob > F = 0.0000

ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
COM	-.002178	.0015095	-1.44	0.154	-.0051944	.0008384
OE	-.0213123	.0038551	-5.53	0.000	-.0290161	-.0136085
AQ	-.0986789	.0476716	-2.07	0.043	-.193943	-.0034148
CAR	.0773398	.0185834	-4.16	0.000	-.1144757	-.0402039
LM	-.0030702	.0084036	-0.37	0.716	-.0198635	.0137231
EQua	.0415959	.0086002	-4.84	0.000	-.0587821	-.0244097
INF	-.0003045	.000092	-3.31	0.002	-.0004883	-.0001207
GDP	.0017112	.000700	-2.44	0.017	-.0031099	-.0003124
ROA-1	.4148535	.0707825	5.86	0.000	.2734059	.5563011
_cons	.122682	.0351035	3.49	0.001	.0525334	.1928307
sigma_u	.00382323					
sigma_e	.00359848					
rho	.53025471	(fraction of variance due to u_i)				

F test that all u_i=0: F(11, 63) = 3.46 Prob > F = 0.0008

Source: stata 12 computed result

Appendix 8: Pearson correlation coefficient for ROA

	ROA	COM	OE	AQ	CAR	LM	EQua	INF	GDP
ROA	1.0000								
COM	0.1962	1.0000							
OE	-0.7766	-0.2563	1.0000						
AQ	-0.0479	-0.2092	0.0356	1.0000					
CAR	-0.2701	-0.5495	0.4113	0.0738	1.0000				
LM	-0.0130	-0.7218	0.0375	0.0677	0.2513	1.0000			
EQua	-0.4170	0.5373	0.2711	-0.2764	-0.1567	-0.6524	1.0000		
INF	0.2532	-0.1424	-0.3206	-0.1151	-0.0214	0.0381	-0.1230	1.0000	
GDP	0.0667	-0.3632	-0.0104	-0.0015	0.1237	0.5421	-0.4114	-0.3075	1.0000

Source: stata 12 computed result

APPENDIX # 9: Contents of Unstructured Interview

human resource managers	#	Information
	1	Compensation bank contextual meaning
	2	Available compensation package
	3	Adjusting compensation package
	4	Term of compensation package adjustment
	5	Triggering factors of compensation package increment
	6	Time compensation package adjustment seen lately

Source: own computation