Financial performances and bank presidents' compensation: Case of Ethiopian commercial banks

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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.

Melkam Yitbarek Yigzaw

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Statement of certification

This is to certify that Melkam Yitbarek has carried out a thesis on the topic entitled "Financial performances and bank presidents' compensation: Case of Ethiopian commercial banks" under my supervision. In my opinion, this thesis is suitable for submission in partial fulfillment of the requirements for the award of the MSc Degree in Accounting and Finance.

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Abstract

The purpose of this study is to examine theimpact of financial performances on presidents' compensation in Ethiopian commercial banks. In light of this objective the study adopted mixed research approach using 8 commercial banks operate in Ethiopia.These banksare operatesin the industry for the last 10 years i.e. from 2004 up to 2013. Thus, the study used a total of 80 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 Eviews 6 software, OLS regression analysis. Further, arguments were made by the support of in-depth interviews.The results showed that performance of banks have no impact on president compensation of Ethiopian commercial banks. However, the result showed a significance negative relationship between ownership and president compensation. In addition, the study founds a positive significance relationship between bank size and president compensation. Furthermore, the study found a negative insignificance relationship between capital adequacy, inflation and president compensation.The study also found that one period lagged value of compensation is the main determinants of compensation. Thus, commercial banks in Ethiopia should give considerations for performance and inflation to align share holder interest with that of president.

Keywords: *performance, president compensation, ownership, bank size, capital adequacy ratio, inflation, lagged value and share holder interest.*

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List of acronyms

AB	Abay Bank S.C.
AIB	Awash International Bank S.C.
ADIB	Addis International Bank S.C.
BUIB	Bunna International Bank S.C.
BIB	Berhan International Bank S.C.
BOA	Bank of Abyssinia S.C.
CAR	Capital Adequacy Ratio
CBB	Construction and Business bank of Ethiopia
CBE	Commercial Bank of Ethiopia
CBO	Cooperative Bank of Orromia S.C.
CEO	Chief Executive Officer
CLRM	Classical Linear Regression Model
DB	Dashen Bank S.C.
DGB	Debub Global Bank S.C.
EB	Enat Bank S.C.
FE	Fixed Effects
GDP	Gross Domestic Product
HR	Human Resource
INDROE	Industry ROE
INF	Inflation
LIB	Lion International Bank S.C.

NBE	National Bank of Ethiopia
NIB	Nib International Bank S.C.
OIB	Orromia International Bank S.C.
OLS	Ordinary Least Square
PERF	Performance
PFP	Pay for Performance
RE	Random Effects
ROA	Return on Assets
ROE	Return on Equity
TSR	Total shareholder return
UB	United Bank S.C.
WB	Wegagen Bank S.C.
ZB	Zemen Bank S.C.

Chapter One

Introduction

The topic of corporate governance in general, and top management compensation in particular, has received enormous attention in recent years, Since compensation of Chief Executive Officers (CEOs) is become very high, considerable attention has been given to their rising pay levels (John and Qian, 2003 and Athar et al. 2013). The attention increased during the financial crisis, since incentive misalignment has been blamed as one of the factors causing the global financial crisis of 2007/08. In history, the largest compensation packages were rewarded to CEOs of big US corporations in the mid of 1980s (Laietu and Mellado, 2009).

Alignment of the incentives of top management with the interests of shareholders has been characterized as an important mechanism of corporate governance. Shareholders presumably want their managers to guide their firm to long-term health and success. Thus, the compensation mechanisms in place are intended to ensure that (Krause, 2009). Managerial ownership of equity and options in the firm, as well as other incentive features in managers' compensation structures (such as performance-related bonuses and performance-contingent promotions and dismissals), serves to align managerial incentives with shareholder interests. Managers who are aligned with shareholders will have risk-shifting incentive, i.e., the incentive to undertake excess risk at the expense of debt holders. Managerial compensation also affects people indirectly through CEOs actions and how these actions affect company performances (John and Qian, 2003).

CEO compensation schemes are designed to provide incentives to induce superior managerial performance, consistent with shareholder objectives (Bertsch and Mann, 2005). CEOs may tend to act in the best interests of the shareholders, if proper incentives structure is available. A scheme that leans heavily on cash payouts quickly promotes a short-term thinking. Equity

rewards give individuals a greater interest in the long-term success of a company, but it also distances individuals from the value of their efforts, since stock prices reflect market sentiment rather than personal achievement (Topazio, 2010).

In measuring the performance of top management, the relative importance of various factors used to measure the performance of agents should be related to how well each measure informs the actual performance (Banker and Datar, 1989 and Lambert and Larcker, 1987 as cited by Aduda, 2011). For decades, accounting measures have been used as primary indicators of managerial performance with prior research documenting a significant relationship between accounting based performance and CEO compensation (Ittner et al., 1997).

As opposed to compensation in the more developed markets, in Ethiopia, top management compensation appears to be limited to monetary and non monetary compensation. Since, a stock market does not exist in Ethiopia; the motivation for top management performance is unlikely to emanate from the benefits of a rising stock price. Thus, it is fair to assume that the key benchmarks used to set the goals of the top management performance are accounting based measures and thus the relationship between compensation and accounting based performance measures is likely to be more meaningful.

The National bank of Ethiopia directive number SBB/49/2011 states that the total compensation that can be payed to members of board of directors of a bank in Ethiopia is a maximum of 74, 000.00 Birr per annum. According to the directives, annual board compensation to a director shall not exceed 50,000 birr. In addition to this lump sum payment, the monthly allowance to be paid to a single board member could not exceed 2,000 birr. The Directive strictly prohibits payment of any financial compensation and/or benefits other than the stated yearly compensation

and monthly allowance. The directives also prohibits employee of a bank, be it permanent or contractual from becoming members of board of directors.

In the past, a question has been raised whether there is any relationship between CEO compensation and company success at all? The results of numerous studies on the topic came up with conflicting conclusions, and uncertainty occurred among shareholders as well (Örn and Konkell, 2009).

Ozkan (2007 a) argued that there were no significant relationship between firm performance and CEO compensation for a sample of large UK companies for the fiscal year 2003/2004. Laietu and Mellado (2009) also argued that there is no relationship between compensation and performance in Swedish banks. In addition, Shah et al. (2009) has found any significant evidence on the effect of performance of Pakistani Listed Companies on CEO compensation. Aduda (2011) studied the relationship between CEO compensation and accounting measures of performance among commercial banks listed in Nairobi stocks exchange and found a negative non-significant relationship.

In contrary, Doucouliagos et al. (2007) argues that CEO pay is directly linked to performance, and directors are remunerated on the basis of past performance. Ozkan (2007 b) found a positive and significant relationship between firm performance and the level of CEO cash compensation, while the relationship is positive but not significant for total compensation. Other studies (Örn and Konkell, 2009; Sigler, 2011) also reported that there exist a significant correlation between paid compensations and financial performance. Kaplan (2012) generalized that CEOs are paid for performance.

In addition to the conflicting conclusion among studies, to the researcher knowledge, there is no published research on the impact of financial performances on president compensation in Ethiopia. Thus, in light of that, the general objective of the study is to examine the relationship between financial performance and bank presidents' compensation of commercial banks that operate in Ethiopia.

The purpose of this chapter is to provide background information on the study. The remaining part of this chapter is structured in eight sections. The first section deals with statement of the problem. And the second section provides the research objective. Thirdly, the research questions and hypothesis of the study is presented and followed by research methods used in section four. Then, significance, scope and limitations, and organization of the study are presented in section five, sixth and seven respectively.

1.1. Statement of the problem

CEOs compensation has became relevant topics in today's world and it is a subject that touches the moral and standards of a company and it is the political and economical questions of the whole general public. This is mainly because it indirectly affects people through the CEOs actions (Laietu and Mellado, 2009). The basic issue of a CEO compensation contract must address is that of the separation of firm ownership (its shareholders) from control (its top managers). CEOs are entrusted with control of vast resources and assets. Thus, the shareholders might try to minimize the authority delegations of the CEO in order to make him/her act in the firm's or in their interest, through monitoring the CEO's actions or giving suitable incentives. Clearly, it is important to structure compensation contracts such that the CEO has proper

incentives to work in the shareholders' interests, which is to maximize firm value (Wallsten, 2009, Faulkender et al, 2010).

Shareholders, whose wealth diversified across a large portfolio, are likely to be less risk-averse than the CEO, whose wealth is more heavily concentrated in the one firm. Thus, an efficient compensation scheme should provide CEOs with incentives to take risks for potentially large profits and insulating them, at least partially, against potential bad outcomes (Tung, 2011, and Wallsten, 2009). CEOs compensation is also believed by the market to reduce financial institutions risk (Bolton et al., 2011).

In addition, CEOs compensation must strive to provide incentives and motivation for CEOs and other staff to act in the best long-term interests of the business. These systems must also be fair and proportional to the actual effort and success. Without proper incentives, CEOs may not be inclined to act in the best interests of the shareholders (Topazio, 2010, and Singh, 2007).

In general, performance-related pay is to align the interests of the directors with those of the shareholders (Gregg et al., 2011). Therefore, performance based compensation is commonly theorized as an attractive approach to aligning shareholders' and CEOs' interests (Wallsten, 2009).

Understanding of the incentive structure that motivates the key decision makers in banks can also be important in designing effective regulation. Regulation that takes into accounts the incentives of top management will be more effective and providing managers with optimal compensation structures. Therefore, incentive distortions have to take into account when regulatory procedures are established (John and Qian, 2003).

However, the empirical results on this area made conflicted conclusions. Ozkan (2007 a); Laietu and Mellado (2009); Shah et al. (2009) and Aduda (2011) argued that there is no relationship between CEOs compensation and performance. In contrary, Doucouliagos et al. (2007); Ozkan (2007 b); Örn and Konkell (2009); Sigler (2011) and Kaplan (2012) argued that there exist a significant relation between CEOs compensation and financial performance. Besides the relationship between financial performances and president compensation does not appear to have been empirically tested in Ethiopia. Thus, by keeping the above problem in mind, the study seeks to fill this gap by examining the impact of financial performances on presidents' compensation of commercial banks that operate in Ethiopia.

1.2. Objective of the study

The purpose of this concurrent mixed study is to examine the impact of financial performances on presidents' compensation and to identify the significant determinants of presidents' compensation of commercial banks that operate in Ethiopia over the period of 2004 – 2013.

1.3. Research questions and hypotheses

In light of the research objective, five statements of hypothesis were developed in view of the relationship between financial performance and compensation of president. The study attempted to test[1] the following hypotheses:

H1: There is a positive relationship between president compensation and bank financial performance.

H2: There is a negative relationship between president compensation and bank ownership.

[1] The base for the formulation of the hypotheses will discuss with the variable description on the research methodology section.

H3: There is a positive relationship between president compensation and bank size.

H4: There is a positive relationship between president compensation and capital adequacy ratio.

H5: There is a positive relationship between president compensation and annual inflation.

In addition to the above hypotheses the study has developed the following research questions.

Does president's pay remains linked to performance in both good times and bad times?

How do banks actually determine the level of compensation given to presidents?

What are the other factors that determine the compensation level of president's?

1.4. Research methods

To answer the above research objective a mixed research approach was adopted. The main reason for combining quantitative and qualitative data is gather more information and/or to better understand the research problem by gathering data that could not be obtained by adopting a single method or by converging broad numeric trends and detailed views. The study used documentary analysis and qualitative in-depth interview. The documentary analysis was made using annual reports of eight commercial banks operate in Ethiopia namely, Commercial Bank of Ethiopia, Construction and Business Bank, Awash International Bank, Dashen Bank, Wegagen Bank, Bank of Abyssinia, United Bank, and Nib International Bank. Commercial banks that had been in the industry for less than ten years were not included in the study. Other documents, such as central statistics annual inflation rate report, that was relevant for the conduct of the study were also used. The in-depth interviews were conducted with eight human resource management departments and with payroll department workers of sample banks.

Once the data were found, the structured documentary review data process was made using Eviews 6 software package. Analysis of data was undertaken to show important relationships of variables in the study. Further, the data collected from in-depth interview was used to support the documentary analysis.

1.5. Significance of the Study

The outcomes and the results of the study will have potential value for banks to understand the relationship between financial performance, ownership structure, size, capital adequacy ratio, inflation and presidents' compensation. Understanding these issues can provide banks to develop compensation structures that have low pay-performance sensitivity and reduce the risk shifting of agency problems by aligning shareholders' and presidents' interests. In addition, the study will have vital use for policy makers, such as National Bank of Ethiopia to gain insight about the relationship between the variables and the optimal design of regulation and corporate governance.

Furthermore, the study will be used as a source of data for further research on the topic and it will create picture to the general public. Besides, it will serve as a spring board for further research work on which other interested researcher could do a more in-depth analysis or create a new research idea.

1.6. Scope and limitations of the Study

The study focused on the relationship of financial performance and president compensation of commercial banks operates in Ethiopia by taking eight commercial banks. Commercial banks that had been in the industry for less than ten years were not included in the study. Further, the study looked in to the relationship between performance, inflation, capital adequacy ratio, size, ownership structure and president compensation.

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 data only salary and bonus were used as the compensation of presidents.

In addition, the study was focused on more of the quantitative aspect, thus non financial measure that was not include on the study may have influence and need a further investigation.

1.7. Organization of the paper

The paper is organized in to five chapters including this chapter. The first chapter describe introduction, statement of the problems, objectives of the study, research questions, methods adopted, significance of the study, and scope and limitation of the study. In the second chapter, different literatures that are relate to the topics of the study reviews and presents. In the third chapter, the research design including the methodology adopted and techniques used in data collection and analysis presents. Then, the fourth chapter presents the results and analysis of the study. Finally, the fifth chapter provides the conclusion and recommendation for the study according to the findings.

Chapter Two

Literature Review

This chapter reviews literature in the area of the relationship between financial performances and CEOs compensation. The literature review establishes a framework for the study and highlights the apparent strengths and weaknesses of the previous studies, which, in turn, help to clearly identifying the gap in the literature and formulating the research questions in the study.

The chapter is organized in to four sections. The first section reviews theoretical studies on the relationship between financial performances and compensation of CEOs and related issues while the second section presents the empirical evidences. The third section provides, the conceptual framework followed by the final section that provides conclusion on the review of the literature and identifies the knowledge gap.

2.1. Theoretical review

This section reviews the theoretical studies on purpose of compensation, theories of compensation, relationship between financial performances and compensation, factors of compensation and related issues.

2.1.1. Purpose of compensation

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:

- 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.

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. 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. The compensation differs according to the motivational components, and it is more concerned with job design and training rather than policies (Goel, 2008). Different theories of compensation discussed below:

Subsistence theory – (by David Ricardo, 1817): this theory sates 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 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 hanger, 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 suggest that each person born into the world in 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. Forms of compensations and incentive programs

Compensation can be divided in to various parts from different perspectives. Compensation can be divided into fixed-pay, flexible-pay and benefits (Beard, 1986 as cited by Khan and Mufti, 2012). 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:

2.1.3.1. Non- Monetary compensation

Non- Monetary compensation 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).

2.1.3.2. Monetary compensations

Monetary compensations to CEOs and executives in large companies often consist of fixed part and a flexible part that is depending on the performance of the company. The flexible part can also be divided into a short term and a long term part. Incentives programs are examples of long term flexible compensations that provide employees with payment based on performance for

designated time period (Örn and Konkell, 2009). The most common monetary compensations are further described below:

Basic salary and Wages

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).

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. Since salary establishes the CEO's basic standard of living, it is necessary for both high and low-performing firms to pay based on the current market rates.

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

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. A bonus can be received by any one in a company, a certain group or individual (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 (Örn and Konkell, 2009).

Profit sharing foundations

Profit sharing foundation 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. The aim is to manage the capital with emphasis on long term value enhancement. 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.

2.1.3.3. Equity based compensations

Monetary based compensation may not necessarily enhance shareholders 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 shareholders 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 avoid. 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).

2.1.4. Principal – agent theory and CEO compensation

Agency theory proposes that one party (the principal) delegates work to another (the agent), who performs that work. Owners are the managers or employees who delegate responsibilities, are called principals. Principals are risk neutral and willing to bear greater risks than agents because their asset wealth is more likely to be diversified between corporate assets wealth is more likely to be diversified between corporate assets and other equities/investments. Agents are more risk averse than the principals, because most of their wealth is concentrated in the firm and received in the form of pay and opportunities for promotion. The agent is tempted, in some cases succeed, to take advantage of information asymmetry with the principal and act opportunistically (defined as making decisions not aligned with principal's interest) and use firm resources to maximize personal wealth, often at expense of the principal. Agency contract provides solution to moral hazard/agency problem, by establishing "rules of game" to control agent opportunism –agent's performance will be judged by outcomes (often financial benchmarks) and not by behaviors (which require direct supervision of agent's actions). These outcomes will reflect principal's goals and risk preferences (Bhattacharya and Sengupta, 2009).

An incentives alignment, the agency contract will specify a compensation plan that align the interests of the principal and agent. This agency contract will be a type of pay for performance plan. Meeting or exceeding pre-agreed upon financial or non-financial outcomes triggers various forms of compensation (individual or group-based) for the agent. Some agency costs are borne by the principal in the form of financial incentives for the agent (Bhattacharya and Sengupta, 2009).

2.1.5. The basic principal-agent model

The basic principal-agent model has three elements: (a) the technology of production, (b) the set of feasible contracts, (c) the payoffs to the parties, and (d) the timing of events.

a) The technology of production

This model summarizes the production process by three variables: (1) the agent's total contribution to firm value (or, for now, the agent's "output"), denoted by y; (2) the action the agent takes to produce output, denoted by a; and (3) events in the production process that are beyond the agent's control (i.e.,"noise"), denoted by ε (Gibbons, 2004).

The production function is $y = \alpha + \varepsilon$

b) Contracts

The agent's total compensation for the period of the contract, denoted by w, is a linear function of output, $w = s + (b \times y)$. Where, s can be thought of as salary and b as the agent's bonus rate (so that the agent's bonus is $b \times y$) (Gibbons, 2004).

c) Payoffs

The principal receives the agent's total contribution to firm value, y, but has to pay the agent's wage, w. As a result, the principal's payoff ("profit") is the difference between the value received and the wage paid, $\pi = y - w$. The Principal simply wants to maximize the expected payoff or $E(y - w)$ and the pay is the function of action of the agent. And it must be necessary to compensate the agent for taking a particular action. The agent's payoff (or "utility") is the difference between the wage received and the cost of the action taken (Gibbons, 2004).

d) The timing of events

Gibbons, (2004) states that putting all the above model's elements together yields the following timing of events:

1. The principal and the agent sign a compensation contract ($w = s + (b \times y)$).
2. The agent chooses an action (α), but the principal cannot observe this choice.
3. Events beyond the agent's control (ε) occur.
4. Together, the action and the noise determine the agent's output (y).
5. Output is observed by the Principal and the agent.
6. The agent receives the compensation specified by the contract.

2.1.6. Pay for Performance (PFP)

According to 3-P compensation concept, paying has three parameters that are considered by the management of any organization while deciding the salary as well as the incentives of employees. It is to pay for the person, the position and the performance (Singh, 2007). In this research, the researcher will focus on PFP relationship.

The oxford dictionary defines performance as behavior –the way in which organizations, teams and individuals get work done. In 3-P compensation management, the performance of individual is not the only consideration in setting the salary or granting a salary increase. The logic is that since performance is variable and fluctuates from year to year. Granting a salary increase based on one year's performance is equivalent to repeatedly paying a bonus year after year for performance delivered in a single year. Thus, PFP is characterized by the usage of various performance related parameter i.e. performance can simply measured in terms of production, quality, cost, delivery, and safety; and profitability gets measured on return on investment, return on sale, return on total capital, return on book quality, and net income by total assets (Singh, 2007).

There are cases where two executives at the same level are getting different pay packages. Although the nature of their work is the same, there is a variation in salaries on the basis of performance, competence, loyalty, and output (Goel, 2008).

Bhattacharya and Sengupta (2009) states that the objective PFP system is grouped in to three

1. Encouraging high performance levels by linking performance to pay: PFP motivates employees to perform better.
2. Embedding an entrepreneurial or high-performance culture across organization: PFP can help to send out a message.
3. The notion of equity or fairness: employees who perform better at work should be rewarded more.

The purpose of PFP is to define all incentives schemes – short-term or long-term and efficiency reward to the employee's contribution in immediate and long-term results. An efficient scheme

implies that agreed-upon, challenging, and realistic targets, that motivates the employee by linking targets to sizable rewards, and that it openly and clearly recognizes the employee's contribution (Singh, 2007).

Thus, an individual's performance is managed through a performance contract, which comprises the clarification of the role, the setting of objective, and the review of performance. As an outcome of performance contract process, a measure of performance at the corporate, unit and individual level becomes the basis for setting the performance pay (Singh, 2007). Thus, setting the performance measurement criteria in advance is identified to be a paramount importance so as to create a high degree of commitment and goal-oriented behavior among employees.

The management chooses from all possibilities of one or several types of plans that are in line with the organization's activities, the types of objectives assigned to the employees, and the corporate culture. Rules of eligibility should then be established for each plan. It is very important to remember that for whatever plan each category of employee is eligible, the total amount of possible rewards should be equitable from one person to another. In other word, a similar performance evaluation should bear similar amounts or value of rewards, even if the nature of the incentive plan is different (Singh, 2007).

However, PFP also has certain disadvantages. It is felt that motivation cannot be guaranteed and moreover, the performance assessment is on a rating scale and the appraisal may be unfairly subjective or inconsistent. Therefore, it is necessary to devise and maintain fair and consistent methods of performance appraisal. The performance should be measured against agreed targets and standards (Goel, 2008).

2.1.7. Guiding principles for pay for performance model

Upadhyay (2009) lists several principles that provide a solid foundation to build a compensation program. These principles are described below:

Start with a compensation strategy: it establishes a foundation for the compensation program, addresses the role compensation should play within a company, and helps to determine the desired competitive position for the total compensation program and its various elements. It should reflect on company's objectives, the industry in which it operates, and the economic challenges the company must face. It also should consider and support the organizational structure decision-making process, and the company's risks/reward orientation.

Reinforce your company's desired culture orientation: companies have different values and strategies for success. Determining the preferred company culture and underline it with the incentive program.

Leverage incentives: The relationship between performance results and pay will be strengthened if the incentives opportunity is substantial for performance is below standard. Leverage means the payout variability based on performance. Higher performing companies usually provide more leveraged annual and longer-term incentives than do lower performing companies.

Make shareholders value creation a top priority: Total shareholder return (TSR) is the sum of the appreciation realized plus the dividends received or reinvested divided by the shareholder's original investment. It is also the principal element in the performance graph, because over the long-term TSR is the best expression of the shareholders' interest. Therefore, TSR should be given primary consideration in the design of long-term incentives. The term shareholder value

creation is overworked. It seems that almost everyone toting a particular measure, financial or otherwise, or management theory claims to "create shareholder value."

Emphasize the long-term executives: As relates to senior management personnel, higher-performing companies give greater emphasis to long-term results than annual results. Just the opposite is the case for lower performing companies. Thus, the annualized target value for long-term incentives should be greater than the target for annual incentives as pertains to these employees.

Benchmark long-term performance through comparative measures: most companies that have goal based long-term incentives struggle with setting goals, the attainment of which determine the compensation payment. Companies have difficulty in setting long-term targets because of external forces such as economic, political, and regulatory trends or mandates. A comparative measure is used in keeping with a growing desire on the part of many compensation committees to obtain external validation of success before incentives payments are made.

Communicate initially and regularly thereafter: Those eligible for incentives need to know how compensation plans work and what the plan can mean to them, this means providing them with both reader-friendly plan descriptions at time of rollout, as well as periodic (i.e. quarterly) statements about incentives performance results and projected award levels.

Do not reward poor performance: Investors are not forgiven for bad investment, and executives should not be forgiven for poor performance. While the business press is on target when they highlight significant rewards to top executives whose companies do poorly, this can reflect negatively on those companies that are trying to link pay to actual performance results.

2.1.8. Factors affecting compensation

Compensation can strongly be affected by several internal and external factors. According to Durai, (2010) from the perspective of the employer, the factors that determine how much compensation is to be paid out to the employee are:

- **Macroeconomic situation:** The overall macroeconomic situation where in the state of the economy of the country in which the firm is situated plays a major role in determining the compensation to be paid. This is a direct result of the linkage between firm performance and the performance of the economy.
- **Demand and supply of labor:** it is one of the important factors affecting wages. If the demand of labor is more they will be paid high wages otherwise vice versa. If the supply of the employees is more they will be paid less and vice versa.
- **Government Regulations:** In order to protect the working class from wage exploitation by strong employers, the government enacts various laws and judicial decisions. Such laws and regulations affect compensation management. Because, they emphasize on minimum wage rate, overtime rate, working hours, equal pay for equal work, payment of bonus, etc. So, an organization has to design its pay system as per the government rules and regulations.
- **Inflation:** Compensation is concerned with an overall return that an employee obtains from the organization for rendering contributions towards organization objectives. Therefore, the payment should be adequate to maintain the cost of living of the employees. Hence, the employer should manage compensation by viewing the cost of living of each individual. And should adjust with the increase in the cost of living.

- **Organizational Provisions:** Organizational provision states that the level of compensation largely depends upon organizational operating policies and procedures. It is because the policies serve as a guideline for formulating and implementing compensation plans and programs. Moreover, organizational regulations, plans, objectives, etc. also affect the level of pay.
- **Organizational Positions:** The position of the organization is determined by its productivity, for example, if the productivity of the worker is high, it assesses itself as a higher position. As a result, the compensation system is determined at a higher level. In contrast, lower productivity tends to result low wages/salary rates.

  In addition, the position of the company in the business cycle often determines how much the company is willing to offer to the employee. At a start-up company would pay more because of the need to get the best possible talent into the company. Further, many start-ups give their employees Employee Stock Option Plans wherein the employees can redeem their stocks after the lock-in period.

- **Ability to pay:** it depends upon the employer's ability to pay wages to the workers. This depends upon the profitability of the firm. If the firm is marginal and can't afford to pay higher than the competitors, then the employees will go to other firms; while if the company is successful then they can easily pay their employees as they wish.
- **Labor union:** labor union also helps in paying better wages to the workers. Higher wages have to be paid by the firm to its workers under the pressure of the trade unions.
- **Productivity of Workers:** Another factor of compensation management is the productivity of workers. This is the new concept of linking pay with employee

performance. Highly productive workers are got high compensation as compared to less productive workers.

- **Job Analysis and Evaluation Report:** Job analysis is a method through which necessary information about the contents and the contexts of the job is made available to determine the value of each job. The job evaluation is a process of determining the value/worth of a job so that a payment system can be specified. Job analysis and job evaluation determine the relative worth a job. Which ultimately assist for compensation management. Hence, it is regarded as an important factor of compensation management.
- **Urgency of the firm:** Urgency in filling up the position plays an important role in determining how much the employer is willing to pay the employee. In many cases, if the time to get employee on board is less, staffing managers along with the line manager in charge of hiring the employee might decide to pay more, as they want the employee to come on board as quickly as possible.

2.2. Empirical review

In spite of the above theoretical recognition of the relationship between financial performances and CEOs compensation, studies on executive payment-performance relationship become complicated over time, as the number and the variety of variables included in the models increase (Zhou et al., 2011). In this section, an attempt is made to assess the empirical studies conducted by different authors in different countries at different times.

Doucouliagos et al. (2007) conducted a study to explore the relationship between directors' and CEOs´ pay and performance within Australian banking. The study was conducted on 10 Australian owned banks listed on the Australian stock exchange using panel data between 1992 and 2005. The results showed that the important determinants of directors' pay are the size of the

bank, lagged values of directors' pay, age and bank specific effects. Australian directors' pay did not appear to be linked to performance with a one year lag. However, there is evidence on longer links between directors' pay and performance, with the existence of a two year lag in the association, on average across Australian banks. But CEO´s pay is directly linked to performance, and directors are remunerated on the basis of past performance. They also reported a positive relationship between ownership and director's pay, in contrasts board size and pay had a negative effect on CEOs' pay.

Ozkan (2007 b) was examined the link between CEO pay and performance by using panel data set of 390 UK based non-financial firms from the Financial Times and the London Stock Exchange or FTSE. The Index include for the period 1999-2005. He uses generalized method of moments (GMM) system estimation method, which controls the presence of unobserved firm-specific effects. The result shows that there is a positive and significant relationship between firm performance and the level of CEO cash compensation while the relationship is positive but not significant for total compensation. The result also indicated that institutional ownership has a positive and significant influence on CEO pay-for-performance sensitivity of option grants. Longer CEOs' tenure was associated with lower pay-for-performance sensitivity of option grants suggesting the entrenchment effect of CEO tenure.

Örn and Konkell (2009) conducted a study with the purpose making comparison of companies within the Swedish bank sector in order to observe whether there is a correlation between paid compensations and profitability. The study used electronically published annual reports of four Swedish banks for the period 1998 - 2008, by using graphs. Finally, they argued that there exist a significant correlation between paid compensations and financial performance. However, CEOs' compensation and remunerations to chairman were shockingly high.

Hung et al. (2009) examined the role of corporate governance in 306 financial institutions across 31 countries during the 2007-2008 credit crises. They found out that CEOs are more likely to be replaced following large losses when firms have more independent boards, higher institutional ownership, and lower insider ownership. Furthermore, they argued that the focus of independent boards and institutional investors on short-term profitability has not only led to the replacement of poorly performing CEOs during the crisis, but has also encouraged risk taking of firms before the crisis, which exacerbated the losses suffered during the crisis.

Laietu and Mellado (2009) conducted a study with the purpose of finding the relation between CEOs' compensation and company performances with a sample of the twelve banks that operate in the Swedish banking market between the year 2007 and 2008. Mixed approach and regressions of different variables (Compensation, ROE, net income and turnover) was applied. They argued that turnover is the only variable that was related to compensation and the other two variables such as ROE and net income are not related to the CEO compensation.

Sakawa and Watanabel (2009) conducted a study with a purpose of examining the relationships between the role of bank-appointed monitors and financial keiretsu[2] memberships, and pay–performance sensitivity. The sample consists of 2088 observations from the year 1992 to 1995 for 522 Japanese manufacturing firms publicly trading on the first section of the Tokyo Stock Exchange. The data were obtained from the Nikkei NEEDS database[3]. And the dependent

[2] **Keiretsu** is a grouping of large Japanese financial and industrial corporations through historical associations and cross-shareholdings. In a keiretsu each firm maintains its operational independence while retaining very close commercial relationships with other firms in the group. Horizontal keiretsu involve firms in different industries whereas vertical keiretsu involve firms upstream and downstream in the supply chain.

[3] Nikkei NEEDS (The Nikkei Economic Electronic Databank System) database is a comprehensive economic databank system that provides data and statistical information.

variable Cash Compensation regressed with ROA, stock returns, the growth rate of sales and a loss/profit dummy variable. Their first finding was that, there is no significant difference in pay–performance sensitivity between firms with and without financial keiretsu ties in this period. Second, they found the pay–performance relations for stock returns and the growth rate of sales of firms with bank-appointed directors are negative.

Young et al. (2010) examined how the terms of CEO compensation contracts at large commercial banks influenced by the risky business policy decisions made by firms. They conduct the study in 134 banks that operate in US between the year 1994 and 2006. They found strong evidence that bank CEOs responded to contractual risk-taking incentives by taking more risk; bank board's changed CEO compensation to encourage executives to exploit new growth opportunities; and bank board's set CEO incentives in a manner designed to moderate excessive risk-taking.

Zhou et al. (2011) examined sensitivity of executive compensation in relation to performance in the Chinese banking system with the aim to evaluate the necessity of the new regulations introduced in meeting performance measures for the financial industry. They chose 18 Chinese commercial banks with annual data from 2001 to 2009 and examined profitability, asset quality, and capital adequacy aspects - with independent variables of size and ownership. Their result revealed that the performance of non-performing loan ratios and ROE have significant effect on director's compensation, but they found no correlation between executive compensation and bank performance and non-performing loan ratios. Moreover, the state control ownership can lower the pay-performance sensitivity. They also argued that capital have direct influences on the profitability, and have indirect effects on managerial compensation and thus on managerial

decisions. Finally, they supported the necessity of government regulations on bank performance rating and executive compensation.

Gregg et al. (2011) examined the pay-performance relationship between executive cash compensation (including bonuses) and company performance for a sample of 415 companies in UK financial services industry with independent variables of firm size, firm risk, time dummies, number of directors and the number of non-executive directors. They found that firm size has a dominant influence on the level of executive compensation. They also reported strong relationship between executive cash pays and company performance for exceptional out-performance but not unusual under-performance. The total board pay and the pay of the highest paid director were relatively high in the financial sector, but the pay-performance sensitivity of financial firms was not significantly higher than in other sectors. Thus, they concluded that it unlikely that incentive structures could be held responsible for inducing bank executives to focus on short-term profits.

Sigler (2011) examined the relationship between CEO's pay and company performance after the adoption of the Sarbanes Oxley Act and after the SEC approval of the corporate governance rules affecting executive pay for New York Stock Exchange companies. He used a sample of 280 companies listed on the NYSE for a test period from 2006 through 2009. The study was done using dependent variable regressed with independent variables of Tenure, number of employees, and ROE. The result showed that a positive and significant relationship between total CEO compensation and company performance measured by return on equity. The size of the firm (log of each firm's number of employees) appears to be the most significant factor in determining the level of total CEO compensation. Tenure appeared as the next most important variable implying

that either the CEO acquires more knowledge and expertise over time in the position or he/she attains more power over the compensation committee that decides the level of CEO´s pay.

Kaplan (2012) conducted a study to evidence for three common perceptions of U.S. public company CEOs' pay and corporate governance: these are (1) CEOs are overpaid and their pay keeps increasing; (2) CEOs are not paid for their performance; and (3) boards do not penalize CEOs for poor performance. The study included both S&P 500 and S&P 1500 using ExecuComp database. The study showed that average CEO pay increased substantially through the 1990s, and it has declined since then. With regard to performance, CEOs are paid for performance and boards do monitor CEOs and penalized for poor performance. The result also showed that the rate of CEOs turnover has increased in the 2000s compared to the 1980s and 1990s, and is significantly tied to poor stock performance. Corporate governance failures and pay outliers as well as the very high average pay levels relative to the typical household undoubtedly have contributed to the common perceptions, a meaningful part of CEO's pay appears to be market determined and boards do appear to monitor their CEOs.

Balasubramanian et al. (2013) conducted a study to investigate the role of corporate performance, corporate ownership, and corporate governance in optimizing CEO compensation in keeping with the shareholders' interests. The study was based on published compensation data from 2007 to 2012 on 102 Indian companies. Their finding suggests that the size of the company was found to have a significant positive influence on the level of compensation. However, the size of the company does not have any significant influence on year-on-year percentage changes in compensation. Profit after tax did not have a statistically significant influence on CEOs compensation. However, change in profit after tax had a significant positive influence on change in compensation. Lagged excess returns in the stock market positively

influenced the level of compensation, but not the change percentages. In addition they argued that the influence of institutional holding on level of compensation is positive and weakly significant. The proportion of non-executive independent directors on the board positively influenced the level of compensation. The separation of the chairperson's position from that of the CEO (i.e., ensuring duality) significantly negatively influenced the level of compensation.

Athar et al. (2013) set out a study with the objective of identifying determinants of compensation of the CEOs in the banking industry of Pakistan. A sample of 128 observations was used and the data was obtained from published audited annual reports of the banks listed on Karachi stock exchange during from 2000 to 2009. A total of 6 independent variables (i.e. size, number of employees, income before tax, ROA, profit margin and ROE) are used to regress with the dependent variable, cash compensation of CEO. The result suggested that a significant and positive impact of size (assets) of the firm on CEO compensation. Income before tax was also positively correlated to CEOs' cash compensation. Negative impact of number of employees was found on the CEO cash compensation. Out of all other variables, only income before tax is found to be significant at 10 percent.

Aduda (2011) conducted a study with the objective of measuring the relationship between executive compensation and firm performance among the commercial banks listed at the Nairobi Stock Exchange. The study used a regression model that relates executive pays and accounting performance measures, ROA and INDROE, size and core capital to deposits. He founds a negative non-significant relationship between executive compensation and accounting measures of performance among commercial banks. He also argued that accounting measures of performance are not key considerations in determining executive compensation among the large commercial banks in Kenya and in the large commercial banks. Size was a key criterion in

determining executive compensation, as it was significantly but negatively related to compensation. In addition, capital gives a non-significant relationship to executive pay.

2.3.Conceptual framework

The conceptual framework for the relationship between commercial banks presidents' compensation and financial performance based on the theoretical perspective and the empirical results are described in Figure 1.

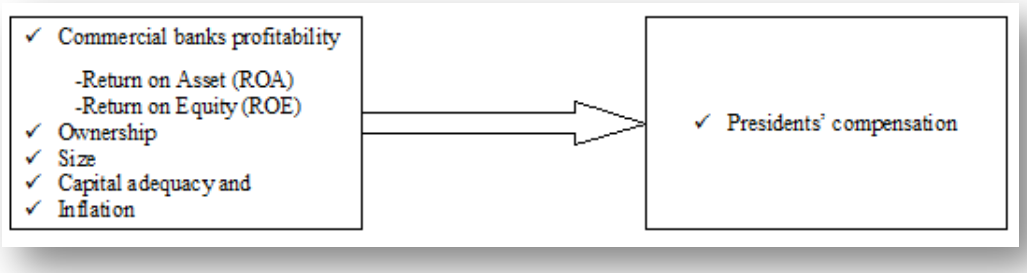

Figure 1: Relation between compensation and performance

2.4.Conclusion and knowledge gaps

The literature review highlighted a number of issues on theoretical and empirical frameworks that involves the relationship between financial performances and CEOs compensation of banks. In general, creating proper compensation structure serves to align both managerial incentives with shareholder interests.

Compensation should be adequate, equitable, balanced, cost effective, secure, incentive providing, and acceptable to the employees and this help the compensation policy to be effective.

Macroeconomic situation, demand and supply of labor, government regulations, Inflation, organizational provisions, organizational positions, ability to pay, productivity of workers, labor

union, job analysis, and evaluation report will affect the level of compensation. PFP encourages high performance level by linking performance to pay and embedding an entrepreneurial or high-performance culture across organization.

In general, the literature review indicates that impact of performance on CEO compensation of banks is significant, but still contradicting results found by different studies. Doucouliagos et al. (2007); Ozkan (2007 b); Örn and Konkell (2009); Sigler (2011) and Kaplan (2012) argues that performance have impact on CEO compensation but in contrary, no significant relationship between firm performance and CEO compensation found in Ozkan (2007 a); Laietu and Mellado (2009); Zhou et al. (2011) and Aduda (2011).

Besides the contradiction between results, to the researcher knowledge, there is no published studies found in Ethiopian cases which is different from other countries in operation of banking industries. In addition, the studies made in other countries were focused on quantitative aspects only.

Thus, due to the conclusion conflicts among studies made in other countries, and the fact that there is absence of research made in the area of performance and presidents compensation in Ethiopia, the central question of the study is:

What impact does performance play on compensation of president, particularly, on salary and bonus? And what are the other factors that determine the compensation level of president?

Chapter Three

Research Methodology

The previous chapter indicated the literature on the relationship between financial performances and president compensation, and pointed out that, to the researcher knowledge, there is no research conducted in Ethiopia in this area.

In this chapter, the research methodology used to conduct the study is presented. The research hypotheses, description of variables, the research approaches chosen from the available approaches (quantitative, qualitative, and mixed methods) and the specific research methods adopted (i.e. structured documentary review and unstructured in-depth interview) with its justification are presented in separate sections.

3.1. Research hypotheses and description of variables

This study aims to examine the impact of financial performances on presidents' compensation; particularly on president salary and bonus of commercial banks operate in Ethiopia.

Therefore, in light of the above research objective, the following discussion covers the hypotheses that this study attempted to test and the description of variables.

Dependent Variable

Pay: The empirical investigation involves the use of four different measures of the dependent variable: (a) the natural logarithm of total directors' compensation, which includes CEO's pay; (b) the natural logarithm of CEOs' compensation; (c) the natural logarithm of CEOs' base (fixed) portion of compensation; and (d) the natural logarithm of CEOs' bonus and short-term incentive. Total directors' remuneration includes fixed fees and salaries, bonuses and incentive based

remuneration as well as employer contributions to superannuation and retirement benefits (Doucouliagos et al., 2007).

The study used the natural logarithm of president compensation particularly salary and bonus as a dependent variable. Salary payment and bonus was used for the analysis, which are similar to those used in (Zhou et al. 2011).

Independent Variables[4]

Performance (PERF): Several measures of performance are available, including conventional measures, such as ROA and ROE. ROA and ROE are the most widely used measures to assess bank performance (Sakawa and Watanabel, 2009; Athar et al., 2013; Laietu and Mellado, 2009; Sigler, 2011; and Doucouliagos et al., 2007). These measures can reflect the profitability of banks. Moreover, the use of ROA and ROE facilitates comparisons with other non-banking studies. Accordingly, the key performance measures used in this study are: return on assets (ROA); and relative performance to industry return on shareholder equity (INDROE). ROA was measured by after tax net income dived by average total asset; and INDROE is a dummy variable that compares the returns of individual banks to those of the industry. The variable is 1 if the ROE of the bank is higher than that of the industry for a given year and 0 if the ROE is below the industry average. These are similar to the performance measure used by Aduda (2011).

[4] The main objective of the study was to examine the relationship between financial performances and bank presidents' compensation, but, ownership; size capital adequacy ratio and inflation included in the model, since different studies found them as factors for compensation, and excluding them may influence the result. Thus, a total of seven variables were used for the regression model.

Zhou et al. (2011) and Sigler (2011) concluded that ROE has positive and significant influence on director's compensation. Ozkan (2007 b, Doucouliagos et al. (2007), Örn and Konkell (2009), and Kaplan (2012) argued that performance have a significant impact on CEO compensation. The studies support the theories that states highly productive workers will get high compensation as compared to less productive workers. Therefore, it is the basis for formulation of hypothesis number 1:

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

Ownership (D_{SOE}): Outside owners can be expected to monitor board and firm performance and this can affect directors' earnings. The form of existing dominant shareholder is critical in setting top management payment (Doucouliagos et al. 2007).

State owned and private owned (i.e. share companies) banks operate in Ethiopia. Of these banks, two public/ state owned and six private banks are included in the study.

Most studies argued that state control ownership can lower the payment of CEOs of state owned banks and/or institutional ownership increase the payment of CEOs compensation and it is negatively related to the level of CEOs´ compensation (Core et al., 1998; Ozkan, 2007 b; Doucouliagos et al., 2007; Conyon and HE, 2011 and Zhou et al., 2011). Outside owners can be expected to monitor board and firm performance and this can affect directors' earnings (Doucouliagos et al., 2007). Therefore, it's expected that payment of presidents in state -owned bank will be lower. Therefore, it is the basis for formulation of hypothesis number 2:

H2: There is a negative relationship between president compensation and bank ownership.

Bank size: The majority of previous studies used firm size as a major determinant when analyzing CEO compensation and it is consistently found to be positively and significantly correlated with compensation levels (Doucouliagos et al., 2007; Nourayi and Mintz, 2008; Shah et al., 2009; Zhou et al., 2011; Gregg et al., 2011; Sigler, 2011; and Athar et al., 2013). Managers of larger companies usually get paid more than small size firms because of the difference in the degree of complexity of tasks and decisions that need to be completed. In addition, potentially greater values are placed on these decisions. Therefore, they receive greater reward from making decisions (Doucouliagos et al., 2007).

However, Aduda (2011) have concluded that size is significantly, but negatively related to compensation and it is key criteria in determining executive compensation. Balasubramanian et al. (2013) also concluded that the size of the company did not have any significant influence on year-on-year percentage changes in compensation.

Various measures of firm size have been used in different studies, such as logarithm of sales (Nourayi and Mintz, 2008), logarithm of each firm's number of employees (Sigler, 2011), total firm assets (Athar et al., 2013 and Gregg et al., 2011), logarithm of total capital and revenues (Doucouliagos et al., 2007), logarithm of total asset (Zhou et al., 2011), log of income (Balasubramanian et al., 2013), and customer deposits (Aduda, 2011). Similar to Zhou et al., 2011, logarithm of total asset was used as a measure of size on the study. It is expected to positively and significantly correlate with president compensation. Therefore, it is the basis for formulation of hypothesis number 3:

H3: There is a positive relationship between president compensation and bank size.

Capital Adequacy Ratio (CAR): Capital adequacy requirements generally aim to increase the stability of a national banking system by decreasing the likelihood of a bank failure and a number of negative externalities exist in banking that cause risk to systematically under price. It is useful measure to check the soundness and stability of the banking system (Zhou et al., 2011 and Tsehay, 2012).

Dewatripont and Tirole (1996) viewed capital rules as a means of efficiently allocating controlling rights between different groups of claimholders, thereby indirectly influencing bank managers' incentives. Zhou et al. (2011) also argued that capital has direct influences on the profitability, and indirect effects on managerial compensation and thus on managerial decisions.

In this study CAR was measured by the ratio of total equity over total risk weighted assets. Zhou et al. (2011) also used similar measurement. The measure is expected to positively and significantly correlate with president compensation. Therefore, it is the basis for formulation of hypothesis number 4:

H4: There is a relationship between president compensation and capital adequacy ratio.

Inflation (INF): It is necessary to consider the effect of annual increases in benefits when calculating the value of workers compensation payments expected to be made over a period of time. Because, compensation is influenced by the rates of inflation. Inflation became a problem, as prices for things increase over time. If a salary scale isn't adjusted to compensate, the actual purchasing power of the dollars one earn will decline over time. That is a concern for employers because it means wages are less competitive, making it harder to attract and retain qualified people. Usually, when inflation increases, wages increase rapidly. If the rate of inflation falls, wages usually rise at a relatively slow rate (LePere, 1991 and Slesnick and

Dolin, 1983). In this study, the annual inflation rate was used with year 2006 as base year and its get from the national bank of Ethiopia. It is expected to positively and significantly correlate with president compensation. Therefore, it is the basis for formulation of hypothesis number 5:

H5: There is a positive relationship between president compensation and inflation.

3.2. Research approaches

The three common approaches for conducting a research are quantitative, qualitative, and mixed methods. The knowledge claims, the strategies, and the method all contribute to a research approach that tends to be more quantitative, qualitative or mixed (Creswell 2003).

In this study, in order to achieve the stated objective, as Boyd (2012) and Örn and Konkell (2009) suggested mixed approach (both qualitative and quantitative approach) is used in collecting and analyzing data. That is, to get the benefits of a mixed method approach and/or to diminish the bias in adopting only one approach. In addition, this method is chosen to better identify the underlying phenomena and to benefit from a research that adopts mixed research approaches.

Quantitative research approach is based on the philosophy of post positivism world view. Positivists believe that there are laws or theories that govern the world, and these need to be tested or verified and refined so that we can understand the world. In this philosophy, reality is stable and can be observed and described from an objective viewpoint. Thus, the problems studied by post positivist reflect a need to examine causes that influence outcomes, such as issues examined in experiments. It is also reductionist in that the intent is to reduce the ideas into a small, discrete set of ides to test, such as the variable that constitute hypotheses and research questions. A quantitative research approach employs strategies of inquiry, such as experiments

and surveys, and collects data on predetermined instruments that yield numeric data that can be analyzed using statistical procedures. It is advantageous, as it follows standardized procedure, tests reliability of instrument and minimizes researcher's bias. Hence, the results can be generalized to larger population (Creswell 2003).

However, quantitative research approach is not capable to address issues that cannot be quantified and new emerged theories or it is not helpful in generating theories because they focus on what is or what has been recent. Further, if it is designed ones it is inflexible for certain situations changes and actions should take place in the future. Thus, its scope may be limited (Amaratunga et al. 2002).

Qualitative research approach is based on social-constructivist world view in which inquirers generate or inductively develop a theory or pattern of meaning rather than starting with a theory as in post positivism. This approach tries to examine experiences and events within their natural setting and understanding a phenomenon under investigation in its entirety and it uses narrative, phenomenological, ethnographies, grounded theory and case studies (Creswell 2003).

The qualitative approach views the world based on researchers interpretation, which may be influenced by the researcher own views, beliefs, experiences, and existing knowledge. Unlike quantitative data, numeration is not its objective. Rather, qualitative research seeks to explore and explain the world through observation, by appreciating the subjective experiences of social actors and by unearthing data that are not easily accessed by quantitative means. It focuses on meanings (words) and on reasons behind, rather than frequencies and distributions. It investigates the why and how of decision making, as compared to what, where, and when of quantitative approach (Yeh, 2006).

Qualitative approach is advantageous for its flexible and emergent characteristics and for in-depth opinion gets from participants. But, it has been criticized for lack of scientific rigor, small samples, subjective and nonreplicable efforts. In addition, findings cannot be statistically generalized for a broader population under investigation (Creswell 2003).

Mixed research approach employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problem. The data collection also involves gathering both numeric data as well as text data, so that the final database represents both quantitative and qualitative information. As a result, when methods are combined, the advantages of each methodology complement those of the other, making a stronger research design that will yield more valid and reliable findings. Indeed, the inadequacies of individual methods are reduced (Creswell 2003).

3.3. Research methods

Research methods are specific techniques/methods of data collection and analysis used to achieve the broad research objective through addressing research questions and hypotheses testing.

As stated earlier, mixed approach is used for conducting the research, and quantitative and qualitative aspects are concurrently employed in collecting and analyzing data. The following sub-section presents the quantitative aspect (structured documentary review), qualitative aspect (in -depth interview), and data analysis methods for both data from qualitative and quantitative aspect of the research methods.

3.3.1. Quantitative aspect (Structured documentary reviews)

The data required for the study is more of quantitative, and all the appropriate data couldn't be collected by using questionnaires and/or interviews with the concerned bodies. Therefore, all data used in this study regression model was collected using structure documentary reviews of targeted banks audited annual report and central statistical agency annual inflation report. Thus, reviewing and calculating from selected banks balance sheet and income statement items would be the right avenue to determine coefficient of correlation and regression analysis between bank performance and president compensation. In addition, this approach is having convenient and cost effective.

Sample design

One advantage of using quantitative -structured documentary review is to generalize about the targeted populations, by taking representative sample data. Sample should be truly representative of population characteristics without any bias so that it may result in valid and reliable conclusions. How well a sample represents a population depends on the sample frame, the sample size, and the specific procedures of selecting potential respondents (Kothari, 2004).

The intention of the study was to generalize the findings to all commercial banks in Ethiopia, in other words the target population of the study was all commercial bank operate in Ethiopia. Therefore, the sample designs and mode of collecting data was statistically representative of all commercial banks in Ethiopia.

The choice of banks is based on the following four aspects that enhance the validity of the study. First, banks differ from manufacturing firms in several key respects. For example, banking

industry provides an excellent setting for the study of incentive compatible compensation as a response to agency problems due to the significant higher leverage of banks. In addition to conventional agency problems, highly leveraged financial institutions are susceptible to the well-known risk-shifting agency problems. In such cases, providing managers with compensation structures that have low pay-performance sensitivity may be optimal. Second, banks are regulated to a higher degree than manufacturing firms. By understanding the interaction of regulation and corporate governance, we can gain insight into the optimal design of regulation and corporate governance of banks. Third, financial information of banks can easily access by the public than manufacturing firms. Fourth, most of the previous studies in different countries in relation to this topic were conducted on banks (Askary and Doucouliagos, 2005; Nourayi and Mintz, 2008; Örn and Konkell, 2009; Laietu and Mellado, 2009; Young et al., 2010; Zhou et al., 2011; Aduda, 2011; Athar et al., 2013). Therefore, the researcher believed that banks are suitable for the problem under study.

Therefore, according to National bank of Ethiopia, there are 18 registered commercial banks that operate in Ethiopia i.e. AB, AIB, ADIB, BIB, BOA, BUIB, CBB, CBE, CBO, DB, DGB, EB, LIB, NIB, OIB, UN, WB, ZB . Since the study covered ten years data (from 2003/04– 2012/13), and banks registered after the end of the year 2003/04 was not eligible for the study. Therefore, the total number of population eligible for the study was eight commercial banks that operate in Ethiopia.

The 10 years (between 2004 and 2013) panel data used in this study is similar to Athar et al. (2013). Panel data estimation allows exploiting time series variation in CEO compensation, corporate performance and other relevant variables. It also makes it possible to control for

unobserved time-invariant firm-specific effects, thus it eliminates a potential omitted variable bias (Ozkan, 2007b).

The sample frame includes Commercial Bank of Ethiopia, Construction and Business Bank, Awash International Bank, Dashen Bank, Wegagen Bank, Bank of Abyssinia, United Bank, and Nib International Bank. All the banks in sample frame were used for the study. The reason to focus on president compensation mainly on salary and bonus was due to confidentiality of data's.

3.3.2. Qualitative aspect (in -depth interview)

As a research method, the interview is a conversation carried out with the definite aim of obtaining certain information, and helps the researcher to gather valid and reliable data that are relevant to achieve research questions and objectives. Interviews might be structured (using standardized questions), semi-structured, and unstructured (in-depth) conversations (Saunders et al., 2003).

In addition to the structured document reviews, the study used unstructured in-depth interviews to provide more information to the data obtained through structured document reviews.

Since there is no formula for qualitative (in-depth interview) sampling, the study took eight human resource management and payroll department workers of each sample bank, which are selected using snowball method. The unstructured in-depth interview contents are attached in the appendix 9.

3.3.3 Data analysis methods

The collected panel data was regressed by random effect regression method and interpret with the help of different financial ratio and statistical description including average, minimum, maximum and median (descriptive statistics) and multiple regression (significant test). This is supported by Eviews 6 software package. This enabled to statically test the hypotheses and to arrive in to conclusion. Further, the in-depth interview data write out in to word and analyzed to make argument i.e. the opinion of majority of interviewees forwarded uses for arguments supporting the result of the structured documentary analysis.

3.4. Model specification

The econometric model was employed on the study is as follow, which is a modified model used in Zhou et al. (2011) and Aduda (2011).

Zhou et al. (2011) was used performance measured by ROA, ROE, non-performing loans and CAR, size, and ownership on their regression model. Aduda (2011) regressed performance measured by ROA and industry ROE, size and CAR with CEOs compensation on his regression model.

On this study log of president's compensation was regressed with performance measured by ROA and industry ROE, size, ownership, CAR and inflation. From Zhou et al. (2011) model ROE and non-performing loans ratio was exclude from this study. Because using ROA and ROE in one model will create multicollinearity problem, thus replacing ROE with industry ROE was found better to solve this. The researcher not found a theoretical based on non-performing loans ratio and also Zhou et al. (2011) was found it insignificant. From Aduda (2011) model ownership

was included, since ownership was found significant by the study of Core et al., 1998; Ozkan, 2007 b; Doucouliagos et al., 2007; Conyon and HE, 2011 and Zhou et al., 2011. In addition to the above two model, inflation was used on this study model, since the theory says there is a relationship between inflation and CEOs compensation and it is assumed that inflation will have impact on president's compensation.

The study model examines the relationship between payment for presidents and performance. Furthermore, Capital Adequacy Ratio; Size and inflation are expected to affect the compensation of presidents, thus they are regressed with compensation in addition to performance. The equation describing this is:

$$\text{Ln (PAY)}_{it} = a + \beta_1 * \text{INDROE}_{it} + \beta_2 * \text{ROA}_{it} - \beta_3 \text{Dsoe}_{it} + \beta_4 * \text{SIZE}_{it} + \beta_5 * \text{CAR}_{it} + \beta_6 * \text{INF}_{it} + \varepsilon_{it} \quad \text{.. (1)}$$

Where: Ln (PAY)_{it} = the natural logarithm of compensation of president; INDROE_{it} = relative performance to industry ROE; ROA_{it} = Return on Asset; Dsoe_{it} = dummy variable of state ownership; SIZE_{it} = Bank Size; CAR_{it} = Capital Adequacy Ratio; and INF_{it} = Inflation for bank i in year t, and ε_{it} is the error term. β_1, β_2 and β_3... are the coefficient of each variable.

Dsoe_{it} is a dummy variable of ownership, which became 1 if the bank is state-owned and 0 if otherwise. The coefficient β_3 reflects the payment-performance sensitivity of non state-owned banks and the sum of $(\beta_2 - \beta_3)$ reflects the sensitivity of state-owned banks. If the payment-performance sensitivity of state-owned is lower than that of non-state-owned banks, that is, if the hypothesis holds, then β_3 should be negative and significant.

3.5. Conclusions and the relationship between research question/ hypotheses and sources of data

This chapter discussed the research objective and hypotheses, research methods and different data sources which were appropriately used to address the study problems. Table 3.1 set out how each research hypotheses and question are addressed by the items in the structured documentary reviews and in the in-depth interviews.

To sum up, based on the overarching research problem stated in the chapter one, three research question and five hypotheses have been developed. With respect to methodology, the principles of qualitative, quantitative, and mixed methods research approaches shown. Based on the underlying principles of research methods the mixed method approach were chosen as appropriate to this study. More specifically, to address the research questions, structured documentary review and in-depth interviews were shown to be the appropriate methods of inquiry for this study. And the next chapter presents the results and analysis of both of these methods of inquiry.

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: Does president's pay remains linked to performance in both good times and bad times?	In-depth interviews content 2
RQ2: How do banks actually determine the level of compensation given to presidents?	In-depth interviews content 1, 2, 3, 4, 5, and 6
RQ3: What are the other factors that determine the compensation level of president's?	In-depth interviews content 1, 2, 3, 4, 5, and 6
H1: There is a positive relationship between president compensation and bank performance	Reviews of banks' income statement and balance sheet. Specifically, after tax net income and total asset
H2: There is a negative relationship between president compensation and bank ownership.	Review of ownership structure
H3: There is a positive relationship between president compensation and bank size.	Review of banks' income statement. Specifically, total asset
H4: There is a positive relationship between president compensation and capital adequacy ratio.	Reviews of banks' income statement, balance sheet and note to the financial statement. Specifically, capital and asset
H5: There is a positive relationship between president compensation and annual inflation.	Review of annual inflation rate

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.

This chapter presents the results of the data collection methods and analysis of the real relationship between financial performance, ownership, size, capital adequacy ratio, inflation and president compensation by testing the hypothesis in the context of the existing knowledge reviewed in chapter two.

As shown in chapter one and three the broad objective of this study is to explore the relationship between financial performance and bank presidents' compensation of commercial banks that operate in Ethiopia. To achieve these broad objectives five hypotheses and three specific research questions were developed. To this end, the main data sources are documentary analysis of commercial banks annual report particularly income statements, balance sheet and note to the financial statement and in-depth interview. This chapter presents the results obtained using Eviews 6 statistical tools and discusses the results.

This chapter is arranged into four sections; the first section presents the diagnostic test, followed by the descriptive statistics. Then, fixed - random model specification and regression results and discussion are in section three and four, respectively.

4.1. 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.

4.1.1 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_o of the assumption states that the errors do not have a constant variance. To achieve this, white test is the most popular test of homoskedasticity (Brooks, 2008). Thus, in this study white test is used to test of homoskedasticity.

Table 4.1 Heteroskedasticity - White Test

Heteroskedasticity Test: White

F-statistic	1.282174	Prob. F(6,73)	0.2762*
Obs*R-squared	7.626970	Prob. Chi-Square(6)	0.2667*
Scaled explained SS	5.246713	Prob. Chi-Square(6)	0.5126*

Source: Eviews 6 computed result

*indicates fail to reject the Ho at 10% significant level

As indicated in the above table, both $\chi 2$ and F-test 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.

4.1.2. Autocorrelation test

The second diagnostic test conducted in this study is autocorrelation test. The assumption states that 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).

Durbin–Watson test and the Breusch-Godfrey test are the most common test of autocorrelation assumption (Boorks, 2008, p. 144). Thus, in this study both the Durbin–Watson test and the Breusch-Godfrey test are used to test of autocorrelation.

Table 4.2 Autocorrelation: Breusch-Godfrey Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	27.89436	Prob. F(3,70)	0.0000*
Obs*R-squared	43.56137	Prob. Chi-Square(3)	0.0000*
Durbin-Watson stat	0.750612		

Source: Eviews 6 computed result

*indicates reject the Ho hypothesis at 1% significant level

In this test, the null hypothesis of no autocorrelation is rejected in both 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.

$$\text{Ln (PAY)}_{\text{it it}} = a + \gamma(\text{Ln (PAY)}_{\text{it}} - 1) + \beta_1 * \text{INDROE}_{\text{it}} + \beta_2 * \text{ROA}_{\text{it}} - \beta_3 \text{Dsoe}_{\text{it}} + \beta_4 * \text{SIZE}_{\text{it}} + \beta_5 * \text{CAR}_{\text{it}} + \beta_6 * \text{INF}_{\text{it}} + \varepsilon_{\text{it}} \quad \ldots\ldots (2)$$

Where: $\text{Ln (PAY)}_{\text{it}} - 1$ is one-period lagged log pay

When the one-period lagged value was included on the model, lagged value was significant at 1% significance level and the DW test result in 2.37. The Breusch-Godfrey test failed to reject H_o hypothesis at 10% significant level (see appendix # 8). These indicate, the one period lagged value of LPAY was the cause of the autocorrelation.

Thus, the autocorrelation was raised due to the fact that salary of president is determined by the one period-lagged value of salary and bonus is multiplied by salary. This is supported by the quantitative interview result and the respondents argue that the last year salary level used to determine the current year salary.

4.1.3. 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).

An implicit assumption that is made when using the OLS estimation method is that the explanatory variables are not correlated with one another. If there were no relationship between the explanatory variables, they would be said to be orthogonal to one another. If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change (Brooks, 2008).

The correlation between variables lay between ±1. Therefore, as presented on table 4.3, the correlations between variables are on the range of -0.067 and 0.239. A minimum correlation of -0.067 is observed between capital adequacy ratio (CAR) and bank size (SIZE), while the maximum correlation of 0.239 is observed between bank size (SIZE) and inflation (INF). According to Cooper and Schindler (2009) the multicollinearity problem should be corrected when the correlation extent to be above 0.8. Thus, all correlations that have occurred among explanatory variables are weak correlations; this indicates there is no multicollinearity problem in the study.

Table 4.3 Multicollinearity Test

	ROA	SIZE	CAR	INF
ROA	1.000000	0.048822	0.058949	-0.035158
SIZE	0.048822	1.000000	-0.061727	0.239353
CAR	0.058949	-0.061727	1.000000	0.184793
INF	-0.035158	0.239353	0.184793	1.000000

Source: Eviews 6 computed result

During the last 10 years, return on asset shows a positive correlation with size of 0.049. This correlation is low, since return on asset is ratio of after tax net income to average total asset and the change in after tax net income is higher than the change in asset. A positive correlation was found with return on asset and capital adequacy ratio of 0.059. In addition, return on asset has a negative correlation with inflation of -0.035.

During the last 10 years, the size of all commercial banks of Ethiopia (log of total asset) shows improvement. The increase in size of the banks showed a higher positive correlation with inflation of 0.239, which shows that the total asset of banks moves along with the change in inflation. Size also has a negative correlation with capital adequacy ratio of -0.062. Moreover, capital adequacy ratio has a positive correlation with inflation of 0.18.

4.1.4 Normality test

The final test conducted in this study is the normality assumption, which tests whether errors are normally distributed. Thus, H_o 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. Bera-Jarque (BJ) test is the most commonly applied tests for normality test (Brooks, 2008). Thus, in this study BJ test is used to test for normality.

The histogram in appendix # 4 is bell-shaped and the Bera-Jarque statistic is not significant. That is the p-value of the test is bigger than 10% and it failed to reject the null hypothesis of normality at the 10% significant level. In addition, the skewness is close to 0 (-0.032), and also it's has a kurtosis coefficient of 2.65 (see from appendix # 4). Thus, the residuals are normally distributed in this study, and concluded that there is no problem of normality on the model.

4.2. Summary of descriptive statistics

The descriptive statistics are presented for 80 total observations of commercial banks that operate in Ethiopia for the period of eight years. For both dependent and independent variables value of minimum, maximum, mean and standard deviation are presented on table 4.4.

Table 4.4 Summary of descriptive statistics

	PAY*	INDROE	ROA	DSOE	SIZE**	CAR	INF
Mean	349.9875	0.675000	3.031145	0.250000	14538.08	0.244270	17.17900
Median	344.0000	1.000000	3.268052	0.000000	5609.500	0.220000	14.30000
Maximum	770.0000	1.000000	4.684000	1.000000	175158.0	0.509900	38.70000
Minimum	89.00000	0.000000	0.380000	0.000000	674.0000	0.108800	3.000000
Std. Dev.	172.0359	0.471330	0.845253	0.435745	30190.15	0.084956	11.45834

Source: Eviews 6 computed result

* Total president's compensation was used for descriptive statistics purpose and it is in millions of birr.

** Total asset was used for descriptive statistics purpose and it is in millions of birr.

As stated in the above table, total president's compensation is varying between banks in the last 10 years. From the total of 80 observations, the mean value of total president's compensation equals 349.99 millions with a minimum of 89 million and a maximum of 770 million. This indicates president salary and bonus increasing over time and there exists difference in amount of salary and bonus between banks. This is due to the rapid increases in president's compensation in private-owned banks, and president's of state-owned banks are a little bit similar to public officers rather than pure profit-oriented businessmen.

Continuing to the explanatory variables of the mode, the performance measure, relative performance to industry ROE (INDROE) mean value equals 0.68 with a minimum of 0.00 and a maximum of 1.00. This means most of banks in the sample have ROE of above average industry ROE. ROA has mean value equals 3.03 with a median of 3.27, a minimum of 0.38 and a maximum of 4.68. This means the most profitable bank of the sample banks earned 4.68 birr of net income from a single birr investment and the minimum profit earned by one of the sample banks are 0.38 cents on each birr of investment. Most of the remaining banks in the sample earned an average of 3.03 birr from each birr invested by the bank. The minimum amount is occurred at BOA in year 2008 due to the existence of high non-interest expense.

On the other hand, bank size as measured by total asset has the mean value equals 14538.08 million with a minimum of 674 million and a maximum of 30190.15 million. This indicates the existence of high variation due to the dominance of CBE in terms of asset in the last decade.

Regarding capital adequacy ratio (CAR), the mean value is equals 0.44 with a median of 0.22. This indicates the existence of sound financial condition of Ethiopian commercial banks, since, most of banks CAR is much higher than the minimum capital to risk weighted assets ratio requirement set by NBE on Directives No. SBB/50/2011. Similar to the results of Tsehay (2012), CAR has high variation with a maximum of 0.51 and minimum of 0.11. Tsehay (2012) stated that this high variation occurs because of the dominance of CBE in terms of capital in the last decade. Another important variable, inflation has the mean value equals 17.17 with a minimum of 3.00 and a maximum of 38.7.

4.3. Fixed effect and random effect model specification Test

To test the relationship between the commercial banks performance, ownership, size, capital adequacy ratio, inflation and president compensation, a theoretical model is developed based on the finance theory described in the methodological part of this study. 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 this test the null hypothesis says that random effects model is appropriate than the fixed effects model (Brooks, 2008). As indicated by the Hausman test shown in table 4.5, the equation provides evidence in favor of RE model. The p-value for the test is greater than 5% (6.84%), indicating that the random effects model is appropriate, since the null hypothesis is failed to reject at 5% significant level. Thus the study used the cross-section RE model. 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.

Table 4.5 Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test
Equation: ZCEQ
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.751574	5	0.0684

Source: Eviews 6 computed result

4.4. Regression result and discussion

This section presents the overall empirical results of the regressions. Table 4.6 shows the results of the regressions.

Table 4.6 Random effect regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.087441	0.462695	8.833982	0.0000*
INDROE	-0.047801	0.031381	-1.523236	0.1320
ROA	-0.000251	0.000699	-0.359144	0.7205
DSOE	-1.404879	0.187710	-7.484291	0.0000*
SIZE	0.918774	0.048055	19.11937	0.0000*
CAR	-0.167411	0.214061	-0.782071	0.4367
INF	-0.000881	0.001265	-0.696440	0.4884

R-squared	0.854470	F-statistic	71.43558
Adjusted R-squared	0.842508	Prob(F-statistic)	0.000000
S.E. of regression	0.119701	Durbin-Watson stat[5]	0.750612

Source: Eviews 6 computed result

*indicates significance at 1% significant level

As shown in RE regression table 4.6, the value of F- statistic for the basic model is 71.44 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 adjusted R^2 is high (84.3%), which means the variable in the model explain 84.3% of the model. When the coefficients are substituted, the model equation 1 become as follow:

[5] DW test result is low indicating autocorrelation existence due to the fact that salary of president is determined by the one period -lagged value of salary and it was removed when one period – lagged value included on the model (see appendix 8).

$$\text{Ln (PAY)}_{it} = 4.087441 - 0.047801*\text{INDROE}_{it} - 0.000251*\text{ROA}_{it} - 1.404879\ \text{Dsoe}_{it} - 0.918774*\text{SIZE}_{it}$$

$$-0.918774*\text{SIZE}_{it} - 0.167411*\text{CAR}_{it} - 0.000881*\text{INF}_{it} + \varepsilon_{it} \quad (1)$$

The result indicates a negative and significant relationship between president compensation and ownership at 1% significance level. It also indicates a negative and significant relationship between president compensation and size at 1% significance level. However, the relationship with relative performance to industry ROE, ROA, CAR and INF is negative and insignificant. Thus, the following sections discussed about the regression results of all variables.

Performance (PERF): Performances were tested using two explanatory variables i.e. relative performance to industry ROE (INDROE) and ROA. Unfortunately the coefficients of both variables are negative and statistically insignificant determinants of president compensation. This finding is consistent with previous studies (Ozkan, 2007 a; Laietu and Mellado, 2009; Shah et al., 2009; Aduda, 2011; and Zhou et al., 2011). These previous researchers argued that CEO compensation is not resulted from bank performance.

This finding reflects that the salary and bonus given to bank president did not recognize the total performance of banks. This is due to the fact that in previous year's banks were not looking for the performance to compensate employees, they just used grade based scaled salary with predetermined increment rate and also bonus was not based on performance and its multiplying factor was salary of that particular person at that time. Which means the payment of president is not varying in times of good performances and in times of bad performances.

During the qualitative study, the unstructured interview, respondents stated that three years ago, some banks start to use performance i.e. deposit, net income, to determine compensation, but still president compensation was not determined based on performances.

Ownership (Dsoe): The estimation results in this study revealed that ownership has a negative and significant effect on pay-performance sensitivity of state-owned banks at 1% significant level. Since its value is 1 to state owned banks and 0 to private owned banks, the summation of performance coefficient with ownership coefficient will lower the coefficient of performance or the sensitivity of pay-performance of state owned banks.

This result suggests that state owned banks presidents were paid less for their performance than private owned banks presidents. This suggests that sated owned banks had rapid growth in assets, in capital and in net income, but president's compensation is still controlled to certain levels. This is also supported by qualitative findings from HR and payroll staffs of the banks. They reflect that private owned banks president paid more than the stated owned banks and the state owned banks are not paying as their growth. This finding is consistent with that of Core et al (1998); Ozkan (2007 b); Doucouliagos et al. (2007); Conyon and HE (2011) and Zhou et al., (2011), which state that ownership structure explain a significant amount of variation in CEO compensation.

Bank size (SIZE): The study found that bank size has positive and highly significant effect on bank president compensation at 1% significant level. This suggests that Ethiopian commercial banks presidents compensation is positively related to the bank size and/or larger banks in Ethiopia tend to pay high for their president, this is because, larger banks will have high ability to pay than small banks. And also large banks president will have more management responsibility complex task than small banks president, thus, that is compensated with high payment.

This finding is consistent with other studies (Doucouliagos et al., 2007; Nourayi and Mintz, 2008; Shah et al. 2009; Zhou et al., 2011; Gregg et al., 2011; Sigler, 2011; Athar et al., 2013) which state managers of larger companies are expected to be paid more than small size firms because of higher degree of complexity of tasks and decisions, thus, they received greater reward from making them.

Capital adequacy ratio (CAR): CAR has negative and insignificant effect on president compensation of Ethiopian commercial banks. This finding is consistent with Aduda (2011), who argues that the weak relationship between performance, capital adequacy and pay points the possibility of prevalent CEO capture of the boards throughout the industry. This finding is inconsistent with other studies (Dewatripont and Tirole, 1996; Zhou et al., 2011), which argue that capital adequacy have indirect effects on managerial compensation.

This is because, Ethiopian commercial banks do not use performance for determining presidents compensation and mostly they use predetermined salary scale and not look the capital adequacy or the soundness of banks when restructuring salary and providing bonus. Salary is the multiplying factor for bonus of all banks.

Inflation (INF): Turning to the macroeconomic variables, the researcher observed that inflation has a negative and insignificant impact on president compensation. The descriptive statics also support this. The maximum and minimum difference of inflation is higher than the maximum minimum difference log of pay (i.e. inflation has maximum of 38.70 and minimum of 3.00 (the difference is 35.7). The log of pay has maximum of 13.55 and minimum of 11.39 (the difference is 2.16). This implies that the change in pay is not going together with the change in inflation. This result is inconsistence with the result of Slesnick and Dolin (1983), which claim that

salaries became competitive, attract and retain qualified people when it goes in line with inflation rate.

This finding also reflects that the salary and bonus given to bank president did not recognize the annual inflation rate. Even banks that gave little recognition of performance did not consider inflation when determining the compensation of president. This affected the competitiveness of their salary with other industries compared to their work load. As Giday (2014) stated that the remuneration given to the directors of financial institution is lower than other share companies operate in Ethiopia.

In qualitative findings also, the unstructured interview respondents believed that the president compensation is adjusted to the change in cost of living, but the change in the annual inflation rate is higher than the change in president compensation.

Finally, as discussed in the preceding part of the study, there were five hypothesis developed from theories and empirical studies. The first hypothesis states that, there should be a positive relationship between president compensation and bank performance. This hypothesis is rejected by the study, since profitability has a negative and significant effect on Ethiopian commercial banks president compensation.

The second hypothesis states that pay-performance sensitivity in state-owned banks is lower. This hypothesis is failed to reject by the study at 1% significance level because ownership has negative and significant effect on state owned Ethiopian commercial banks. The third hypothesis states that there should be a positive relationship between president compensation and bank size. The study failed to reject this hypothesis because bank size has a positive and significant effect on Ethiopian commercial banks.

The fourth and the fifth hypotheses state that capital adequacy ratio and annual inflation have positive relationship with commercial banks president compensation. Both hypotheses are rejected by the study, since capital adequacy ratio and annual inflation has a negative and insignificant effect on Ethiopian commercial banks president compensation.

Chapter Five

Conclusions and Recommendations

The basic intent of this chapter is to sum up the overall study and to give future research directions. Accordingly, the chapter starts with a brief conclusion of the study and its main findings. Then, in section two recommendations are given to the target population based on the study finding. Finally, the limitations of the study and future research directions are presented in section three.

5.1. Conclusions

The purpose of this study is to examine the relationship between financial performances and president compensation of Ethiopian commercial banks. The study examines the statistical significance between financial performances and president compensation, particularly on salary and bonus of presidents.

In light of this objective, 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. Eight commercial banks, which have been operating for the last 10 years (i.e. from 2004 up to 2013), are included in the sample frame and all are used for the study as a sample. Consequently, the study used a total of 80 observations. The data was mainly analyzed on quantitative basis using OLS regression analysis available in Eviews 6 OLS. Further, arguments were made by the support of in-depth interviews.

The descriptive statistics showed that the log of pay fluctuates between a minimum of 11.39 and a maximum of 13.55. At the same time on average log of pay has a value of 12.63 with standard

deviation of 0.55. On the other hand, ROA has mean value equals 5.24 with a median of 3.28, a minimum of 0.38 and a maximum of 178.64.

Before conducting the regression analysis, the data was tested for the basic assumptions of CLRM, which is vital for regression analysis, and except the autocorrelation problem, all others diagnostic tests are fulfilled. The reason for the existence of the autocorrelation problem is that the banks used the previous year salary to determine the current year salary and bonus is the function of salary.

The coefficient of lagged dependent variables pay ($\mathrm{Ln}\,(\mathrm{PAY})_{it}-1$) is highly statistically significant at 1% significant level. This is because, Ethiopian banks used grade based scaled salary and increases with predetermined increment rate and also bonus is a function of salary. Thus, the compensation of president is determined by the one period lagged value of compensation.

This study found that neither of the performance measure i.e. relative performance to industry ROE (INDROE) nor ROA of banks are significant determinant of president compensation. Both are statistically insignificant. In addition, the compensation of president did not vary with change of performance i.e. in good performance time and bad performance time.

State owned banks president compensation is lower than private owned banks president. State owned banks president earned low salary and bonus compared to private owned banks.

The study confirmed a positive significant relationship between bank size and president compensation at 1% significance level. In addition, as a bank gets larger in size the president face high degree of complexity of tasks and decisions that increases their monthly salary as well as annual bonus.

Capital adequacy ratio and annual inflation has a negative and insignificant effect on Ethiopian commercial banks president compensation. Ethiopian banks does not look the capital adequacy or the soundness of banks when restructuring salary and providing bonus. The president compensation is adjusted to the change in cost of living, but the change in the president compensation is not cope up with the change in the annual inflation rate.

Finally, according to the regression result, ownership, size and lagged value of compensation have significant impact on the level of compensation. However, variables like performance (relative performance to industry ROE and return on asset), capital adequacy ratio and inflation have no impact on the level of compensation. Thus, the payment of president did not vary with the change in performance.

In general, the study adds to the existing literature such as Aduda (2011), Laietu and Mellado (2009), Ozkan (2007 a), and Zhou (2011) that found no relationship between performances measure and president compensation.

5.2. Recommendations

Based on the study findings the researcher recommended the following points:

- The insignificant relationship between bank performances and president compensation will have impact on the long run operation of banks. A president needs to compensate for making the bank operation sound. Therefore, banks should give consideration for the overall bank performances when changing and/or structuring salary and deciding on bonus. Actually, few years ago, banks started to incorporate performances as their compensation policy, but it is not enough to determine the compensation of president. It is also necessary to formulate policy that will create low pay performance sensitivity.

- The commercial banks should consider the impact of inflation on their president compensation design, since the relationship between them is insignificant. This will affect the competitiveness of the compensation structure on the long run and prohibits the compensation from meeting their purposes i.e. attract, retain and motivate qualified persons.
- National bank of Ethiopia also should give attention to president compensation to cope up with performance and to align share holders interest with that of president to maintain the soundness of the industry.

5.3. Research limitations and future research directions

This research tried to meet the gap that exists in the area, but it also has its own limitations. The research community can address these limitations in the future. The study is limited to president only and did not include other top manger such as board of directors and vise presidents in the study. Studying the relationship of performances by adding other compensation components like allowances, dividend, non monetary compensation and variables such as experiences, productivity and efficiency, credit risk and liquidity risk will explore the topic more. Further, the study was focused on more of the quantitative aspect and more in-depth qualitative research with non financial measures needs further investigations.

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Appendices

APPENDIX # 1: Variables Description

	Variables	Notations	Measurements	Hypothesized relationship
Dependent variable	President compensation	Lpay	Natural log of Annual total salary and bonus	NA
Independent variables	performance	ROA	After tax net income / average total asset	+
		IND ROE	Dummy variable=1 if Bank ROE - Average industry ROE is +ve, otherwise 0	+
	Size	SIZE	Log of total assets	+
	Ownership	Dsoe	Dummy variable= 1 for state owned, 0 for private owned	-
	Capital Adequacy Ratio	CAR	Equity capital / total risk weighted assets	+
	Inflation	INF	Annual inflation rate	+

APPENDIX # 2: Heteroskedasticity - White Test

Heteroskedasticity Test: White

F-statistic	1.282174	Prob. F(6,73)	0.2762
Obs*R-squared	7.626970	Prob. Chi-Square(6)	0.2667
Scaled explained SS	5.246713	Prob. Chi-Square(6)	0.5126

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 05/17/14 Time: 15:05
Sample: 2004 2013
Included observations: 80

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.066657	0.082402	0.808924	0.4212
INDROE^2	0.012296	0.017929	0.685822	0.4950
ROA^2	-1.21E-06	2.28E-06	-0.531208	0.5969
DSOE^2	0.042647	0.020402	2.090359	0.0401
SIZE^2	-0.000205	0.000898	-0.228257	0.8201
CAR^2	-0.060904	0.167233	-0.364188	0.7168
INF^2	-1.44E-05	1.70E-05	-0.843330	0.4018

R-squared	0.095337	Mean dependent var	0.055323
Adjusted R-squared	0.020981	S.D. dependent var	0.071562
S.E. of regression	0.070807	Akaike info criterion	-2.374274
Sum squared resid	0.365999	Schwarz criterion	-2.165847
Log likelihood	101.9710	Hannan-Quinn criter.	-2.290710
F-statistic	1.282174	Durbin-Watson stat	0.790052
Prob(F-statistic)	0.276159		

Source: Eviews 6 computed result

APPENDIX # 3: Autocorrelation: Breusch-Godfrey Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	18.37371	Prob. F(6,67)	0.0000
Obs*R-squared	49.75891	Prob. Chi-Square(6)	0.0000

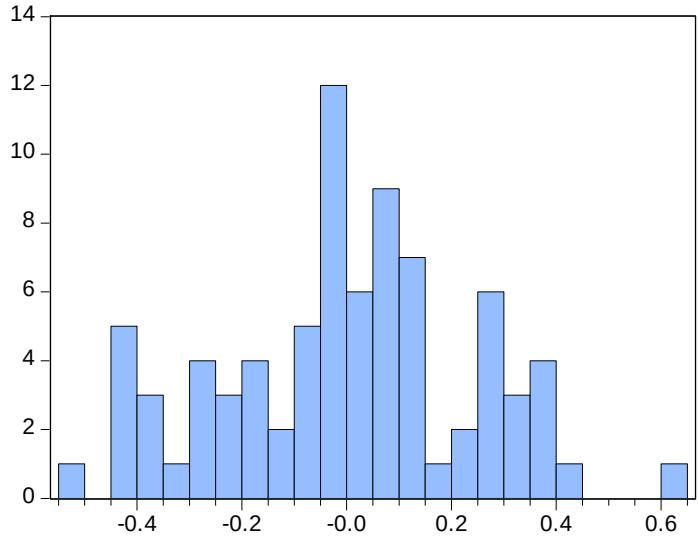
Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 05/18/14 Time: 06:29
Sample: 2004 2013
Included observations: 80
Presample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.129496	0.439945	0.294347	0.7694
INDROE	0.024282	0.041550	0.584395	0.5609
ROA	-0.000409	0.000942	-0.434411	0.6654
DSOE	0.002598	0.046290	0.056115	0.9554
SIZE	-0.015145	0.045011	-0.336483	0.7376
CAR	0.254365	0.235058	1.082137	0.2831
INF	-0.003534	0.002014	-1.754656	0.0839
RESID(-1)	0.659773	0.120615	5.470062	0.0000
RESID(-2)	0.257174	0.157890	1.628824	0.1080
RESID(-3)	0.075975	0.150344	0.505343	0.6150
RESID(-4)	-0.499727	0.148848	-3.357296	0.0013
RESID(-5)	-0.032598	0.151913	-0.214584	0.8307
RESID(-6)	0.119267	0.146728	0.812842	0.4192

R-squared	0.621986	Mean dependent var	-9.45E-16
Adjusted R-squared	0.554282	S.D. dependent var	0.236691
S.E. of regression	0.158020	Akaike info criterion	-0.704523
Sum squared resid	1.673013	Schwarz criterion	-0.317444
Log likelihood	41.18093	Hannan-Quinn criter.	-0.549332
F-statistic	9.186856	Durbin-Watson stat	1.719542
Prob(F-statistic)	0.000000		

Source: Eviews 6 computed result

APPENDIX # 4: Normality: Bera-Jarque (BJ) test



Series: Residuals	
Sample 2004 2013	
Observations 80	
Mean	-9.45e-16
Median	-0.000428
Maximum	0.613759
Minimum	-0.525235
Std. Dev.	0.236691
Skewness	-0.032882
Kurtosis	2.652341
Jarque-Bera	0.417307
Probability	0.811676

APPENDIX # 5: Summary of descriptive statistics

	PAY*	INDROE	ROA	DSOE	SIZE**	CAR	INF
Mean	349.9875	0.675000	3.031145	0.250000	14538.08	0.244270	17.17900
Median	344.0000	1.000000	3.268052	0.000000	5609.500	0.220000	14.30000
Maximum	770.0000	1.000000	4.684000	1.000000	175158.0	0.509900	38.70000
Minimum	89.00000	0.000000	0.380000	0.000000	674.0000	0.108800	3.000000
Std. Dev.	172.0359	0.471330	0.845253	0.435745	30190.15	0.084956	11.45834
Skewness	0.503069	-0.747265	-0.970800	1.154701	3.913737	0.937219	0.676558
Kurtosis	2.642841	1.558405	4.080046	2.333333	18.79355	3.440371	2.201591
Jarque-Bera	3.799592	14.37272	16.45435	19.25926	1035.685	12.35814	8.227939
Probability	0.149599	0.000757	0.000267	0.000066	0.000000	0.002072	0.016343
Sum	27999.00	54.00000	242.4916	20.00000	1163046.	19.54160	1374.320
Sum Sq. Dev.	2338113.	17.55000	56.44171	15.00000	7.20E+10	0.570178	10372.19
Observations	80	80	80	80	80	80	80

Source: Eviews 6 computed result

* Total president's compensation was used for descriptive statistics purpose and it is in millions of birr.

** Total asset was used for descriptive statistics purpose and it is in millions of birr.

APPENDIX # 6: Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test
Equation: ZCTEST
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.751574	5	0.0684

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
INDROE	-0.041089	-0.047801	0.000009	0.0251
ROA	-0.000355	-0.000251	0.000000	0.0288
SIZE	0.952437	0.918774	0.000123	0.0024
CAR	-0.167712	-0.167411	0.001149	0.9929
INF	-0.001280	-0.000881	0.000000	0.0008

Cross-section random effects test equation:
Dependent Variable: LPAY
Method: Panel Least Squares
Date: 05/17/14 Time: 15:10
Sample: 2004 2013
Periods included: 10
Cross-sections included: 8
Total panel (balanced) observations: 80
WARNING: estimated coefficient covariance matrix is of reduced rank

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.410048	0.470745	7.243936	0.0000
INDROE	-0.041089	0.031524	-1.303440	0.1969
ROA	-0.000355	0.000701	-0.507102	0.6137
DSOE	NA	NA	NA	NA
SIZE	0.952437	0.049313	19.31403	0.0000
CAR	-0.167712	0.216727	-0.773837	0.4417
INF	-0.001280	0.001271	-1.007720	0.3172

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.964236	Mean dependent var	12.62941
Adjusted R-squared	0.957830	S.D. dependent var	0.554221
S.E. of regression	0.113811	Akaike info criterion	-1.360887
Sum squared resid	0.867849	Schwarz criterion	-0.973807
Log likelihood	67.43547	Hannan-Quinn criter.	-1.205696
F-statistic	150.5311	Durbin-Watson stat	0.918526
Prob(F-statistic)	0.000000		

Source: Eviews 6 computed result

APPENDIX #7: Random Effect Regression Results

Dependent Variable: LPAY
Method: Panel EGLS (Cross-section random effects)
Date: 05/18/14 Time: 12:00
Sample: 2004 2013
Periods included: 10
Cross-sections included: 8
Total panel (balanced) observations: 80
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.087441	0.462695	8.833982	0.0000
INDROE	-0.047801	0.031381	-1.523236	0.1320
ROA	-0.000251	0.000699	-0.359144	0.7205
DSOE	-1.404879	0.187710	-7.484291	0.0000
SIZE	0.918774	0.048055	19.11937	0.0000
CAR	-0.167411	0.214061	-0.782071	0.4367
INF	-0.000881	0.001265	-0.696440	0.4884

Effects Specification	S.D.	Rho
Cross-section random	0.224887	0.7961
Idiosyncratic random	0.113811	0.2039

Weighted Statistics

R-squared	0.854470	Mean dependent var	1.995774
Adjusted R-squared	0.842508	S.D. dependent var	0.301627
S.E. of regression	0.119701	Sum squared resid	1.045973
F-statistic	71.43558	Durbin-Watson stat	0.750612
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.680716	Mean dependent var	12.62941
Sum squared resid	7.747660	Durbin-Watson stat	0.101336

Source: Eviews 6 computed result

APPENDIX # 8: Effect of one period lagged log pay

Random effect regression result with one period lagged log pay

Dependent Variable: LPAY
Method: Panel EGLS (Cross-section random effects)
Date: 05/19/14 Time: 14:11
Sample (adjusted): 2005 2013
Periods included: 9
Cross-sections included: 8
Total panel (balanced) observations: 72
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.148740	0.449104	0.331193	0.7416
INDROE	-0.003247	0.023709	-0.136946	0.8915
ROA	-0.000106	0.000515	-0.205501	0.8378
DSOE	-0.030690	0.059909	-0.512281	0.6102
SIZE	0.022820	0.031833	0.716865	0.4761
CAR	0.107238	0.130543	0.821479	0.4144
INF	0.000559	0.000940	0.594506	0.5543
LAGLPAY	0.975550	0.044747	21.80156	0.0000

Effects Specification	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.087204	1.0000

Weighted Statistics

R-squared	0.977026	Mean dependent var	12.67194
Adjusted R-squared	0.974513	S.D. dependent var	0.546246
S.E. of regression	0.087206	Sum squared resid	0.486712
F-statistic	388.8219	Durbin-Watson stat	2.367842
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.977026	Mean dependent var	12.67194
Sum squared resid	0.486712	Durbin-Watson stat	2.367842

Autocorrelation: Breusch-Godfrey Test with one period lagged log pay

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.277203	Prob. F(3,61)	0.2902
Obs*R-squared	4.255267	Prob. Chi-Square(3)	0.2352

Test Equation:
Dependent Variable: RESID
Method: Least Squares
Date: 05/19/14 Time: 14:44
Sample: 2005 2013
Included observations: 72
Presample and interior missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.433585	0.499389	-0.868232	0.3887
LAGLPAY	0.052611	0.051830	1.015060	0.3141
INDROE	0.011527	0.024174	0.476837	0.6352
ROA	-0.000147	0.000517	-0.283471	0.7778
DSOE	0.064616	0.067700	0.954445	0.3436
SIZE	-0.025366	0.033934	-0.747532	0.4576
CAR	0.019721	0.131510	0.149961	0.8813
INF	-0.000389	0.000954	-0.408424	0.6844
RESID(-1)	-0.319138	0.156611	-2.037771	0.0459
RESID(-2)	-0.179748	0.143921	-1.248929	0.2165
RESID(-3)	-0.050224	0.139227	-0.360737	0.7195

R-squared	0.059101	Mean dependent var	-2.84E-16
Adjusted R-squared	-0.095145	S.D. dependent var	0.082796
S.E. of regression	0.086645	Akaike info criterion	-1.914236
Sum squared resid	0.457947	Schwarz criterion	-1.566412
Log likelihood	79.91249	Hannan-Quinn criter.	-1.775766
F-statistic	0.383161	Durbin-Watson stat	1.963700
Prob(F-statistic)	0.949364		

APPENDIX # 9: Contents of Unstructured Interview

Payroll and human resource department staffs	#	Information
	1	Bank presidents' compensation determinant
	2	Bank presidents' compensation and performance
	3	Bank presidents' compensation and ownership
	4	Bank presidents' compensation and bank size
	5	Bank presidents' compensation and capital adequacy ratio
	6	Bank presidents' compensation and annual inflation