

**BOARD OF DIRECTORS COMPENSATION
AND FIRMS PERFORMANCE: AN
EVIDENCE FROM KSE 100 INDEX**



Pakistan Institute of Development Economics

By

**Muhammad Arslan
PIDE2018FMPHILEAF39**

Supervisor

Dr. Ahmad Fraz

**MPhil Economics and Finance
PIDE School of Economics
Pakistan Institute of Development Economics,
Islamabad
2022**



CERTIFICATE

This is to certify that this thesis entitled “**Board of Director’s Compensation and Firm’s Performance: An Evidence from KSE 100 index**”. Submitted by **Mr. Muhammad Arslan** is accepted in its present form by the PIDE School of Economics, Pakistan Institute of Development Economics (PIDE) Islamabad as satisfying the requirements for partial fulfillment of the Degree of Master of Philosophy in Economics and Finance.

Supervisor:

Dr. Ahmed Fraz
Assistant Professor,
PIDE, Islamabad

Internal Reviewer:

Dr. Ahsan ul Haq
Assistant Professor
PIDE, Islamabad

External Examiner:

Dr. Muhammad Khalid Sohail
Professor, (Bahria Business School)
Bahria University,
Islamabad

Head, PIDE School of Economics:

Dr. Shujaat Farooq
Assistant Professor,
PIDE, Islamabad.


Date of Examination: July 5, 2022

Author's Declaration

I "Muhammad Arslan" hereby state that my MPhil thesis titled "Board of Directors compensation and firms performance: An evidence from KSE 100 index" is my own work and has not been submitted previously by me for taking any degree from Pakistan Institute of Development Economics or anywhere else in the country/world.

At any time if my statement is found to be incorrect even after my Graduation the university has right to withdraw my MPhil degree.

Date: 5th JULY, 2022


Signature of Student

MUHAMMAD ARSLAN
Name of Student

Dedication

Ami,

who gave me first lesson,

and

Abu,

who dreamed for me.

ACKNOWLEDGEMENTS

I would like to acknowledge everyone who played a role in my academic accomplishments. First of all, my parents, who supported me with love and understanding. Without you, I could never have reached this current level of success. Secondly, faculty members, each of whom has provided patient advice and guidance throughout the research process. Thank you all for your unwavering support.

LIST OF TABLES

Number		Page
Table 3.1	Measurements of variables (Independent variable)	28
Table 3.2	Measurements of variables (Dependent variable)	28
Table 4.1	Descriptive Statistics	30
Table 4.2	Correlation Analysis	34
Table 4.3	Results of dependent variable (ROA)	37
Table 4.4	Results of dependent variable (ROE)	39

LIST OF ABBREVEATIONS

BOD	Board of Directors
ROA	Return on Assets
ROE	Return on Equity
DCOM	Directors Compensation
LEV	Leverage
LIQ	Liquidity
SG	Sale Growth
TANG	Tangibility
GMM	Generalized method of moments

Abstract

The study's goal is to determine the extent to which directors' salary has an impact on booked based performance of a company (ROA and ROE). Prior studies have given no clear relationships of directors' compensation and firm performance, so the study is intended to capture the real relationship in scenario of Emerging Economy Pakistan. Unclear relationship between compensation of the board of directors and performance instigates for the research process. The data for the top 50 firms in Pakistan's non-financial sector has been gathered for the period of 10 years (2010-2019) in order to assess the statistical validity of the hypotheses put out. Following that, the suitable approach, namely generalized method moments (GMM), has been employed, and the desired findings have been attained. The findings indicate that director compensation has a positive and statistically significant impact on return on assets (ROA) while having a negative and statistically significant impact on return on equity (ROE). The findings of the study are valuable to policymakers in their efforts to improve the performance of the firm. The study is also beneficial to the researchers, who may be able to use the findings to help them in their own research.

Keywords: Board compensation, Firm performance, Leverage, GMM

Table of Contents

LIST OF TABLES	v
LIST OF ABBREVEATIONS	vi
Abstract	vii
1 Introduction	1
1.1 Background of the Study	1
1.2 Research Significance	2
1.3 Gap Analysis	3
1.4 Problem statement	5
1.5 Research questions	5
1.6 Research Objectives	6
1.7 Underpinning Theories	6
1.7.1 Output-based incentive theory	6
1.7.2 Collective Effort and Free Rider Theory	7
1.7.3 Psychological Expectancy Theory	7
1.7.4 Accounting Myopia	8
1.7.5 Worker-Management Alliance.....	8
2 Literature Review	9
2.1 Board of Director Compensation	9
2.2 Firm Performance	11
2.3 Board of Director Compensation and Firm Performance	12
2.4 Hypothesis	22
3 Research Methodology	24
3.1 Population, Sampling techniques, and Sample	24
3.1.1 Population	24
3.1.2 Sampling Technique	24
3.1.3 Sample.....	24
3.2 Time period and data type	24
3.2.1 Time Period.....	24
3.2.2 Data type	24
3.3 Data source	25
3.4 Proxies and measurement of variables	25
3.5 Relationship of controlled variables with firm performance	26
3.5.1 Leverage and Firm Performance.....	26
3.5.2 Firm Age and Firm Performance	30

3.5.3	Liquidity and Firm Performance.....	31
3.5.4	Sale Growth and Firm Performance.....	31
3.5.5	Tangibility and Firm Performance.....	32
3.6	Research model	23
3.7	Software used and Analytical Techniques.....	32
3.7.1	Software.....	32
3.7.2	Analytical Technique.....	32
4	Results and Interpretation	34
4.1	Descriptive Statistics.....	34
4.2	Correlation Analysis.....	38
4.3	Regression Analysis (Application of GMM).....	41
4.3.1	Testing of hypothesis (Dependent variable is Return on assets).....	41
4.3.2	Testing of hypothesis (Dependent variable is Return on equity).....	43
5	Conclusion and Discussion	45
5.1	Conclusion	45
5.2	Discussion	46
5.3	Practical Implications.....	48
5.4	Limitations.....	48
5.5	The future direction of the study.....	48
	References.....	50

CHAPTER 1

Introduction

This chapter is about the study's introduction, which consists of a background of the study, significance, gap identification, research objectives, and research question.

1.1 Background of the Study

Compensation can be described as a system for payment related to struggle and performance; to attract, inspire and retain effective employees to achieve the organizational targets (Adeoti & Isiaka, 2006). Board compensation is known as pay, refers to remuneration packages specifically designed for them by a company. Performance is stated as the result of the financial activities of a firm over the specific timer period. Josiah (2011) proposed that compensation is essential in schemes of incentive applied by firms to merge management interests with the shareholders. Firm performance is the performance against the goals and objectives of a firm. In other words, the firm performance includes actual results or outputs associated with intended outputs. A board of directors governs organizations. The board of directors is accountable and oversees the decisions of management. BODs get compensation such as remunerations, increments, compensation against meetings attended that is payable or paid by the companies. Rewards paid to directors are subject to their performance. To achieve better performance, rewards/incentives are paid to directors responsible for performance.

Firm performance is the firm's efficiency where it utilizes all of the available resources to get maximum output and achieve growth in market share. In this regard, director's compensation is one of the critical factors affecting organizational performance. The relationship between the board of directors' compensation and firm performance is critical for organizational growth and management perspective. Many scholars have conducted their research to find the impact of compensation on performance. In this regard, researchers found different outputs while linking performance with compensation. Generally, it may be assumed that compensation positively affects performance, but research has shown that this relationship is reversed in few cases. Sometimes compensation impacts positively, while there is a negative impact of compensation in few studies.

On the other hand, few studies could not trace any relationship between compensation paid and performance. For instance, (Al-Najjar, 2017) has found a weaker relationship between BOD remuneration and firm performance. He conducted his research on the firms of the UK and Canada. Conversely, Jaafar et al., (2012) established in their research that there is a significant and positive relationship between BOD remuneration and firm performance.

From the previous research work, it has been noticed that board compensation plays a vital role in influencing the board's activities and company performance. Concluding our discussion on the relationship between BOD compensation and performance, different results are obtained. Several studies have been conducted to explore the relation between board compensation and firm performance. Those studies were conducted in different periods and different geographical areas. Compensation is not the only variable affecting performance, but there are many other factors. Hence there was always a chance of variation in results. Due to different research settings, researchers have presented different statements based on their conducted studies output. Some researchers have established positive relationships between board compensation and firm performance, while others have found negative ones. Hence the grey area of compensation-related performance is needed to be explored. Research in the board of director's reward and organizational performance is a topic of interest.

1.2 Research Significance

Research is always carried out with a clear objective. The prime purpose of any research is to produce results useful for the community. This research is conducted in Pakistan, covering one of the most critical topics of interest for any organization, particularly profit-seeking organizations. Profitability depends upon different factors. Those factors need to be explored to enable management and policymakers to make appropriate policies suiting business growth. In this study, profitability is being captured. The study will be helpful for policymakers to enhance the firm performance. Firm performance depends upon different factors. Compensation paid to directors is one of the critical factors. When compensation is increased, performance definitely will improve. However, there may be other factors affecting performance. The study will also motivate the managers to work hard for firm performance as it will further influence their compensation. Following a study of several research conducted in various

geographical areas and historical periods, it was discovered that the association between executive salary and performance is equivocal (Kanagaretnam Lobo & Mathiew, 2012). The results of many studies and literature are inconclusive, fragmentary, and inconsistent, implying that more research into the relationship between remuneration and performance is required. Inconclusive results of the researches conducted at different periods enhanced the importance of research in this area.

Furthermore, improvement in the performance of an organization is a crucial objective for any organization. Improved performance would not only benefits shareholders but management and other stakeholders as well. Hence, variables impacting the performance of an organization are more important for researchers and practitioners.

1.3 Gap Analysis

Different studies on compensation and its impact on performance have been conducted in different geographical areas and time frames. Compensation is a reward paid to directors for their business activities performed to generate profit. The reward may be monetary or non-monetary. Both rewards are significant to enhance the director's efficiency. In this regards (Pucheta and Gallego 2019) investigated the impact of insurer and bank board characteristics on performance and established that BOD characteristics have a significant role in determining a company's performance success. The most significant outcome was no link between directors compensating and firm performance in ROE or ROA. However, on the other hand (Job, 2020) investigated the relationship between BOD compensation and corporate performance in Australia. They investigated the relationship between BOD payments and accounting and stock price performance indicators. In their study, researchers did not find any evidence of an association between BOD wages and corporate performance. Similarly, another study concluded that firms with high board compensation achieved the highest market value (Shubhi & Archana, 2020). (Kapil and Mishra, 2019) investigated the links between BOD remuneration systems developed by companies on the board and the firm's economic performance. The results showed that BOD remuneration is an essential indicator of significant and positive effect on dependent variable (economic performance). These studies are evident that there is still grey area which needs attention of researchers and scholars to investigate relation between director compensation and organizational performance.

Director's efficiency improves the firm's performance. As organizational performance is a critical factor for decision-makers, the firm's performance decides the prospects of an organization—different studies conducted to investigate the relationship between the board of director's compensation and performance. For instance, (Al-Najjar, 2017) conducted the study and elaborated a weak relationship between BOD remuneration and firm performance. However, on the other hand, similar research conducted by Jaafar et al., (2012) concluded a significant and positive relationship between BOD remuneration and firm performance. The results of the study are not similar. Different results show that the topic needs to be further elaborated to clarify better the impact of the board of directors' compensation on performance.

Compensation is paid as a reward for any physical or mental activity, having two types, i.e., monetary and non-monetary. There are different studies on this topic with quite different results. We may find few studies with the negative impact of compensation on performance. Brick et al., (2006) concluded a negative association between extra director compensation and performance. On the other hand, studies may conclude that there is no relationship between compensation and performance. No relationship was confirmed between board composition and firm performance in the meta-analysis of American firms (Du Plessis et al., 2018).

Similarly, Fernandes (2008) and Firth et al., (1995) do not find any relation between the Board of directors' compensation and firm performance in Norwegian and Portuguese firms, respectively. No relationship was confirmed by Doucouliagos et al., (2007) in the banking sector of Australia concerning the board remuneration towards the performance of the firms. No relationship between compensation and performance is established by Nahar (2006) in Malaysian firms. Similarly, Dogan and Smyth (2002) have examined the board compensation of firms listed on the stock exchange Malaysia and determined that the relationship between board remuneration and firm performance is unclear. Studies with positive results are also available. A positive correlation between firm performance and board compensation has been found in the companies operating in the UK, Germany, and Japan (Kato & Kubo, 2006). Another study confirmed the positive impact of compensation. Randoy & Nielsen (2002) examined a significant and positive correlation between firm performance and board compensation. Unclear relationship between compensation of the board of directors and performance instigates for the research process.

1.4 Problem statement

Different factors affect a firm's performance. Those factors may be internal as well as external. Performance of firm may be improved by focusing internal as well as external factors. Factors that improve a firm's performance are of significant importance, as wealth creation is the primary target of any firm. A firm's growth/performance decides future aspects of the firm. Hence, the firm's current performance is significantly essential not only for growth but the survival of the firm. Firms always focus on influential factors that may hamper performance, but all factors are not equally important. Few factors need to be more emphasized to obtain the best possible output. Identification and categorization of factors affecting a firm's performance are pretty important. The Board of directors are decision-makers; hence their performance decides the firm's performance. It is not as simple as it looks. The Board of directors does have their interests besides organizational interests.

As stated in agency theory, conflict of interests may hamper organizational performance where principal and agent conflict arises. As the board of director's performance is critical for a firm's performance, they may be provided with all necessary tools to perform well. Along with resources, a just reward system is also required. An appropriate reward system enhances the motivation of the employees, and resultantly they perform better. Reward paid to the director is not restricted to monetary reward but non-monetary as well. To cope with the competitive environment and reduce the impact of agency theory, director's compensation is considered one of the most critical topics. Director's compensation (monetary reward) may improve their efficiency, resultantly firm's performance is improved. To minimize agency problems and obtain better output for the firm, director's compensation is considered an important aspect and topic of interest.

1.5 Research questions

Research is always conducted to answer the research question(s) established based on previous research. Following research questions needs to be answered in this research activity.

- Does the Board of Director's compensation have an impact on a firm's performance (ROA)?

- Does the Board of Director's compensation have an impact on a firm's performance (ROE)?

1.6 Research Objectives

To answer the research question(s), we need to set the objective(s) of the research. Following two research objectives need to be fulfilled in this research.

- To investigate the impact of the Board of Director's compensation on a firm's performance (ROA)
- To analyze the influence of the Board of Director's compensation on a firm's performance (ROE)

1.7 Underpinning Theories

1.7.1 Agency Theory

As per agency theory there arise conflict of interest between principal and agent. As stated in agency theory, conflict of interests may hamper organizational performance where principal and agent conflict arise. Furthermore, as per agency theory board of director's perform for their interest instead of company performance. Board of director may have their interest to tunnel resources of firm towards other firm where they have higher interest. Resultantly board of director even getting higher compensation may not perform efficiently for better organizational profitability. Performance and compensation are linked, according to agency theory which elaborates that board of director have their personal interests and they execute business activities in accordance with their own interests.

1.7.2 Output-based incentive theory

This theory focused on payment of reward based on output of the concerned employee. However, there are certain issues in determining the exact output of each employee, especially in cases where processes are so complex and interlinked to each other. This theory proposes a solution of agency problem existed in organizations. This theory is based on the assumption that if employees' efforts can be quickly confirmed, the solution to the agency's problem is to adopt a fixed wage policy. However, in reality, the complex nature of most jobs makes it difficult to adequately monitor and evaluate every aspect of an employee's work to allocate fixed compensation. According to

Milkovich and Newman (2002), these intricacies are exacerbated by the macroeconomic environment in which the enterprise operates and the unique characteristics of the enterprise. Output-based incentives are considered the ideal compensation policy due to difficulties faced in determination of accurate assessment of the work done by employees (Eisenhardt, 1988). If output is not determined properly, compensation may not be calculated fairly. Moreover, one such compensation policy is a stock-based compensation program in which the company's overall performance determines the amount received by employees.

1.7.3 Collective Effort and Free Rider Theory

Sometimes collective efforts are applied to process an activity in an organization. In such scenario, it is difficult to assess individual performance when group-based rewards depend on group performance (Weitzman, 1995). This also create problem for organization as there would room available for those who are inactive or do not take part in overall task completion, resultantly organizational performance will suffer. In this regard, Kandel and Lazear (1992) recommend a system of measures to promote cooperation among employees of organizations with group-based compensation programs.

1.7.4 Psychological Expectancy Theory

A group-based pay scheme, such as a wide equity compensation plan, serves a significant function, according to Vroom (1995), only if the targeted 29-year-old employee has some influence over key performance metrics, such as the assets' return and equity' return. The workers' ability to influence these performance metrics is, however, limited or non-existent in this format.

This is very detrimental given the nature of group-based remuneration, particularly when the goal is to influence group behavior in the correct direction in order to enhance a company's performance. This scheme is better if workers are able to display their performance to their bosses. Different researchers supported this scheme as Kandel and Lazear (1992), state that group behavior is adequate under group-based remuneration provided incentive recipients can readily display performance indicators to peers while also managing the indicators. Such compensation scheme may be beneficial for managerial staff but return on assets (ROA) and Tobin's Q are out of reach for low-

level workers who are in a position to benefit from the broad variety of choices that are available.

1.7.5 Accounting Myopia

According to Hall and Murphy (2003), the cost of granting options is miscalculated and incorporated into the financial statements. The miscalculated costs of a wide range of rewards are not separated from this theory, as organizations aim to reward ranks and files at pretty low costs. For instance, if a firm grants employees stock options, the cost of such transactions can be undervalued. This is mainly because the simple golden rule of accounting recognizes that every debit entry must have a corresponding credit entry. In this case, existing shareholders are reduced in ownership due to the dilution effect, as other employees can become part of the company. Therefore, the cost of such compensation programs will always be undervalued until this is adequately addressed when assessing the cost of the shares granted.

1.7.6 Worker-Management Alliance

According to Kim and Ouimet (2014) and Pagano and Volpin (2005), acquisitions can be revealed in the life of an organization. To avoid such issues, management relied on giving employees "bribes" or incentives to obtain support if Block's stakeholders moved to acquire the company. Moreover, instead of increasing wages and salaries, management can reward a large number of employees fairly as a means of getting loyalty for reasons other than the company's performance-driven objectives.

CHAPTER 2

Literature Review

2.1 Board of Director Compensation

Compensation is not limited to financial rewards. Board of Director Compensation may compose financial and non-financial rewards obtained by executives against services rendered by them for the organization. Different researchers define the board of director's compensation. According to Shin, Lee, and Joo (2009), executive compensation comprises financial compensation and non-financial awards. Generally, compensation is not paid in one form. However, it comprises salary, honorarium, bonuses, shares of the company, perks and privileges, benefits and perquisites, specifically configured to take into account government rules and regulation, tax laws, the firm's desires, and the senior executive and rewards for rendered performance. Executive compensation is not restricted to financial compensation only, but it is considered a broad term for the financial compensation paid to the organization's executives. Hence compensation is designed in such a manner to incentivize the executive team, considering them essential for their impact on company strategy and decision-making. In this process, value creation occurs for the firm, and Executive Retention is enhanced. Another study conducted by Sun Xianging and Huang (2013) explains that executive compensation is a remuneration package offered to senior management in business. The compensation package for executives is different from lower staff in scale and benefits offered. Compensation is not paid in cash, but there is the stock option for executives in most cases. A stock option is an integral part of the executive's compensation package, with large basic pay. However, few companies offer a lower basic salary with better stock options to minimize the tax burden.

Few studies found a positive but weak relationship between remuneration paid and the firm's performance (Hassan et al., 2003; Sim, 2004). The relationship between remuneration and performance is not always positive, but few studies show a negative relationship (Bebchuk & Fried, 2003). The stress level of the firms also affects performance, as Abdullah (2006) confirmed the same thing. He concluded that the director's remuneration has a significantly negative relationship with lagged performance in distressed organizations. This study also confirms that remuneration

does not always need to impact firm performance in the current period, but remuneration may also impact lagged performance.

Performance is not solely based on remuneration, but few other factors play a role in determining performance. Agency cost is considered an essential aspect while determining the performance of directors. However, researchers always focused on management performance by determining different factors and their role in measuring performance. As far as past research is concerned, research cannot entirely determine the consistent and significant relationship between the remuneration of management and a firm's performance. There is still a grey area, and the relationship is not clearly explained. Hence this needs to be further explored in different geographical settings. However, it may be assumed with subject to agency theory that lucrative incentive-based compensation may notably improve the efficiency of the management up to an optimal level. Furthermore, compensation packages may be able to play their role in the reduction of principal-agent conflict.

Pay structure is considered essential for the output of firms. It is pertinent to mention here that executives' pay structure has a relationship with corporate failure in the United States (Felton, 2004). Executives sometimes act differently in different scenarios. Given extensive stock options and the wish for higher stock prices, earnings are inflated, and executives manipulate books. That is why scholars pointed out that much may be problematic with executive compensation (Hall & Murphy, 2003). In this regard, executive compensation data must be publicly available. Few countries consider this aspect in their reporting. Publicly availability of compensation data made it more transparent. Few countries are required to publish compensation data, such as Nigeria (Njogu, Gekara, Waititu, & Omido, 2017). Organizations use their resources to perform operational activities, and compensation is considered one of the most critical and most significant costs organizations have to bear for processing their routine tasks (Jensen & Murphy, 2010). The compensation system and performance is a long-term aspect of an organization. Compensation paid to executives is considered one of the promising fields of research for management sciences researchers. (Njogu, Gekara, Waititu, & Omido, 2017). This area of research has attracted the attention of researchers and practitioners in the recent past. There is a disparity in the compensation package of executives and lower staff. It has been noticed that the compensation package of executives has an escalation trend. However, compensation for lower staff working in the same

organization has stagnated recently (Njogu et al., 2017). Director's compensation is being criticized as it only incentivizes excessive risk-taking. Resultantly financial distress occurs. Such a scenario has been noticed in commercial banks where risk-taking played a crucial role in financial distress (Alon&Yoram, 2010). Different studies have been conducted to elaborate on the relationship between compensation and performance. Attention to the compensation-based performance is not limited to researchers, but accounting and finance officials also gave due attention to the area of compensation-based performance measurement (Adegoroye, Sunday, Soyinka & Ogunmola, 2017). Every organization has the target to maximize shareholder's wealth, and the same is not possible without assistance provided by management. Hence organizations consider the importance of compensation paid to executives. Compensation paid to directors encourages them to assist the organization in achieving their goals; resultantly, shareholder wealth maximization is obtained (Jensen & Murphy, 2010). Compensation is not only paid in cash, but executives are awarded stock options. The stock option once awarded to top executives results in increased exposure of top management to stock prices. Hence compensation of executives is aligned with shareholder's wealth (Khalid & Rehman, 2014). Similarly, another study conducted by Guthrie, Sokolowsky, and Wan (2012) also concluded that compensation paid to executives depends on organizational performance and few other related factors. After reviewing few studies conducted in different geographical areas and time frames, it has been noticed that the relationship between compensation paid to executives and performance is inconclusive (Kanagaretnam, Lobo & Mathiew, 2012). Inconclusive, incomplete, and inconsistent results of different studies and literature urge researchers to further elaborate on the relationship between compensation and performance.

2.2 Firm Performance

The performance of the firms may be defined in different words by researchers. Performance defined by different scholars is simply an increased revenue of the business, enhanced sales, and profitability or improved market share (Carland & Carland, 2003). The performance of a firm may be defined in terms of financial output or non-financial output. Ruigrok and Wagner (2003) elaborated that firm's performance may be stated in terms of two main dimensions, i.e., financial performance and operational performance (non-financial).

Generally, organizational financial performance is elaborated in terms of assets utilization in day-to-day business activities to generate income. Financial performance is considered the financial health of an organization. Similar firms or industries' financial health or performance may be examined over a while (Atrill et al., 2009). Performance is determined based on secondary data obtained from the financial statements of an organization. Financial statements include balance sheet (comprised of assets and liabilities on a specific date), profit and loss accounts (comprised of revenue, expenses, and profits/losses for a specific period), cash flow statement (comprised of cash sources and cash usage over some time) and statement of change in ownership equity (comprised of owner's equity or wealth). Financial ratios generally measure the financial performance of an organization. Financial ratios create a link between different financial values. Financial ratios may be used to measure profitability, leverage, liquidity, and efficiency. As per research conducted by Atrill et al., (2009), the ratios that measure an organization's profitability include earning on assets employed, investment, and equity. Ratios stated above elaborate the success of an organization in profit generation by using available resources.

2.3 Impact of Board of Directors' Compensation and Firm Performance

Firm performance is a critical adjustment commonly described to give you an idea of what your company is doing. Companies are always focused on achieving their financial performance goals. This represents the efficiency of adjusting resources, the ability to make profitability, and the capability to survive in the market in opposition to existing competitors. Firm performance explains why a solid company is financially strong, particularly concerning cash flow. Investors, suppliers, and creditors analyze firm performance before determining to do business with the firm before some form of association. Good firm performance consequences strengthen creditor and investor assurance in the company's activities and operations. Several aspects can affect the performance of the firm. These factors are external factors, for instance, economic growth, socio-economic development, and political stability of the country (Hosny, 2017), or factors from inside like corporate liquidity (Omondi & Muturi, 2013), productivity, efficiency, and capacity of corporate administration (Hosny, 2017). It is proposed that the framework of corporate governance and sustainable development, the association between corporate performance and board compensation, has been primarily discussed (Skandalis et al., 2008).

Ozdemir and Upneja (2012) stated that the board of directors has a managerial tool that oversees manager decisions and guards the shareholder's rights. In addition, they are accountable for observing the excess remuneration received by the managers that ultimately impact the company's performance. Bebchuk and Fried (2004) suggested that management trenches make it more challenging for the shareholders to change management, and further promote opportunistic behavior, particularly at the compensation level. The board of director's concept derives from motivations and inspirations that play an important role in coordinating board activities and can be seen as a link among firm management and firm shareholders (Murphy & McIntyre, 2007). They are responsible for internal decision-making, defending and enhancing shareholder wealth and claims, monitoring company performance, and assessing management effectiveness. The diversity of a company's board of directors is actively linked to its financial performance as it incorporates representatives in different areas dimensions of the company. The primary determination of the BOD is known to monitor and approve managing decisions and oversee the actions of directors and managers. From this viewpoint, the board aims to increase the value of all stakeholders by simultaneously preventing negative management behaviors and practices in which the company's actions can lead to failure and disagreement. Kakanda and Salim (2017) proposed that board individuals are associated with the board's independence, size, background, diversity, skills, structure and sustainable development activities, and corporate governance. The association between BOD compensation and firm performance is widely documented (Guney et al., 2020). Many studies conducted using BOD compensation and performance of corporate are the main concerns of their research. The studies conclude that there is a positive relationship between BOD compensation and corporate performance.

Mehdi and Mohamed (2017) discussed the relationship between board effectiveness and equity-based compensation that executives receive in the case of interest or trench adjustments that they find have a positive link to BOD compensation to the company's performance. Berrone and Gomez (2009) established a positive relationship between BOD compensation and the company's firm performance. Researchers discovered the relationship between board compensation and the financial performance of unlisted companies and found a positive sense of BOD duality and improved financial performance (Matari et al., 2012). In addition, Ujunwa (2012) showed that board

compensation has a significant positive impact on the company's financial performance. In the research, Abu et al., (2016) examined that director compensation may be associated or has a positive effect on the performance of the firm. Florackis (2005) discovered the non-linear effect of management ownership and board of director's compensation on the company's performance. He found strong indication that management ownership and board compensation may act as an alternate tool to diminish agency costs and thus produce the firm's excellent performance.

Rashid, (2018) uses data from 135 companies listed on the Stock Exchange of Dhaka and uses accounting and market performance indicators to impact board compensation on the financial performance of listed companies of Bangladesh. The results indicated that board director's compensation and firm performance do not positively impact each other. Kapil and Mishra (2019) investigated the links between BOD remuneration systems developed by companies on the board and the firm's economic performance. The results showed that BOD remuneration is an essential indicator of significant and positive effect on dependent variable (economic performance). Furthermore, the researcher also observed the duality of the CEO and the number of boards, linking it to firm performance. Fuzi et al., (2015) investigated the compensation of BOD and the firm performance. The research showed a weaker association between the proportion of director's compensation and the company's performance. However, it does not assurance an enhancement in the firm's performance.

Ghosh (2017) examined a sample of Indian firms between 1996 and 2012 and found that not all governance characteristics are similarly effective. Some of these aspects compare to others and recommend that it would significantly impact bank performance. Pucheta and Gallego (2019) investigated the impact of insurer and bank board characteristics on performance and established that BOD characteristics have a significant role in determining a company's performance success. The most significant outcome was no link between directors compensating and firm performance in ROE or ROA. Jhunjhunwala and Mishra (2012) determine whether board compensation increases firm performance. The outcomes showed a significant positive relationship between board compensation and financial performance in Indian companies. A possible clarification for this might be that team diversity frequently directs to conflicts that negatively impact performance if not adequately managed by the board.

Sarkar and Sarkar (2018) investigated the effectiveness of board compensation of state-owned and commercial banks by conducting a survey of Indian commercial banks with both banking groups. They established an indication of a substantial compensation effect that is taken board directors showed a crucial positive relationship with performance of commercial banks and a significant negative association with the performance of state-owned banks. Most firms that do not put on or strictly apply the approach of governance remuneration are weaker to the financial crisis (Zhuang & Capulong, 2001). From the earlier research, the effect of BOD compensation on the performance of the company is apparent. Researchers observed that the part of BOD compensation in a company's achievement disclosed contradictory results, showing that there is no consent among the effects of BOD compensation on a company's performance, and researchers confirm the nature of this effect.

Brick et al., (2006) established a positive and significant relation between compensation taken by board directors and corporate performance when used samples from 1163 to 1441 companies. According to their study, one possible reason BOD compensation and corporate performance are interrelated is the complexity of the enterprise and the talent and effort to manage and direct such enterprise. In addition to this, Kato and Kubo (2006) provided the first estimates of the relationship between BOD cash compensation wages and performance in Japan. They used 10-year panel data on the monthly base salary of individual BODs of 51 Japanese companies. Kato and Kubo (2006) established a significant and positive association between BOD compensation and a measure of corporate performance.

Buck et al., (2008) studied the relationship between BOD compensation and corporate performance in the Chinese market. They used a total sample of 601 Chinese listed companies on the Shenzhen and Shanghai stock markets. In addition, they investigated whether wages affect performance. Their findings confirm that there is a link between BOD compensation and corporate performance. Researchers have shown that base salaries and annual bonuses significantly impact indicators like company performance, return on total assets, return on shareholders, and profit before tax and shareholder value. Ozkan (2007) examined that BODs in stock options and limited to stocks are more rewarding for weak governance companies. They further suggested that compensation based on equity is actively related to management trenches. Although there is an opposite association among management agency costs, ownership, restricted

stock, and permitting stock options is a probable solution to support the interests of management with shareholder interests. Chen et al. (2012) explain the stakeholders who seek to decide whether the board of directors replaces management's ownership in the case of management trenches in order to limit excessive management compensation.

On the contrary, many studies have found a negative link between BOD compensation for corporate performance. Researchers have found a statistically significant link between the compensation of BODs and corporate operating and equity return performance. In addition to this, Core et al., (2009) found that firms having weaker corporate governance have more significant agency conflicts. BODs for companies with large agency problems receive more compensation, and companies with significant agency problems say they perform poorly. Basu et al., (2007) studied the association of overpayment to BOD and found a negative relationship to accounting performance. Researchers conducted this survey on 174 companies between 1992 and 1996. Researchers have defined accounting performance as a three-year average earning on assets employed and a three-year stock market performance.

There are some studies on BOD compensation for corporate performance that are not related to these two variables. Ozkan (2011) investigated the association between BOD compensation and the company's performance in a sample of 390 UK non-financial companies. However, they established a significant association concerning BOD compensation and the performance of corporate. In addition, as mentioned in (Job 2020), BOD compensation was not significantly related to profitability (profitability is related to corporate performance. BOD compensation is 1) basic salary, 2) bonus, and 3) Long-term or deferred income is composed of researchers consisting of three elements. In addition, Job (2020) further investigated the relationship between BOD compensation and corporate performance in Australia. They investigated the relationship between BOD payments and accounting and stock price performance indicators. In their study, researchers did not find any evidence of an association between BOD wages and corporate performance. Measures of corporate performance were returned on equity and return on total assets. Return on total assets was the subject of the study, as the results are qualitatively similar to those reported in Earning on equity employed.

Weenders (2019) surveyed Amsterdam Euronext from 2014 to 2016 on the level of BOD payments in connection with compensation for the corporate performance of Dutch listed companies. Researchers have found some statistically significant results, but they have not remained robust. For over 50 years, researchers have conducted another survey of performance compensation and management incentives among 2,000 BODs. The relationships found were minimal and statically not significant. The measure of corporate performance in this survey is the change in shareholder wealth. They conducted an investigation before and after compensation costs. In summary, the above empirical evidence did not find a significant relationship between BOD compensation and corporate performance.

Shamsuddin (2015) stated that board member compensation is high in the form of annual holders and companies are at least this uncertain time. Yermack (1996) sought to investigate the relationship between BOD compensation and corporate value. The survey took a sample of 452 large to unite state firms from 1984 to 1991. This study used a regression model with fixed effects, random effects, and OLS estimates. In this research, the researchers used Tobin Q, earning on assets employed, return on sales, and sales/assets to measure the value of a company. The results showed that there is a positive link between board compensation and company value. The study also suggested a positive and significant relation between ample board compensation and corporate performance. The study concluded that firms with high board compensation achieved the highest market value (Shubhi & Archana, 2020). The findings reveal a negative link between operational efficiency and profitability, and board compensation.

Vafeas (2000) sought to examine the correlation between board compensation and firm profitability. They explained that while there was a direct and significant link between small board compensation and corporate profits, there was a contrary link between board-scale compensation and corporate performance. Mak and Li (2001) examined the effect of board compensation on the performance of the firm. The study adopted a sample size of 147 Singapore companies in 1995. In this study, researchers used the usual least-squares method to examine the data. The research showed that the board's remuneration structure was determined endogenously. The study adopted board compensation size, leadership structure, and company size as independent variables. The consequences showed a vital relation between ample board compensation, leadership structure, company size, and performance.

Florackis and Ozkan (2004) established the impact of board compensation on decreasing agency costs for companies. This study used a sample of a UK-listed company in 1999. The study found that board compensation had a negative impact on agency costs and had a significant impact. In this study, researchers used asset turnover to measure agency costs as a dependent variable. The study showed that BOD compensation had a significant positive effect on agency costs. This is because larger boards are less efficient and more conflicting between board members. Raheja (2005) sought to examine the impact of optimal board compensation on firm performance. The results stated that companies need to maintain optimal board sizes and their rewards within the company. According to the survey, the board of directors is held accountable for overseeing the project and making decisions on the successor to the CEO. According to the survey, the optimal board structure was determined by the incentives given in determining the company's spending and profitability. As a result, it became clear that personal information needs to be correctly validated and costs minimized to make decisions regarding the approval or rejection of a project.

Mak and Kusnadi (2005) discovered the board compensation impact on corporate performance. In this survey, researchers took samples of companies in Singapore and Malaysia. As a result, it was found that the board of directors' compensation adversely affects the corporate value. As a result, it was found that various corporate governance systems were applied to the survey results. This study reflects that from a decision-making perspective, large-size board corrections are less effective than smaller boards. The study showed that the larger the board, the upper the cost of remuneration for directors and the tendency to add more directors instead of replacing existing ones. Drakos and Bekir (2010) sought to measure the connection between board compensation and corporate performance. The independence of this investigative committee, leadership structure, and board remuneration are used as independent variables to measure the board's structure. In this study, researchers used a system of equations to interpret the data. The research used a database of firms listed on the Athens Stock Exchange between 2000 and 2006. In this survey, data was manually gathered from the annual report of the firm. In this study, researchers used the number of independent outside directors of the board as an independent variable to measure the board's independence. In this study, board compensation was considered an endogenous

variable. Board remuneration was measured by dividing the remuneration by the total number of directors.

The Board of directors' performance is directly linked to the compensation they receive. The direct relation of compensation and performance is affirmed by Lipman and Hall (2008), who concluded that what you receive from the board is what you pay for. Performance-based on compensation is also supported by Miyianda, Oirere, and Miyogo (2012). They concluded that board quality and resultantly value created by them depends upon compensation or reward they get in the shape of basic salary, pension, other fringe benefits, and compensation linked to performance like shares option and bonus. Executive compensation or pay is composed of financial and non-financial rewards paid to executives of the organization against services they rendered (Busale, 2011). In his study, he concluded that executive pay in Kenya is mostly paid in salary, stock issuance, and bonuses. The relationship between compensation and performance is ideally positive. With increased compensation, performance is increased and vice versa. The same has been concluded by Busale (2011). He concluded that the relationship between executives' pay and financial performance must ideally have a positive correlation with an increased financial performance of the organization. Compensation paid to the executives is critically examined by researchers, especially when a financial crisis occurs. After the crisis, it was suggested to reduce compensation paid to executives. However, reduction in compensation of the executives is not so simple, as it is linked with the performance of the individual, which resultantly affects organizational outcomes. Reduction in compensation is done with an intention to improve performance in crisis situation. But this does not always work. Lower compensation may reduce performance of individual and resultantly performance of organization hampers.

Sometimes organizations have to face recession. Recession period is quite difficult for already distressed firms. Sometime firms decide to reduce compensation for their survival, but it has been noticed that reduction in compensation not always works. Reduction in compensation never serves the purpose of improved performance. Hence an optimal compensation package is needed for better performance. To cope with the issue economic theory of executive compensation in the academic world tried to provide an optimal structure of compensation that creates alignment between the interests of top management/executives and shareholders and different stakeholders

(Dr. Kutum, 2015). Optimal level of compensation is supported by majority of the researchers. Different countries in the world issue guidelines for corporate governance to improve control and efficiency of organizations. For example, in Kenya, guidelines regarding corporate governance were issued under the Banking Act (2013). These guidelines empower the central bank of Kenya to issue instructions for different institutions, resultantly efficient and stable banking system is maintained in the country. While studying the performance of the board of directors, it is pertinent to mention that there may raise a conflict of interest. Based on agency theory, Ruparelia and Njuguna (2016) concluded that remuneration paid to the board affects financial performance positively. The study was conducted on secondary data for eleven years. They measured board of director compensation by annual fees paid to the director.

In contrast, financial performance was obtained using different proxies, i.e., earning on assets employed, equity, earning per share, and dividend yield. The compensation and performance relationship is captured by different researchers empirically. Studies focused on the board of directors' monthly pay and the overall performance of the organization. In another study, Gore, Matsunaga, and Yeung (2004) elaborated on the relationship between compensation and performance. They confirmed that different studies conducted to trace the relationship between compensation and firm performance documented a high correlation. It may be concluded that higher management receives hefty compensation at the end of term when the organization performs well.

Workforce perform mental or physical activities in an organization to earn compensation in form of monetary and non-monetary form. Compensation is paid as a reward for any physical or mental activity. Monetary and non-monetary reward have an impact on performance of an employee and resultantly organizational performance is improved. Compensation has an impact on performance; however, quite interestingly, compensation does not always positively impact performance. Relationship of compensation and organizational performance is studied by different scholars and it has been elaborated that there is no clear relationship. Few studies confirmed positive relationship between compensation and performance, while other supported negative relationship. Few studies even do not found significant relationship between compensation and performance at organizational level. Brick et al., (2006) have conducted a study in the US market and concluded a negative association between extra director compensation and performance. Sometimes compensation does not affect

performance. No confirmation on an association between board composition and firm performance has been established in the meta-analysis of 131 American firms (Du Plessis et al., 2018).

Compensation and performance may have different relationship in different geographical regions. There are quite different results when compared to studies elaborated on earlier. A positive correlation between firm performance and board compensation has been found in the companies operating in geographical regions of the UK, Germany, and Japan (Kato and Kubo, 2006). Another study confirmed the positive impact of compensation. Randoy and Nielsen (2002) examined a significant and positive correlation between firm performance and board compensation. Fernandes (2008) and Firth et al. (1995) do not find any relation between BOD compensation and firm performance for Norwegian and Portuguese firms, respectively. (Doucouliagos et al., (2007) examined that no evidence has been established in the banking sector of Australia concerning the board remuneration towards the performance of the firms.

Director's compensation and performance is not studied in non-financial sector but financial sector as well. Ismail et al., (2014) established a correlation between board compensation and firm performance of banking sector Malaysian listed firms. Compensation may impact performance differently in organizations having different success level. Nahar (2006) has recommended that board remuneration is not related to the firm's performance as measured by earning on assets employed among troubled firms in Malaysia. Board of director's compensation do not always have positive impact on performance. There are few studies which do not found any relationship between compensation and performance. Dogan and Smyth (2002) have examined the board compensation of firms listed on the stock exchange Malaysia from 1989 to 2000 and determined that the relationship between board remuneration and firm performance is unclear.

While discussing compensation, it is quite important to understand different aspects of compensation. Compensation is generally divided in monetary rewards and non-monetary rewards. Jensen and Murphy (1990) have recommended that equity ownership, stock option, performance-related dismissals, and performance-related pay be included in compensation packages to provide financial incentives for value-maximizing behavior.

Directors act as an agent. Agency theory shows a link between performance and remuneration. Compensation is a concept that refers to the reward paid to an official

for a previous performance (Devers et al., 2007). Many studies have discovered a positive association between organizational performance and salary paid to executives. According to research conducted in the United Kingdom, director salary and current shareholder's returns are positively correlated. However, little evidence of a correlation between directors' compensation (salary and bonus) and pre-dated shareholder returns was traced in a study conducted by (Conyon, 1997).

Relationship between compensation paid to board of directors may not have impact on current performance. It is quite important that director's compensation impacts director's satisfaction level, hence director performs accordingly. Director's performance is not effected in current period but impact of compensation paid to directors may produce impact of performance in future. Study of Japanese corporations found that current accounting-based performance has a beneficial effect on current compensation. Nonetheless, market performance cannot considerably impact compensation (Basu et al., 2007). Furthermore, a study conducted in China discovered a favorable association between CEO salary and corporate performance. The independent variables in this study were present firm performance and one-year delayed firm performance (Conyon & He, 2011).

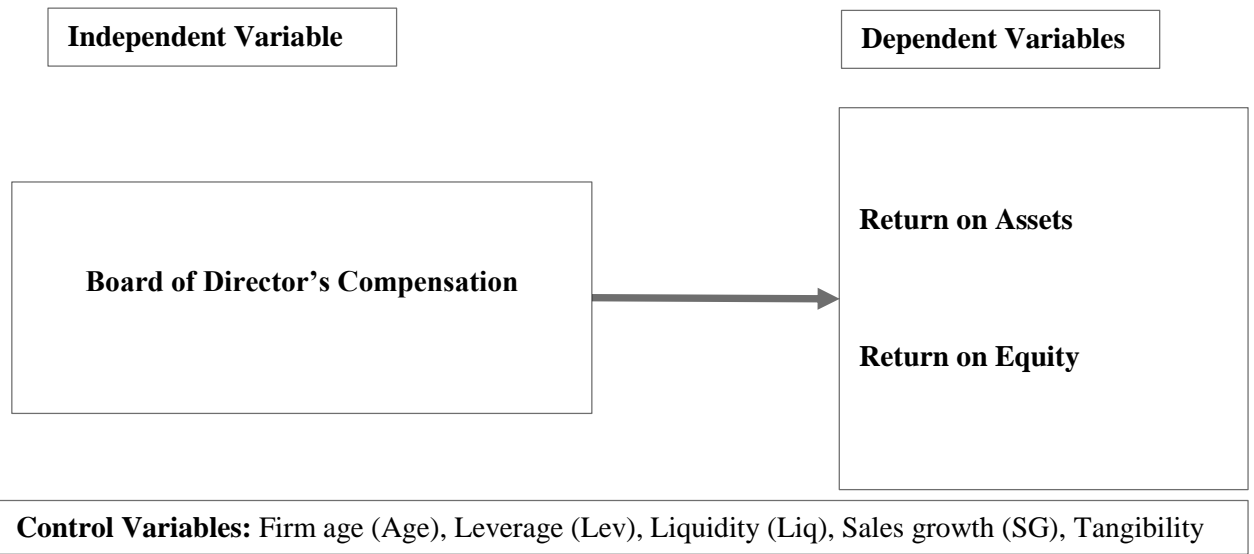
2.4 Hypothesis

Hypotheses are developed based on literature and underpinning theories. The following two hypotheses are developed.

H1: Board of director compensation has a significant impact on a firm's performance (ROA)

H2: Board of director compensation has significant impact on firm's performance (ROE)

2.5 Research model (Model Diagram)



CHAPTER 3

Research Methodology

This chapter elaborates research methodology to be used for data collection and analysis purpose. In this chapter, first of all population of the study is to be defined, then sampling technique to obtain appropriate sample is to be elaborated. This chapter also explain data source, time period and frequency of data. Different proxies are used to measure variables and sometimes there are more than one proxies to measure one variable. In this chapter proxies to collect data would be defined. Finally, all the collected data through defined proxies would be analyzed through appropriate software for confirmation of hypothesis.

3.1 Population, Sampling techniques, and Sample

3.1.1 Population

Objective of this research is to investigate the impact of the board of director's compensation on performance in Pakistan. Hence all listed firms in Pakistan stock market (Pakistan Stock Exchange) are considered as population for this study.

3.1.2 Sampling Technique

Companies would be selected on the basis of their ranking. Ranking of the companies would be carried out on the basis of their size, which would be measured through total assets held by those companies.

3.1.3 Sample

Top 50 non-financial companies listed on Pakistan Stock Exchange (PSX), have been taken into account for analysis purposes. The selection of 50 companies is based upon the available of the data for the compensation of the directors.

3.2 Time period and data type

3.2.1 Time Period

Time period for this study is ten years starting from 2010 (2010 to 2019).

3.2.2 Data type

There are two major types of data, i.e., primary and secondary. Primary data is specifically collected for research generally through questionnaire, interviews and discussions. On the other hand, secondary data is obtained from already available

source such as financial statements, stock markets, and websites. Data may also be categorized into cross-sectional, linear, and pooled (panel). In this research, pooled (panel) data has been used.

3.3 Data source

Secondary data is always obtained from some existing source. In this case data of all variables (proxies) have been gathered from two sources i.e.; WRDS data base (Wharton Research Data Services) and the annual reports of the selected companies. The data for dependent variables (Return on assets, return on equity) and for control variables (Firm age, Leverage, Liquidity, sale growth and tangibility) has been gathered from WRDS. Whereas data for director compensation is collected from annual reports of the companies.

3.4 Proxies and measurement of variables

Proxies are used to collect data for variables and sometimes there may be more than one proxies for single variable. Proxies against each variable are defined in below table to proceed data collection for each variable.

3.4.1 Independent variables

Table 3.1 Measurements of variables (Independent variable)

Sr #	Variables	Measurement	Reference
1	Director Compensation (DCOMP)	Natural Log of compensation of all directors on the board	(Raithatha & Komera, 2016)

Director compensation is amount paid as remuneration to board of directors. Remuneration of all the directors on board is summed up to get value of director compensation variable. Natural log of the summed-up compensation would be taken for normalizing value.

3.4.2 Dependent variables

Table 3.2 Measurements of variables (Dependent variables)

Sr #	Variables	Measurement	Reference
1	Return on Asset (ROA)	Net Income / Assets	(Iqbal, 2016; Rahman et al., 2017)
2	Return on Equity (ROE)	Net Income / Equity	(Rahman et al., 2017)

To measure the performance of the company two proxies are used i.e.; return on assets and return on equity. Return on assets is obtained by dividing total income to total assets of the company and return on equity is obtained by dividing total income to total equity of the company.

3.4.3 Control variables

Control Variables are sale growth, firm age, leverage, and tangibility. Sale growth is measured by taking the natural log (Current sale/Previous sale). Firm age is measured by natural log (firm Age), leverage of the firm is measured by debt to total asset ratio. Moreover, tangibility is the portion of the fixed asset in total assets. So, it is measured by taking the ratio of fixed assets to total assets.

3.5 Relationship of controlled variables with firm performance

3.5.1 Leverage and Firm Performance

Leverage do have an impact on performance of an organization. This aspect has been studied by different researchers in different geographical context. Research to elaborate relationship of leverage and performance is captured by Jensen and Meckling (1976), Grossman and Hart (1983), and Brander and Lewis (1986), Myers (1977), Titman (1984), Jensen (1986), and Maksimovic and Titman (1991). This aspect is not being highlighted in recent past but it has been considered an important variable since 1958, when most renowned and influential work published by Modigliani and Miller. Their study is considered as most influential research elaborating leverage. They produced different theoretical predictions in order to establish a solid foundation for the relationship between financial leverage and the value of a corporation.

Researches as different times produced different results, those are difficult to interpret. It may be noticed that studies conducted in the past have been inconclusive in determining the association between leverage and organizational performance. Few studies produced positive relationship between leverage status of organization and performance through empirical analysis such as Fama and French (2002), Ramachandran and Candasamy (2011), and Gill et al., (2011). Positive relationship between organizational leverage and performance is also been vetted by studies such as Wang, (2003); David and Olorunfemi, (2010); Nawaz et al., (2011); Saeed et al., (2013), and Goyal, (2013). Many other research has found a positive association between leverage and performance; yet, after conducting an empirical analysis of the data, some studies have found a negative relationship between leverage and organizational performance (e.g., Krishnan & Moyer, 1997; King & Santor, 2008; Pouraghajan & Malekian, 2012; Muritala, 2012; Babalola, 2012). This topic is not ignored by researchers at any point of time, but continue research is carried out. Even after extensive research topic is still studied and numerous studies are conducted in the last decade. Studies conducted in last decade with negative relationship between leverage and profitability includes Mohamad and Abdullah, (2012); Sheikh and Wang, (2013); Olokoyo, (2013); Quang and Xin, (2014); and Mireku et al., (2014).

Difference in results produced by different researchers, further instigate researchers to conduct empirical studies. Hence, researchers carried out a thorough investigation to better understand the variables and relationship between leverage and overall organizational performance. To elaborate the relationship between different variables and to better understand relationship between those variables, researchers use different proxies to measure variable. These proxies are used to improve empirical analysis. Accordingly, Mouna et al., (2017) conducted study in order to further understand the relationship between organizational capital structure and performance. The study's findings revealed that the debt-to-income ratio had a negative and statistically significant impact on performance (measured by earning on assets employed). The debt-to-equity ratio, on the other hand, also has a negative and statistically significant impact on performance (measured by earning on equity employed). The size of the company, on the other hand, has a favorable and considerable impact on the performance of the company (measured by using earning on equity employed as proxy).

A causal relationship exists, according to Nisha and Ghosh (2018), between a company's financial performance and the amount of leverage it has. The researchers discovered presence of negative relationship between leverage and performance. Also discovered was that there was no statistically significant difference in financial success between high-leverage and low-leverage organizations, regardless of the size of the organizations or the rate at which they were growing.

Akpinar and Yigit (2016) conduct a comparative analysis of Turkey, Italy, and the Netherlands in order to determine the types of diversity that are used and the differences in performance between the three countries. According to the researchers, there was no correlation discovered between the type of diversification and performance in either Italy or the Netherlands, although there was a small amount of positive correlation discovered in Turkey. It is possible that results will differ from one country to another as a result. Furthermore, according to Modigliani and Miller (1958), the capital structure of a company has absolutely no bearing on the success of the company. Agency theory and debt interest tax deductions are both affected by the capital structure on the other hand.

Nigerian savings and loan associations' financial performance was investigated by Abubaker (2015), who conducted research into the relationship between financial leverage and financial performance (SBAs). There is no statistically significant relationship between debt ratio and financial performance, as indicated by the return on equity, according to these findings. Leverage, according to Myers (1997), would have an impact on investment and cause the market value of a company to decrease. Titman (1984) asserted that the use of leverage by a company has an effect on the company's liquidation potential.

According to the findings of a study conducted by Maksimovic and Titman (1991), excessive levels of leverage have a negative impact on the success of a business. Philips and Sipahioglu (2004) conducted an investigation into the relationship between financial leverage and corporate performance results, and they came to the conclusion that leverage had a negative impact on business results.

A company's optimal capital structure, according to Muritala (2012), is one that allows it to improve its financial performance while maintaining or increasing its liquidity. There will be a negative relationship between the capital structure of the operating

company and its performance, just as the author predicts. During his research, he discovered that several factors such as asset turnover, firm size, company age, and tangibility of the company's assets were all positively associated with the company's performance.

The impact of ownership structure on financial performance was investigated, according to Lawal and colleagues (2018). Accordingly, it has been determined that ownership structure will be used as a dependent variable. There are three proxy variables used to represent this: ownership of the management team, ownership of the institution, and concentration of ownership. According to the findings of this study, when accounting for administrative and institutional ownership, ownership structure has a statistically significant positive impact on financial performance, whereas when accounting for concentration of ownership, ownership structure has a statistically significant negative impact on financial performance (Figure 1). There is substantial evidence to support this claim, even though the size and growth of the companies that were used as control variables in the study have a significant impact on their financial performance.

A study conducted by Khamis and colleagues (2015) looked into the relationship between the dimension of ownership structure and the performance of a company. The researchers discovered that a company's success was negatively correlated with the concentration of ownership in its stock. However, there was a positive relationship between ownership of the management team and ownership of the institution and the company's success. In light of previous research, empirical judgments have different consequences than theoretical judgments. Some people have reported negative correlations with their health, whereas others have reported positive or mild effects on their health as a result of these relationships. The findings of some research suggest that the relationship between leverage and performance is conditioned by issues of agency associated with the organization.

In the opinion of Schoubben and Van Hulle (2004), leverage has a positive impact on publicly traded corporations but has a negative impact on privately held enterprises (unlisted companies). When decentralized firms have access to leverage, Ruland and Zhou (2005) discovered that their performance improves.

3.5.2 Firm Age and Firm Performance

An organizational age is considered an important aspect determining performance. Hence researchers started giving due attention to a firm's age as a critical variable impacting performance (Coad, Segarra & Teruel, 2013). Firm age is studied in different scenarios. Few studies explored the effect of age on those firms which are young (Stam & Wennberg, 2009), while other studies focused on performance and organizational behavior of those firms which have different ages (Coad et al., 2013). While there are studies which studied relationship of firm age and compensation paid (Brown & Medoff, 2003). Above stated studies focused on different effects of age on the firm. Studies are conducted in different geographical regions. However, Hui et al., (2013) explained that most studies on organizational age and performance are carried out in developed economies. Less attention is given to less developed economies as far as studies related to age and performance relationship is concerned. As far as the size of business is concerned, in small businesses, higher financial performance is demanded and considered critical for its longevity (Storey, 1994). Previous research concluded that organizational performance is a multi-sided experience. It is not based on any single aspect of organizational behavior. Delmar, Davidsson, and Gartner (2003) discussed that organizational performance is linked with different demographics of the firms, including firm age. It is quite important to mention here that performance of an organization is quite important not only for growth but survival. Further to elaborate the impact of age on performance, Phillips and Kirchhoff (1989), Storey (1994) and Esaete (2005), that age play role in performance. These studies concluded that younger organizations displaying better performance had twice the chances of survival in comparison to their less performing counterpart. Briefly speaking, they concluded that small business performance is generally linked closely to survival and success (Johannisson, 1993). Hence age is considered as an important factor determining performance of an organization.

Relationship between age and firm performance is not simple. Some studies have shown that the relationship between business age and performance is different. The relationship between a company's age and a company's performance is well documented but shows contrasting results (Durand and Coeurderoy, 2001). Studies such as Coad et al., (2013) argued that experience through age is helpful for business, supporting a positive relationship to improve performance. Experience earned with age

produced better performance for organization. However, Coad et al., (2013) discovered both positive and negative relationships. They found that aging companies are experiencing productivity, profits, scaling up, lower debt ratios, and higher capital adequacy ratios. Meanwhile, they also found that older companies had lower expected growth rates in sales, profits, and productivity and lower levels of profitability. Thus age on one hand provide experience and resultantly organization earns profit. But on the other hand old companies have less growth rates. Studies such as Agarwal and Gort (2002) have pointed out negative relationships but argue that age can result in "decline" and poor performance. Pastor and Veronage (2003) reported similar effects. Loderer and Waelchli (2010) found that aging companies reduce their performance, and aging companies have a negative impact on their performance.

3.5.3 Liquidity and Firm Performance

The majority of theoretical and empirical studies back up the notion that liquidity has a favorable impact on business profitability. Lartey et al. (2013) conducted a study from 2005 to 2010 on the association between liquidity and profitability of seven banks listed on the Ghana Stock Exchange. The findings of the study were analyzed using secondary data and the panel method, and it was shown that liquidity had a very weak positive link with the profitability of Ghana's listed banks. Akoto et al. (2013) conducted seminal research into the impact of working capital management strategies on the profitability of 13 publicly traded manufacturing enterprises in Ghana.

3.5.4 Sale Growth and Firm Performance

Firm resources, according to RBV, are all assets, capabilities, organizational processes, business traits, information, and knowledge within the firm's control that enable the firm to think of and implement plans to increase its efficiency and effectiveness (Daft, 1983). Physical capital resources, human capital resources, and organizational capital resources were grouped by Barney (1991) into three categories. The enterprises then utilize these inputs to improve performance as evaluated by various profitability measures.

3.5.5 Tangibility and Firm Performance

The percentage of fixed assets in total assets is shown by tangibility. External finance is received as a result of the use of tangible assets as security, and the business is in a position to use that financing to enhance financial performance (Vo, 2017).

A regression equation is created to analyze data through software. In this case, the following equation would be utilized hypothesis testing.

Equation No.1 (Firm Performance measured by Return on assets)

$$ROA_{it} = \beta_0 + \beta_1 DCOM_{it} + \sum_{i=2}^n \beta_i Control_{it} + \mu_{it}$$

Equation No.2 (Firm Performance measured by Return on Equity)

$$ROE_{it} = \alpha_0 + \alpha_1 DCOM_{it} + \sum_{i=2}^n \alpha_i Control_{it} + \mu_{it}$$

Where

i represent the organization, and **t** represents a year

DCOMP = Director's Compensation

ROA = Return on Assets

ROE = Return on Equity

μ= Error Term

3.6 Software used and Analytical Techniques

3.6.1 Software

EVIEW software has been used for analysis purposes.

3.6.2 Analytical Technique

Different analytical techniques are used to describe data and relationship between variables to test hypotheses.

3.6.2.1 Descriptive analysis

To initiate analysis descriptive statistics is to be obtained. In this section mean and median value is used to explain average value of variable. Variation in the data is

depicted by standard deviation. Maximum and minimum values are used to define the range of data. Skewness and kurtosis are used to check normality of data.

3.6.2.2 Correlation analysis

Correlation analysis is carried out to verify if there is any issue of multicollinearity between independent variables. Value of correlation ranges from -1 to +1. -1 means strong negative correlation, 0 means no correlation and +1 means strong positive correlation.

3.6.2.3 Regression analysis (General Method of Moments)

Panel regression analysis is used to capture the effect of independent variable on dependent variable. In this study Generalized method of moments (GMM) has been used to resolve issue of endogeneity. According to Hansen, (2010) GMM is now being widely due to the following reasons:

- GMM estimators feature easy-to-characterize large-sample qualities. A group of such estimators can be investigated at the same time in a fashion that allows for straightforward asymptotic efficiency comparisons. The approach also makes it simple to create tests that account for both sampling and estimate error.
- GMM estimators may be built without defining the entire data generation process, which researchers find valuable in practice (which would be required to write down the maximum likelihood estimator). This property has been used in the analysis of partially specified economic models, the investigation of possibly miss specified dynamic models aiming to meet target moments, and the construction of stochastic discount factor models that relate asset price to macroeconomic risk sources.

CHAPTER 4

Results and Interpretation

4.1 Descriptive Statistics

Table 4.1 Descriptive Statistics

	ROA	ROE	DCOM	AGE	LEV	LIQ	SG	TANG
Mean	0.1106	0.2010	12.3704	3.4480	0.1962	1.5802	-0.0001	0.5867
Median	0.0810	0.1861	12.5754	3.4657	0.1714	1.3033	0.0951	0.6080
Maximum	0.8253	0.9872	16.4407	4.3175	0.8005	7.4296	3.9159	0.9778
Minimum	-0.4583	-0.8220	5.9989	1.0986	0.0003	0.0529	-4.0435	0.0485
Std. Dev.	0.1300	0.2643	1.8019	0.5701	0.1451	1.1151	0.6490	0.2098
Skewness	0.8338	-0.4111	-0.8580	-0.6356	0.8155	2.1539	-1.5173	-0.5010
Kurtosis	6.1297	5.0910	4.7440	3.3590	3.3668	9.6575	15.6849	2.7536

ROA=Return on Assets, ROE=Return on equity, DCOM=Director Compensation, Age=Firm age, Lev=Leverage, Liq=Liquidity, SG=Sale growth, Tang=Tangibility

The above-presented table indicates the results for descriptive statistics. In descriptive statistics, the average values for all variables have been demonstrated. Moreover, the variation in the data has been depicted by using standard deviation. The results are also showing the maximum and minimum values. The skewness of the data and peakedness of the curve has been demonstrated by skewness and kurtosis, respectively, for all study variables.

The results show that the average value of return on assets (ROA) is 0.1106, which means the average earning on assets employed is 11.06%. This value shows the average earning power of the top companies in the non-financial sector of Pakistan. Therefore, the average earning power of the top companies in the non-financial sector of Pakistan is 11.06%. The companies are earning 11.06% while utilizing the total assets. However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 0.1300. This value shows that the average return on assets (ROA) may change up to 0.1300 units from time to time or firm to firm. The results also show the maximum earning on assets employed and

minimum earning on assets employed in the top companies of the non-financial sector of Pakistan. The skewness value is positive, which indicates that the data of return on assets (ROA) is positively skewed, and most data is present on right portion of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The descriptive statistics show that the average value of return on equity (ROE) is 0.2010, which means the average earning on equity employed is 20.1%. This value shows the average earning by using the equity financing of the top companies of the non-financial sector of Pakistan. Therefore, the capacity of equity to earn a profit of the top companies of the non-financial sector of Pakistan is 20.1%. The companies are earning 20.1% while utilizing the total equity financing. However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 0.2643. This value shows that the average return on equity (ROE) may change up to 0.2643 units from time to time or firm to firm. The results also show the maximum earning on equity employed and minimum earning on equity employed in the top companies of the non-financial sector of Pakistan. The skewness value is negative, which indicates that the data of return on Equity (ROE) is negatively skewed, and most data is lying on the left portion of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The above-presented table shows the results of the descriptive statistics and depicts that the average value of director compensation (DCOM) is 12.3704. Director compensation is measured by the natural log of compensation for directors; therefore, the average compensation in top companies of the non-financial sector of Pakistan is Rs. 235720 thousand (Exponential of 12.3704). However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 1.8019. This value shows that average director compensation may change up to 1.8019 units from time to time or firm to firm. The results also show the maximum and minimum compensation of directors in the top companies of the non-financial sector of Pakistan. The skewness value is negative, which indicates that the data of director compensation is negatively skewed, and mostly, data is lying on the left part

of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The above-presented table shows the results of the descriptive statistics and depicts that the average value of firm age (AGE) is 3.45. Firm age is measured by taking the natural log of firm age; therefore, the average age of top companies of the non-financial sector of Pakistan is Rs. 31.5 years (Exponential of 3.45). However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 0.5701. This value shows that the average age of the companies may change up to 0.5701 units from time to time or firm to firm. The results also show the maximum and minimum values for this variable in the top companies of the non-financial sector of Pakistan. The skewness value is negative, which indicates that the data of this variable is negatively skewed, and mostly, data is lying on the left part of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The above-presented table shows the results of the descriptive statistics and depicts that the average value of leverage (LEV) is 0.1962. Leverage is measured by taking the ratio of debt to total assets. This value shows that averagely top companies of non-financial sectors have 19.62% debt of their assets; in other words, the average claim of total assets in debt is 19.62%. However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 0.1451. This value shows that the average value of the leverage may vary from 0.1451 units from time to time or firm to firm. The results also show the maximum and minimum values for this variable in the top companies of the non-financial sector of Pakistan. The skewness value is positive, which indicates that the data of this variable is positively skewed, and mostly, data is present on right portions of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The above-presented table shows the results of the descriptive statistics and depicts that the average value of liquidity (LIQ) is 1.5802. Liquidity is measured by taking the ratio of current assets to current liabilities. This value shows that top companies of non-financial sectors have 1.58 times the current assets to meet their current liabilities.

However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 1.1151. This value shows that the average value of the liquidity may vary 1.1151 units from time to time or firm to firm. The results also show the maximum and minimum values for this variable in the top companies of the non-financial sector of Pakistan. The skewness value is positive, which indicates that the data of this variable is positively skewed, and most data is lying on the right portion of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The above-presented table shows the results of the descriptive statistics and depicts that the average value of sale growth (SG) is -0.0001. Sale growth (SG) is measured by the natural log of current sales to the previous sale; therefore, the average sale growth in top companies of the non-financial sector of Pakistan is -0.001%. However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 0.6490. This value shows that average sale growth may change up to 0.6490 units from time to time or firm to firm. The results also show the maximum and minimum values for this variable in the top companies of the non-financial sector of Pakistan. The skewness value is negative, which indicates that the data of this variable is negatively skewed, and most data is lying on the left portion of the curve. The kurtosis value is greater than 3, which shows that the peakedness of the curve is leptokurtic.

The above-presented table shows the results of the descriptive statistics and depicts that the average value of tangibility is 0.5867. Tangibility (TANG) is measured by taking the ratio of fixed assets to total assets. So, the tangibility measures the portion of the fixed assets in total assets. The average value of the tangibility is 0.5867, which shows that the average tangibility in the top companies by their size is 0.5867. This value depicts that 58.67% of total assets represent the fixed assets in top-ranked companies of the non-financial sector. However, it is an average value, and this value may disperse from firm to firm and from time to time, and the value of standard deviation indicates the presence of variation in the data. The value of the standard deviation is found as 0.2098. This value shows that the average value of the tangibility may change up to 0.2098 units from time to time or firm to firm. The results also show the maximum and

minimum values for this variable in the top companies of the non-financial sector of Pakistan. The skewness value is negative, which indicates that the data of this variable is negatively skewed, and most data is lying on the left portion of the curve. The kurtosis value is less than 3, which shows that the peakedness of the curve is platykurtic.

4.2 Correlation Analysis

Table 4.2.1 Correlation Analysis (With ROA)

	ROA	DCOM	AGE	LEV	LIQ	SG	TANG
ROA	1						
DCOM	0.188	1					
AGE	-0.012	0.156	1				
LEV	-0.253	-0.293	-0.180	1			
LIQ	0.324	0.172	0.079	-0.308	1		
SG	0.135	0.109	0.0009	-0.174	0.045	1	
TANG	-0.205	-0.261	0.054	0.574	-0.316	-0.162	1

ROA=Return on Assets, BCOM=Director Compensation, Age=Firm age, Lev=Leverage, Liq=Liquidity, SG=Sale growth, Tang=Tangibility

Table 4.2.2 Correlation Analysis (With ROE)

	ROE	DCOM	AGE	LEV	LIQ	SG	TANG
ROE	1						
DCOM	0.048	1					
AGE	-0.005	0.156	1				
LEV	-0.109	-0.293	-0.180	1			
LIQ	0.201	0.172	0.079	-0.308	1		
SG	0.140	0.109	0.0009	-0.174	0.045	1	
TANG	-0.174	-0.261	0.054	0.574	-0.316	-0.162	1

ROE=Return on equity, BCOM=Director Compensation, Age=Firm age, Lev=Leverage, Liq=Liquidity, SG=Sale growth, Tang=Tangibility

The above-presented tables demonstrates the results for correlation analysis between the variables of the study. The results indicate that return on assets (ROA) has a positive relationship with return on equity (ROE). The correlation coefficient between return on assets (ROA) and return on equity (ROE) is 0.7025, which is a strong positive. This value indicates that there is a positive and strong relationship between both these variables. Return on asset (ROA) has a positive relationship with director compensation. The coefficient of correlation between return on assets (ROA) and director compensation (DCOM) is found as 0.1882, which shows that there is a positive and weak relationship between return on assets (ROA) and director compensation (DCOM). The results are further showing that the coefficient of correlation between return on assets (ROA) and firm age (AGE) is -0.0127, which indicates presence of negative and weak relationship between both these variables (ROA and AGE). The coefficient of correlation between return on assets (ROA) and leverage (LEV) is -0.2537, which shows that return on assets (ROA) has a negative and weak correlation with leverage.

Moreover, the results show that the coefficient of correlation between return on assets (ROA) and liquidity (LIQ) is 0.3249, and this value indicates that there is a positive and weak relationship between return on assets (ROA) and liquidity (LIQ). Furthermore, the results show that return on assets (ROA) and sale growth (SG) have a positive relationship to each other. The coefficient of correlation between return on assets (ROA) and sale growth (SG) is 0.1351, which shows the weak and positive relationship between both variables. The results are further showing that the coefficient of correlation between return on assets (ROA) and tangibility (TANG) is -0.2058, which elaborates presence of negative and weak relationship between return on assets (ROA) and tangibility (TANG).

In the case of relationships of return on equity (ROE) with other variables, the results show that the coefficient of correlation between return on equity (ROE) and director compensation (DCOM) is 0.0486, which is a positive and weak relationship between both variables (ROE and DCOM). The results further show that the coefficient of correlation between earning on equity employed and firm age (AGE) is -0.0048, which means there is a weak and negative relationship between firm age and return on equity (ROE). The coefficient of correlation between return on equity (ROE) and leverage

(LEV) is found as -0.1092, and this value demonstrates presence of negative and weak relationship between return on equity (ROE) and leverage (LEV). The coefficient of correlation between return on equity (ROE) and liquidity (LIQ) is found as 0.2013, and this value demonstrates that there is a weak positive relationship between return on equity (ROE) and liquidity (LIQ). Furthermore, the results indicate that the coefficient of correlation between return on equity (ROE) and sale growth (SG) is 0.1401, which depicts that there is a positive and weak relationship between both these variables (ROE and Sale growth). The coefficient of correlation between return on equity (ROE) and tangibility (TANG) is found as -0.1739, and this value shows presence of negative and weak relationship between return on equity (ROE) and tangibility (TANG).

The results are further elaborated that the coefficient of correlation between director compensation and firm age is 0.1564. This value shows a positive and weak relationship between director compensation (DCOM) and firm age (AGE). The coefficient of correlation between director compensation and leverage (LEV) is -0.2934, which shows presence of negative and weak relationship between director compensation (DCOM) and leverage (LEV). There is a positive and weak relationship between director compensation (DCOM) and liquidity as the coefficient of correlation between director compensation (DCOM), and liquidity (LIQ) is found as 0.1716. The coefficient of correlation between director compensation and sale growth (SG) is found as 0.1091, which shows that director compensation and sale growth have a weak positive relationship with each other. The coefficient of correlation between director compensation (DCOM) and tangibility (TANG) is found as -0.2610, which depicts that both these variables (DCOM and TANG) have a negative and weak relationship to each other.

The results for correlation analysis show that firm age (AGE) has a negative and weak relationship with leverage (LEV). The coefficient of correlation between firms' age (AGE) and leverage (LEV) is found as -0.1799, which is a negative and weak relationship between both variables (AGE and LEV). The coefficient of correlation between firm age (AGE) and liquidity (LIQ) is found as 0.0788, which shows a weak positive relationship between both variables. The results further indicate a weak positive relationship between sale growth and firm age (AGE) as the coefficient of correlation between both variables is found as 0.0009. The results are also showing that the coefficient of correlation between firm age (AGE) and tangibility (TANG) is found

as 0.0536, which shows that there is a weak positive relationship between firm age (AGE) and tangibility (TANG).

The coefficient of correlation between leverage (LEV) and liquidity (LIQ) is found as -0.3076, which shows a negative relationship between leverage and liquidity. The results are further showing that the coefficient of correlation between leverage and sale growth (SG) is found as -0.1741, and these results show presence of negative and weak relationship between leverage (LEV) and sale growth (SG). Moreover, the results show that the relationship between leverage (LEV) and tangibility (TANG) is moderate positive as the co-efficient between both variables is found as 0.5745. The coefficient of correlation between liquidity and sale growth (SG) is found as 0.0453, which shows a weak positive relationship between both of these variables. The relationship between liquidity and tangibility (TANG) is weak negative as the correlation coefficient is found as -0.3160. The coefficient of correlation between sale growth (SG) and tangibility (TANG) is found as -0.1619, indicating a weak negative relationship between both variables.

In a nutshell, it is depicted that all the explanatory variables (Independent variables) have weak relationships. Thus, there is no severe issue of multi-co-linearity between the independent variables, and these can be used for further analysis.

4.3 Regression Analysis (Application of GMM)

4.3.1 Testing of hypothesis (Dependent variable is Return on assets)

Table 4.3 Results of dependent variable ROA (Generalized Method of Moments)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.0603	0.0206	2.9239	0.0036
DCOM	0.0035	0.0014	2.5189	0.0121
AGE	-0.0124	0.0027	-4.5711	0.0000
LEV	-0.1725	0.0259	-6.6699	0.0000
LIQ	0.0369	0.0051	7.2299	0.0000
SG	0.0273	0.0042	6.4850	0.0000
TANG	0.0297	0.0214	1.3888	0.1656
R-squared	0.254687	Adjusted R-squared	0.244592	

The above-placed table shows the results for regression analysis in which a generalized method of moments (GMM) has been applied to address the problem of endogeneity. The value of the R-square is found as 0.2547, which shows that the explanatory power of the model is 25.47%. This value shows that all independent variables bring the 25.47% variance in dependent variable.

The co-efficient of director compensation (DCOM) is 0.0035 with p-value less than 0.05 (P-value 0.0121). These results show that the director compensation has a significant positive impact on dependent variable i.e.; return on assets (ROA). If one unit of director compensation is increased, the 0.0035 units of earning on assets employed will increase. Similarly, if one unit of director compensation (DCOM) is decreased, then 0.0035 units of return on assets (ROA) will be decreased. The coefficient of firm age (AGE) is -0.0124, with a probability of less than 0.05. Thus, the firm age has a negative influence on return on assets (ROA). If one unit of firm age increases, then 0.0124 units of return on assets (ROA) will be decreased and vice versa. The co-efficient of leverage is -0.1725, which is negative and with a p-value less than 0.05. These results show that leverage has a negative influence on return on assets (ROA). If one unit of leverage increases, then 0.1725 units of return on assets (ROA) decrease and vice versa. The co-efficient of liquidity (LIQ) is found as 0.03690 with a p-value less than 0.05, which indicates that liquidity has a significant positive influence on dependent variable (earning on assets employed). If one unit of liquidity is increased, then 0.03690 units of return on assets (ROA) will be increased, and if one unit of liquidity is decreased, then 0.03690 units of return on assets (ROA) will be decreased. Sale growth (SG) has a significant positive impact on dependent variable (earning on assets employed) as the co-efficient of sale growth (SG) is 0.0273 with a p-value less than 0.05. If one unit of sale growth (SG) is increased by one unit, then 0.0273 units of earning on assets employed will increase and vice versa. Moreover, the results indicate that the co-efficient of tangibility is 0.0297 with a p-value greater than 0.05. These results indicate that tangibility has no impact on return on assets (ROA).

The above results indicate the acceptance of hypothesis No.1 that Directors' compensation has a significant influence on return on assets. The results are supported by the previous studies (Shin, Lee and Joo, 2009; Hassan et al., 2003; Feltion, 2004).

4.3.2 Testing of hypothesis (Dependent variable is Return on equity)

Table 4.4 Results of dependent variable ROE
(Generalized Method of Moments)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.8268	0.1084	7.6274	0.0000
DCOM	-0.0212	0.0048	-4.3983	0.0000
AGE	-0.1089	0.0284	-3.8327	0.0001
LEV	-0.5461	0.1747	-3.1257	0.0019
LIQ	0.0115	0.0044	2.6076	0.0095
SG	0.0464	0.0184	2.5218	0.0121
TANG	0.1665	0.0566	2.9394	0.0035
R-squared	0.8011	Adjusted R-squared	0.7734	

The above-presented results show the outcome of regression analysis in which a generalized method of moments (GMM) has been applied to address the problem of endogeneity. The generalized method of moments has been applied in case return on equity (ROE) as a dependent variable. The value of the R-square is found as 0.8011, which shows that the explanatory power of the model is 80.11%. This value shows that all independent variables bring the 80.11% variance in dependent variable (Earning on equity employed).

The co-efficient of director compensation (DCOM) is -0.0212 with a p-value less than 0.05 (P-value 0.0121). These results show that the director compensation has significant negative impact on return on equity (ROE). If one unit of director compensation is increased, the 0.0212 units of earning on equity employed will decrease. Similarly, if one unit of director compensation (DCOM) is decreased, then 0.0212 units of return on equity (ROE) will increase. The coefficient of firm age (AGE) is -0.1089, with a probability of less than 0.05. Thus, the firm age has a negative influence on return on equity (ROE). If one unit of firm age is increased, then 0.1089 units of return on equity (ROE) will be decreased and vice versa. The co-efficient of leverage is -0.5461, which is negative and with a p-value less than 0.05. These results show that leverage has a negative influence on return on equity (ROE). If one unit of leverage increases, then 0.5461 units of return on equity (ROE) decrease and vice versa. The co-efficient of liquidity (LIQ) is found as 0.01147 with a p-value less than 0.05, which indicates that liquidity has a significant positive influence on dependent variable

(earning on equity employed). If one unit of liquidity increases, then 0.01147 units of return on equity (ROE) will be increased. If one unit of liquidity decreases, then 0.01147 units of return on equity (ROE) will decrease. Sale growth (SG) has a significant positive impact on dependent variable (earning on equity employed) as the co-efficient of sale growth (SG) is 0.0464 with a p-value less than 0.05. If one unit of sale growth (SG) is increased by one unit, then 0.0464 units of earning on equity employed will increase and vice versa.

Moreover, the results indicate that the co-efficient of tangibility is 0.1665 with a p-value less than 0.05. These results indicate that tangibility has a significant positive impact on dependent variable (earning on equity employed). If one unit of tangibility is increased, then 0.1665 units of earning on equity employed will increase.

The results indicate the acceptance of hypothesis No.2 that directors' compensation has a significant influence on return on equity. The past studies support the results that director compensation has significant influence on profitability (ROE) (Bebchuk and Fried, 2003).

CHAPTER 5

Conclusion and Discussion

This chapter is about the conclusion and discussion of the results. The chapter also elaborates the limitations of the study, practical implications, and future direction of the study.

5.1 Conclusion

This study is conducted to capture the influence of directors' compensation on firm performance. Director's compensation and organizational performance and their different measures are elaborated in detail. Relationship between board of director's compensation and performance of organization is also explained theoretically. Empirical research demands explanation of variables in term of proxies used to measure. There are different proxies to measure performance of the firm, however, in this study firm's performance is measured by return on assets (ROA) and return on equity (ROE). Hypothesis are developed on the basis of literature review; hence hypotheses were developed in the light of extensive literature review. To check the statistical status of the hypotheses, the data for the top 50 companies from the non-financial sector of Pakistan has been collected. Afterward, the appropriate technique, i.e., generalized method moments (GMM), has been applied, and results are obtained. The results show that the director compensation has significant positive impact on dependent variable (earning on assets employed). Moreover, the control variables have a significant influence on return on assets (ROA).

The coefficient of firm age (AGE) is -0.0124, with a probability of less than 0.05. Thus, the firm age has a negative influence on return on assets (ROA). These results show that leverage has a negative influence on return on assets (ROA). The co-efficient of liquidity (LIQ) is found as 0.03690 with a p-value less than 0.05, which indicates that liquidity has a significant positive influence on dependent variable (earning on assets employed). Sale growth (SG) has significant positive impact on dependent variable

(earning on assets employed). Moreover, the results indicate that tangibility has no impact on return on assets (ROA).

In the case of return on equity (ROE) as a proxy of return on equity (ROE), the results indicate that the director compensation has significant negative impact on return on equity (ROE). All the control variables are also showing a significant influence on return on equity (ROE). The coefficient of firm age (AGE) is -0.1089, with a probability of less than 0.05. Thus, the firm age has a negative influence on return on equity (ROE). The results show that leverage has a negative influence on return on equity (ROE). If one unit of leverage increases, then 0.5461 units of return on equity (ROE) decrease and vice versa. The co-efficient of liquidity (LIQ) indicates that liquidity has significant positive influence on dependent variable (earning on equity employed). Sale growth (SG) has significant positive impact on dependent variable (earning on equity employed). Moreover, the results indicate that the co-efficient of tangibility has significant positive impact on dependent variable (earning on equity employed).

The following table shows the influence of directors' compensation on firm performance measured by return on assets (ROA) and returns on equity (ROE)

Sr	Hypothesis	Results	Hypothesis Status
1	Directors' compensation has a significant influence on earning on assets employed	Significant positive relationship	Accepted
2	Directors' compensation has a significant influence on return on equity	Significant negative relationship	Accepted

Above mentioned hypotheses were empirically analyzed and accepted. Hypotheses are fully supported by literature review.

5.2 Discussion

In this study, the following hypotheses have been developed and tested.

H1: Directors' compensation has a significant influence on return on assets

The results show that the director compensation has significant positive impact on dependent variable (earning on assets employed). Performance and compensation are

linked, according to agency theory which elaborates that board of director have their personal interests and they execute business activities in accordance with their own interests. In this scenario compensation is a motivational factor for board of directors to perform better. Compensation is a term that refers to a monetary payment given to an official in exchange for earlier service (Devers et al., 2007). Many studies have revealed a beneficial link between organizational success and executive compensation. According to Shin, Lee, and Joo (2009), Executive remuneration consists of both financial and non-financial awards. Few studies have identified a favorable but shaky link between pay received and firm performance (Hassan et al., 2003). Firm output is said to be influenced by pay structure. It is important to note that CEO compensation links corporate failure in the United States (Felton, 2004). Compensation granted to directors encourages them to help the company achieve its objectives, increasing shareholder wealth (Jensen & Murphy, 2010). To address the issue, academics have attempted to develop an ideal pay system that aligns senior management/executives, shareholders, and other stakeholders (Dr. Kutum, 2015). Based on agency theory, Ruparelia and Njuguna (2016) found that board remuneration had a favorable impact on financial performance. The research lasted eleven years and was based on secondary data. They calculated board of director compensation based on annual fees paid to directors. In contrast, financial performance was calculated using various proxies, including earning on assets employed, equity, earnings per share, and dividend yield. In this study board of director's compensation has positive impact on performance of company (return on assets) supported by previous research (Ruparelia and Njuguna, 2016).

H2: Directors' compensation has a significant influence on return on equity

Generally, board of director compensation produce positive relationship with organizational performance, however there are few studies depicting presence of negative relationship. This study depicts that director compensation has significant negative impact on dependent variable (earning on equity employed). Hence it supports an idea that relationship between compensation (monetary or non-monetary) and performance is not always positive. Furthermore, as per agency theory board of director's perform for their interest instead of company performance. Board of director may have their interest to tunnel resources of firm towards other firm where they have higher interest. Resultantly board of director even getting higher compensation may not

perform efficiently for better organizational profitability. Board of director's compensation is negatively impact return on equity in this research as confirmed by empirical analysis. Our result is supported by previous studies (Bebchuk and Fried, 2003).

5.3 Practical Implications

The study's objective is to check the impact of directors' compensation on firm performance (ROA and ROE).

- a) The results of the study are helpful for policymakers to enhance firm performance by focusing director's compensation.
- b) Research is always helpful for future studies as they may support their studies from the results obtained in Pakistan scenario.
- c) Study adds to the existing body of knowledge regarding directors' compensation and firm performance.

5.4 Limitations

A lot of work has been carried out in the study about directors' compensation and firm performance, but there also remains a gap to fill. The study also has some limitations.

- a) Sample size for this study is limited to 50 companies.
- b) Financial sector of Pakistan economy is ignored in this study.
- c) Data has been taken only from companies listed on Pakistan Stock Exchange (PSX).
- d) Only one explanatory variable, i.e., directors' compensation, has been used in the study.
- e) Firm performance is measured using only firm-specific variables, i.e., return on asset (ROA) and equity (ROE).

5.5 The future direction of the study

Different aspects of director compensation may be focused for future research.

- a) Sample size may be increased for generalizability of results.
- b) Financial sector of Pakistan may be focused to check the impact of directors' compensation on firm performance.

- c) There are many variables which may impact firm performance, however in this study only board compensation is studied. Other variables may be added to capture firm performance.
- d) The firm performance may be measured by using other market-based proxies, e.g., Tobinq.
- e) Study may be conducted by taking data from different economies. Those economies may be from developed regions, developing regions and under developed regions. This would surely confirm if there is any difference in impact of director compensation on financial performance between different economic regions.

References

- Abdullah, S. N. (2006). Directors' remuneration, firm's performance and corporate governance in Malaysia among distressed companies. *Corporate Governance: The international journal of business in society*, 6(2), 162-174.
- Abubaker A. (2015), 'Relationship between Financial Leverage and Financial Performance of Deposit Money Bank in Nigeria', *International Journal of Economics, Commerce and Management*, 3(10), 759-778.
- Adegoroye, E, Sunday, O.M., Soyinka, K.A., & Ogunmola, J.O (2017). Executive compensation and firm performance: Evidence from Nigeria firms. *International Journal of Advanced Academic Research*, 3 (7), 23-39.
- Adeoti, J. A., & Isiaka, S. B. (2006). Non-financial compensation and its impact on employee performance in selected Nigerian Firms. *Ilorin Journal of Business and Social Sciences*, Published by the Faculty of Business and Social sciences, University of Ilorin, Ilorin, 11(1), 3-11.
- Agarwal, R., & Gort, M. (2002). Firm and product life cycles and firm survival. *American Economic Review*, 92(2), 184-190.
- Agarwal, S. (2020). Literature review on the relationship between board structure and Firm performance. *International Journal of Business Ethics in Developing Economies*, 9(2).
- Akoto, R. K., Awunyo-Vitor, D., & Angmor, P. L. (2013). Working capital management and profitability: Evidence from Ghanaian listed manufacturing firms. *Journal of economics and international finance*, 5(9), 373-379.
- Akpınar, O., & Yigit, I. (2016). The relationship between diversification strategy and firm performance in developed and emerging economy contexts: Evidence from Turkey, Italy and Netherlands. *Economic and Social Development: Book of Proceedings*, 583.
- Al-Matari, E. M., Al-Swidi, A. K., Fadzil, F. H., & Al-Matari, Y. A. (2012). The impact of board characteristics on firm performance: Evidence from nonfinancial listed companies in Kuwaiti Stock Exchange. *International Journal of Accounting and Financial Reporting*, 2(2), 310-332.
- Al-Najjar, B. (2017). Corporate governance and CEO pay: Evidence from UK Travel and Leisure listed firms. *Tourism Management*, 60, 9-14.

- Atrill, P., McLaney, E., Harvey, D., & Jenner, M. (2009). *Accounting: An introduction*. 4th Edition, Pearson Education, Australia.
- Babalola, Y. A. (2012). The effects of optimal capital structure on firms' performances in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences*, 3(2), 131-133.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, 17(1), 99-120.
- Basu, S., Hwang, L. S., Mitsudome, T., & Weintrop, J. (2007). Corporate governance, top executive compensation and firm performance in Japan. *Pacific-Basin Finance Journal*, 15(1), 56-79.
- Bebchuk, L. A., & Fried, J. M. (2003). Executive compensation as an agency problem. *Journal of economic perspectives*, 17(3), 71-92.
- Bebchuk, L. and Fried, J. (2004). "Pay without Performance: The Unfulfilled Promise of Executive Compensation", Working Paper, Harvard University, Cambridge.
- Brander, J. A., & Lewis, T. R. (1986). Oligopoly and financial structure: The limited liability effect. *The American Economic Review*, 956-970.
- Brick, I. E., Palmon, O., & Wald, J. K. (2006). CEO compensation, director compensation, and firm performance: Evidence of cronyism? *Journal of Corporate Finance*, 12(3), 403-423.
- Buck, T., Liu, X., & Skovoroda, R. (2008). Top executive pay and firm performance in China. *Journal of International Business Studies*, 39(5), 833-850.
- Busale M. David (2011). The relationship between financial performance and Executive compensation of commercial banks in Kenya. University of Nairobi
- Carland, J., & Carland, J. (2003). Pawn takes queen: The strategic game board in entrepreneurial firms. *Academy of Strategic Management Journal*, 2(2), 97-109.
- Chen, K. Y., Elder, R. J., & Hsieh, Y. M. (2007). Corporate governance and earnings management: The implications of corporate governance best-practice principles for Taiwanese listed companies. *Journal of Contemporary Accounting & Economics*, 3(2), 73-105.
- Cheng, P., Su, L., & Zhu, X. (2012). Managerial ownership, board monitoring and firm performance in a family- concentrated corporate environment. *Accounting & Finance*, 52(4), 1061-1081.
- Conyon, M. J., & He, L. (2011). Executive compensation and corporate governance in China. *Journal of Corporate Finance*, 17(4), 1158-1175.

- Daft, R. L. (1983). Learning the craft of organizational research. *Academy of management review*, 8(4), 539-546.
- Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management journal*, 42(6), 674-686.
- Dare, F. D., & Olorunfemi, S. (2010). "Capital structure and corporate performance in Nigeria petroleum industry: panel data analysis", *Journal of Mathematics and Statistics*. 6(2), 168-173.
- Delmar, F., Davidsson, P., & Gartner, W. B. (2003). Arriving at the high-growth firm. *Journal of business venturing*, 18(2), 189-216.
- Devers, C. E., Cannella Jr, A. A., Reilly, G. P., & Yoder, M. E. (2007). Executive compensation: A multidisciplinary review of recent developments. *Journal of management*, 33(6), 1016-1072.
- Dogan, E., & Smyth, R. (2002). Board remuneration, company performance, and ownership concentration: Evidence from publicly listed Malaysian companies. *ASEAN Economic Bulletin*, 319-347.
- Doucouliaagos, H., Haman, J., & Askary, S. (2007). Directors' remuneration and performance in Australian banking. *Corporate governance: an international review*, 15(6), 1363-1383.
- Drakos, A. A., & Bekiris, F. V. (2010). Endogeneity and the relationship between board structure and firm performance: a simultaneous equation analysis for the Athens Stock Exchange. *Managerial and Decision Economics*, 31(6), 387-401.
- Du Plessis, J. J., Hargovan, A., & Harris, J. (2018). *Principles of contemporary corporate governance*. Cambridge University Press.
- Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *The review of financial studies*, 15(1), 1-33.
- Felton, R. F. (2004). A new era in corporate governance. *McKinsey Quarterly*, (2), 28-41.
- Fernandes, N. (2008). EC: Board compensation and firm performance: The role of "independent" board members. *Journal of multinational financial management*, 18(1), 30-44.
- Firth, M., Lohne, J., Ropstad, R., & Sjo, J. (1995). Managerial compensation in Norway. *Journal of Multinational Financial Management*, 5(2), 87-101.

- Florackis, C. (2005). Internal corporate governance mechanisms and corporate performance: evidence for UK firms. *Applied Financial Economics Letters*, 1(4), 211-216.
- Florackis, C., & Ozkan, A. (2004). Agency costs and corporate governance mechanisms: Evidence for UK firms. Working Paper, University of York, UK.
- Fuzi, S. F. S., Halim, S. A. A., & Julizaerma, M. K. (2016). Board independence and firm performance. *Procedia Economics and Finance*, 37, 460-465.
- Gaur, J., & Gupta, R. (2011). Comparing firm performance on the basis of age, size, leverage, and group affiliation in Indian IT industry. *Romanian Journal of Marketing*, (3), 8.
- Ghosh, S. (2017). Corporate governance reforms and bank performance: evidence from the Middle East and North Africa. *Corporate Governance: The International Journal of Business in Society*.
- Gill, A., Biger, N., & Mathur, N. (2011). The effect of capital structure on profitability: Evidence from the United States. *International journal of management*, 28(4), 3.
- Gore, A. K., Matsunaga, S. R., & Yeung, P. E. (2004). Financial expertise and the usefulness of earnings: Evidence from the cash compensation of chief financial officers. Available at SSRN 416280.
- Goyal, A. M. (2013). Impact of capital structure on performance of listed public sector banks in India. *International journal of business and management invention*, 2(10), 35-43.
- Grossman, S. J., & Hart, O. D. (1983). Corporate financial structure and managerial incentives. In *The economics of information and uncertainty* (pp. 107-140). University of Chicago Press.
- Guney, Y., Karpuz, A., & Komba, G. (2020). The effects of board structure on corporate performance: Evidence from East African frontier markets. *Research in International Business and Finance*, 53, 101222.
- Hall, B. J., & Murphy, K. J. (2003). The trouble with stock options. *Journal of economic perspectives*, 17(3), 49-70.
- Hansen, L. P. (2010). Generalized method of moments estimation. In *Macro econometrics and time series analysis* (pp. 105-118). Palgrave Macmillan, London.

- Hassan, S. U., & Ahmed, A. (2012). Corporate governance, earnings management and financial performance: A case of Nigerian manufacturing firms. *American International Journal of Contemporary Research*, 2(7), 214-226.
- Hassan, S., Christopher, T., & Evans, R. (2003). Directors' Remuneration and Firm Performance: Malaysian Evidence. *Management & Accounting Review (MAR)*, 2(1), 57-67.
- Hill, M. R. (2018). Western Companies and Trade and Technology Transfer with the East. In *Technology Transfer and East-West Relations* (pp. 111-145). Routledge.
- Hosny, A. (2017). Political stability, firm characteristics and performance: Evidence from 6,083 private firms in the Middle East. *Review of Middle East Economics and Finance*, 13(1).
- Hui, H., Wan Mohamed Radzi, C. W. J., Jenatabadi, H. S., Abu Kasim, F., & Radu, S. (2013). The impact of firm age and size on the relationship among organizational innovation, learning, and performance: A moderation analysis in Asian food manufacturing companies. *Interdisciplinary Journal of Contemporary Research in Business*, 5(3).
- Ibrahim, M. Y., & Ahmad, A. C. (2017). Corporate governance reforms and shareholders' confidence in emerging markets: A case of Malaysia. *World Journal of Science, Technology and Sustainable Development*.
- Iqbal, K. (2016). The impact of corporate governance on financial performance of the pharmaceutical industry in Pakistan. *Abasyn University Journal of Social Sciences*, 9(1), 166-175.
- Ismail, S. B., Yabai, N. V., & Hahn, L. J. (2014). Relationship between CEO pay and firm performance: Evidences from Malaysia listed firms. *IOSR Journal of Economics and Finance*, 3(6), 14-21.
- Jaafar, S. B., Wahab, E. A. A., & James, K. (2012). Director remuneration and performance in Malaysia family firms: an expropriation matter? *World review of Business research*, 2(4), 204-222.
- Jensen M., Meckling W. (1976), 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure', *Journal of Financial Economics*, 3, 305-60.
- Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, 76(2), 323-329.

- Jensen, M. C., & Murphy, K. J. (1990). Performance pay and top-management incentives. *Journal of political economy*, 98(2), 225-264.
- Jensen, M. C., & Murphy, K. J. (2010). CEO incentives—It's not how much you pay, but how. *Journal of Applied Corporate Finance*, 22(1), 64-76.
- Jhunjhunwala, S., & Mishra, R. K. (2012). Board diversity and corporate performance: The Indian evidence. *IUP Journal of Corporate Governance*, 11(3), 71.
- Kakanda, M. M., & Salim, B. (2017). Corporate governance, risk management disclosure, and firm performance: A theoretical and empirical review perspective. *Asian Economic and Financial Review*, 7(9), 836-845.
- Kanagaretnam, K., Lobo, G. J., & Mathieu, R. (2012). CEO stock options and analysts' forecast accuracy and bias. *Review of Quantitative Finance and Accounting*, 38(3), 299-322.
- Kandel, E., & Lazear, E. P. (1992). Peer pressure and partnerships. *Journal of political Economy*, 100(4), 801-817.
- Kapil, S., & Mishra, R. (2019). Corporate governance and firm performance in emerging markets: Evidence from India. *Theoretical Economics Letters*, 9(6), 2033-2069.
- Kato, T., & Kubo, K. (2006). CEO compensation and firm performance in Japan: Evidence from new panel data on individual CEO pay. *Journal of the Japanese and International Economies*, 20(1), 1-19.
- Khalid, S., & Rehman, M. U. (2014). Impact of Directors' Remuneration on Financial Performance of a Firm. *International Journal of Information, Business and Management*, 6(1), 180.
- Kim, E. H., & Ouimet, P. (2014). Broad-based employee stock ownership: Motives and outcomes. *The Journal of Finance*, 69(3), 1273-1319.
- Krishnan, V. S., & Moyer, R. C. (1997). Performance, capital structure and home country: An analysis of Asian corporations. *Global finance journal*, 8(1), 129-143.
- Kutum, I. (2015). Is there a Relation between CEO Remuneration and Banks Size and Performance? *International Journal of Accounting and Financial Reporting*, 5(1), 272-285.
- Lartey, V. C., Antwi, S., & Boadi, E. K. (2013). The relationship between liquidity and profitability of listed banks in Ghana. *International Journal of Business and Social Science*, 4(3).

- Lawal, O. D., Agbi, E. S., & Mustapha, L. O. (2018). 'Effect of ownership structure on financial performance of listed insurance firms in Nigeria', *Journal of Accounting, Finance and Auditing Studies*, 4(3), 123-148.
- Lipman, F. D., & Hall, S. E. (2008). *Executive compensation best practices*. John Wiley & Sons.
- LiPuma, J. A., Newbert, S. L., & Doh, J. P. (2013). The effect of institutional quality on firm export performance in emerging economies: a contingency model of firm age and size. *Small Business Economics*, 40(4), 817-841.
- Mak, Y. T., & Kusnadi, Y. (2005). Size really matters: Further evidence on the negative relationship between board size and firm value. *Pacific-Basin finance journal*, 13(3), 301-318.
- Maksimovic, V., & Titman, S. (1991). Financial policy and reputation for product quality. *The Review of Financial Studies*, 4(1), 175-200.
- Milkovich, G. T. (2009). & Newman, (2002) *Compensation*.
- Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American economic review*, 48(3), 261-297.
- Mohamad N.E., Abdullah F.N. (2012), 'Reviewing Relationship between Capital Structure and Firm's Performance in Malaysia', *International Journal of Advances in Management and Economics*, 1(4), 151-156.
- Muritala, T. A. (2012). An empirical analysis of capital structure on firms' performance in Nigeria. *International Journal of Advances in Management and Economics*, 1(5), 116-124.
- Murphy, S. A., & McIntyre, M. L. (2007). Board of director performance: a group dynamics perspective. *Corporate Governance: The international journal of business in society*.
- Njogu, L. W. (2017). Effect of executive compensation on risk taking among listed commercial banks in Kenya. *European Journal of Business and Strategic Management*, 2 (2), 50 – 81.
- Ozdemir, O., & Upneja, A. (2012). Board structure and CEO compensation: Evidence from US lodging industry. *International Journal of Hospitality Management*, 31(3), 856-863.
- Ozkan, N. (2011). CEO compensation and firm performance: An empirical investigation of UK panel data. *European Financial Management*, 17(2), 260-285.

- Phillips, P. A., & Sipahioglu, M. A. (2004). Performance implications of capital structure: evidence from quoted UK organizations with hotel interests. *The Service Industries Journal*, 24(5), 31-51.
- Raithatha, M., & Komera, S. (2016). Executive compensation and firm performance: Evidence from Indian firms. *IIMB Management Review*, 28(1), 160–169.
- Rashid, A. (2018). Board independence and corporate performance: Evidence from Bangladesh. *Future Business Journal*, 4(1), 34–49.
- Sarkar, J., & Sarkar, S. (2018). Bank ownership, board characteristics and performance: Evidence from commercial banks in India. *International Journal of Financial Studies*, 6(1), 17.
- Schoubben F., van Hulle C. (2004), ‘The Determinants of Leverage: Differences between Quoted and Non Quoted Firms’, *Review of Business and Economic Literature*, 49(4), 589-620.
- Shamsuddin, Z. (2015). The efficacy impact of corporate governance compliance on the financial performance of cooperative. *International Organization for Research and Development*, C, 1-8.
- Shim, D., Lee, J., & Joo, I. K. (2009). CEO compensation and US high-tech and low-tech firms’ corporate performance. *Contemporary management research*, 5(1).
- Skandalis, K. S., Liargovas, P. G., & Merika, A. A. (2008). Firm management competence: Does it matter? *International Journal of Business & Economics*, 7(2).
- Sun, F., Wei, X., & Huang, X. (2013). CEO compensation and firm performance: Evidence from the US property and liability insurance industry. *Review of Accounting and Finance*.
- Titman, S. (1984). The effect of capital structure on a firm's liquidation decision. *Journal of financial economics*, 13(1), 137-151.
- Ujunwa, A. (2012). Board characteristics and the financial performance of Nigerian quoted firms. *Corporate Governance: The international journal of business in society*.
- Vo, Xuan Vinh. 2017. Determinants of Capital Structure in emerging markets: evidence from Vietnam. *Research in International Business and Finance* 40. 105 – 113.
- Vroom, V. H. (1995). *Work and Motivation*. (Revised edition). San Francisco: Jossey-Bass Publishers.

- Wang, W. (2003). Ownership structure and firm performance: Evidence from Taiwan. *Asia Pacific Management Review*, 8(2).
- Xin, W. Z. (2014). The impact of ownership structure and capital structure on financial performance of Vietnamese firms. *International Business Research*, 7(2), 64.
- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of financial economics*, 40(2), 185-211.
- Zhou, X. (2000). CEO pay, firm size, and corporate performance: evidence from Canada. *Canadian Journal of Economics/Revue canadienne d'économique*, 33(1), 213-251.
- Zhuang, J., Edwards, D., & Capulong, M. V. A. (2001). *Corporate Governance & Finance in East Asia: A Study of Indonesia, Republic of Korea, Malaysia, Philippines and Thailand*. Asian Development Bank.