

**EFFECT OF BOARD COMPOSITION ON FINANCIAL PERFORMANCE OF
LISTED FIRMS IN NAIROBI SECURITIES EXCHANGE**

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DECLARATION

Declaration by the Student

This research project is my original work and has not been presented for a degree in any other University. No part of this project may be reproduced without prior written permission of the author and/or Garissa University.

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DEDICATION

I dedicate this research project to my lovely wife Fardonsa Aliow and my child Asiyah Adan.

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First and foremost, I thank Almighty God for the gift of life and the far He has brought me. Secondly, I wish to thank my supervisors Dr. Kennedy B. Mwengei Ombaba and Dr. Philip Bii for their guidance all through the period of the study. Many thanks go to my lecturers who in one way or another supported and encouraged me throughout the entire course. Finally, I thank all friends who in one way or another encouraged and supported me during this period God bless you all.

ABSTRACT

This study sought to establish the effect of board composition on financial performance of listed firms in Nairobi Securities Exchange. The study objectives were to determine the effect of board size, independent directors, multiple directorships and financial expertise of directors on financial performance. Firm performance was measured using return on assets (ROA). This study was guided by agency theory, upper echelon theory. The study used exploratory research design. The study employed panel approach for a period covering ten years from 2006-2015. The target population comprised of all 68 listed firms in Nairobi Securities Exchange. The study used secondary data which was obtained from annual reports and NSE bulletins using data collection schedule to address recent corporate scandals, major accounting failures while other firms going into receivership and collapsing due to poor financial performance. Data was analyzed using both descriptive and inferential statistical methods. Specifically, multiple regression was used to test the hypotheses. The study found a significant positive effect of board size ($\beta = 2.325$; $p < 0.05$), board independence ($\beta = 2.112$; $p < 0.05$), multiple directors ($\beta = 2.931$; $p < 0.05$) and financial expertise of directors ($\beta = 2.114$; $p < 0.05$) on firm financial performance of listed firms in NSE. The study adds value on the understanding of the effect of board composition on financial performance in listed firms in Kenya. The study also provides a basis for further research as future scholars will find this study fruitful in making conclusions. The study recommends the appointment of more board independent directors to the board and financial experts to be appointed as directors to the boards. In Kenya, several initiatives have been taken by the government to strengthen the board structure and composition in order to create good dynamics of board meetings discussion which will lead to better firm performance and create good value creation to shareholders. Future research could also explore on board characteristics and firm performance by using different research method.

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DEFINITION OF TERMS

- Board Size:** This is the total number of directors in the board of the firm in a given year.
- Corporate governance:** Is the system by which business corporations are managed, directed and controlled.
- Financial Expertise:** Is a requirement that at least one member of the board to have financial background and skills.
- Financial performance:** Financial performance of a firm can be used to determine its operating performance that means that the firm's performance is in quantifiable metrics (Rahman & Haniffa, 2006)
- Independent Directors:** Are non-executive directors of a company and helps the company in improving corporate credibility and governance standards.
- Multiple Directorship:** Is the number of board a particular director is in.

LIST OF ABBREVIATIONS AND ACRONYMS

- CEO - Chief Executive Officer
- CMA - Capital Market Authority
- NED - Non-Executive Directors
- NSE - Nairobi Securities Exchange
- ROA - Return on Assets
- ROE - Return on Equity
- ROS - Return on Sales

CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter introduces the study by providing the background to the study, statement of the problem, research objectives, hypotheses and significance of the study. It concludes with the justifications and the scope of the study.

1.1 Background of the Study

Financial performance is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Rahman and Haniffa (2006) reasoned that financial performance of a firm can be used to determine its operating performance that means that the firm's performance is in quantifiable metrics.

Financial performance is a core concern for users such as investors, banks, credit rating agencies, auditors, regulators and underwriters and has gained considerable attention of practitioners and academicians (Scarlat and Delcea, 2011). Recently, the interest of firms and investors has been heightened by frequent corporate scandals. Investors and other users expect auditors and corporate management to provide them with a warning of approaching failure, but their unwillingness to warn about possible corporate failure eroded the confidence (Washington, 2001).

The devastating impact that the collapse of Enron, Worldcom, Barings Bank, Imarbank, and Lehman brothers had on the global economy supports the preceding argument about the plethora of interested parties affected by corporate failure. It indicates how management was involved in questionable accounting practices which were undetected by their respective boards (Kosmidis and Stavropoulos, 2013). According to agency

theory, CEOs are self-interested, risk averse, and possess goals that diverge from those of shareholders, they engage in self-serving actions at shareholders' expense when given an opportunity by investing in those investments which might not maximize shareholder value but meant to entrench themselves (Fama,1980).

A conflict of interest results when managers serving as shareholders' agents may engage in behaviour that provides them with personal benefits at the expense of shareholders and then to take actions that do not maximize the welfare of the principal (Jensen and Meckling, 1976; Jensen, 1986). These potential conflicts lead to the development of corporate governance control mechanisms and disciplinary measures to sub-optimal managerial behaviour, improve corporate governance and then firm performance (Jensen and Meckling, 1976).

The board is therefore considered to be a primary internal mechanism (Brennan, 2006) it may act to review and ratify management's proposals (Jonson, 2005). Rose (2005) argues that the corporate board plays a key role in supervising management and aligning their interests with the interests of shareholders. A board works to enhance the firm performance and enact legally vested responsibilities and fiduciary duties (Zahra and Pearce II, 1989), the board's expertise can enable them to spot problems early and "blow the whistle" (Salmon, 1993). Solomon and Solomon (2004) felt that, for a company to be successful, it must be well governed. A well-functioning and effective board of directors is sought by every ambitious company. "A company's board is its heart and as a heart, it needs to be healthy, fit and carefully nurtured for the company to run effectively (Purzamani, 2007). The board has the power to employ and expel the employees and also to determine the salaries of top-level managers and to remove the conflict of interests between managers and shareholders (Purzamani, 2007).Corporate governance can also be defined as the set of institutional arrangements affecting

corporate decision-making (Ball & Shivakuma, 2008) In Kenya, corporate governance has traditionally been associated with larger companies, mainly due to the separation between ownership and control of the firm. Although corporate governance is gaining some level of recognition, a lot needs to be done especially on regulation and enforcement. Some listed firms had tremendous governance problems including the unauthorized sale of shares, mismanagement and board conflict. The board of directors, as internal mechanism of governance, has a major function on the limitation of managerial discretion and thereafter to manage the agency relationship between shareholders and managers and stakeholders of company. Improvements in the management and administration of many organizations are thus essential if the global efforts to halt corruption and other types of irregularity are to achieve desired results. An appropriate legal framework is necessary to define the roles of governing bodies, and chief executives and the related framework of authorities and responsibilities of each level of corporate governance.

Capital Markets Authority (CMA) was established to oversee the orderly development of Kenya's capital markets. The authority ensures the development and maintenance of an appropriate legal and regulatory framework to boost investor confidence, enhance efficiency and to create and maintain a fair and orderly market. It also provides guidance to market operators. Therefore, Capital Market Authority (CMA) has a regulatory responsibility to keep surveillance of firms listed in NSE with regards to capital, liquidity and other aspects with overall aim of ensuring financial stability of these firms (Ngugi *et al.*, 2009).

The Nairobi Security Exchange (NSE) has been operating for over 50 years now, but has only been in real existence for 16 months now, in terms of capacity building (Ngugi *et al.*, 2009). It failed to pick the growth momentum and currently the market has just

about 44 listed firms which are less than what the country inherited at independent (Ngugi *et al.*, 2009). Nairobi Securities Exchange (NSE) has a double responsibility for development and regulation of the market operations to ensure efficient trading. For an efficient securities exchange, the companies listed in NSE are expected to be financially sound so as to ensure economic growth of a country.

The corporate governance guidelines and regulations for intermediaries provided by capital market authority (CMA) recommends that one third of board members should be independent and the board should have at least eight board members. The guidelines further requires that the CEO and chairman positions should not be held by one person, otherwise the authority should be notified the reason thereby. It also states that the board should have a balance of skills, experience and members should be from various backgrounds. Furthermore, the CMA guidelines require that outside directorship by board members be not more than five and that all directors shall be needed to submit themselves for re-election at regular intervals and at least once every three years.

Despite of widespread regulatory reforms undertaken to improve corporate governance mechanism, Kenya is characterized by a weak legal and regulatory framework (Tarus, 2011; Gakeri, 2013) just like any other emerging economy. For instance, in the past few years there have been a number of corporate failures occasioned by financial distress among listed firms. This phenomenon of financial difficulties in Kenyan public companies has been witnessed by the increase delisting of companies. Notable cases of corporate failure include Kenya Bulk medical limited, A Baumann, Kenya Corporative Creameries, Uchumi Supermarkets in 2014, and CMC Kenya Ltd., in 2012 among others (Ombaba, 2016).

Recently, Kenya Airways has faced a lot of financial difficulties resulting to change of management and directors and also Chase Bank Kenya placed under receivership. Thus signifying a serious issue with performance of Kenya firms. The main reasons attributed for this poor financial performance of the companies is the inefficient board of directors (Waweru, 2014). Although CMA has enacted and implemented the corporate governance guidelines, there remains a need to determine whether board composition and a corporate governance mechanism enhance effective decision making in Kenya (Ombaba, 2016). The purpose of this study is to determine the effect of board composition and firm financial performance of listed firms in Nairobi Security Exchange.

1.2 Statement of the Problem

The recent wave of corporate scandals and accounting failures in the world has caused concern on the need for financial/accounting experts to be on board to ensure greater accountability on wide range of issues Guner *et al.*, (2008). There is evidence that the appropriate experience and expertise of board members is associated with superior outcomes (Kroll *et al.*, 2008; McDonald *et al.*, 2008).

Fich and Shivdasani (2006) found that in listed firms, “busier boards”, operationalized in their research as boards in which a majority of outside directors hold three or more directorships, are associated with weaker corporate performance. Beasley (1996) reported that the probability of committing accounting fraud is positively related to the average number of directorships held by outside directors. Core *et al.*, (1999) also report that busy directors set excessively high levels of CEO compensation, which in turn leads to poor firm performance.

The era of globalization has led to competition among firms nationally and internationally. There has been need therefore for all firms to be financially stable and sound liquidity in order to be competitive. Hence the boards are supposed to be effective and efficient in ensuring that firms are capable to compete by staying profitable. However, the devastating impact that the collapse of Enron, Worldcom, Barings Bank, Imarbank and others had on the global economy supports the argument about the plethora of interested parties affected by corporate failure (Mizruchi, 2004; Brick *et al.*, 2006).

In Kenya the number of firms going into receivership and others collapsing are cases in which management were involved in questionable accounting practices which were undetected by their respective boards leading to the question as to what composition of board is best able to monitor management. This has brought to the fore once again the need for the practice of good corporate governance.

There are inadequate studies as to whether the composition of boards of directors can meet these stated responsibilities in the same ways in differing market contexts and jurisdictions in which they operate (Krause *et al.*, 2014). Some studies agree that there is significant effect of board composition on financial performance. Other scholars have found insignificant results. In addition, previous studies have looked on corporate governance and firm performance in the developed countries. The developing countries which are characterized by a weak legal and regulatory framework no significant studies have been done on the relationship between board composition and financial performance in developing countries.

Therefore, this study will seek to find out the effect of board composition on firm financial performance in the listed firms in Nairobi Security Exchange (NSE).

1.3 Research Objectives

1.3.1 General objective

General objective is to determine the effect of board composition on firm financial performance of listed firms in Nairobi Security Exchange.

1.3.2 Specific objectives

1. To assess the effect of board size on firm financial performance of listed firms in Nairobi Security Exchange.
2. To establish the effect of independent directors on firm financial performance of listed firms in Nairobi Security Exchange.
3. To establish the effect of multiple directorships on firm financial performance of listed firms in Nairobi Security Exchange.
4. To determine the effect of financial expertise of directors on firm financial performance of listed firms in Nairobi Security Exchange.

1.4 Research Hypothesis

H₀₁ There is no significant effect of board size on firm financial performance of listed firms in Nairobi Security Exchange.

H₀₂ There is no significant effect of independent directors on firm financial performance of listed firms in Nairobi Security Exchange.

H₀₃ There is no significant effect of multiple directorships on firm financial performance of listed firms in Nairobi Security Exchange.

H₀₄ There is no significant effect of financial expertise of directors on firm financial performance of listed firms in Nairobi Security Exchange.

1.5 Significance of the Study

This study will examine the board composition for the period 2006 to 2015, thereby expanding the time frame, updating the literature on the current happenings in financial performance and more so in the developing economies. Research finding in this study will be found to be of valuable significance with regard to the development of policy and practice in corporate governance, particularly in the regulatory bodies like the Capital Markets Authority of Kenya and researchers. The investors and potential investors will also find the results of this study informative in their quest to have insight into the firm financial performance.

The study will also be an important resource for academicians and future researchers who may wish to investigate the future performance of firms within the listed firms in Kenya.

The study will also assist management and the board of directors in appreciating the importance of application corporate governance tenets in enhancing firm's overall performance. The findings will guide the management of both listed and non-listed firms in determining the appropriateness of various governance characteristics and how they relate to the financial performance of their respective organizations. This would help in designing a governance framework that is able to optimize financial output for them, including planning and administration.

1.6 Scope of the Study

The study conducted in a developing country context, by focusing on the effect of board composition and firm financial performance of listed firms in Nairobi Securities Exchange, Kenya for period of ten years from 2006-2015, other firms not listed in this period will be excluded from the study. The board composition to be studied include,

board size, board tenure, independent directors, multiple directorships and financial expertise of directorship. Financial performance in this study will make use of return on assets (ROA). Other factors like firm size, leverage and industry that might affect financial performance of the firms will be controlled.

1.7 Justification of the Study

This study justified the impact of board composition on firm financial performance of listed firms in Nairobi Security Exchange. Thus, the study sought to provide additional evidence of the efficiency of board composition in terms board size, independent directors, board tenure, multiple directorship and financial expertise of directors could explain and predict firm financial performance as measured by return on asset (ROA) within the Kenyan context.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents theories that inform the study, a review of related literature on the concept of board composition and firm financial performance. It will also review literature on variables of the study and finally present the conceptual framework.

2.1 Theoretical Framework

To analyze the impact of governance mechanisms on firm financial performance, the researcher will adopt the lens of the Agency theory (Jensen and Meckling 1973) and Upper Echelon theory (Hambrick and Mason 1984). Board of directors has an important role in the management of organizations. The board is considered to be one of the important governance mechanisms and these groups are increasingly being held responsible for the corporate outcomes, since the outcomes of organizations dependent on the realization of the role of board of directors (Hillman and Dalziel, 2003).

This study will follow the study by Hillman and Dalziel (2003) framework that boards have two functions, namely, to monitor (agency theory based) and to increase access to resources (resource dependence theory based). Monitoring and service are the two main board functions under the agency theory. Strategy planning is the most important board task under the strategic choice model, while acquisition/ provision of resources is of prime concern in the resource dependency theory. In this study each board composition variable will be examined for how it either enhances the ability of the board to monitor and/or provide resources (including strategic advice) to the firm with regard to bankruptcy.

2.1.1 Agency Theory

In agency theory, management initiates and implements, whereas directors monitor (Jensen and Meckling 1976; Deutsch *et al.*, 2007). The monitoring function refers directly to the responsibility of directors to monitor and control of managers (including hiring and firing of the CEO) on behalf of shareholders (Hillman and Dalziel, 2003; Brennan, 2006). The primary driver of each of the monitoring functions of the board is the obligation to ensure that management operates in the interests of shareholders—an obligation that is met by scrutiny, evaluation, and regulation of the actions of top management by the board (Hillman and Dalziel, 2003).

Jensen and Meckling (1976) define the agency theory as a contract under which one party (the principal) engages another party (the agent) to perform some service on their behalf. As part of this the principal will delegate some decision-making authority to the agent. Implicit in this theory is the belief that the agent will be driven by self-interest rather than a desire to maximize the profits for the principal. The board, as an intermediary, is expected to resolve such conflict of interest and minimize the agency costs. Some see the board's role of control as also encompassing a role in strategy.

The board of directors is charged with oversight of management on behalf of shareholders. It is assumed that board performance of its monitoring duties is influenced by the effectiveness of the board, which in turn is influenced by actors such as board composition and quality, size of boards, duality of CEO/Chairman positions, board diversity, information asymmetries and board culture (Brennan 2006).

Agency theory is equally important to corporate governance, since it forms the backbone of any successful corporate governance policies and regulations, (get the agency theory framework right and the corporate governance principles will more than

likely be right) especially in the 21st century where there have been some of the major corporate collapses and lots of talk with regards to strengthening the corporate governance reporting by companies to make sure that it is effective and efficient in protecting the interest of shareholders and all other stakeholders.

According to agency theory, the primary obstacle to the monitoring function is board incentives (Hillman and Dalziel, 2003). Agency theorists acknowledge that the incentives available to directors and boards as regards fulfilling their monitoring role in order to protect shareholder interests do vary and; thus, incentives are an important precursor to effective monitoring (Kyereboah-Coleman & Biekpe, 2005). Agency theorists suggest that when incentives are aligned with shareholders' interests, the boards monitoring of management will be more effective, and thus, firm performance will improve (Fama, 1980; Jensen and Meckling, 1976).

Two alternatives for board incentives have figured prominently in agency theory research, namely, board dependence and director compensation (Hillman and Dalziel, 2003). Researchers studying the monitoring function have expressed a general preference for boards dominated by independent non-executive directors. These researchers contend that boards which consist primarily of executive directors have less incentive to monitor management as a result of their dependence on the CEO/organisation (Hillman and Dalziel, 2003).

2.1.2 Upper Echelon Theory

The upper echelons theory developed by Hambrick and Mason (1984) hypothesizes that demographic characteristics of decision makers partially predict their strategic orientations. It proposes that organizational outcomes are related to top level decision makers possessing particular demographic profiles, and so 'if you want to understand

why organizations do the things they do, or why they perform the way they do, we must consider the biases and dispositions of the most powerful actors- their top executives' (Hambrick, 2007).

The core assumption of Hambricks and Manson's (1984) perspective is the belief that demographic characteristics of corporate executives serve as surrogates for their cognitive orientation, beliefs, values, perceptions and knowledge base, with implications for financial performance. According to Hambrick (2007) executives act based on their personalized interpretations of a given strategic situations they are confronted with, and the personalized interpretations are a function of their experiences, values, beliefs and personalities.

Although upper echelons theory was based on top management teams, this study contends that boards of directors are 'the apex of corporate power' (Zahra and Pearce, 1989), and so are involved in firms' decisions. Due to changing role of the board of directors from control to service and strategic roles, their involvement in firms' strategic decisions is critical. Taking cognizance of this, upper echelons theory views firms' leaders as a critical component in influencing organizational outcomes (Hambrick and Mason, 1984) and therefore, 'organizational outcomes- both strategies and effectiveness- are viewed as reflections of values and cognitive bases of powerful actors in the organization' and in this case the board of directors. They argued that demographic characteristics (for instance age, formal education, career experiences, and functional background) shape the lenses through which they view strategic opportunities.

Proponents of the theory hypothesized that strategic choices cannot be separated from inherent demographic characteristics of decision makers. While most studies on

corporate executives and corporate strategy have emphasized more on CEO and/or Top Management Teams (TMT), this study follows Finkelstein and Hambrick's (1996) suggestion that research needs to extend to board of directors because boards of directors have a significant influence in strategic decisions of the firm. Boards of directors provide advisory roles, and play a major role in reviewing, approving, and facilitating strategic decisions. Golden and Zajac (2001) argues that demographic features of board of directors may influence the inclination of the company in terms of financial performance. This is particularly important because corporate governance will require the involvement of the board; in terms of advising, review, and approval of strategic decisions.

2.2 Concept of Financial Performance

Financial performance is the degree to which financial objectives of a firm are being accomplished (Pandey, 2009). There are many measures of financial performance. For example, return on assets

(ROA) determines an organization's efficiency in ability to make use of its assets (Rahman and Haniffa, 2006) and return on equity (ROE) reveals the return investors expect to earn for their investments and return on sales (ROS) reveals how much a company earns in relation to its sales. Traditionally, the success of a company has been evaluated by the use of financial measures (Tangen, 2003).

The main measures of profitability are the rate of return on assets (ROA), the rate of return on equity (ROE), operating profit margin and net income (Hansen and Mowen, 2005). Liquidity measures, gauge the ability of the business to meet financial obligations as they fall due, without disrupting the normal, ongoing operations of the business. Liquidity can be analyzed both structurally and operationally. Structural

liquidity refers to balance sheet measures of the relationships between assets and liabilities and operational liquidity refers to cash flow measures. Solvency measures the amount of borrowed capital used by the business relative to the amount of owner's equity capital invested in the business. In other words, solvency measures provide an indication of the business' ability to repay all indebtedness if all its assets were sold. Solvency measures also provide an indication of the business' ability to withstand risks by providing information about the operation's ability to continue operating after a major financial adversity (Harrington and Wilson, 1989).

Profitability measures the extent to which a business generates a profit from the factors of production: labor, management and capital. Profitability analysis focuses on the relationship between revenues and expenses and also on the level of profits relative to the size of investment in the business. Repayment capacity measures the ability to repay debt from both operating and non-operating income. It evaluates the capacity of the business to service additional debt or to invest in additional capital after meeting all other cash commitments. Measures of repayment capacity are developed around an accrual net income figure. The short-term ability to generate a positive cash flow margin does not guarantee long-term survival ability (Jelic and Briston, 2001). Financial efficiency on the other hand measures the degree of efficiency in using labor, management and capital. Efficiency analysis deals with the relationships between inputs and outputs. Because inputs can be measured in both physical and financial terms, a large number of efficiency measures in addition to financial measures are usually possible (Tangen, 2003).

2.3 The Board of Directors

Although the correlation between corporate governance and the firm's financial distress situation is not entirely clear, it is common practice for firms to establish a board of

directors to constantly monitor activities and to protect the shareholders' interests (Kosnik, 1990), CH Ong (2000) Boards are defined as "the apex of the firm's decision control system" Fama and Jensen (1983), Huss (2008) and part of the strategic leadership of an organization. The role of the board of directors has evolved over the years, it has moved from merely serving as legal requirements to actually driving the company forward to meet its ambitions (Van der Walt and Ingley, 2001).

Because of separation of company from control and supervision discussion the shareholders are not able to deal with management discussion, the board of directors is obliged to secure the shareholders' interests (Zare *et al.*, 2013). Board of directors provides corporate governance mechanism for quality monitoring and decision making. The board of directors is thus considered as the main internal governance mechanism that aligns shareholders interest with those of management (Norwahida *et al.*, 2012; Jensen and Meckling, 1976).

The study focused on the board of directors because the board is considered as the main corporate governance mechanism (Norwahida *et al.*, 2012; Depret *et al.*, 2005; Walsh and Seward, 1990). It could be argued that had the boards been effective, companies would not have borrowed excessively and thus the risk of financial distress could have been avoided (Argenti, 1986). Argenti (1986) further suggests that corporate failures are associated directly with CEOs, boards of directors and top management members.

This study considered five internal corporate governance mechanisms which concern the composition of the board of directors that is its size, independence, board tenure, multiple directorships, and financial expertise. Each board composition variable is examined for how it either enhances the ability of the board to monitor and/or provide resources (including strategic advice) to avoid financial distress. Furthermore, in

keeping with the same framework this study concludes that the ability of the board to monitor is complementary rather than antagonistic with its ability to provide resources to the firm, in turn enhancing the board's effectiveness and firm performance.

According to Jensen and Meckling (1976), boards dominated by outsiders or NEDs may help to mitigate the agency problem by monitoring and controlling the opportunistic behavior of management.

The results of previous studies that investigated the effect of board composition on firm performance are inconsistent. Dehaena et al. (2001), Omar (2003) and Rhoades et al. (2000) found that NED has a positive relationship with financial performance. Krivogorsky (2006), Lefort and Urzúa (2008) and Limpaphayom and Connelly (2006) also found a positive effect of board composition (the proportion of independent directors on the board) on firm performance. Hasnah (2009) showed that NED is significantly related to firm performance that is measured by ROA.

On the other hand, Coles *et al.* (2001) demonstrated that there is a negative impact of outside directors on firm performance. Erickson et al. (2005) also found a negative relationship between greater board independence and firm value. However, Bhagat and Black (2002) and De Andres et al. (2005) found no significant relationship between the composition of the board and the value of the firm.

2.3.1 Board Size and Firm Financial Performance

Board size is viewed as a proxy to measure the diversity of the knowledge pool and the availability of resources provided by the board from the perspective of resource dependence theory. Boards in unlisted firms can potentially complement a management team's knowledge base (Gabrielsson and Huse, 2005; Minichilli *et al.*, 2009). A larger board is more likely to have a wider range of skills, knowledge, and expertise which,

in turn may contribute to both its monitoring and service roles (Corbetta and Salvato, 2004). Moreover, a large board may counter the weight of a CEO (Maere *et al.*, 2014).

According to agency theory, the main argument in favor of a larger board of directors is that the increase in the number of members raises their disciplinary control over the CEO (Brédart, 2014). Jensen (1993) confirmed that the smaller board size is more correlated with the quality of monitoring. Lipton and Lorsch (1992) also stated that the board might become less effective in monitoring management when its size increases. They recommended that board membership should be between eight and nine persons, and any additional benefits that can be gained from the increased monitoring by additional membership will offset the costs linked with slow decision making.

Empirical evidence on the effect of board size on firm performance provided mixed results. While, Ahmadu *et al.* (2005), Chan and Li (2008), De Andres *et al.* (2005) and Mustafa (2006) found that larger boards are associated with poorer performance, Beiner *et al.*, (2004), Bhagat and Black (2002) and Limpaphayom & Connelly (2006) found no significant association between board size and firm performance.

2.3.2 Independent directors and Firm financial performance

Prior research documented that a higher proportion of outside directors is associated with a higher quality of reported earnings due to the enhanced independence of boards (Vafeas, 2005). Inside directors, who are also top management, provide valuable knowledge about corporate operations to the board discussions, but they have incentive to hide poor performance in order to secure their jobs and related compensation. The outside directors are believed to have strong incentives to perform their monitoring duties diligently to protect their reputation in the external directorship markets (Vafeas, 2005).

It is argued independent directors provide a unique monitoring function (Jensen and Meckling, 1976; Fama, 1980). Due to external markets that reward and punish outside directors they are more likely to be diligent in constraining practices that deteriorate financial statement quality or violate securities laws. Byrd *et al.*, (2001) states that companies' rescue from financial crisis depends on the independent directors' role in the directors' board.

It is often alleged that boards of directors are more independent as the proportion of their outsider directors increases (John and Senbet 1998). However, Fosberg (1989) find no relation between the proportion of outsider directors and various performance measures (i.e., SG&A expenses, sales, number of employees, and return on equity); Hermalin and Weisbach (1991) find no association between the proportion of outsider directors and Tobin's Q; and Bhagat and Black (2002) find no linkage between the proportion of outsider directors and Tobin's Q, return on assets, asset turnover and stock returns.

In contrast, Baysinger and Butler (1985) and Rosenstein and Wyatt (1990) show that the market rewards firms for appointing outside directors; Brickley, Coles and Terry (1994) find a positive relation between the proportion of outsider directors and the stock market reaction to poison pill adoptions; and Anderson, Mansi and Reeb (2004) show that the cost of debt, as proxied by bond yield spreads, is inversely related to board independence.

Elloumi and Gueyie (2001) found a considerable relation between the independent directors' board arrangement and financial crisis conditions. The companies with more independent directors and more internal possessors are less probable to become discharged from the list of the companies accepted in stock exchange Chen *et al.*,

(2006) reasons that if the outside directors are more, the frauds are less so the bankruptcy would be less probable. Uzun *et al.*, (2004) found that the companies with more independent directors are less probable to malfunction and then the financial crisis would be less probable, too this is consistent with Darrat *et al.*, (2010) who found out that companies with high representation of independent directors on their boards are more likely to remain solvent.

2.3.3 Multiple Directorships and Firm Financial Performance

Codes of good governance frequently include a restriction on the number of outside directorships a board member is allowed to hold (Maere *et al.*, 2014). The commonly given rationale behind this restriction is that directors burdened with too many directorships may lack sufficient time and attention to any one firm, lowering their monitoring effectiveness. Maere *et al.*, (2014) further argue that overburdened or “busy” directors may also be less able to give the proper time and attention to gathering and analyzing important information about the firm, thus also hampering their ability to provide strategic advice or other service roles to the firm. Their results thus indicate that a greater number of directorships (reflecting less time available for monitoring or other support for the firm) is positively associated with bankruptcy.

Fich and Shivdasani (2006) found that in listed firms, “busier boards”, operationalized in their research as boards in which a majority of outside directors hold three or more directorships, are associated with weaker corporate performance. Beasley (1996) reported that the probability of committing accounting fraud is positively related to the average number of directorships held by outside directors. Core *et al.*, (1999) also report that busy directors set excessively high levels of CEO compensation, which in turn leads to poor firm performance.

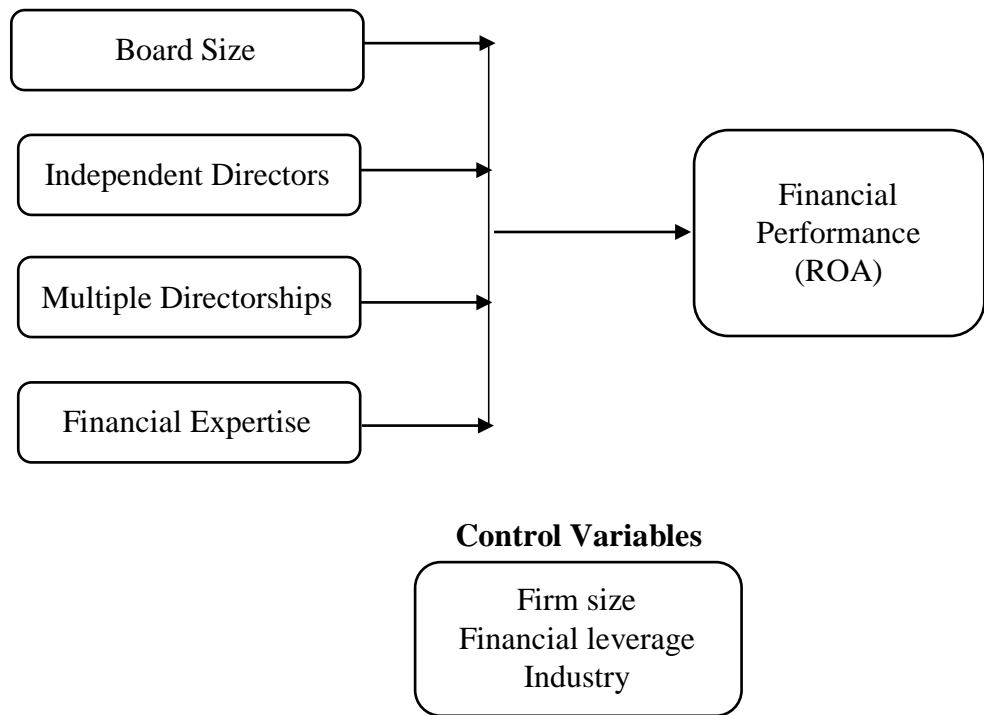
Contrasting arguments in the literature suggest that by having more outside directorships, board members can better serve the firm by expanding the firm's network without side groups (George *et al.*, 2001). Carpenter and Westphal (2001) suggest that a director's network of appointments directly affects his or her ability to provide monitoring, advice, and counsel to the board. Others further argue that these linkages can provide the firm with external resources and might also reduce outside threats and uncertainty, which may be especially important for firms in distress, enhancing their legitimacy (Hillman *et al.*, 2000; Nicholson & Kiel, 2007).

2.3.4 Financial Expertise and Firm Financial Performance

The recent wave of corporate scandals in the world has caused concern on the need for financial/accounting experts to be on board to ensure greater accountability on wide range of issues Guner *et al.*, (2008). There is evidence that the appropriate experience and expertise of board members is associated with superior outcomes (Kroll *et al.*, 2008; McDonald *et al.*, 2008). Guner *et al.* (2008) stressed it is important for board members to have an understanding of accounting principles and financial statements which will lead to better board oversight and this will serve to the better interest of shareholders. Finance experts significantly affect the finance and investment policies of firms on whose board they serve (Guner *et al.* 2008). Kor and Sundaramuthy, (2009) found out that directors who had reasonable financial backgrounds were more effective in providing internal control system mechanisms to control firm performance.

Conceptual Framework

Independent Variables



Dependent Variable

Fig 1.1: Conceptual Framework

Source: Researcher, 2017

In the conceptual framework the study is looking at board size, independent directors, multiple directorships and financial expertise of directors as variables of board composition. Performance will be measured using ROA. The control variables include firm size, financial leverage and industry. For financial performance to have significant relation over the period of study the control variable should remain constant not to influence the independent variable. Operating performance is one of the aspects of measuring financial performance.

$$\text{Return on Asset (ROA)} = \frac{\text{Net Earning/Profit}}{\text{Average Total Assets}}$$

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter will present the research design, target population, sources and data collection methods, measurement of variable, and models to be used to analyze data and finally limitations to the study.

3.1 Research Design

A research design is a detailed plan that enumerates the specific methods and procedures of data collection and analysis to ensure that the evidence obtained enables the researcher answer the research questions in an unambiguous manner. This study used exploratory research design. The emphasis of exploratory studies is to study a situation or problem in order to establish whether causal relationships exist between variables. This design is suited to this study as it used secondary data on all variables and relationships between variables was interrogated without making any attempt to influence the variables.

Panel data was used in this study. Panel data entails studying of a particular subject within multiple sites, periodically observed over a defined time frame (Gujrati, 2003). In this study balanced panel data was used in which each cross section unit has same number of observations.

Panel data analysis provide a rich and powerful study of a set of people, if one is willing to consider both the space and time dimension of the data (Gujrati, 2003). Panel data enable stronger claims about causality to be made than analysis of cross-sectional data. This is because the econometric analysis of panel data, unlike that of cross-sectional

data, can control for the unobserved, time invariant characteristics of households or firms (Finkel, 2008).

3.2 Target Population

The target population comprised of all firms listed in Nairobi Securities Exchange (NSE) in Kenya. The total number of listed firms in Nairobi securities exchange at the end of 2015 is 68 (NSE handbook, 2015). The target population consists of 68 companies for the period 2006- 2015. However, listed firms to be included in the study are those that were trading on the NSE during the period, and therefore firms that were listed after 2006 and those were delisted or deregistered during the period of study was excluded from this study.

3.3 Sample and Sampling Technique

Balanced panel data was used to select the sample data. The study focused only on the firms that were continuously existing under the period of study 2006-2015

3.4 Data Collection Procedure

The panel data was collected from the yearly financial reports of the companies. The annual reports from the NSE and CMA, and downloads of other journals from the company websites was also used.

3.5 Types and Sources of Data

Secondary data was used in this study which was derived from secondary sources including journals, Nairobi Securities Market reports, Capital Market Authority reports, the specific company annual reports and their websites.

3.6 Measurements of Variables

3.6.1 Dependent variable

Firm financial performance was measured using ROA as measured by (Sanda *et al.*, 2011; Taghizadeh & Saremi, 2013).

3.6.2 Independent variable

The first set of test variables captures director monitoring and incentives as discussed under agency theory that is independent directors. Director independence was measured as the percentage of membership held by the outside independent directors, which was considered in prior studies (Zahra and Stanton, 1988).

The other set of test variables reflects the provision of resources by directors under resource dependence theory and includes board size, multiple directorships, board tenure and financial experts. Following prior studies (Agrawal and Knoeber, 2001; Kassinis and Vafeas, 2002; Rivas *et al.*, 2009; Maere *et al.*, 2014) board size was measured as the number of board members in a particular year, and board tenure as the average number of years the firm's directors have served on the board was calculated by dividing the total number of years directors served on the board (starting from the year of appointment until the year of resignation or the focal year) by the number of directors on the board (Finkelstein and Hambrick, 1990; Hambrick and D'Aveni, 1992).

Multiple directorships was determined by dividing the sum of all directorships held by every director of the firm by the number of directors on the board (Booth and Deli, 1996; Cowling, 2008; Ferris and Jagannathan, 2001; Ferris *et al.*, 2003; Jackling and Johl, 2009). Financial expertise of the directors, the study followed studies by Güner *et al.*, (2008) the study classifies a director as a financial expert if he or she (i) has worked within a banking institution, (ii) currently works at a non-bank financial institution, (iii)

has a finance-related role within a non-financial firm (CFO, accountant, treasurer, or finance) or (iv) academic institution (professor in finance, accounting, economics or business), (v) is a professional investor (hedge fund, private equity).

3.6.3 Firm size

Firm size variable, measured as Ln (total assets) (Choi *et al.*, 2013)

3.6.4 Financial leverage

Financial leverage was measured as the equity-to-debt ratio (equity/debt) as measured by (Haynes *et al.*, 2007; Sirtaine *et al.*, 2005; Maere *et al.*, 2014).

3.6.5 Industry.

Industry was measured as a dummy variable and controlled in the study, because firms in different industries adopt varying capital structures (Jensen, 1989) thus affecting financial soundness of a firm. According to Nwachukwu and Mohammed (2012) firms in the manufacturing industry have assets with a collateral value that improves their capacity to borrow which have a bearing on financial distress of firms. Following this observation, and consistent with the approach used by Barroso *et al.*,(2011) and Plambeck and Weber (2010) this study assigned “1” to firms in the manufacturing sector and “0” to the rest.

3.7 Data Analysis

The research employed both descriptive statistics and inferential statistics. Descriptive statistics provided simple summaries about the sample and the observations were made. This often involves summarizing the central nature of variables, it also comprised the spread or range of scores, as well as the average difference each score is from the mean. Descriptive statistics include measures of skewness, and kurtosis to indicate how asymmetric or lopsided, and how peaked or heavy-tailed, respectively is a distribution

of scores. Thus, descriptive statistics summarize basic characteristics of a distribution such as central tendency, variability, skewness, and kurtosis.

Inferential statistics was concerned with making predictions or inferences about the population from observations and analyses of a sample. It allows generalization beyond the sample data to a larger population. To address the issue of generalization, Chi-square was used to tell the probability that the results of the analysis on the sample were a representation of the population that the sample represented.

Model Specification

$$ROA = \beta_0 + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 MD_{it} + \beta_4 FE_{it} + \beta_5 S + \beta_6 Lev + \epsilon_{it} \dots \dots \dots \text{Model 1}$$

Where

ROA/ = Firm financial performance of firm i (i=1, 2....62) in time t(t=1, 2...10)

β_0 = constant

BS_{it} =Board size of firm i in time t

BI_{it} = Board independent of firm i in time t

MD_{it} = Multiple director of firm i in time t

FE_{it} = Financial Experts of firm i in time t

L= Financial Leverage S=Firm size ϵ_{it} are the random error terms.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter presents the empirical findings of the study and their interpretation. This includes sample characteristics, descriptive statistics, test of assumptions of regression analysis and the results of the regression models as well as their interpretations.

4.1 Sample Characteristics

The sample comprised of firms listed in Nairobi Securities Exchange. Secondary data was collected for a period of ten years from 2006 to 2015. Twenty-five firms were removed from the analysis as a result of incomplete data. The final sample comprised of 43 firms making a total of 430 observations.

4.2 Descriptive Statistics

From econometrics techniques transforming the values of real variables into their logarithmic values are necessary (Hsia and Hsiao 2012). All real variables were transformed into logarithm form as transformation may reduce the problem of heteroscedasticity because it compresses the scale in which the variables are measured, therefore reducing a tenfold difference between two values to a two-fold difference (Siddique *et al.*, 2008). The means and standard deviations of the variables in the study are presented in table 4.1 below.

Table 4.1 Descriptive Statistics

| | Mean | Std. Deviation | N |
|------------------------------|----------|----------------|-----|
| ROA | 1.106250 | 0.361890 | 430 |
| Profitability | 0.326697 | 0.614836 | 430 |
| Financial Leverage | 0.409281 | 0.198333 | 430 |
| Firm Size | 0.409281 | 0.285355 | 430 |
| Board Size | 8.765625 | 2.314884 | 430 |
| Board Independence | 3.887313 | 0.005338 | 430 |
| Director Financial expertise | 0.930188 | 0.091013 | 430 |
| Multiple Director | 0.446875 | 0.146226 | 430 |

Source: Research Data 2015

4.3 Tests for Assumptions

Regression analysis requires certain assumptions be met before it can be used to analyse any data. These include normality of errors, linearity and independence of errors (William *et al.*, 2013). Additionally, panel data requires testing for multi-collinearity and stationarity before it can be subjected to regression analysis (Gujarati, 2004). Violations of these assumptions lead to untrustworthy inferences being made about the parameter coefficients due to biased estimates being made of standard errors and significance levels. The following sections present the results of the various assumption tests.

4.3.1 Test for Normality of Errors

Jarque-Bera (JB) test for normality was used to for normality of error terms. According to Brys *et al.* (2004), the JB tests the hypothesis that the distribution of error terms is not significantly different from normal ($H_0: E(\epsilon) \sim N(\mu=0, \text{Var.}=\sigma^2)$). The results of the

tests are presented in table 4.2. The results show that the significance levels for the Jarque-Bera statistics were greater than the critical p-value of 0.05 implying that the errors were not different from normally distributed (Tanweeer, 2011). This can also be confirmed from the normal P-P plots in appendix

Table 4.2: Test Statistics for Model Residual Normality

| | JB (Prob). | | Conclusion |
|----------------|-------------------------|---------------|-------------------|
| Model | ROA_{it} | | |
| Model 1 | 0.051(0.975) | 5.528(0.054) | Normal |
| Model 2 | 0.352(0.785) | 4.792 (0.091) | Normal |

Research Data 2015

4.3.2 Tests for Linearity

A model relating the response variable to the predictors is normally assumed to be linear in the regression parameters (Chatterjee and Hadi, 2012). The parameter linearity assumption is often tested by plotting residuals against predicted values of the response variable (Osborne and Elaine, 2002), whereby the relationship should take a linear form for this condition to be met. As shown in appendix 4 (A and B), the linearity in parameter assumption was met for all models of Z score.

4.3.3 Tests for Independence of Errors

According to Chatterjee and Fox (1997) Weisberg (2005), and Hadi (2012) the errors in a regression model are assumed to be independent or not serially correlated across different observations. The Durbin-Watson test of serial correlations was used to test for independence of error terms. The Durbin-Watson statistic (D) is typically used to test first order autocorrelations (ρ) with the null hypothesis that there is no residual

correlation ($H_0: \rho = 0$) against the alternate hypothesis that positive residual correlations ($H_a: \rho > 0$) exist (Lind *et al.*, 2015). The statistic D ranges in value from zero to four. When the error terms are independent D is expected to be close to 2.00 (Sosa-Escudero, 2009; Lind *et al.*, 2015). When the error terms are independent D is expected to be close to 2.00 (Sosa-Escudero, 2009; Lind *et al.*, 2015). Values of D closer to zero indicate positive autocorrelation whereas large values of D point to negative autocorrelations, which seldom occurs in practice (Lind *et al.*, 2015). The results in Table 4.3 shows that the error terms were independent for all the regression models of Z-score

Table 4.3: Test statistics for Independence of Errors

| Durbin Watson Statistic (D) | | |
|------------------------------------|------------|-----------------------------|
| Model | ROA | Conclusion |
| Model 1 | 1.297102 | Error terms are independent |
| Model 2 | 1.151768 | Error terms are independent |

Source: Research Data 2015

4.3.4 Testing for Multi-collinearity

Variance inflation factor (VIF) and tolerance were used to assess for multi-collinearity in predictor variables. Multi-collinearity can also be tested by calculating the correlation coefficients for the predictor variables. A tolerance of below 0.10 or a VIF greater than 10 or a correlation coefficient above 0.8 is regarded as indicative of serious multi-collinearity problems (Field, 2009). As shown in the Table 4.4, the tolerance statistics were all above 0.10 and VIF values were all below 10 implying that there was no multi collinearity among the predictor variables. This can also be confirmed by the

correlation results in Table 4.6 where the correlation coefficients for all predictor variables interactions were below the recommended 0.8 correlation coefficient for multi-collinearity to set in.

Table 4.4: Collinearity Statistics for Predictor Variables

| Predictor Variable | Collinearity Statistics | |
|---------------------------|-------------------------|-------|
| | Tolerance | VIF |
| Firm Size | .689 | 1.452 |
| Profitability | .722 | 1.296 |
| Financial Leverage | .787 | 1.271 |
| Board Size | .391 | 2.557 |
| Board Independence | .703 | 1.422 |
| Board Financial Expertise | .439 | 2.277 |
| Multiple Director | .676 | 1.478 |

Source: Research data (2015)

4.3.5 Testing for unit roots

Unit roots for the variables were conducted using the Augmented-Dickey-Fuller unit root test. As shown in Table 4.5 the p-values for the ADF-Fisher Chi-square statistic were greater than the critical values of 0.05. This implies that all the variables (panels had unit roots) and therefore need to make them suitable for forecasting to correct for not stationarity in size, income diversification and ROA the first difference of the variables [D(var)] were used in the regression models. The first difference of a variable is the series of changes from one period to the next (Dickey and Fuller, 1979; 1981).

Table 4.5: Panel Unit Root Test Statistics

| Series | ADF- Fisher χ^2 | Prob. | Conclusion |
|---------------------------|----------------------|--------|---------------|
| Firm Size | 80.4263 | 0.0806 | Do not Reject |
| Industry | 55.8233 | 0.7569 | Do not Reject |
| Financial Leverage | 83.4276 | 0.0519 | Do not Reject |
| Board Size | 44.6443 | 0.5291 | Do not Reject |
| Board Independence | 22.8216 | 0.4119 | Do not Reject |
| Multiple Directors | 12.0237 | 0.9569 | Do not Reject |
| Board Financial Expertise | 22.7871 | 0.7436 | Do not Reject |
| ROA | 73.9884 | 0.1843 | Do not Reject |

ADF Null Hypothesis: Unit root process

Cross sections: 32

Source: Research data (2017)

4.4 Model Specification Tests

The Hausman test was used to decide whether fixed or random effects regression models were appropriate. The results are presented in Table 4.7. According to Baum (2001), the Hausman test tests the null hypothesis that the slope coefficients of the models being compared do not differ significantly with the fixed effects being used when there are differences in the slope coefficients.

Accordingly, the null hypothesis is rejected when $\text{Prob.} > \chi^2$ is less than the critical p-value and in such a case the fixed effects regression is appropriate. As shown in Tables 4.7 and 4.8 all the models for both ROA were run on a random effects regression since the significance levels for the Hausman Chi-square statistics were greater than the critical value of 0.05.

Table 4.6: Model Specification Test Statistics for ROA

| Model | χ^2 Statistic | χ^2 d.f. | Prob. | Appropriate model |
|-------------|--------------------|---------------|--------|-------------------|
| Model ROA1 | 4.442865 | 3 | 0.2174 | Random effects |
| Model ROA 2 | 2.544351 | 7 | 0.9237 | Random effects |

Source: Research Data 2017

4.5 Correlation Statistics

Table 4.7: Correlation Coefficient for ROA

| Correlations | | | | | | | | | |
|--|------|------------|------------------|--------------------|-------------------|--------------------|--------------------|-----------|---------------|
| | | Board size | Return On Assets | Board Independence | Financial Experts | Multiple Directors | Financial Leverage | Firm Size | Profitability |
| Board size | R | 1 | | | | | | | |
| | Sig. | | | | | | | | |
| Return On Assets | R | .252** | 1 | | | | | | |
| | Sig. | .000 | | | | | | | |
| Board Independence | Sig. | -.008 | -.014 | 1 | | | | | |
| | R | .887 | .797 | | | | | | |
| Financial Experts | R | .703** | -.309** | .006 | 1 | | | | |
| | Sig. | .000 | .000 | .921 | | | | | |
| Multiple directors | Sig. | .509** | -.194** | .042 | .518** | 1 | | | |
| | R | .000 | .000 | .452 | .000 | | | | |
| Financial Leverage | R | .245** | -.350** | -.162** | .072 | .118* | 1 | | |
| | Sig. | .000 | .000 | .004 | .201 | .034 | | | |
| Firm Size | Sig. | -.117* | -.160** | .482** | -.121* | -.020 | .098 | 1 | - |
| | R | .037 | .004 | .000 | .030 | .718 | .080 | | .274** |
| Industry | R | .290** | .357** | -.151** | .114* | .187** | -.148** | -.274** | 1 |
| | Sig. | .000 | .000 | .007 | .041 | .001 | .008 | .000 | |
| **. Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed). | | | | | | | | | |

Pearson Correlations results in tables 4.8 board size was positively and significantly correlated to ROA at ($r = .252, p < 0.05$), board independence was negatively and significantly correlated to ROA ($r = -.014, p > 0.05$), financial expertise of the directors was negatively and significantly correlated to ROA ($r = -.309, p < 0.05$), multiple directors was negatively and significantly correlated to ROA ($r = -.194, p < 0.05$), financial leverage was negatively and significantly correlated to ROA ($r = -.350, p < 0.05$), firm size was negatively and significantly correlated to ROA ($r = -.160, P < 0.05$), profitability was positively and significantly correlated to ROA at ($r = .357, p < 0.05$).

4.6 Research Findings

4.6.1 Board size

The Hypothesis H_{01} Stipulated that board size has no significant effect on financial performance of listed firms in NSE. Research findings showed that board size had a positive and significant effect on financial performance ($\beta_1 = 2.325, P < 0.05$). Thus, the hypothesis was rejected. This implies that the size of the board has an influence of financial performance. The reason behind this argument is that the more the directors the firm has the more diverse skills and knowledge that they bring hence improving performance.

This finding is in support of prior studies that board size affects financial performance Kiel and Nicholson (2003) and Maere *et al.*, (2014). However, these results are contradicted the results of prior studies Rauterkus *et al.*, (2013); Lakshan and Wijekoon(2012) and Simpson and Gleason (1999) who found board size having insignificant results versus financial performance. The results also concur with Mokarami and Motefares (2013) who found non-significant relationship between board size and financial distress in listed firms in Pakistan

4.6.2 Board independence

The Hypothesis H₀₂ posted that board independence has no significant effect on financial performance of listed firms in Nairobi Securities Exchange. Research findings showed that board size had a positive and significant effect on financial performance ($\beta_1=2.112$; $P<0.05$). Thus, the null hypothesis was rejected. This implies that the independence of the board has an influence of financial performance. The reason behind this argument is that the more independent the board is the more the board is able to discharge its monitoring function effectively. Thus, the firms with higher proportion of independent directors are most likely to have positive financial performance. This finding is in support with prior studies (Lakshana and Wijekoon, 2012; Platt and Platt, 2012) who found that board independence increases chances of financial performance in companies. The argument behind this could be attributed to the fact that independent directors who are appointed aren't associated in any way with the appointing firm and hence they are independent from management. Thus, when discharging their role they are not influenced by the management of the firm.

However, this finding deviated from the results by Chaganti *et al.*, (1985) and Simpson and Gleason (1999) who found a non- significant relationship between independent directors and firm's financial performance. The probable reasoning is that there could be lack of supportive environment that enhances independency of the board in discharging their monitoring and supervisory roles. In addition, independence of the board is just legal requisite and thus independent directors appointed could have no requisite skills and knowledge to discharge their roles (Salloum and Azuory, 2012).

4.6.3 Multiple directorships

The Hypothesis H₀₃ posted that multiple directorships has no significant effect on financial performance of listed firms in Nairobi Securities Exchange. Research findings

showed that multiple directorship had a positive and significant effect on financial performance ($\beta_1=2.931$; $P<0.05$). Thus, the null hypothesis was rejected. This implies that the multiple directorships of the directors significantly affect of financial performance. The probable reason behind this argument is that the more with multiple directorships the firms are able to tap into the diverse skills and network of the directors this in turn improves financial performance of firms.

However, this result contrary to studies by Noor and Iskandar (2012); Fich and Shivdasani (2007) and Ferris *et al.*, (2003) which found a non-significant relationship between board members sitting on additional boards and financial outcome. This finding contradict previous studies Maere *et al.*, (2014) found a positive and significant relation between multiple directorship and bankruptcy indicating that firms whose boards of directors have multiple directorships are likely to face financial distress. This is attributed “busier board” hypothesis. That is boards whose members are holding more outside directorships are too busy to discharge their monitoring and supervisory role effectively.

4.6.4 Financial expertise of the directors

The Hypothesis H₀₄ stated that financial expertise of directors has no significant effect on financial performance of listed firms in Nairobi Securities Exchange. Research findings showed that board size had a positive and significant effect on financial performance ($\beta_1=2.244$; $P<0.05$). Thus, the null hypothesis was rejected. This implies that financial expertise of the directors significantly affect of financial performance.

These findings differ with studies by Noor and Iskandar (2012) who found a non-significant relationship between financial expertise of directors and financial distress of Malaysian firms. This insignificant result however supports the argument that the

appointment of board of directors with financial literacy is just a fulfillment of a legal requirement for listing purposes. The results however, contradict previous studies Kor and Sundaramuthy (2009); Guner *et al.*, (2008); Van der Walt and Ingley (2003) and Lee *et al.*, (1999) which indicate that the appointment of directors with expertise in accounting and finance significantly increases the financial performance of companies.

Table 4.8: Regression Analysis

| Variables | Model 1 | Model 2 |
|-----------------------|-----------------|-----------------|
| Controls | | |
| Constant | 0.658 (3.677)** | 0.599 (3.967)** |
| Firm size | -0.000 (-0.058) | 0.000 (0.121) |
| Industry | 0.007 (0.239) | -0.016 (-0.778) |
| Board Size | | 0.082 (2.325)* |
| Board Independence | | 0.062 (2.112) |
| Multiple Directorship | | 0.091 (2.931)** |
| Financial Expertise | | 0.066 (2.144)** |
| R Squared | 0.196 | 0.498 |
| Adjusted R | 0.107 | 0.367 |
| F-Statistic | 4.240 | 1.876 |
| Prob. Of F-Stat. | 0.000 | 0.042 |

** 1 percent significance level; * at 5 percent level

Figures in parenthesis are t-statistics

Source: Research Data (2017)

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the findings, the discussion and the conclusion as well as the recommendations based on the findings of the study. The main purpose of the study was to investigate the effect of board composition on firm performance of listed firms in NSE, Kenya. The study also made inference on the research questions whether board size affect firm performance, the board independence affects the firm performance, whether financial expertise of directors affect firm performance and whether gender diversity affect firm performance of listed firms in NSE, Kenya.

5.1 Summary of Findings and Discussions

The objective of the study was to examine the effect of board composition on financial performance of listed firms in Nairobi Security Exchange. To achieve this objective, statistical analysis was done for 43 companies quoted in the period of 2006-2015. Research findings revealed that board size has a significant positive effect on firm performance. This is consistent with previous studies where larger boards were more efficient in monitoring and creating value for firms.

Board independence has significant positive effect on the performance of firm indicating that the number of independent directors should increase as this leads to better monitoring and hence firm performance increases. This is in line with agency theory which advocates for independent directors who are perceived as effective monitors.

Financial expertise has a positive and significant effects on financial performance. This indicates that when the board has directors with financial expertise the financial

performance of the firms improves. This finding is in support with previous studies. The results of the study established that multiple directors there was positive and significant to financial performance of listed firms. This means that those firms whose directors who have multiple directorships are likely to perform well this is due to skills and experience gained over the diverse firms.

5.2 Conclusions of the Study

This study determined the effect of board diversity and composition on firm performance. The findings seem to suggest that greater emphasis need to be taken by firms to have larger board size as the larger boards' increases positive financial performance. The results also indicated that board independence has significance effect on financial performance thus a higher percentage of independent board members are likely to be effective monitors of management.

The findings of the study indicated that firms with directors with multiple directorships have positive effect on financial performance. The study thus concludes that firms whose directors are having multiple directorships improves financial performance of firms. The study findings indicated that financial expertise of the directors positively influence financial performance. Therefore, the study concludes that financial expertise of the directors does improve financial performance of firms.

5.3 Recommendations of the Study

Based on the findings, this study provides valuable recommendations to both theory and practice. The researcher believes that these recommendations will create vital insights to both scholars and practitioners in finance and corporate governance.

5.3.1 Theoretical Recommendations

Remarkably, the findings of this study have enhanced the body of knowledge on board composition and financial performance. The study also supported the prescriptions of agency theory that independent directors provide better control over management and that average tenured boards are beneficial to the firms than seasoned directors. The study therefore has boosted the existing literature on financial performance and board composition which provide a reference point for academic discourse and future reference.

5.3.2 Policy Recommendations

As the corporate governance reformations are vigorously advocated in Kenya, this study provides insights into the roles of corporate governance in financial healthiness. As such the findings of this study provide valuable insights to authorities, managers and stakeholders on corporate governance. Specifically, these findings can be beneficial to authorities that formulate the policies, mainly the Capital Market Authority and Nairobi Securities Exchange.

Firstly, the study takes cognizance of the value of Board size. The researcher believes that large boards serve the interests of the organization by bring large and diverse skills and knowledge. Thus, the study recommends that the firms should enlarge the boards by have the members from diverse backgrounds as this will enable the firm to benefit from this diverse skills and experience of its large pool of directors.

Second, the study found the relationship between board independence and financial distress was positive and significant this point to the fact that independent boards effectively monitor management compared to dependent directors. Therefore, the composition of boards should take cognizance of members who are independent of

management. Hence, the study recommends that the authorities should put structures that enhance the appointment of independent directors who have requisite skills and knowledge in the board.

Third, the study established that the board whose directors have multiple directorships have a positive and significant effect on financial performance. Therefore, the study recommends that at least the directors should have more than one directorships to gain knowledge and skills. Lastly, the results suggest that financial expertise of directors have positive effect on financial performance. Thus, the study recommends appointment of directors with relatively financial skills and Knowledge as this will positively affect financial performance. This recommendation is in line with resource dependency theory which postulates that with diverse skills and resources the directors will be beneficial to the firm outcomes.

5.3.3 Recommendations for Further Research

The following suggestions were made for further research based on the findings of this study; First, the study does recommend more board composition variables to be included in future research like ownership, audit committee composition, ethnicity, gender, age and level of education with financial performance.

Secondly, this study only incorporated listed firms with complete data. The study therefore recommends future studies to incorporate those firms with incomplete data.

Lastly, to take research to the next level the study recommends that future research to undertake a study on mediated-moderated relationships.

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APPENDICES

Appendix 1: Listed Firms at the Nairobi Securities Exchange as at 31.12.2015

Agricultural

| LISTED FIRMS AT THE NAIROBI SECURITIES EXCHANGE AS AT 31.12.2015 | |
|---|--|
| AGRICULTURAL | |
| 1 | Kapchorua Tea Co. Ltd |
| 2 | Kakuzi Ltd |
| 3 | Limuru Tea Co. Ltd |
| 4 | Eaagads Ltd |
| 5 | Sasini Tea and Coffee Ltd |
| 6 | Williamson Tea Kenya Ltd |
| 7 | Rea Vipingo Plantation Ltd |
| AUTOMOBILES AND ACCESSORIES | |
| 8 | Car And General (Kenya) Limited |
| 9 | Marshalls (EA) Limited |
| 10 | Sameer Africa Limited |
| BANKING | |
| 11 | Barclays Bank of Kenya Limited |
| 12 | CFC Stanbic Bank |
| 13 | Co-operative Bank of Kenya |
| 14 | Diamond Trust Bank (Kenya) Limited |
| 15 | Equity Bank Limited |
| 16 | I&M Holdings ltd |
| 17 | Housing Finance Company Limited |
| 18 | Kenya Commercial Bank Limited |
| 19 | National Bank Of Kenya Limited |
| 20 | NIC Bank Limited |
| 21 | Standard Chartered Bank Kenya Limited |
| COMMERCIAL AND SERVICES | |
| 22 | Express Kenya Limited |
| 23 | Hutchings Biemer Ltd |
| 24 | Kenya Airways Limited |
| 25 | Longhorn Kenya Limited |
| 26 | Nation Media Group Limited |
| 27 | Scangroup Limited |
| 28 | Standard Group Limited |
| 29 | TPS Eastern Africa Limited (Serena Hotels) |

| | |
|---|---|
| 30 | Uchumi Supermarket Limited |
| 31 | Deacons (East Africa) Plc Ord |
| 32 | Nairobi Business Ventures Ltd |
| CONSTRUCTION AND ALLIED | |
| 33 | ARM Cement Limited |
| 34 | Bamburi Cement Company Limited |
| 35 | Crown Paints Kenya Limited |
| 36 | East African Cables Limited |
| 37 | East African Portland Cement Company |
| ENERGY AND PETROLEUM | |
| 38 | KenolKobil Limited |
| 39 | Kenya Electricity Generating Company (KENGEN) |
| 40 | The Kenya Power & Lighting Co. Limited |
| 41 | Total Kenya Limited |
| 42 | Umeme Limited |
| INSURANCE | |
| 43 | Britam Limited |
| 44 | CIC Insurance Limited |
| 45 | Jubilee Holdings Limited |
| 46 | Kenya Reinsurance Corporation Limited |
| 47 | Liberty Kenya Holdings Limited |
| 48 | Pan Africa Insurance Company Limited |
| INVESTMENT | |
| 49 | Centum Investment Company (ICDCI) Limited |
| 50 | Olympia Capital Holdings Limited |
| 51 | Trans-Century Limited |
| INVESTMENT SERVICES | |
| 52 | Nairobi Securities Exchange Ltd |
| MANUFACTURING AND ALLIED | |
| 53 | Boc Kenya Limited |
| 54 | British American Tobacco Kenya Limited |
| 55 | Carbacid Investments Limited |
| 56 | East African Breweries Limited |
| 57 | Eveready East Africa Limited |
| 58 | Kenya Orchards Ltd |
| 59 | A.Baumann Co. Ltd |
| 60 | Mumias Sugar Company Limited |
| 61 | Unga Group Limited |
| 62 | Accesskenya Group |
| TELECOMMUNICATION AND TECHNOLOGY | |
| 63 | Safaricom Ltd |

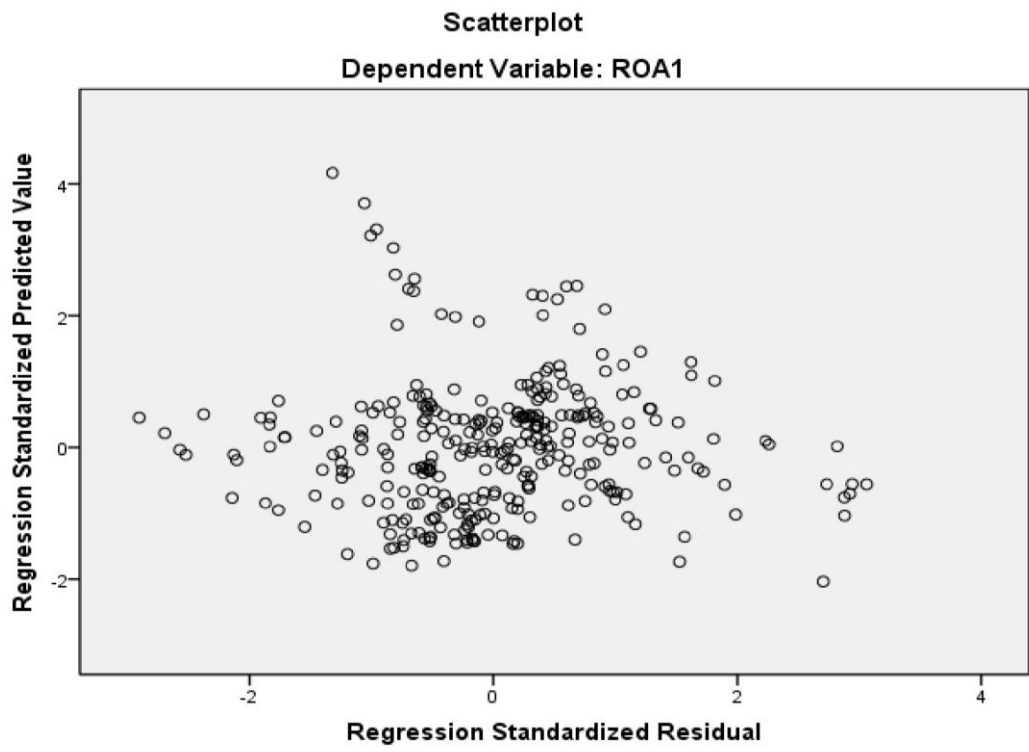
| GROWTH ENTERPRISE MARKET SEGMENT | |
|---|--|
| 64 | Home Afrika Ltd |
| 65 | Kurwitu Ventures |
| 66 | Flame Tree Group Holdings Ltd Ord |
| 67 | Atlas Development and Support Services |
| REAL ESTATE INVESTMENT TRUST | |
| 68 | StanlibFahari I-REIT |

Appendix II: Data Collection Schedule

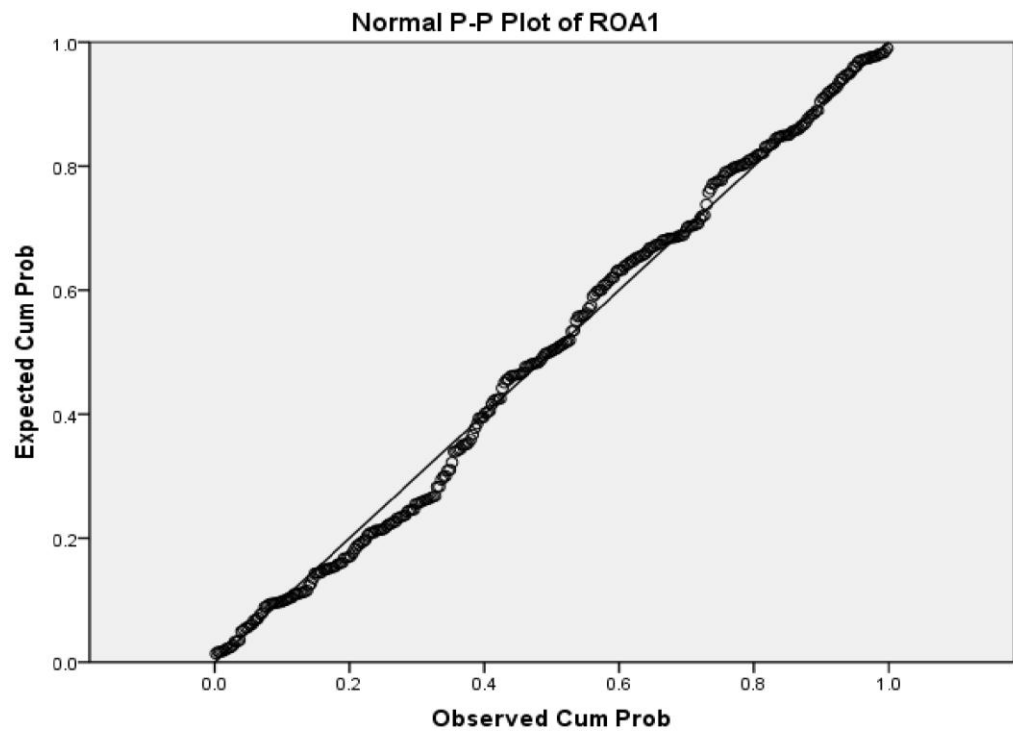
NAME OF THE COMPANY

| | | | | | | | | Amount in Financial Years (sh.000,000) | | | | | |
|-----|------------------|-------------------------|------------------------------|------------------|-----------|----------|----------|--|--------------------------|------------|-------------------|------------------------|------|
| YR | No. of Directors | No. of Female Directors | No. of Independent Directors | Age of Directors | Firm Size | Leverage | Industry | Current Assets (CA) | Current Liabilities (CL) | WC = CA-CL | Total Assets (TA) | Retained Earnings (RE) | EBIT |
| 1. | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | |
| 4. | | | | | | | | | | | | | |
| 5. | | | | | | | | | | | | | |
| 6. | | | | | | | | | | | | | |
| 7. | | | | | | | | | | | | | |
| 8. | | | | | | | | | | | | | |
| 9. | | | | | | | | | | | | | |
| 10. | | | | | | | | | | | | | |

Appendix III: Scatter Plot Dependent Variable: ROA1



Appendix IV: Normal P-P Plot ROA1



Appendix IV: Consent Letter



GARISSA UNIVERSITY COLLEGE
(A constituent College of Moi University)
SCHOOL OF BUSINESS & ECONOMICS

REF: MBA/SBE/1009/2015

26th July, 2017

The Director, Research Coordination Division,
National Commission for Science, Technology & Innovation,
Utalii House, 8th & 9th Floor,
P.O Box 30623-00100,
NAIROBI.

Dear Sir/Madam,

RE: ADAN HAJI SHUNU - REGISTRATION NO. – MBA/SBE/1009/15

The purpose of this letter is to introduce the above named student who is pursuing **Master of Business Administration, Finance option** in the department of **management** in the school of **Business and Economics**.

The title of his research is "Effect of board composition on financial performance of firms listed in Nairobi securities exchange." He has been cleared and now has to proceed to the field to collect the data for his project in the course of this semester (June – September, 2017)

Any assistance accorded to him will be highly appreciated.

Thank You

Dr. Samuel Nyambega

Dean, School of Business & Economics

Appendix V: Research Permit



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/17/88152/18691**

Date: **4th August, 2017**

Adan Haji Shunu
Garissa University College
P.O. Box 1801-70100
GARISSA.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Effect of Board composition on financial performance of listed firms in Nairobi Securities Exchange,*" I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **3rd August, 2018.**

You are advised to report to **the Chief Executive Officers, Nairobi Securities Exchange and Capital Markets Authority, the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

**GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The Chief Executive Officer
Nairobi Securities Exchange.

The Chief Executive Officer
Capital Markets Authority.

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

(Handwritten signature)

ORIGINAL

OFFICIAL RECEIPT

17031

Station Nairobi Date 3/2/2017

RECEIVED from Adam Hgji Shungu

Shillings One thousand shillings only

on account of Research permit fee

Note: _____

Head R-43

Item AIA

Cash _____

Cheque No. _____

Signature of Officer receiving remittance [Signature]



| | |
|------|----------------|
| USD | _____ |
| Kshs | <u>1,000/-</u> |
| AC | _____ |
| No. | _____ |

THIS IS TO CERTIFY THAT: **Permit No : NACOSTI/P/17/88152/18691**
MR. ADAN HAJI SHUNU **Date Of Issue : 4th August,2017**
of GARISSA UNIVERSITY COLLEGE, **Fee Received :Ksh 1000**
56168-200 NAIROBI,has been permitted
to conduct research in Nairobi County
on the topic: EFFECT OF BOARD
COMPOSITION ON FINANCIAL
PERFORMANCE OF LISTED FIRMS IN
NAIROBI SECURITIES EXCHANGE
for the period ending:
3rd August,2018



Galena
Director General

Applicant's Signature
National Commission for Science, Technology & Innovation

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