

**THE EFFECT OF BOARD DIVERSITY ON FINANCIAL
PERFORMANCE OF COMPANIES LISTED IN THE NAIROBI
SECURITIES EXCHANGE**

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DECLARATION

This research is my original work and has not been presented for any other academic award

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DEDICATION

To my dearest mother whose support and encouragement has seen me through it all, and to my wonderful children Mitchell and Jesse who are my reason for being.

TABLE OF CONTENTS

DECLARATION.....	ii
ACKNOWLEDGEMENT.....	iii
DEDICATION.....	iv
LIST OF TABLES	viii
ABBREVIATIONS.....	ix
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.1.1 Board Diversity.....	2
1.1.2 Financial Performance	3
1.1.3 Board Diversity and Financial Performance	5
1.1.4 The Nairobi Securities Exchange	6
1.2 Research Problem.....	8
1.4 Value of the Study.....	10
CHAPTER TWO: LITERATURE REVIEW.....	12
2.1 Introduction	12
2.2 Theoretical Review	12
2.2.1 The Agency Theory	12
2.2.2 Stewardship Theory	13
2.2.3 Stakeholder Theory.....	14
2.2.4 Resource Dependency Theory.....	15
2.3 Financial Performance determinants of Publicly Listed Companies	16
2.3.1 Board Diversity.....	16
2.3.2 Firm Size.....	17

2.3.3 Leverage	17
2.4 Empirical Studies	18
2.5 Conceptual Framework	20
2.6 Summary of Literature Review	21
CHAPTER THREE: RESEARCH METHODOLOGY	23
3.1 Introduction	23
3.2 Research Design	23
3.3 Population.....	23
3.4 Data Collection.....	24
3.5 Data Analysis	24
3.5.1 Descriptive Statistics	26
3.5.2 Diagnostic Tests	26
3.5.3 Pearson Product Correlation Tests	26
3.5.4 ANOVA Test.....	26
3.5.5 T –test	27
CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND INTERPRETATION ...	28
4.1 Introduction	28
4.2 Response Rate	28
4.3 Diagnostic Tests	28
4.4 Descriptive Analysis	28
4.5 Correlation Analysis.....	29
4.6 Regression Analysis	31
4.7 Discussion of results.....	34
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ..	37
5.1 Introduction	37

5.2 Summary of Findings	37
5.3 Conclusion.....	38
5.4 Policy Recommendations	40
5.5 Limitations of the Study	41
5.6 Suggestions for Further Research	42
REFERENCES	43

LIST OF TABLES

Table 4.1: Descriptive Statistics	29
Table 4.2: Correlation Analysis.....	30
Table 4.3: Model Summary.....	31
Table 4.4: Analysis of Variance.....	32
Table 4.5: Model Coefficients	33

ABBREVIATIONS

CEO	Chief Executive Officer
CMA	Capital Markets Authority
GSE	Ghanaian Stock Exchange
IDX	Indonesia Stock Exchange
IPO	Initial Public Offer
ROA	Return on Assets
ROE	Return on Equity
NSE	Nairobi Security Exchange
OLS	Ordinary Least Squares
SPSS	Statistical Package for Social Sciences

ABSTRACT

Kenyan firms have in past years experienced several corporate failures which are said to be related to corporate governance structures. The issues facing Uchumi and Kenya Airways is an indication that even listed firms are not insulated from this corporate failures. Although there are many studies carried out locally on corporate governance and financial performance, most of these researchers however have not tried to explore effect of board diversity on quoted firms' financial performance at the NSE. The aim of the study was to establish the effect of board diversity on financial performance of the quoted firms at the NSE. The population of the study was all the 65 firms quoted at the NSE as at 31st December 2017. Data was obtained from 58 out of the 65 listed companies giving a response rate of 89.23%. The independent variable for the study was board diversity as measured by gender, average age and the nationality of the board members. The control variable was leverage measured by the ratio of total debt divided by total assets and firm size as measured by natural logarithm of total assets. Financial performance was the dependent variable which the study sought to explain and it was measured by ROA.. The descriptive cross-sectional research design was employed for the study and the association between the study variables established using multiple linear regression model. Data was analyzed using the SPSS software. The results of the study produced R-square value of 0.165 which means that about 16.5 percent of the variation in the financial performance of companies quoted at NSE could be explained by the five selected independent variables while 73.5 percent in the variation of financial performance of was associated with other factors not covered in this research. The study also found that the independent variables had a weak correlation with financial performance ($R=0.403$). ANOVA findings show that the F statistic was significant at 5% level with a $p=0.000$. Therefore the model was fit to explain the association between the selected variables. The results further revealed that firm size produced positive and statistically significant values for this study while leverage produced negative and statistically significant values for this study. The study found that gender of board members, age of the board members and nationality of the board members are statistically insignificant determinants of financial performance of firms at the NSE listing. The study's recommendations were that measures should be put in place to enhance firm size as this will improve financial performance of companies at the NSE listing. In addition, leverage should be kept in check as high leverage was noted to negatively influence the firm's financial performance.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The role of board composition in determining a firm's financial performance cannot be underestimated (Ujunwa, 2012). How the board is composed then, has a direct effect on its capacity to deliver and this is likely to have a bearing on the performance of the organization. Diversity influences the firm's short-term and long-term financial value. Numerous studies have supported that diverse boards are likely to improve business performance and thus shareholder value (Robinson & Dechant, 1997). Some scholars have argued that firms that handle diversity-related issues must exhibit cost advantages over those that don't (Cox & Blake, 1991). Lack of diversity among the board members denies the firms listed at the NSE robust and harmonized decisions and is reflected in their financial performance.

According to Grabrielsson, Van Aes and Huse (2009), the literature on corporate governance explore to a great extent the boards' role with major emphasis on agency theory. A research by Fama and Jensen (1983) examined the distinction between ownership and control and the monitoring activities of the board. The board solves the agency disputes between shareholders and managers by replacing and compensating managers that fail to serve the interest of the shareholders which is value creation. According to Hermalin *et al.* (1991), the board enables the shareholder to man over the management. Freeman (1999) draws a distinction between agency theory and other stakeholder theorists since agency theory only looks at the contribution of managers in serving stakeholder's interests while the foregoing explores a network of relationships with the suppliers, business partners and employees. Directors and executives manage their careers so as to portray their stewardship to their organizations (Fama, 1980).This leans on the assumption that the management's board activities are in line with the interests of the shareholders (Donaldson & Davis, 1991).

Globally, board diversity remains to be a key business issue and is believed to influence a firm's short-term and long-term financial position (Robinson & Dechant, 1997). Many countries are striving to increase board diversity through putting more women at the top management which has the consequence of increased firm performance. According to Bohren and Staubo (2014), a binding quota has been introduced in Norway to promote board diversity which has led to increased firm performance. The European Commission intends to initiate a binding quota that ensures increased women representation in the board (European Commission, 2016). Binding quotas vary from soft quotas since whereas the binding quotas are part of the legislation and soft quotas are exempted. The effect of soft quota or binding quota on association between the diversity in the board and financial performance of the firm is not yet known and thus it remains an empirical question till the theoretical framework that could be used to predict this association is advanced.

1.1.1 Board Diversity

Campbell and Minguez-Vera (2008) define board diversity as the differences in attributes that exist in composition of a board. Diversity ideally implies to having a range of individuals that vary from one to another. A conventional definition of board diversity does not however exist. From a logical perspective, factors such as gender, age, race, professional and educational qualifications of the directors reduce the homogeneity of the board. Letting, Machuki and Aosa, (2012), describe age, gender corporate and education experience as the most common characteristics of board members. Board diversity itself has many dimensions, and board gender diversity, in particular, is one such dimension. (Wang & Clift, 2009) defined board diversity as the degree of women, ethnic, racial minorities on the board.

The aspect of board of directors' diversification improves the group's decision-making (Erhardt, 2003). Freeman (1984) argues that diversified boards are more beneficial compared

to non-diversified ones. Boards that are gender diverse have increased corporate oversight and boardroom involvement, Adams and Ferreira (2010). Board members that are diversified exhibit different personal characteristics that result to contradicting behaviors, thinking, leadership, risk preferences and emotional styles Arfken (2014) argues that diversity limits the risk of a myopic decision making process which may lead to unethical decisions being made when the board is made up of similar demographics. (Watson, Kumar, & Michaelsen, 1993) opine that diversity results to greater innovation and creativity, knowledge base and thus increased competitive advantage.

Other factors that affect board diversity include the ethnicity, level of education and age (Campbell & Minguéz-Vera, 2008). Directors could differ with regard to various characteristics including functional and educational background, social connectedness, industry experience, insider status, race and gender. Of all the diversity factors, gender is the most significant elements of board composition (Carter *et al.*, 2003). Women are believed to add value through developing different perspectives, opinions and experiences (Siele, 2009). Rost and Osterloh (2009) depict the main reasons on why the financial institutions' directors failed to attain consistent balance sheets at the close of business in 2008 crisis as lack of diverse educational backgrounds and growing board homogeneity leading to uniform group thinking and varying viewpoints.

1.1.2 Financial Performance

This measures the company's efficiency in utilizing its resources and assets for revenue generation. It measures the firm's overall financial health over time and could be employed to make comparisons between the firm and those in the same industry or in different sectors in totality. The firm's objective is to attain sustainable superior performance which puts the

firm at the apex in industry as its performance will exceed the average performance across the board (Arend, 2004).

Institution effectiveness is measured by firm performance and its capacity to accomplish its objectives as far as profits and revenues are concerned (Ongore & Kusa, 2013). Financial performance affects the health of the organization and its overall survival in the long run. Higher performances are an indicator of the effectiveness and efficiency of the management in utilizing the resources of the firm which is detrimental to the economy in the long run (Naser & Mokhtar, 2004). Financial performance provides financial information to the various administrative levels of unity for the purposes of economic planning, control and decision-making. It also shows the degree of the contribution of the company in the process of social economic development through producing the highest level of revenue at the lowest possible cost and waste disposal and loss factors in effort, time and money, which are beneficial to the society and economy at large.

Financial performance can be measured using different techniques which must all be consolidated. Ngatia, (2012) identified Return on Assets (ROA), asset age, firm size, return on sales and ROE as micro finance performance measures. Carter *et al.* (2010) measured financial performance using ROA and Tobin's Q whereas Wang and Clift (2009) used ROA and ROE. The two most well-known measures of productivity are ROA and ROE; hence, this study will compute the financial performance of publicly quoted firms using the two measures. ROA shows the company's profitability with regard to its total assets and ROE measured the net income attained as a percentage of the shareholders' equity. It measures the firm's profitability as the amount of profit attained through utilization of the shareholder's resources. ROE is useful for comparison of the firm's profitability with those of others in the

same sector. High ROE implies that the firm is efficient the firm is making use of those funds.

1.1.3 Board Diversity and Financial Performance

Studies by Carter *et al.* (2008) utilized among American firms between the time frame 1998 to 2002 purport a positive correlation exists between board participation and board committees whereas Ferreira and Adams (2009) opines that this evidence is not interpretable but after application of different procedures to determine the omitted variables, they concluded that women existence in the board significantly affect the boards' governance with women openly willing to join performance monitoring committees.

A study by Siciliano (1996) utilized 240 YMCA firms to compare and construct multiple board member diversity measures. The results demonstrated higher degree of fundraising and social performance when more occupational diversity was common among the board members. The findings also revealed gender diversity lays a big role in boosting the social performance of the organisation. Murray (1989) explored the impact of heterogeneous versus homogenous groups on organisational performance by analyzing eighty-four Fortune500 oil and food companies. The study measured diversity as a composite of educational level, occupational history and average tenure. The results revealed that diversity and performance are associated with the organization's market setup.

Carter, Simkins and Simpson (2003) examined 637 large American Establishments, contemplating proportion of minorities and women (Americans, Hispanics and Asians) on board of directors as a measure of board diversity and while firm value was measured using Tobin's q . The researchers established that positive association prevails between the minorities and women participation in the board and firm value and that agency theory fails

to give a good prediction of the association between board diversity and value of the firm. Wang and Clift (2009) in their study took a sample of 243 large Australian companies in the years 2003-2006 and tested gender and ethnic diversity separately. They then measured the association between board diversity and financial performance by use of ROA, ROE and total shareholder returns as financial measures and established no link between diversity of gender and performance and no link between ethnic diversity. They therefore concluded that diversity exhibit no impact on corporate performance. Mwatsuma, Muchiri and Mrope (2012) depicted a negative association between number of board members and financial performance of Agricultural companies in Kenya. Hermalin and Weisbach, (1991) in their study report negligible associations between indices of accounting performances and the degree of outside director constituted in the board. The researchers found that there is no evident association exists between Tobin's Q and the proportion of outside directors. This could be attributed to the contribution of the management in the selection of the board. Moreover, Weisbach and Hermalin (2003) establish no link between composition of the board and firm performance.

Over the last two decades, numerous studies have been carried out by scholars showing mixed findings between various forms of board diversity and the financial performance of the company. This requires further research in this area and in particular the Kenyan context where fewer research efforts have been directed to determine the relationship.

1.1.4 The Nairobi Securities Exchange

The NSE is the only bourse in Kenya that offer automated platform for securities' listing and trading. It was established in 1954 and has a six decade heritage in listing debt and equity securities in Kenya. It operates under the jurisdiction of the Capital Markets Authority of Kenya (CMA) and offers a world class trading facility for International and local investors

seeking exposure to Kenya's economic growth. The NSE demutualized and self-listed itself in 2014 to raise funds in order to upgrade and expand its functions. Since then it has played a very vital role in championing the increase in investor confidence by modernizing its infrastructure. This has led to promotion and enhancement of a saving culture by providing alternatives avenues for investment and assisting in the transfer of these savings to investment in productive enterprises and quoted stocks.

According to the 2017 KIM Board Diversity and Inclusion report on board diversity in publicly quoted firms in Kenya and its impact on Financial Performance ,women representation in listed companies' board rooms stands at 21% in 2017 up from 12% in 2012 and 18% in 2015. This represents a remarkable growth towards parity with representation going up by 50% in less than 5 years 2012-2017. The report also states that representation of women is significantly skewed by whether a company is a subsidiary or part-owned by foreign multinational or a largely locally owned indigenous firm with the representation in multinationals being much higher than in locally owned indigenous firms. The study revealed that board diversity can influence organizational performance as differences were noted when it came to assets and revenue growth when board members of one gender did not exceed a certain percentage concluding that gender diversity positively influence share price performance. The average share price of NSE quoted firms has over the years risen as women representation rose on the boards with the exception of 2016 when share prices fell sharply and were attributed to a harsh legislative and economic environment. Age diversity also measured by dispersion through standard deviation also returned influence on profit performance but did not reveal any other strong impact on financial performance. Professional skills and education diversity was observed to have a negligible effect on

financial performance and it can thus be argued that gender diversity has the greatest influence on organizations' financial performance compared to other diversity variables.

1.2 Research Problem

Company collapses, fraud and corruption and judicial management have become the norm of corporate landscape locally, regionally and globally. Scandals committed by large companies in developed economies such as Enron

, WorldCom, Lehman Brothers have made global markets more disastrous as it has resulted in huge losses by shareholders, creditors, employees, government and the economy Bayrakdaroglu *et al.*(2012). An explanation as to why increased failure rates continue to be witnessed despite increased board diversity and representation remains unanswered. Following such massive corporate failures, various studies have been undertaken on the board of directors' effectiveness in the company's corporate governance and strong business and conceptual propositions for increased board diversity.

According to Mbaru (2008), new challenges have emerged that require joint effort by all players in safeguarding stock exchange integrity. Failure to adopt serious governance practices in the management of businesses and lack of professionalism results in malpractices such as major financial difficulties especially among stockbrokers forcing the Capital Markets Authority to place them under statutory/ receivership management and their executive directors replaced (CMA Report, 2009) while others such as Nyaga stock brokers and Francis Thuo & Partners have since collapsed. The de-listing of companies such as Access Kenya and CMC Holdings and the directors being disqualified from holding a directorship in any publicly listed company is evidence that most failure cases was attributed to systematic failures by the board of management. Uchumi was placed under receivership in

2006 and delisted from the NSE in the same year and the board of directors were held responsible for engaging in malpractices and ignoring governance practices. Uchumi was later re-listed again in 2010 when a new board of directors was appointed and the company witnessed improved financial performance. This only emphasizes the role of composition of the board on the company's financial performance and thus explains my interest in the impact of board composition on the listed companies' financial performance at the NSE.

Rules on board composition are well outlined in most countries. For instance, in Norway, a gender quota of the board among the publicly listed firms has been established to ensure that opportunities are equally distributed. According to Smith and Verner, (2006), the Norwegian laws state that women must have a representation of 40% in every board. Other Scandinavian countries such as Spain, France and Iceland also propose a quota of the total board members to be women (Adams & Ferreira, 2009). Women have the capacity to undertake major roles in the board and this can be actualized by initiating binding quotas that encourage corporations to ensure forty percent women representation in publicly listed companies' boards (European Commission 2016). This will ensure conclusive decision-making and increased board diversity due to equal gender representation and thus increased performance of the firm (European Commission, 2016).

In Kenya, studies have been executed on the effect of board diversity on the financial performance of establishments quoted at NSE. For example, Jebet (2001) did a research on Corporate Governance undertakings among listed firms in Kenya; Mwangi, (2013) explored Corporate Governance and financial performance of firms quoted at the NSE. Aduda et al.(2013) did an empirical test on different corporate governance models on listed firms' performance at the NSE. The empirical evidence alluded that there exists a strong effect of the various board diversity attributes on company financial performance while Neema and

Olomi (2012) looked at the effects of specific corporate governance attributes on the company's performance in Kenya. Few empirical studies have been undertaken on the effect of board diversity on the financial performance of quoted companies at the NSE therefore our understanding on corporate governance matters is still lacking. This brings us to the gap this study was seeking to fill, which was to investigate, what is the impact of board diversity on the financial performance of listed firms at the NSE?

1.3 Research Objective

The study's objective was to establish the effect of board diversity on the financial performance of publicly listed firms at the NSE.

1.4 Value of the Study

Prior studies carried out on the correlation between diversity of the board and financial executions have concentrated on mostly developed nations such as USA and Europe. The study will therefore make additions to the existing knowledge on corporate governance and financial performance and will assist future researchers in providing reference materials with regards to publicly listed companies in developing countries like Kenya. It will have the ultimate effect of aiding generation of information which may be of value to future researchers and a document on reference will be brought forth by the study which will always be accessed by other scholars in future.

Stakeholders such as shareholders, customers and employees always need to have value for money for their association with the entities that they identify with. The same can only be realized in the event of good corporate governance. The study will thus give an insight to the current practices vis a vis the expectations of the stakeholders showing how enhanced

corporate governance would add value in terms of aiding financial performance of the publicly quoted firms thus better returns for the stakeholders and clients.

This study will also provide data that will act as a guide to the Kenyan Government in relation to the possible need for legislation for the gender composition in the corporate boards and provide a basis for further research in corporate governance theories focusing on developing countries as most studies in this field have been concentrated in the developed countries.

The results of the study will also provide pertinent information relating to board composition and its impact on financial performance to financial institutions, consultants and entrepreneurs and assist them to boost the financial performances of their businesses.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter will take an in-depth study of the literature and researches related to the study. The chapter analyzes the theories guiding the study, summarizes the gaps and identifies the contradictions in the empirical literature

2.2 Theoretical Review

The part assesses the different models associated with Board Diversity. This includes the Resource dependence theory, Agency theory and Shareholders theory.

2.2.1 The Agency Theory

This theory advanced by Meckling and Jensen (1976) describes the association between the agents and the principals. The principals are the shareholders of the company while the agents include the company's managers and executives. The theory purports that it is mandate of the agents to perform the duties of the principals and act towards fulfilling the common goal of the principal. Principals pass the role of running the business to managers who are agents of the shareholders. The model was basically introduced as to distinguish between control and ownership. This theory argues that all the decisions made by the agent must serve the interest of the principal. However, it is not always a guarantee that the decisions made by the agent will serve the principals' interests (Padilla, 2000). According to Davis, Donaldson and Schoorman (1997), agency problems often occur as a result of the separation between ownership and control in an agency association. The agent might sometimes want to act in his interest which surpasses principles' aspirations thus resulting to conflicts between the agent and the principal. This study's theoretical foundation is anchored

on agency theory which sites information asymmetry between the agent i.e. managers and directors as a barrier to the attainment of shareholder or principals' interests (Fama, 2000). The board therefore needs to put in place proper governance mechanisms with the aim of reducing agency costs. Moreover, the more diverse a board is the better it might be in preventing power abuse by management as board independence is increased by the board (Carter *et al.*, 2003). The agency theorists also asserts that a board with a larger number of independent directors will be more proficient in monitoring management as the managers will have less opportunities to behave or act opportunistically (Nicholson & Kiel, 2007). The board therefore needs to put in place proper governance mechanisms with the aim of reducing agency costs

2.2.2 Stewardship Theory

This theory originates from both sociological and psychological disciplines. Davis *et al.*, (1997) purport that a steward maximizes and protects the wealth of the shareholder through increasing firm outcomes thus increasing the utility functions of the steward. From this approach, stewards can be defined as company managers and executives serving the interests of the shareholders through profit maximization. This theory varies from agency theory in that it is less concerned with individualism, but the role of the top management as being stewards and actualizing the organizational goals. According to stewardship view, stewards are motivated and satisfied when organizational goals are achieved.

According to Agyris (1973), agency theory perceives employees as an economic being that limit the attainment of a person's own aspirations. Donaldson and Davis (1991) opine that organizational structures that tolerate and develop stewardship must be put in place. It stresses the employees' position to act autonomously in order to maximize the shareholders'

returns. Ideally, this minimizes the costs incurred in monitoring and control of habits Davis (1997). Similarly, Daily (2003) purports that the directors and executives must protect the reputations organizations' decision makers in order to attain optimal shareholders' profits and firm performance. Therefore, it can be argued that individual performance influence the overall firm performance. Fama (1980) agrees that directors and executives engage in career management in order to be perceived as effective stewards for their organizations while Vishny and Shleifer (1997) argue that managers strive to attain maximum returns from the investors' shareholders to inculcate a good reputation that could be harnessed in future. Stewardship model is common in nations such as Japan where the workers take ownership and stewardship role of their tasks and diligently develop on them. Moreover, the theory does not fail to mention the undeniable role of the CEO in reducing agency costs pushing towards the attainment of greater organizational stewardship. It has been empirically established that a combination of the two theories results in higher outcomes than when separate (Donaldson & Davis, 1991).

With respect to board diversity, the theory implies that the board has the role and responsibility of diligently executing their tasks as the custodians of corporate assets and resources on behalf of the owners of the capital.

2.2.3 Stakeholder Theory

The stakeholder theory was proposed as a management discipline in the year 1970 and has since then been propelled by Freeman (1984) through integration of corporate accountability to different stakeholders. A stakeholder is described as any individual who is influenced or can influence the attainment of the objectives of the organization. Unlike in the agency theory where managers work to serve the interest of the stakeholders, stakeholder theorists

opine that the organizations' managers have other interests to serve such as the suppliers, business partners and employees. According to Freeman (1999), it is more important to serve this group of individuals than owner-manager-employee associations in the agency theory case. On the contrary, Inkpen and Sundaram (2004) purport that stakeholder seeks to serve the stakeholders that deserve and require the attention of the management. Whilst, Preston and Donaldson (1995) argue that all parties engage in business for financial gains. From this point of view, a diverse board would likely represent and include the interests of all stakeholders. For instance, a multinational could appoint a foreign director to represent the interests of the international company. The representation of women on boards would also be in line enforcement of the one third gender rule.

2.2.4 Resource Dependency Theory

Whereas, the stakeholder theory explores the interactions between different groups for individual gains, resource dependency theory looks into the board directors' role in availing the resources required for the firm's continuity. Resource dependency examines' the directors' role in availing and mobilizing the key resources required by the organization through their external environmental linkages. Studies by Johnson *et al.*(1996) further depict that resource the dependency theorists emphasize on the selection of independent organizations' representatives as a way of exploring resources that are superior and directly associated with firm performance. For instance, outside directors who are law practitioners provide legal advice which would have been sourced at a cost from outside thus cutting down the firm's expenses.

This theory asserts that managers seek the board members' guidance and assistance (Huse, 2005). Board members are an integral part in strengthening the organisation's networks

through provision of external legitimacy (Taylor and Stiles, 2001). The core roles of the board service include setting activities including selection and evaluation of strategic alternatives which have been advanced by top managers, providing advice on how strategic decisions could be improved (Styles & Taylor, 2001; Huse, 2005).

The functionality of the organization is enhanced by the availability of adequate resources which in turn translates to good performance (Daily, 2003). Directors attract to the company resources such as information, skills and increased accessibility to key players such as buyers, suppliers, social groups, public policy makers and legitimacy (Hillman *et al.*, 2000) therefore implying that a more diverse board brings various view points, diverse ways of thinking and new ways of solving problems which leads to better firm financial performance.

2.3 Financial Performance determinants of Publicly Listed Companies

Financial Performance can be described as the extent to which the firm's financial objectives have been attained. It is the measurement of the firm's operations and policies in monetary terms. Financial performance is a measure of the general financial health of the firm over a specific time span and this analysis could be used for comparison of the performance among firms across one industry or for aggregation of performance among different sectors. The main indicators of financial performance in this study will be as discussed below:

2.3.1 Board Diversity

The board structure plays a critical role in the management of the firm through monitoring the activities of managers and controlling the company on shareholders' behalf. Chuanrommanee and Swierczek (2007) argue that aspect board constitutes components such as duality, presence of board monitoring committees and non-executive representation. Erhardt *et al.*(2003) opines that board of directors' diversification improves the decision

making capabilities of the category. Moreover, Pelled & Simon (1999) note that cognitive and educational level diversity of board influences positively the organizational performance. Therefore, board of directors' diversity has a positive effect on the financial performance of the organization. Similarly, Werbel, Shrader and Erhardt (2003) explored the cognitive variables of diversity i.e. age, race, gender, knowledge, ethnicity and education and noted a positive correlation between number of women in the Board and firm financial performances.

2.3.2 Firm Size

Malenya and Muturi (2013) identified company size and age to have positive effect on firm's financial performance as large firms enjoy economies of scale as it experiences and undergoes a learning effect and discovers new and better ways of doing things. Almajali *et al.*(2012) cited that the firm size influences the financial performance of the firm. Uwuigbe, Jafaru and Anijesushola (2012) explain financial performance to be greatly influenced by the firm ownership structure and firm size. These and Hvide (2007) concluded that better performance is associated with larger firms.

2.3.3 Leverage

This is the ratio of debt to equity in the capital structure. Malenya and Muturi (2013) pointed out that leverage beyond certain limits has a strong negative impact on financial performance due to heavy interest costs. Different scholars have explored the use of debt by firms and proposed financial leverage determinants such as debt-equity decisions as the main cause of trade-off between financial stress and interest tax shields (Dalbor & Upneja, 2001). The capital structure trade-off theory argues that optimal debt level offsets debt benefits against the debt costs (Gu, 1993) therefore, the application of debt increases return on equity

although the debt benefit will fall below the cost incurred when this capital structure level is attained.

2.4 Empirical Studies

Empirical researches on the link between firm's performance and the composition of the board of directors have been carried out by scholars over the last three decades. The role of governance and good corporate governance in increasing firm valuation, reducing financial fraud and increasing the performance of the organization is undisputable.

Darmadi (2010) studied the association between board diversity and financial performance of quoted firms at the Indonesian Stock Exchange (IDX). The board diversity variables comprised gender, nationality and age. Analysing a sample of 169 quoted in the IDX as at 31st December 2007 using OLS regression, the study depicted that both accounting performances as measured using ROA and market performances measured using Tobin's Q had strong negative association with gender diversity while the nationality diversity had no impact on firm's performance.

Beiner, Drobetz, Zimmerman and Schmid (2004) examined corporate governance and firm valuation using broad corporate governance index and other ownership structure variables, leverage and board characteristics to give a detailed description of the level of corporate governance among different Swiss firms. The research utilized Tobin's Q to measure growth and established a positive association between Corporate Governance and firm growth. When corporate governance index is increases by one unit, there will be increase in market capitalization by approximately 8.6% of the total book value of the company's assets.

Belkhir (2009) undertook a study on 174 US banks and speculation reserves associations. His findings did not express any positive association between board size and execution as

measured by Tobin's Q. Shrader *et al.* (1997) found a negligible link between the ratio of female directors constituted in the board and ROE, ROA and profitability among the sampled US firms. Farrell and Hersch (2005) used an event study and the Poisson regressions to explore the exempted female directors to US boards and found limited evidence on market returns to shareholders and return on assets. Longitudinal data for between the time frame 2004 to 2007 in Korea. According to Hyang *et al.* (2012) foreign outside directors and foreign block shareholders respectively provide independent monitoring and management expertise. The management of foreign block holders through board membership limit value enhancement when the interests of the foreign block holders are enhanced by foreign outside directors.

In Kenya, Letting, Aosa and Machuki (2012) explored the association between board diversity and corporate performance. They determined board size, board meetings, gender diversity and more particularly and for the first time in Kenya, the effect of women board members on performance of the firm as board diversity measures in the study. The researchers adopted descriptive statistics to profile the board of the firms for the periods 2006-2009 and a financial year unit of analysis to influence the impact of board attributes on the financial performance of the company. The authors used the diversity data collected from semi-structured questionnaire which targeted company secretaries or board chairmen for all the 47 firms listed at the (NSE) as at 31st December 2010 .Data analysis involving the application of both multivariate regression and descriptive univariate were applied to determine the association between the attributes of board of directors and firm financial performance. The study showed a positive and statistically significant association between Return on Assets (ROA) and board members' age, women on the board and education of the board members or professional specialization. Dividend yield (DY) and age of board

members, Return on Equity (ROE) and age of board members and the P/E and age of the board members were also opted to have a positive and significant association. The study however showed negative statistically significant association between Dividend yield (DY) and women on the board, ROE and the women on the board and educational qualifications. The study findings concur with the agency theory of corporate governance .of small board size.

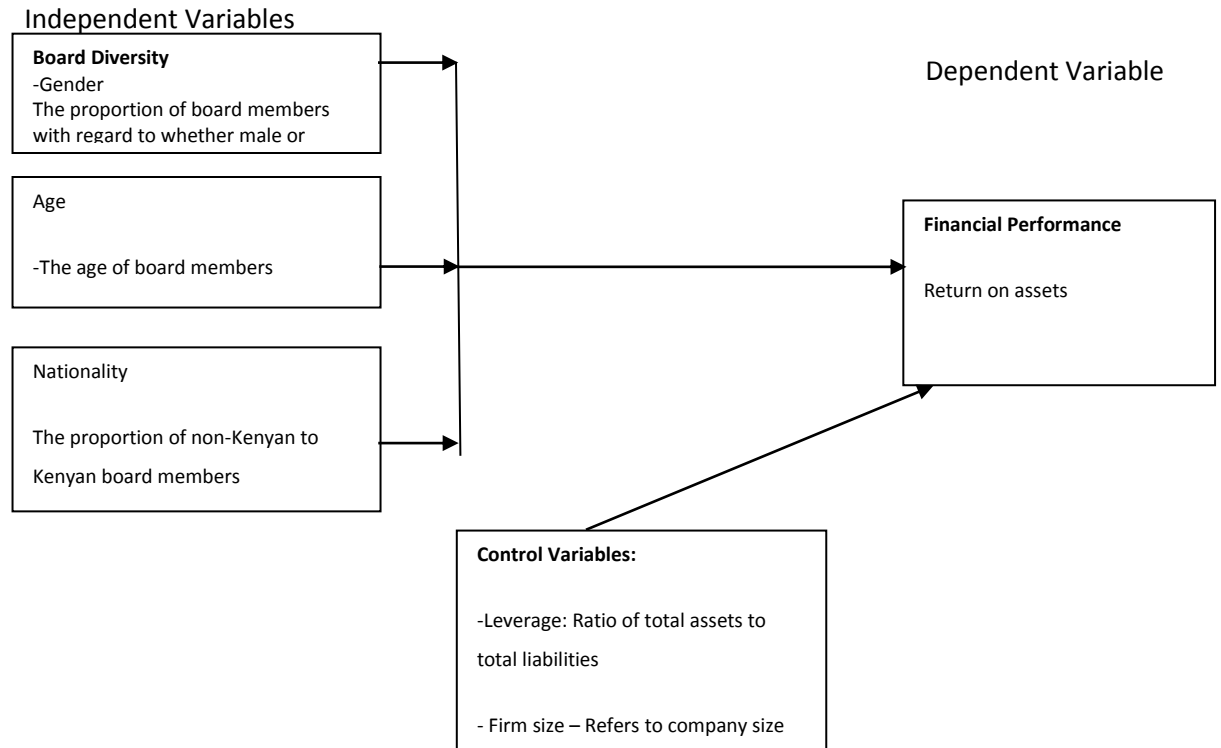
Ngugi and Kamangue (2013) explored the effect of board attributes on firm value among the unit trusts in Kenya. The descriptive research design was employed for the study. The relevance of each of the four firm value attributes was established using a multiple regression model. It was established from the study that most of the respondents concur to a large extent that board size has a significant effect on the efficiency of corporate governance and that poor communication and monitoring expenses in larger boards is the main cause of the agitation for board size.

2.5 Conceptual Framework

This conceptual framework gives a schematic association between the study variables. The study independent variable was board diversity as measured by age, gender and nationality. Financial performance whose measurement is ROA is the dependent variable Leverage and firm sizes were the study's control variables.

This study's hypothesis is that board diversity has a positive correlation on firm financial performance. The control variables are not of primary importance to this study but will strongly impact the experimental findings, and will be kept constant during the analysis so as to test the relative association between board diversity and financial performances.

Figure 2.1: Conceptual Framework



2.6 Summary of Literature Review

Various researchers have extensively investigated different facets of corporate governance dynamics in relation to firm financial performance. The existing literature on the association between the composition of the board and performance of the board inconclusive findings. Empirical reviews for studies conducted outside Kenya show both positive and negative association between board diversity variables such as board gender, ethnicity, nationality, age of board members among other variables measured against the financial performance measure variables. Few studies conducted in Kenya by scholars such as Gitobu (2000) and Munene (2007) have also shown mixed findings.

Numerous related studies have been executed mainly in the United States and Europe with a limited number in Africa. While globally empirical literature on firm value determinants is abundant, locally it is scarce. Few empirical researches have been done on firm performance determinants on financial performance in publicly listed companies in Kenya, giving an evident gap that this study seeks to address.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section represents the methodology adopted in the operationalization of the research so as to attain the objectives of the study. The section shows the research design and the population of the research. It is followed by data gathering technique and instrumentation, data analysis and ethical considerations.

3.2 Research Design

The descriptive survey research design was employed in the study to establish the association between board diversity (in reference to age, nationality and gender) in combination with other controlled variables and the financial performance of publicly quoted firms in Kenya. This research design was appropriate for the study as the researcher is familiar with the phenomenon under investigation but want to know more with regards to the nature of relationships between the study variables. In addition, a descriptive research aims at providing a valid and accurate representation of the study variables and this helps in responding to the research question (Cooper & Schindler, 2008).

3.3 Population

This study constituted all the 65 publicly quoted firms in the NSE for a period of five years from 2013-2017 and a census approach was carried out in this study.

3.4 Data Collection

The research relied on secondary data to gauge the financial performance of the publicly listed firms. It sought to interrogate the books of accounts to compute the calculations on return on equity, ROA, profitability ratios and return on total equity. The data to be collected in this study was for the five year time frame. This was with an aim of computing the profitability ratios based on a base year to cover the previous five financial years in the listed firms. Information regarding the composition of the boards in relation to age, gender, and nationality was also extracted from the corporate governance disclosure of individual listed firms in NSE as filed by NSE. The CMA library also provided reliable and readily accessible information regarding details of the board of directors like the position, age, name and whether independent or dependent director as it is a prerequisite for companies listed to file this information with them.

3.5 Data Analysis

The data collected from the different sources will be organized in a manner that can help address the research objective. Univariate and multivariate analysis models was then used in this comparative study. Univariate analysis involved descriptive statistics such as mean, mode, median, frequencies and test of normality among others. The analysis assisted in characterizing different board composition across listed firms. In multivariate analysis, ANOVA, Test of significance, T-test and R² was used to determine the significance of the difference in financial performance parameters between the boards over the five year time frame.

The SPSS software was used to analyze the quantitative data. Martin and Acuna (2002) purport that SPSS can handle a large set of data and can be used to execute many statistical procedures in the field of social sciences and thus was suitable for this study.

To address the specific research objectives of determining the association between board diversity and the financial performance of publicly quoted firms in Kenya, the study employed regression analysis. Board diversity was the independent variable while the dependent variable was financial performance.

The study will apply the following regression model;

$$Y = \alpha_0 + \beta_i X_1 + \beta_{ii} X_2 + \beta_{iii} X_3 + \beta_{iv} X_4 + \beta_v X_5 + \varepsilon_0 \quad \text{equation (1)}$$

From the equation (1),

Y = Financial performance of publicly listed firms as determined by ROA

α_0 = constant showing financial performance in the absence of the independent variables,

$\beta_i - \beta_{iii}$ = Coefficient of the independent variables

X_1 = Gender of the board members as measured by the proportion of female board members to male board members.

X_2 = Age of board members as measured by the log of the average age of the board members.

X_3 = Board member nationality as measured by the proportion of Non-Kenyan to Kenyan board members.

X_4 = The size of the firm as measured by the log of the total assets.

X_5 = Leverage as measured by ratio of total liabilities to total assets

ε_0 = error term associated with the regression model

3.5.1 Descriptive Statistics

The study used descriptive statistics to characterize the different board compositions across the listed firms and the salient underlying parameters that lead to their different positions as pertains to board diversity affecting the financial performance of publicly quoted firms at the NSE.

3.5.2 Diagnostic Tests

These tests were executed to establish whether all the model assumptions were valid after fitting the regression model before we perform any inferences. Both formal statistical tests and graphical methods were involved in this study.

3.5.3 Pearson Product Correlation Tests

Pearson product correlation tests were run to find out if there is any significant influence among the variables. The dependent variable was financial performance. In the event of a positive correlation, it was evidenced from the achievement of a value of less than one after the test.

3.5.4 ANOVA Test

The one-way analysis of variance test was used to determine whether any statistically significant variations exist between the means of the independent variables. The one-way ANOVA compares between groups' means and determines their statistical significance.

3.5.5 T –test

A t-test analysis was undertaken to examine the probability of difference between populations and establish whether a significant difference is present between the sample means of the independent variables.

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND INTERPRETATION

4.1 Introduction

This section looked into the analysis of the collected data from the Capital Markets Authority and individual companies' annual financial reports to explore the impact of board diversity on financial performance of companies quoted at the NSE. Using descriptive statistics, regression analysis and correlation analysis, the results of the study were presented in table forms as shown in the following sections.

4.2 Response Rate

This study targeted all the 65 firms quoted at the NSE as at 31st December 2017. Data was obtained from 58 firms representing a response rate of 89.23%. From the respondents, the researcher was able to obtain secondary data on board diversity, firm size, leverage and financial performance of the NSE listing.

4.3 Diagnostic Tests

The researcher carried out diagnostic tests on the collected data. The research assumed a 95 percent confidence interval or 5 percent significance level (both leading to identical conclusions) for the data used. These values helped to verify the truth or the falsity of the data. Thus, the closer to 100 percent the confidence interval (and thus, the closer to 0 percent the significance level), the higher the accuracy of the data used and analyzed is assumed to be.

4.4 Descriptive Analysis

Descriptive statistics gives a presentation of the average, maximum and minimum values of variables applied together with their standard deviations in this study.

Table 4.1 above shows the descriptive statistics for the variables applied in the study. An analysis of all the variables was obtained using SPSS software for the period of five years (2013 to 2017) for 58 firms listed at the NSE that provided data for this study. The mean, maximum and minimum and standard deviation for all the variables selected for this research are as shown in the table below.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Financial Performance	289	-.570	1.000	.04970	.130266
Gender	289	.000	.667	.20534	.139931
Average Age	289	1.653	1.869	1.74414	.042098
Nationality	289	.0000	.8889	.253090	.2003814
Firm Size	289	7.6541	11.8107	10.216757	.9122716
Leverage	289	.0003	2.3580	.568664	.3256276
Valid N (listwise)	289				

Source: Research Findings (2018)

4.5 Correlation Analysis

The association between any two variables used in the study is established using correlation analysis. This relationship ranges between (-) strong negative correlation and (+) perfect positive correlation. Pearson correlation was employed to analyze the level of link between the listed firms' financial performance and the independent variables for

this study (gender of the board members, age of the board members, nationality, firm size and leverage).

Table 4.2: Correlation Analysis

		ROA	Gender	Age	Nationality	Firm Size	Leverage
Financial Performance	Pearson Correlation	1	.034	.094	.129*	.220**	-.219**
	Sig. (2-tailed)		.567	.113	.028	.000	.000
	N	289	289	289	289	289	289
Gender	Pearson Correlation	.034	1	-.120*	-.150*	.178**	.142*
	Sig. (2-tailed)	.567		.041	.011	.002	.016
	N	289	289	289	289	289	289
Average Age	Pearson Correlation	.094	-.120*	1	.050	-.184**	-.272**
	Sig. (2-tailed)	.113	.041		.393	.002	.000
	N	289	289	289	289	289	289
Nationality	Pearson Correlation	.129*	-.150*	.050	1	-.020	-.162**
	Sig. (2-tailed)	.028	.011	.393		.739	.006
	N	289	289	289	289	289	289
Firm Size	Pearson Correlation	.220**	.178**	-.184**	-.020	1	.369**
	Sig. (2-tailed)	.000	.002	.002	.739		.000
	N	289	289	289	289	289	289
Leverage	Pearson Correlation	-.219**	.142*	-.272**	-.162**	.369**	1
	Sig. (2-tailed)	.000	.016	.000	.006	.000	
	N	289	289	289	289	289	289

Source: Research Findings (2018)

The study established that nationality of the board member and firm size has positive and significant correlation with companies' financial performance quoted at the NSE as evidenced by ($r = .129, p = .028$; $r = .220, p = .000$) respectively. The study also found

out that gender and age of the board members have a positive but insignificant correlation with financial performance as evidenced by ($r = .034$, $p = .567$; $r = .094$, $p = .113$) respectively. Leverage was noted to have a negative and significant correlation with listed firms' financial performance as evidenced by ($r = -.219$, $p = .000$). Although the independent variables had an association to each other, the association was not strong to cause Multicollinearity as all the r values were less than 0.70. This implies that there was no Multicollinearity among the independent variables and therefore they can be used as determinants of financial performance in regression analysis.

4.6 Regression Analysis

Financial performance was regressed against five predictor variables; board gender, board age, board nationality, firm size and leverage. The regression analysis was executed at a significance level of 5%. The critical value obtained from the F – table was measured against the one acquired from the regression analysis.

The study summary statistics were as depicted below.

Table 4.3: Model Summary

Model	R	R ²	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.406 ^a	.165	.150	.120080	1.567

a. Predictors: (Constant), Leverage, Gender, Nationality, Average Age,

Firm Size

b. Dependent Variable: Financial Performance

Source: Research Findings (2018)

R squared, being the coefficient of determination shows the deviations in the response variable attributed to variation in predictor variables. From the outcome in table 4.3 above, the value of R square was 0.165, a discovery that 16.5 percent of the deviations in financial performance of firms quoted at the NSE are caused by changes in board gender, board age, board nationality, firm size and leverage. Other variables not included in the model justify for 73.5 percent of the variations in financial performance of the companies listed at the NSE. Also, the results revealed that there exists a weak association among the selected independent variables and the financial performance as shown by the correlation coefficient (R) equal to 0.406.

Table 4.4: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.807	5	.161	11.187	.000 ^b
	Residual	4.081	283	.014		
	Total	4.887	288			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Leverage, Gender, Nationality, Average Age, Firm Size

Source: Research Findings (2018)

The P value recorded was 0.000 which was less than the alpha of 0.05 meaning that the model was statistically significant in showing how board gender, board age, board

nationality, firm size and leverage affects the companies listed at the NSE' financial performance.

Coefficients of determination were used as indicators of the direction of the association between the variables and the companies listed at the NSE' financial performance. At 95% level of confidence, the p value is less than the conventional value 0.05 was interpreted to measure statistical significance. As such, a p-value above 0.05 implies that the dependent variables have a statistically insignificant association with the independent variables. The results are indicated in table 4.6

Table 4.5: Model Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.785	.328		-2.391	.017
Gender	.036	.052	.039	.697	.487
Average Age	.219	.176	.071	1.243	.215
Nationality	.056	.036	.086	1.554	.121
Firm Size	.049	.008	.345	5.823	.000
Leverage	-.128	.024	-.319	-5.251	.000

a. Dependent Variable: Financial Performance

Source: Research Findings (2018)

Gender, age and nationality of the board members were found to be insignificant determiners of financial performance for this study as evidenced by p values that are above 5%.

The following regression equation was estimated:

$$Y = -0.785 + 0.049X_1 - 0.128X_2$$

Where,

Y = Financial performance measured by ROA

X₁ = Firm size

X₂ = Leverage

On the estimated regression model above, the constant = -0.785 shows that if selected dependent variables (gender, age, nationality of the board members, size and leverage) were rated zero, the companies listed at the NSE' financial performance would be -0.785. A unit increase in firm size will result in an increase in financial performance of the Kenyan companies quoted at the NSE by 0.049 while a unit increase in leverage will lead to lower financial performance of firms listed at the NSE by 0.128.

4.7 Discussion of results

The study explored the association between board diversity and financial performance of the firms listed at the NSE. Board diversity was the independent variable in this study was the independent variable with three measures. Gender of the board members was measured by the percentage of female board members to male in the board. Age of the board members was tested by the log of the board members' average age while board member nationality was measured by degree of Non-Kenyan to Kenyan board members.

Financial performance was the dependent variable that the study intended to explain and it was measured by ROA.

The Pearson correlation coefficients between the variables revealed that firm size and nationality of the board member has a significant and positive correlation with financial performance of firms quoted at the NSE. The research further found out that firm leverage has a negative and statistically significant correlation with financial performance of firms quoted at the NSE.

The model summary revealed that the independent variables: gender, age, nationality of the board members, firm size and leverage explains 16.5% of the variation in the dependent variable as shown by the R^2 value which means that there are other variables not factored in this model that account for 73.5% of changes in the companies listed at the NSE's financial performance. At 95% level of confidence, the model was fit as shown by an F-value of 11.187. This means that the overall multiple regression model was statistically significant and is an adequate model for explaining the influence of the chosen independent variables on the firms quoted at the NSE's financial performance.

The results of this research were consistent with Muiruri (2014) who undertook a research study that examined the effect of number of non executive directors, board size and board diversity gender on performance. The census study used an exploratory design and gathered data from secondary sources and analyzed using regression analysis. The research established that NEDs and board size affects performance while gender diversity in board did not have any significant effect.

This study is in contrast with Letting, Aosa and Machuki (2012) who examined the association between board diversity and corporate performance. They determined board size, board meetings, gender diversity and more particularly and for the first time in Kenya, the effect of women board members on firm performance as board diversity measures in the study. The researchers employed descriptive statistics to profile the board of the firms for the periods 2006-2009 and a financial year unit of analysis to explore the effect of board attributes on firm financial performance. The authors used the diversity data collected from semi-structured questionnaire which targeted company secretaries or board chairmen for all the 47 firms companies at the (NSE) as at 31st December 2010. Data analysis involving the application of both multivariate regression and descriptive univariate were applied to determine the association between the attributes of board of directors and firm financial performance. The study showed a positive and statistically significant association between Return on Assets (ROA) and board members' age, women on the board and education of the board members or professional specialization. Dividend yield (DY) and age of board members, Return on Equity (ROE) and age of board members and the Price Earnings Ratio and age of the board members were also opted to have a positive and significant association. The study however showed negative statistically significant relationship between Dividend yield (DY) and the women on the board, ROE and the women on the board and educational qualifications. The study findings concur with the agency theory of corporate governance of small board size.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section looks at the summary of findings, conclusions, recommendations, limitations and suggestions for further research.

5.2 Summary of Findings

The research investigated the impact of board diversity on the quoted firms' financial performance. The independent variables for the study were gender of the board members, board member's average age, nationality of the board members, firm size and leverage. Descriptive cross-sectional research design was utilized in the research. Secondary data was obtained from the Capital Markets Authority and was analyzed using SPSS software version 22.

From the results of correlation analysis, firm size and nationality of the board member were established to have a significant and positive correlation with financial performance of firms quoted at the NSE. The findings further reveal that firm leverage has a negative and statistically significant correlation with firms' financial performance quoted at the NSE. The study also found out a positive and insignificant correlation exists between gender and age of the board members with firm's financial performance quoted at the NSE.

The R-square value was 0.165 which means that about 16.5 percent of the variation in financial performance of the companies at the NSE listing can be explained by the five selected independent variables while 73.5 percent in the variation of financial

performance was associated with other factors not covered in this research. The study also found a weak correlation between the independent variables and the companies listed at the NSE' financial performance($R=0.403$). ANOVA results indicate that the F statistic was at 5% significance level with a $p=0.000$. Therefore the model was fit in explaining the association between the selected variables.

The regression output depicts that the independent variables chosen for the research have zero value the listed firm's financial performance will be -0.785 . It also noted that a unit increase in firm size results to higher financial performance of firms at the NSE listing in Kenya as indicated by a positive coefficient while a unit increase in leverage for firms listed at the NSE would result to a significant decline in financial performance.

5.3 Conclusion

It can be concluded from the findings that the companies listed at the NSE' financial performance is significantly affected by leverage and firm size. The study therefore concludes that a unit increase in firm size leads to a significant increase in financial performance of companies quoted at the NSE while a unit increases in leverage leads to a significant decrease in financial performance. The study found that gender of the board members, age and nationality are statistically insignificant determinants of financial performance and therefore this study concludes that these variables do not influence to a large extent the firms quoted at the NSE financial performance.

The research construes that independent variables selected for this research board members age, average board members' age, nationality of the board members, firm size and leverage influence to a large extent the listed firm' financial performance at the NSE.

It is thus sufficient to conclude that these variables significantly affect the financial performance of firms quoted at the NSE as depicted by p value in the ANOVA summary. Since the five independent variables lead to 16.5% of changes in financial performance reveals that the variables not consolidated in the model explain 73.5% of changes in financial performance of firms at the NSE listing.

This finding concurs with Muigai (2014) further undertook a study to determine the association between selected corporate board dynamics (board size, composition of non-executive and executive members and corporate boards' gender diversity and financial performance. The population of forty three licensed firms quoted at the NSE in Kenya was used from 2009 to 2013. The research study found a strong negative correlation of composition of board and performance and no positive significant relationship between gender diversity among directors and firm performance, while a negative correlation exists between board size and performance.

This study is in contrast with Letting, Aosa and Machuki (2012) who explored the association between board diversity and corporate performance. They determined board size, board meetings, gender diversity and more particularly and for the first time in Kenya, the effect of women board members on firm performance as board diversity measures in the study. The researchers employed descriptive statistics to profile the board of the firms for the periods 2006-2009 and a financial year unit of analysis to explore the impact of board attributes on the financial outcomes of a company. The authors used the diversity data collected from semi-structured questionnaire which targeted company secretaries or board chairmen for all the 47 firms quoted at the (NSE) as at 31st December 2010. Data analysis involving the application of both multivariate regression and descriptive univariate were

applied to establish the association between the attributes of board of directors and firm financial performance. The study showed a positive and statistically significant association between ROA and board members' age, women on the board and education of the board members or professional specialization. Dividend yield (DY) and age of board members, ROE and age of board members and P/E ratio and age of the board members were also opted to have a positive and significant association. The study however showed negative statistically significant association between Dividend yield (DY) and the women on the board, ROE and the women on the board and educational qualifications. The study findings concur with the agency theory of corporate governance .of small board size.

5.4 Policy Recommendations

The study established that a positive association exists between financial performance and size of a firm. This study recommends that listed firm's management and directors should aim at increasing their asset base by coming up with measures and policies aimed at enlarging the firm's assets as this will eventually have a direct effect on the firm's financial performance. From the findings of this study, big firms in terms of asset base are expected to perform better than small firms and therefore companies should strive to grow their asset base.

Leverage was also found to have a significant negative effect on financial performance of quoted firms. The study recommends that when firms are setting their capital structure they should strike a balance between the tax savings benefit of bankruptcy and debt costs associated with borrowing. High levels of debt has been found to reduce financial performance of quoted firms from the results of this study and so firm managers should

maintain debt in levels that do not impact negatively on financial performance to ensure the goal of maximizing shareholders' wealth is attained.

5.5 Limitations of the Study

Time constraint was a limitation as the time allocated for this study was not sufficient due to other obligations such as working on a full time job. However, the researcher worked over time to ensure that the study was finished within the specified time frame.

The study employed secondary data in the public domain, which had already been obtained, unlike the first-hand information presented by primary data. Primary data would have improved this study by helping the researchers get qualitative data from respondents on how they perceive the impact of board diversity on financial performance.

The study also considered selected determinants of and not all the factors affecting the financial performance of listed firms mainly due to limitation of data availability. There are other factors that affect financial performance of listed firms which were not considered for this research as they were not quantifiable.

For data analysis purposes, the researcher applied a multiple linear regression model. Due to the shortcomings involved when using regression models such as erroneous and misleading results when the variable values change, the researcher cannot be able to generalize the findings with certainty. If more and more data is added to the functional regression model, the hypothesized relationship between two or more variables may not hold.

5.6 Suggestions for Further Research

This research only looked into board diversity and financial performance of firms quoted at the NSE in Kenya and relied on secondary data. A research study that relies on primary data covering all the 65 companies listed at the NSE is recommended so as to compliment this research.

The study did not cover all the independent variables affecting financial performance of firms quoted at the NSE and this study recommends that further studies be conducted to incorporate other variables like management efficiency, growth opportunities, industry practices, age of the firm, political stability and other macro-economic variables. Establishing the effect of each variable on financial performance will enable policy makers know what tool to use when controlling the financial performance.

The study concentrated on the last five years since it was the most recent data available. Future studies may use a range of many years e.g. from 2000 to date and this can be helpful to confirm or disapprove this study's findings.

The study limited itself by focusing on listed firms. The recommendations of this study are that further studies be executed on other non-listed institutions operating in Kenya to confirm or disapprove this study's findings.

Finally, due to the inadequacies of the regression models, other models including the Vector Error Correction Model (VECM) could be adopted to explain the different associations between the variables.

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