



**Strathmore**  
UNIVERSITY

Strathmore University  
**SU+ @ Strathmore**  
University Library

---

**Electronic Theses and Dissertations**

---

2016

# Examination of the one third rule on gender diversity and its impact on performance of listed firms on the Nairobi Securities Exchange

Mainji, Valentine  
*Strathmore Business School*  
*Strathmore University*

Follow this and additional works at: <https://su-plus.strathmore.edu/handle/11071/4759>

---

## Recommended Citation

Mainji, V. (2016). *Examination of the One Third Rule on gender diversity and its impact on performance of listed firms on the Nairobi Securities Exchange*. Strathmore University, Nairobi. Retrieved from <https://su-plus.strathmore.edu/handle/11071/4759>

This Thesis - Open Access is brought to you for free and open access by DSpace @Strathmore University. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DSpace @Strathmore University. For more information, please contact [librarian@strathmore.edu](mailto:librarian@strathmore.edu)

**Examination of the One Third Rule on Gender Diversity and its Impact on  
Performance of Listed Firms on the Nairobi Securities Exchange**



**Masters of Commerce**

**2016**

**Examination of the One Third Rule on Gender Diversity and its Impact on  
Performance of Listed Firms on the Nairobi Securities Exchange**

**Valentine Maingi**

**Submitted in partial fulfilment of the requirements for the Degree of Master of**

**Commerce at Strathmore University**

**School of Management and Commerce**

**Strathmore University**

**Nairobi, Kenya**



**JUNE 2016**

This thesis is available for library use on the understanding that it is copyright material and that no quotation from the thesis may be published without proper acknowledgement.

## **DECLARATION**

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other university. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made in the thesis itself.

© No part of this thesis may be reproduced without the permission of the author and Strathmore University.

Name: Valentine Maingi

Signature:

Date:

## **Approval**

This thesis of Valentine Maingi was reviewed and approved by the following;

Dr. Freshia Mugo-Waweru  
Senior Lecturer  
School of Management and Commerce  
Strathmore University

Dr. David Wang'ombe  
Dean - School of Graduate Studies  
School of Management and Commerce  
Strathmore University

Prof. Ruth Kiraka  
Dean, School of Graduate Studies  
Strathmore University



## **ACKNOWLEDGEMENTS**

I would like to express my gratitude to Dr Freshia Waweru, for her continued guidance and assistance throughout the process of writing my thesis. I would also like to appreciate my family for the understanding and encouragement you gave me throughout the process, you were instrumental to my success. To my MCom Finance classmates, thank you for the support and encouragement you gave me during the term of our master's program.



## **ABSTRACT**

Problems of inequality are centuries old all over the world, with the oldest discussion being on the gender equality arena. Advancing gender equality in corporate governance has increasingly become the focus of many debates in the world. While a number of studies have investigated the relationship between gender diversity and firm financial performance, their conclusions are equivocal. In 2010, the Kenyan Constitution in a bid to increase gender diversity in the public organizations introduced a legislation that requires all public firms to ensure that their elected or appointed members are not more than two thirds from the same gender. Thus raises the question; is the gender diversity concept being embraced by firms and has there been a change since the law was enforced? In 2014 the CMA in a bid to increase adoption of the gender rule among listed companies, passed an enforcement requiring its members to abide to a code of conduct that emphasises the one third rule as per the Kenyan Constitution. Thus the study aimed to determine whether the gender diversity law was being adhered to and whether gender diversity had any impact on the performance of listed firms in the NSE. The results of the study indicate that although there has been some improvement since 2007, the representation of women on Kenyan corporate boards is lower than the acceptable one third rule requirement. Only 4 firms out of the 46 firms studied adhered to the one third gender rule. The study examined the relationship between gender diversity and firm performance for the period from 2007-2014. Findings from multiple regression analysis show a positive relationship between gender diversity at board level and firm performance. The analysis indicates that an increase in women at the board level would significantly improve the firm performance. Therefore, from a financial perspective, the study advocates for the appointment and inclusion of more women on the corporate board of firms as it leads to improved performance. On a policy level, the study recommends the strengthening of the oversight regulation by the governing authorities of listed companies in Kenya to improve adoption of the gender diversity rule.

# TABLE OF CONTENT

<b>CHAPTER ONE</b> .....	1
<b>INTRODUCTION</b> .....	1
1.1 Background of the study.....	1
1.2 Problem statement.....	4
1.3 Research objectives .....	5
1.3.1 General Objective .....	6
1.3.2 Specific Objective .....	6
1.4 Research questions .....	6
1.5 Scope of the study .....	6
1.6 Significance of the study .....	7
1.7 Chapter Summary .....	8
<b>CHAPTER TWO</b> .....	10
<b>LITERATURE REVIEW</b> .....	10
2.1 Introduction.....	10
2.2 Theoretical Framework .....	10
2.2.1 Resource Dependency Theory .....	10
2.2.2 Contingency Theory.....	11
2.2.3 Stakeholder Theory .....	11
2.2.4 Theory of Tokenism.....	12
2.2.5 Agency Theory.....	13
2.3 Empirical Studies .....	14
2.3.1 Corporate governance in Kenya.....	14
2.3.2 Gender diversity in the Board .....	17
2.3.3 Firm Performance .....	19
2.3.4 Impact of Gender diversity on firm performance .....	20
2.4 Conceptual framework .....	22
2.5 Operationalization of variables .....	23
2.5.1 Dependent variable .....	23
2.5.2 Independent variable .....	24
2.5.3 Control variables .....	24
2.6 Chapter Summary .....	24
<b>CHAPTER THREE</b> .....	26
<b>RESEARCH METHODOLOGY</b> .....	26

3.1 Introduction.....	26
3.2 Research Design.....	26
3.3 Target Population and sampling .....	27
3.4 Data collection methods .....	27
3.5 Data analysis .....	27
3.6 Data presentation.....	30
3.7 Ethical Consideration .....	30
<b>CHAPTER FOUR.....</b>	<b>32</b>
<b>DATA PRESENTATION AND ANALYSIS .....</b>	<b>32</b>
4.1 Introduction.....	32
4.2 General Information .....	32
4.3 Level of adherence to the one third gender diversity rule .....	35
4.3.1 Listed Firms with Government as a majority shareholder .....	38
4.3.2 Listed Firms with Government as a minority shareholder.....	41
4.3.3 Listed Firms with no Government shareholding.....	43
4.3.4 Summary .....	46
4.4 Assessment of the effect of Gender Diversity on Firm Performance .....	46
4.4.1 Relationship between gender diversity and firm performance for firms listed in the NSE.....	48
4.4.2 Summary of the relationship between gender diversity and firm performance .....	49
4.5 Summary.....	50
<b>CHAPTER FIVE.....</b>	<b>51</b>
<b>DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>51</b>
5.0 Introduction.....	51
5.1 Discussions .....	51
5.1.1: Level of adherence to the one third gender diversity rule.....	51
5.1.2: Assessment of the effect of Gender Diversity on Firm Performance .....	52
5.2 Recommendations .....	54
5.3 Limitation of the Study.....	55
5.4 Suggestions for further research .....	56
<b>REFERENCES .....</b>	<b>58</b>
<b>APPENDICES.....</b>	<b>64</b>
Appendix 1: Firms listed in the NSE consistently from 2007– 2014 .....	64
Appendix 2 Firms Where the Government has a Stake .....	65

Appendix 3 Firms Where the Government has no Stake ..... 66  
Appendix 4 Scatter Plot representing Age of the listed firms based on year of  
incorporation..... 67  
Appendix 5 Scatter Plot representing size of the listed firms based on total asset value  
..... 68



**LIST OF TABLES**

Table 4.1: Independent variables of the Listed Firms in the NSE.....33

Table 4.2: Women representation on the board of the listed firms in the NSE.....36

Table 4.3: Women representation in State controlled listed firms.....38

Table 4.4: Women representation in listed firms with minority government shareholding .....41

Table 4.5: Private Firms adhering to the one third gender diversity rule.....45

Table 4.6: Regression Analysis Results for firms where the government has a majority shareholding.....48

Table 4.7: Regression Analysis Results for firms where the government has a minority shareholding .....50



## LIST OF FIGURES

Figure 4.1: Age of company based on number of years listed in the NSE.....	35
Figure 4.2: Female representation on boards of listed firms in the NSE.....	37
Figure 4.3: Percentage proportion of women directors in State controlled listed firms.....	39
Figure 4.4: Percentage proportion of women directors in each state controlled listed firm.....	40
Figure 4.5: Percentage proportion of women directors in listed firms with minority shareholding.....	42
Figure 4.6: Women representation of firms adhering to the one third gender diversity rule as at 2014.....	43
Figure 4.7: Percentage representation of women directors in Private listed firms .....	44
Figure 4.8: Women representation in listed firms with no government stake.....	45



## **LIST OF ABBREVIATIONS**

NSE- Nairobi Securities Exchange

CMA- Capital Market Authority

ROA- Return on Asset

ROE- Return on Equity

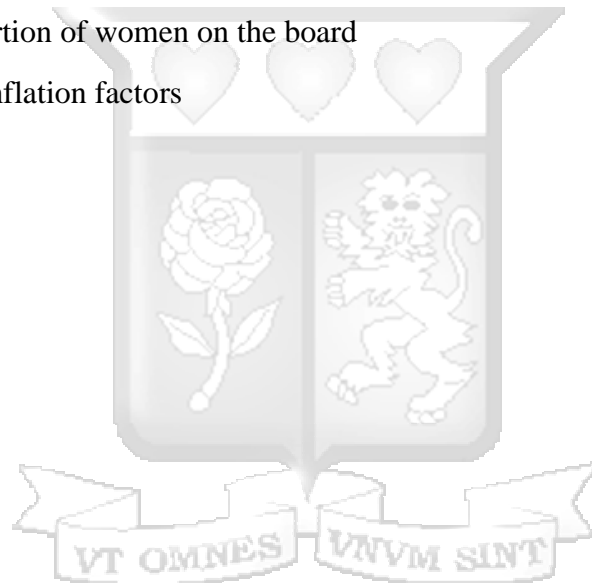
UK- United Kingdom

USA- United States of America

KIM: Kenya Institute of Management

Pwomen: Proportion of women on the board

VIF: Variance inflation factors



# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Corporate governance is the system by which companies are directed and controlled; it is a set of principles that govern the relationship between stakeholders, management, and the board of directors of an organization, and influences how the firm is controlled and directed (OECD, 2004). The aftermath of the fraud scandals involving some of the world's largest corporations, Enron and Worldcom, gave impetus to reforms around corporate governance principles all over the world in a bid to bring greater power balance within the firm (Aguilera, 2005). Corporate governance deals with issues that arise from the separation of ownership and control of a firm and provides a structure through which objectives are set and performance monitored to ensure the interests of the stakeholders are protected. Corporate governance systems provide several mechanisms to ensure firms are run effectively and that they maximize shareholder value. One of those mechanisms is the establishment of a board of director for firms (Adams, Hermalin & Weisbach, 2010).

The Board of directors is one form of internal control mechanisms in the organizations. The board members act as watchdogs of the top managers in the corporate. Their responsibility is to appoint, supervise and remunerate the senior managers and also to formulate organization objectives and strategies (Minguez & Campbell, 2010). The board of directors are one of the most important subgroups within the top management of most modern organizations (Arnegger, Hofmann, Pull & Vetter, 2013; Dale-Olsen, Schone, & Verner, 2013), performing strategic functions like monitoring, disciplining and compensating managers, as well as providing access to critical resources required by the organization (Wellage & Locke, 2013). Board of directors are seen as the ultimate decision making authority in the organization with the most significant power and influence on the strategies, which ultimately affect the performance of the firm. Therefore, determining the right composition of the Board becomes of critical prominence for an organization (Grayson, Jin, Lemon, Rodriguez, Slaughter & Tay, 2008).

Many studies have investigated the influence that the board composition has on the value of the firm. Some areas of investigation have been on how internal and external board members

influence the value of the firm (Agrawal & Knoeber, 1996), while others have researched on how the frequency of board meetings affect firm value (Brick & Chidambaran, 2007). Other studies have turned focus on issues of gender diversity in the board composition and top management (Coffey & Wang, 1998). Some of the research has concentrated on the concept of ‘glass ceiling’ which they describe as an invisible barrier that prevents women from rising to the highest hierarchies of the corporate ladder, regardless of their qualifications and achievements (Federal Glass Ceiling Commission, 1995). Some researchers have investigated how board diversity in terms of gender and race affects firm performance (Bjarnadottir, 2013).

Board composition that includes gender diversity has been one of the most significant governance issues facing the 21<sup>st</sup> century corporations (Singh & Terjesen, 2008). Reason being, gender diversity has been advocated as a means of improving organizational value and performance by bringing in new insights, information and perspectives (Carter, Simkins & Simpson, 2003; Miller & Triana, 2009). Gender diversity is significantly increasing as there has been significant progress in female representation in the board of directors in the past two decades (Daily, Certo & Dalton, 1999). Board gender diversity is a significant aspect of corporate governance and is defined as the presence of female directors on the board of directors of corporations. The board room of many organizations have from inception of the board concept been significantly dominated by men with very few if any women representation, a trend that has been observed all over the world, both in the developed and developing world (Sener & Karaye, 2014).

While participation of women has since the 1990s increased at the middle level management, little has changed at the senior level of management and at board level (Hede, 2000). In Kenya it is said that the corporate boards are dominated by the male gender mostly because in most times the appointing authorities are dominated by men who tend to use the old boy network to get new appointments. The Institute of Directors of Kenya notes that this appointment process denies majority of women the chance to be selected into the corporate boards. A survey done by Society for International Development in 2014 found that representation of women in Kenya’s Parliament has been and remains minimal and the lowest in East Africa with only 20.7% of the eleventh Parliament being women. The survey argues that underrepresentation of women in positions of power is unsustainable; a country simply cannot progress economically, politically or socially

without half its citizens participating meaningfully in political spheres and critical decision-making processes. Thus the effect of diverse boards, based on gender diversity, on the organizational value as identified by Carter et al (2003) and Bohren and Strom (2007) may not have been significantly experienced in the Kenyan context before 2010, when the Constitution of Kenya 2010 was enforced.

Kenya is a signatory to various international and regional instruments namely: The Universal Declaration of Human Rights, the African Union Protocol to the African Charter on Human and Peoples Rights on the Rights of Women in Africa and the Solemn Declaration on Gender Equality in Africa. As a requirement to these agreements the country is expected to attain and uphold equitable gender representation in its public bodies. Recognizing this, the Constitution of Kenya 2010, domesticated these commitments to safeguard human rights and fundamental freedoms and entrenched the concept in article 27 (8). The Constitution in Article 27 (8) provides for affirmative action where the State is required to take legislative and other measures to ensure that no more than two thirds of the members of elective or appointive bodies are of the same gender. Before the implementation of the gender rule under the Kenyan Constitution, women representation at senior management level was minimal, the government therefore, wanted to enable women get a chance at top leadership positions. The Constitution rule came to help alleviate the gender diversity discrimination, whereby the board of directors was dominated by males, to ensure women got a chance in top management and at the board level (Wachudi & Mboya, 2009).



Pursuing financial success is an innate goal for any corporation and thus the financial effects of increased gender diversity on corporate boards may crucially determine if and how regulations to promote gender diversity are implemented. The one third rule legislates for the public bodies in Kenya. In a bid to improve corporate governance principles of best practice, the private sector has not been left behind in the endeavour to increase gender diversity in the boardroom. In 2014 Kenyan professional women in conjunction with the Capital Market Authority formed a forum to discuss means and ways of improving diverse gender representation in the boardroom, and to that end, CMA in the same year passed a code of conduct requiring all firms listed in the NSE to adopt the one third gender diversity rule as provided for in the constitution. It is a movement aimed at

ensuring the corporate boards of all listed firms incorporate more women representation than before.

In order to assess the level of adherence of the one third rule among the listed firms in the NSE, the listed firms were categorised into three groups: the firms where the government has majority shareholding (50%+1), the listed firms where the government has minority shareholding (<50%) and firms where the government has no direct shareholding. Out of the forty-six listed firms whose data was analysed, the Government has a majority stake in three firms and a minority stake in nine firms (Appendix 2). It has no shareholding in the remaining thirty-four firms (Appendix 3).

## **1.2 Problem statement**

Problems of inequality are centuries old all over the world, with the oldest discussion being on the gender equality arena. Advancing gender equality in corporate governance has increasingly become the focus of many debates in the world (Pande & Ford, 2011). While a number of studies have investigated the relationship between gender diversity and firm financial performance, their conclusions are equivocal (Kochan, Bezrukova, Ely, Jackson, Joshi & Jehn, 2003; Webber & Donahue, 2001). A study by Robinson and Dechant (1997) argued that board gender diversity led to better informed corporate strategy decisions and this in turn affected the firm performance. Further studies have found a positive relationship between gender diversity and firm performance (Shrader & Blackburn, 1997; Carter, Simkins & Simpson, 2003). Other studies have found that gender diversity and firm performance are independent of each other (Rose, 2007; Francoeur, Labelle & Sinclair-Desgagne, 2008), while others have found that gender diversity and firm performance have an inverse relationship (Adams & Ferreira, 2007; Adams & Ferreira, 2009). These studies have generally been carried out in the developed countries of Europe and the USA.

Studies carried out in the developing and emerging countries on gender diversity and its impact on firm performance have also had equivocal conclusions. An Indonesian study by Darmadi (2010) concluded that gender diversity had a significant negative relationship with accounting and market performance. While a South African study found that board gender diversity and corporate profitability have a positive correlation (Lehobo, 2011). In Kenya, a study conducted by Wachudi and Mboya (2012) found no significant relationship between board gender diversity

and firm performance, whereas another study conducted by Barako and Brown (2008) concluded that board gender diversity improves firm performance as it increases effective decision making. These empirical discrepancies have led to a lack of conclusive evidence about the relationship between increased gender diversity and firm performance.

In 2010, the Kenyan Constitution in a bid to increase gender diversity in the public organizations introduced a legislation that expects all public firms to ensure that their elected or appointed members are not more than two thirds from the same gender. However, a survey conducted by Kenya Institute of Management in 2012 found that only 12 percent of the directors in the 61 companies listed in the Nairobi Security Exchange were women. In 2014 the CMA in a bid to increase adoption of the gender rule among listed companies, passed an enforcement requiring its members to abide to a code of conduct that emphasises on at least one third representation of one gender as per the Kenyan Constitution.

Thus this study aimed at assessing the level of adherence to the one third gender diversity rule at the board level of firms listed in the NSE after the enforcement of the regulation in 2010. Studies carried out relating to gender diversity at board level were mostly conducted before 2010, thus the study was aimed at building on the literature post the enforcement of the law. Furthermore, previous studies investigating the relation between gender diversity at board level and firm performance have reached equivocal conclusions; thus the study aimed at investigating the relationship that exists between board gender diversity and firm performance for the firms listed in the NSE. The key question that arises is whether increased board diversity, particularly gender diversity, can provide the board with a more robust competence profile that would positively stimulate firm financial performance.

### **1.3 Research objectives**

This section states the general and specific objectives that the study researched on to establish the relationship between the one third rule on gender diversity and firm performance.

### **1.3.1 General Objective**

To assess the adherence to the one third gender diversity rule and the effect of board gender diversity on firm performance of listed firms in the Nairobi Securities Exchange.

### **1.3.2 Specific Objective**

1. To assess the extent of adherence to the one third rule on gender diversity by the public listed firms in the Nairobi Securities Exchange.
2. To assess the effect of board gender diversity on firm performance of listed firms in the NSE.

### **1.4 Research questions**

1. To what extent are the Kenyan public listed companies in the Nairobi Securities Exchange adhering to the affirmative action by the Kenyan constitution to the one third rule on gender diversity at the board level?
  - 1.1 Are the listed companies in the NSE that have a majority government shareholding adhering to the affirmative action by the Kenyan constitution to the one third rule on gender diversity at the board level?
  - 1.2 Are the listed companies in the NSE that have a minority government shareholding adhering to the affirmative action by the Kenyan constitution to the one third rule on gender diversity at the board level?
  - 1.3 Are the listed companies in the NSE that have no government shareholding adhering to the affirmative action by the Kenyan constitution to the one third rule on gender diversity at the board level?
2. To what extent has board gender diversity affected the performance of listed firms in the Nairobi Securities Exchange?

### **1.5 Scope of the study**

The study covers an eight-year period from 2007- 2014. The period has been picked because for the study to establish the real impact of the new gender diversity law on board representation in Kenya, at least two new boards have to be considered. Kenyan boards have a life span of a maximum of six years' tenure of service (Wachudi & Mboya, 2012). Also in 2010, the Kenyan

Constitution introduced a legislation that expects all public firms to ensure that their elected or appointed members are not more than two thirds from the same gender. Thus the study dwells at looking at the board four years before the legislation was passed and four years after its implementation. The legislation was passed in 2010, thus the study seeks to establish whether board membership rotation was done to adhere to the new law after it was implemented. This was carried out in order to observe, the rate of adoption of the law by firms listed in the NSE.

At the same time, principles of corporate governance advocate for all firms as best practice to adopt board gender diversity as it has been advocated as a means of improving organizational value and performance by bringing in new insights, information and perspectives (Carter, 2003; Miller and Triana, 2009). To that end in 2014 CMA introduced a code of conduct that required all listed firms in the NSE to adopt the one third rule on board diversity as provided for in the Kenyan Constitution. This was aimed at pooling in all listed firms to embrace corporate governance best practice of gender diversity at board level. Thus the study investigates whether listed firms with no government stake are adhering to the code of conduct, by ensuring they have a gender diverse board of directors. Another rationale for observing the nature of the relationship over a period of eight years is the fact that strategic contributions and management styles of women on firm performance is gradual and thus needs several years of observation. To analyse the level of adoption of the rule by the firms listed in the Nairobi Securities Exchange, the study classified the firms into three groups: Listed firms where the government had a majority stake (50% +1), listed firms where the government had a minority stake (<50%) and listed firms where the government had no direct stake at all.

### **1.6 Significance of the study**

This research aimed at investigating whether the NSE listed firms' value gender diversity in determining board composition and how this affects the firm's performance. The results of the study would contribute to the body of knowledge and literature that already exists in Kenya on issues of board gender diversity and its impact on firm performance.

The Government: The study aimed at providing information to the government on the level of adherence by firms in the NSE to the one third gender rule that was introduced through the

enforced 2010 Kenyan Constitution. This information would be important to the Government as it would enable it plan on strategies to improve on gender equality in the public sector.

Capital Market Authority: The study aimed at collecting more data that would assist the CMA in its attempt to push forward its agenda of getting more gender diversity in the boards of listed firms in NSE. It would also inform the Authority on the level to which listed firms were embracing the concept of corporate governance and specifically its principle of equality.

Listed Firms in the NSE: The study aimed at giving substantive proof to the listed firms on the advantages of adhering to the one third rule as appertains to gender diversity at the board level. Firms operate with the main aim of maximizing returns, thus the study aimed to advice listed firms on whether having a gender diverse board could assist them in accomplishing this goal. It aimed at making organizations appreciate the effect that gender diversity has on firm performance and thus lead the public firms to increase their level of compliance to the law and to convince the private firms to adopt the law as best practice corporate governance issue.

Academicians: The study aimed at adding to the body of knowledge and literature related to gender diversity and its impact on firm performance. Substantial research had been done in the developed world but more needed to be done in the developing world. Thus the study aimed at adding to the literature concerning the developing countries.

Shareholders: In an organization it is the responsibility of the principle (shareholder) to elect the members of the board of directors that represent their interests. Therefore, this study aimed at enlightening the shareholder on the importance of board gender diversity, to help them appreciate the merits of having a diverse board of directors. It also aimed at pointing out to the shareholders the impact that a gender diverse board may have on the firm performance thus enabling them to make more informed appointments of board members.

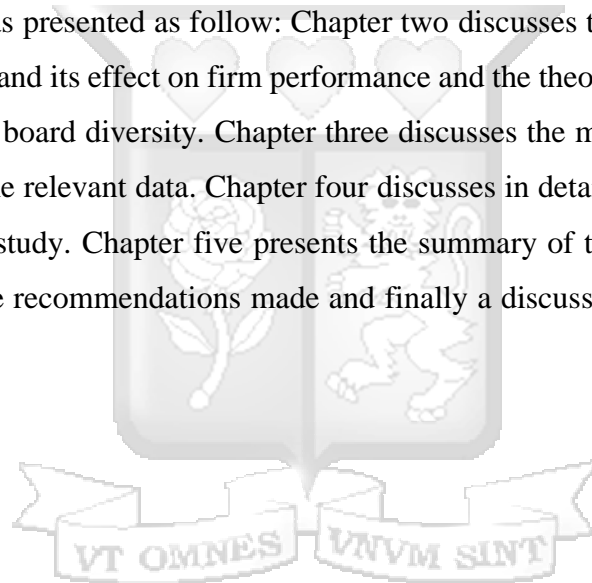
## **1.7 Chapter Summary**

The relationship between gender diversity in the boardroom and firm performance continues to draw more attention. Greater gender diversity can enable the firm to be more creative and

innovative (Singh & Vinnicombe, 2004). The decision making process could also be improved as more alternatives and their consequences are evaluated keenly (Eisenhardt, 1989; Judge & Miller, 1991).

On the other hand, there are also theoretical reasons as to why more women representation at the board level may lead to negative performance of the firm, the main issue being the emotional conflicts and lack of communication (Adams & Ferreira, 2007). Thus the study aims to determine whether gender diversity in the board room has any impact on the firm performance of listed firms in the NSE.

The rest of the study was presented as follow: Chapter two discusses the literature review in the area of gender diversity and its effect on firm performance and the theories that support corporate governance principle of board diversity. Chapter three discusses the methodology that was used to collect and analyze the relevant data. Chapter four discusses in details the analysis carried out and the findings of the study. Chapter five presents the summary of the study, pointing out the conclusions reached, the recommendations made and finally a discussion on the limitations that were encountered.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter focuses on previous studies done on the relationship between gender diversity and firm performance. The study begins by first looking at the theoretical framework that supports the corporate principle of gender diversity in the board of directors. The study then moves on to evaluate literature that has been written on the concept of gender diversity and firm performance. Part one discusses the concept of corporate governance, followed by the concept of gender diversity in the board, then the concept of firm performance and lastly the concept of gender diversity and how it affects firm performance. In section 2.3, the discussion is based on the specific objectives of the study. Section 2.3.2 discusses different studies carried out that discuss the concept of gender diversity at the board level. It identifies the level of adherence to different laws implemented in different nations in their bid to increase gender diversity at board level. Section 2.3.4 discusses specific objective two on how gender diversity affects firm performance. It discusses various studies conducted and their findings as appertains to the impact that gender diversity has on firm performance.

#### **2.2 Theoretical Framework**

A review done on women on corporate boards by Terjesen, Sealy and Singh (2009) on over 400 publications in psychology, sociology, leadership, gender, finance, management, law and corporate governance studied the related literature concerning female directors and their effect on firm performance and concluded that agency, resource dependence and contingency theories are the three main theoretical perspectives to explain the presence of women on corporate boards and their effects on firm's performance. A recent study conducted by Nuria, Pilar and Joaquina (2015) also incorporated the stakeholder theory as an important theoretical framework in explaining the presence of women on the corporate board and their impact on firm performance.

##### **2.2.1 Resource Dependency Theory**

Pfeffer (1972) and Pfeffer and Salancik (1978) developed the resource dependency theory, which views an organization as an open system which is dependent upon external firms and the environment. This theory is increasingly used to analyze the functions and performance of board

of directors (Gabrielsson & Huse, 2004). In this theory the boards of directors are perceived as a means to manage external dependency, reduce uncertainty and reduce transaction costs that come with interacting with the environment. The theory argues that the directors have the responsibility to maximize the firms' access to critical resources. This approach extends the role of the board's independence because it emphasizes the ability of board members to establish external links and resources to gather crucial information for the company (Siciliano, 1996). Diversity, in this context, expands the directors' profiles to improve relations with competitors and customers, knowledge about the industry, and the possibilities of access to finance. Under this perspective the women on corporate boards may be perceived to provide advice, legitimacy, commitment, accurate communication and adequate resources as they are viewed to bring skill, competence and knowledge which are different from those of their male counterparts (Hillman, Shropshire & Cannella, 2007). Therefore, a more diverse board is considered as a positive influence on the firm performance (Fang, Francis & Hasan, 2012; Van der Walt & Ingley, 2003).

### **2.2.2 Contingency Theory**

Carter, D'souza, Simkins and Simpson, (2010) argues that a homogenous group is built on trust and any member from outside may be viewed as a threat and may also generate extra costs and reduce team performance. Never the less, contingency theory states that such diversity may be desirable depending on circumstances (Boyd, 1990; Gabrielsson & Huse, 2004).

### **2.2.3 Stakeholder Theory**

Fryxell and Lerner (1989) propose the stakeholder theory as a theoretical perspective into looking at gender diversity and its impact on firm performance. It is linked to corporate social responsibility and it addresses the presence of demographic minority groups on boards of directors. The stakeholder theory suggests that the firm must reflect the interests of other stakeholders involved in the firm apart from the shareholders; such as employees, customers, suppliers and financiers. Recent literature on corporate governance frequently emphasizes this perspective as it argues that those other stakeholders besides shareholders contribute to the creation of value for the company (Berman, Wicks, Kotha & Jones, 1999). Following the stakeholder theory, gender diversity and the incorporation of women on boards and in senior management positions can be understood as important indicators of a firm's corporate social

responsibility and a sign of a stakeholder-oriented firm (Ibrahim & Angelidis, 1994; Oakley, 2000; Webb, 2004). Furthermore, Hillman & Dalziel (2002) observe that introducing greater gender diversity on the board allows more open government processes that ensure the incorporation of stakeholder interests.

#### **2.2.4 Theory of Tokenism**

The theory of tokenism that emerged from research carried out by Rosabeth Kanter in 1977 suggested that individuals whose social category is underrepresented in particular contexts will face negative experiences such as increased visibility and social isolation. It emphasized the importance of organizational structure and context in explaining the underrepresentation of women in powerful organizational positions. Prior to this, most explanations for gender inequity relied upon dispositional and internal rationales (Yoder, 1994), which implied that there was something inherently different about women that accounted for their inferior career status.

Tokenism Theory Tokenism theory posits that numerical underrepresentation is a primary cause of negative work experiences for minority group members (Yoder, 1991). In her seminal research, Kanter (1977a) examined the experiences of women in upper management of a Fortune 500 company. She concluded that, Understanding Tokenism 4, the life of women in the corporation was influenced by the proportions in which they found themselves. Those women who were few in number among their male peers and often had an only woman status became tokens: symbols of how-women-can-do, stand-ins for all women. This would lead them to at times face the loneliness of the outsider who intrudes upon an alien culture and may become self-estranged in the process of assimilation (Kanter, 1977). Specifically, Kanter determined that women who comprised less than 15% of their work group experienced three negative processes. First, women in these token positions experienced enhanced visibility or a heightened sense of attention. Although visibility can have positive outcomes in organizational settings (e.g., opportunities for promotion), tokens experienced this enhanced visibility in association with increased performance pressures and stifled emotional expression. Second, the differences between women (i.e., tokens) and men (i.e., dominants) were exaggerated, creating a sense of social isolation among tokens. Token women felt rejected from their male counterparts and disconnected from the few women who were members of their group or organization. Third and lastly, tokens felt subject to

constrained expectations and social roles consistent with gender stereotypes. Token women felt regulated to gendered expectations, and thus to the roles of “mother”, “seductress”, or “pet” (Kanter, 1977a).

### **2.2.5 Agency Theory**

Agency theory addresses the relationship that exists where in a contract one or more persons, the principle(s), engages another person, the agent, to perform some services on their behalf which involves delegating some decision making authority to the agent (Jensen & Meckling, 1976; Ross, 1973). The theory stipulates that an agency relationship exists between the owner of the business and the managers they appoint to manage their business on their behalf. This agency relationship brings about agency problem when the interests of the parties involved are divergent and through this problem the board concept is introduced to try finding amicable grounds to work in an organization (Jensen & Meckling, 1976). Thus the main assumption of the theory is that the interests of the principles and agents diverge, and this is what is called as the agency problem. The principle can limit agency problem by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit opportunistic actions by the agent (Hill & Jones, 1992).

One of the monitoring costs incurred in agency theory is that of appointing a Board of Directors, the assumption is that the role of the directors in a board is to manage and control the organizational resources (Fama & Jensen, 1983). Thus in this framework directors are seen as the agency problem resolvers between the shareholders as principles and the managers as agents. Therefore, a rationale on women’s role on the board based on agency theory argues that female representation in the board of directors brings different perspectives on complex issues, which can help resolve informational biases in strategy making and problem solving (Westphal & Milton, 2000).

Carter et al (2003) also argues that female directors are more likely to be more thorough and raise more questions than their male counterparts when it comes to issues with control and management. Adams and Ferreira (2009) and Farrell and Hersch (2005) argue that women on

corporate boards may have an impact on corporate governance to the extent that they are tougher and thorough in carrying out checks and balances.

Studies carried out by Rando, Thomsen and Oxelheim (2006) suggest that another angle of looking at gender diversity under the agency theory is that a more diverse board may entail better monitoring of managers, because board diversity will increase board independence. For instance, directors of a different gender, ethnicity or cultural background might ask questions that would not come from directors with more conventional backgrounds (Jurkus, Park & Woodard, 2007). Moreover, board members of diverse gender or ethnic origin may better avoid practices of earnings management, thus providing shareholders with more reliable figures on firm performance. Diversity can lead to an increase in its effectiveness, which can eventually lead to good performance, as a consequence of a wider variety of perspectives and more

### **2.3 Empirical Studies**

This section discusses the main concepts that support the study and also identifies previous studies that have been conducted that are related to the current research. In this section, the subheadings address areas to be covered in the analysis as based on the two specific objectives of the study.

#### **2.3.1 Corporate governance in Kenya**

A study carried out in Kenya by Barako (2006) examined the voluntary disclosure by Kenyan listed firms in the NSE following the reforms done by the Kenyan government to increase corporate governance practices in firms. The study provided a longitudinal examination of voluntary disclosure practices in the annual reports of listed companies in Kenya from 1992-2001, the results of the study showed that corporate governance in Kenya had gained prominence over time with more disclosures being made from 1999. This was due to the formation of the Centre for Corporate Governance in Kenya which was formed to advocate for more corporate governance disclosures.

The first attempt to bring into focus the corporate governance framework in Kenya started in 1999 when the Centre for Corporate Governance Kenya developed a framework which was voluntary for companies to adopt. The framework developed by this centre was further taken up by the

Capital Markets Authority (CMA) in 2000 as draft corporate governance practices for listed companies in Kenya. In 2002 Kenya's Capital Market Authority, amended its Guidelines on Corporate Governance Practices by Public Listed Companies in Kenya to encourage the participation of women on corporate boards. These corporate governance practices mainly dealt with the issues of the board such as board composition, role of audit committee, separation of the role of Chief Executive Officer and the chair. While the Corporate Governance Code is not binding on public listed companies in Kenya, the inclusion of these recommendations increased visibility of the underrepresentation of women in the boards and advocated for sensitivity in gender representation during appointment of board members. The CMA in 2014 went ahead to form forums for women to empower them to take up more seats in the board of organizations, with the aim of enhancing board gender diversity in line with corporate governance principles of equality.

A study conducted by the African Development Bank in 2015, assessed the Boardrooms of Africa's listed companies to determine the level of women representation in these boards, its conclusion saw Kenya rank highest in women representation in the board of public listed companies among all other African countries. With women holding 19.8% of the board seats, Kenya surpassed most countries worldwide in promoting gender equality on boards. Several factors that have been pointed out as strong driving forces for women in Kenyan boards are; the early adoption by the country to principles of Corporate Governance addressing gender diversity, the active nongovernmental organizations like the Women Empowerment Movement, that focus on the advocacy and trainings of the importance of gender diversity in the boardroom and the constitutional mandate that imposes a two third majority rule on the representation of gender in appointed and elective public positions. However, a lack of effective mechanisms to enforce compliance with these directives continues to raise questions about the success of these factors in future.

On the other hand, a study conducted by Gakeri (2013) on the challenges and opportunities that corporate governance possesses on the NSE, argued that the current internal and external corporate governance structures for listed companies in Kenya are largely dysfunctional in safeguarding investor interest and promoting investor confidence as exemplified by incessant

corporate scandals. Reason being the operative principles of corporate governance for listed companies in Kenya is based on the dispersed ownership structure and whose enforcement matrix to a large extent is “comply or explain” have not been particularly effective. More importantly, the obligations of directors, role of external auditors, shareholders and the ownership architecture have not facilitated the institutionalization of a responsive culture of corporate governance.

However, regulators are fast becoming stringent with the issues surrounding corporate governance principles. In 2010 a new Constitution was enforced that provided for equality of genders in public sector appointments. The Constitution provided that no appointed or elected body in a public sector organization should have a representation of more than two third of the same gender. The constitutional mandate produced significant effects, increasing the representation of women on boards of state owned corporations by 5% during the first two years it was effective, from 15% in 2010 to 20% in 2012 (Muturi, Sagwe & Karugo, 2012). However, as detailed in a 2015 African Development Bank report, political interference in the appointment for State Owned Corporations compromises on progress as government officials have the final decision on the board members’ appointments. The CMA in 2014 in a bid to increase compliance of the two third rule among the listed companies also passed an enforcement requiring its members to abide by a code of conduct that emphasizes on the two third rule as provided for in the Kenyan constitution.

While the constitutional mandate has spurred progress within the state owned and public listed companies, the private owned companies have not been left behind. A strong network of advocacy organizations in Kenya continues to push for progress within privately owned firms as well as in the state owned corporations. For example, the Federation of Women Lawyers and the Women Empowerment movement are some of the organizations focused on providing training for women in the corporate sector in order to increase the number of women qualified to join the corporate boards. The Kenyan media has also not been left behind with articles published in the National newspapers highlighting the need to have more women representation in the boardroom and also the positive progress made by some corporations like East African Breweries in adhering to the rule. Therefore, Kenya is becoming more appreciative of the corporate governance principles as time goes in order to abide by codes of best practice.

### **2.3.2 Gender diversity in the Board**

Diversity in the corporate world is defined as the variation of gender, race, age, ethnicity and cultural identities among employees within a firm (Marimuthu, 2008). On the other hand Van der Walt and Ingley (2003), in a study to understand the board dynamics and the influence of gender and ethnic diversity of directors in professional background, defined diversity in the composition of the board as the varied combination of attributes, characteristics and skills that the members in a board have. Usually two categories of diversity are considered. The first one is demographic diversity, which is observable as it's based on easily detectable factors like sex, race or level of education. The second type is not observable and needs cognitive consideration because it refers to non-visible attributes such as knowledge, skills and individual capabilities (Pelled, 1996; Milliken & Martins, 1996). Much of the research about diversity is expressed in demographic terms. The reason for this is because there are reliable databases which make objective measurement possible.

Board gender diversity is defined as the presence of female directors in corporate boards of directors (Campbell & Miguez-Vera, 2008). A study carried out by Farrell and Hersch (2005) on the effect of gender on the composition of the board of directors concluded that women have historically been underrepresented on corporate boards. The study further went to prove that this underrepresentation begun to change in the 1990s, when women became more aggressive and advocated for inclusion in decision making bodies. Also during the same period the concept of corporate governance became more emphasised in the business environment as best practice for firms and thus firms started adopting its principles.

A study conducted by Campbell and Miguez- Vera in Spain in 2009 on gender diversity looked at the female representation at board level across Europe and concluded that the participation of women in the labour market is lower compared to the men. In the UK, however, gender representation in the boardroom gained momentum in the early 2003 after the release of the Higgs report which reported on aspects that a company should have in place to practice good corporate governance, and one of them was to have a diverse board. The downside to it is that even with the report recommendations, corporate boards continued to remain largely male dominated (Grosvold, Brammer & Rayton, 2007). This led to some countries enacting guidelines and/ or

mandatory laws with the aim of increasing the presence of women on the boards of listed companies. In countries like Norway, Spain, France and Netherlands, women representation in public corporations is a requirement of the law. The law requires that 40% of the company's directors be women (Adams & Ferreira, 2009). Some national capital market regulators, like in the UK, Germany and Australia have passed recommendation and disclosure requirements for listed companies to have more female representation on the board room (Rose, 2007). However, even with all this progress from regulators the level of women representation at the senior management level still remains low, mostly in countries where it is not a legal requirement.

A survey conducted by the European commission in 2010 pointed out that there is increasing awareness that the absence of women in the top levels of management and board of directors is detrimental both to the economic and social outcome of the corporation. This has led to business agencies globally coming up with changes in corporate governance guidelines to incorporate women in the governance structure of companies. In 2010, Hede conducted a study in Australia on the effect that the affirmative action on equity was having on employment levels, the conclusion was that the women representation at mid-level management has increased significantly, but little change had occurred at the senior level.

To take an example of Kenya, a study conducted by Obonyo, Ogotu and Ongare (2013) on board composition and firm performance of companies listed in the NSE found that the corporate boards in Kenya are dominated by the male gender. This is mainly because most of the time, the appointing authorities are also male who use their old boys' network to make new appointments. This practice has, therefore, denied women the chance to be adequately represented at the Kenyan corporate board. However, Wachudi and Mboya (2009) suggested that this scenario would change with the new promulgated Constitution of Kenya 2010, since it provided for at least a third of all appointments to public corporations must be of either gender. The Capital Market Authority has in 2015 developed a code of corporate governance that seeks to ensure that no more than two thirds of the board members of public listed companies will be of the same gender, this is anchored to the Constitution.

### 2.3.3 Firm Performance

The definition of firm performance and its measurement continues to challenge scholars due to its complexity (Carton & Hofer; 2006). An attempt to distinguish firm performance from the broader construct of organizational effectiveness has led to various studies being carried out. Venkatraman and Ramanujan (1986) offered an enlightening figure of three overlapping concentric circles with the largest representing organizational effectiveness. This broadest domain of organizational effectiveness includes the medium circle representing business performance, which includes the inner circle representing financial performance. Therefore, firm performance is a subset of organizational effectiveness that covers operational and financial outcomes. Although this conceptual proposal is widely referred to by strategic management scholars (Carton & Hofer; 2006; Richard, Devinney, Yip & Johnson, 2009), the analysis of operationalizations of firm performance used in empirical studies shows a wide variety of approaches covering this domain partially and in an unbalanced way. Combs, Crook, and Shook (2005) analyzed all articles published in the Strategic Management Journal between 1980 and 2004 and identified 238 empirical studies that used 56 different indicators. In most cases, financial performance was used (82%) with accounting measures of profitability being the most common choice (52%). Two other aspects must be considered when attempting to define performance: its time frame and its reference point. It is possible to differentiate between past and future performance; past superior performance does not guarantee that it will remain superior in the future (Carneiro, 2005).

Therefore, the measurement of firm performance varies considerably in various studies carried out. In a study carried out by Campbell K. and Minguez A. (2008) to determine the effect of gender diversity at the boardroom and firm performance they utilized the Tobin Q ratio method to carry out data analysis. In various other studies accounting based measures have been used; for example, a study done by Ongore and K'Obonyo (2011) utilized the methods of Return on Asset, return on Equity and dividend yield to measure financial performance of firms listed at the Nairobi Securities Exchange; Renee and Mehran (2011) also used ROA and ROE to measure financial performance in the banking industry in USA.

Accounting results are based on events that have already occurred and thus offer a view of past performance, while financial measures like Tobin Q ratio focus on expectations of future

performance (Demsetz & Villalonga, 2001). A number of recent studies tend to use Tobin Q ratio, which has gained acceptance as a measure that helps to explain a wide variety economic phenomena like: management ownership (Griffith, 1999), corporate diversification (Hyland & Diltz, 2002) and the structure performance relationship (Smirlock M., Gilligan T. & Marshall W., 1997).

The Tobin Q ratio is a financial measure of firm performance. It reflects the market expectation of future earnings and is thus a good proxy for a firm's competitive advantage (Montgomery & Wernerfelt, 1988). The unit value of the Tobin Q ratio provides a clear yard stick for the measurement of the firm performance as firms with a Tobin Q ratio greater than 1.0 are expected by investors to be able to create more value by using available resources effectively, while those with a ratio less than 1.0 are associated with poor utilization of available resources. In addition to that, the Tobin Q ratio also accounts for risk and unlike the accounting measures like Return on asset, is not liable to reporting distortions due to tax laws and other accounting conventions (Lindenberg & Ross, 1981).

Therefore, firm performance can be measured using either accounting or financial measures. As has been discussed the accounting measures are prone to reporting distortion due to the different accounting conventions and tax laws. This study, therefore adopted a financial measure of firm performance in order to eliminate the weaknesses of the accounting measures.

#### **2.3.4 Impact of Gender diversity on firm performance**

Board functioning is highly related to corporate performance, whereas gender diversity leads to more focused and highly productive board. (Zahra & Pearce, 1989). Therefore, gender diversity has an impact on firm performance. Thus it is important to find out the impact of legislation on gender diversity in a firm's board of directors, so that the government is aware on how to respond to the law's impact on business in the economy. Studies done on gender diversity impact on firm performance concentrate on the developed world and they do not validate the theoretical predictions behind their assumptions.

Konrad, Kramer and Erkut (2008) in a study to determine how many female directors needed to be on a board for a significant change in firm's performance to occur, found that the impact of

women on a board is bigger when there is more than one woman present. This was because women felt stronger together and thus voiced their opinions stronger during the decision making process. This led to improved financial performance for the company. In another research by Smith, Smith and Vemer (2005), of 2500 Danish firms showed that board diversity has a positive effect on firm performance. And that the performance effects were mainly related to female directors with a university degree.

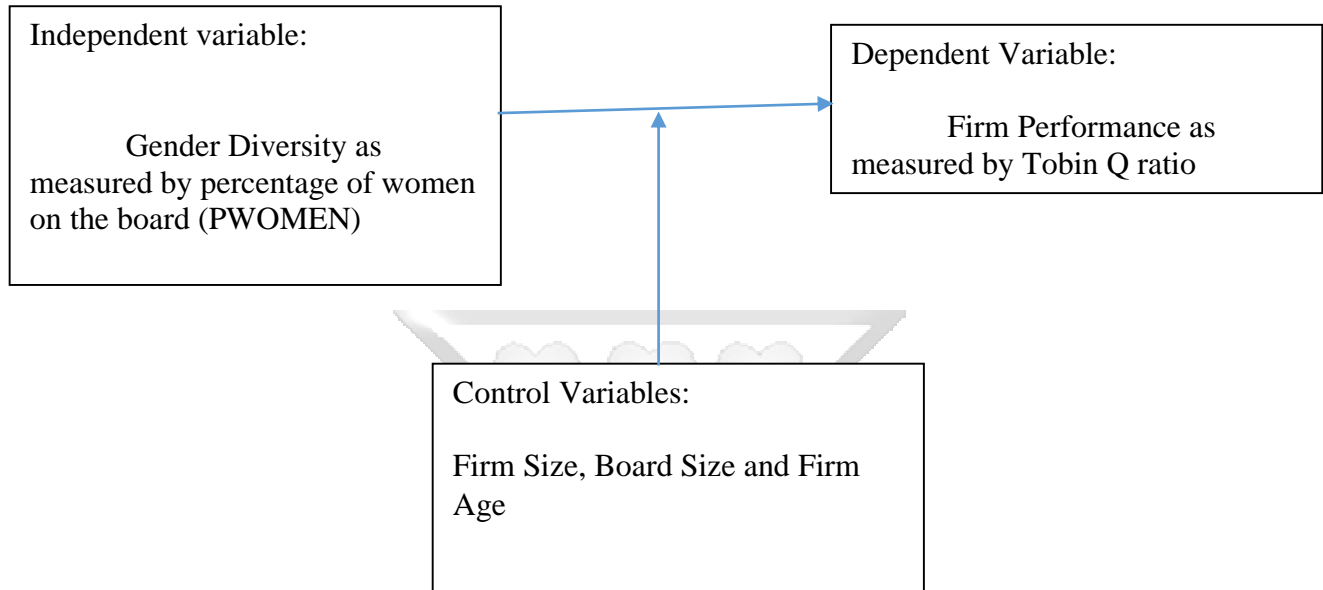
Another study carried out in the United States by Carter et al (2003), they found a positive relationship between gender diversity at the board and firm financial performance as measured by the Tobin Q ratio, with a sample of Fortune 1000 firms in 1997. In another study carried out by Adams and Ferreira (2009), they note that women on corporate boards have a significant impact on the board inputs. The samples in this case were 1,939 IRRC and ExecuComp firms from 1996-2003. In contrast to this, Carter et al (2010), found no significant link between board diversity and firm performance when they studied S&P 500 firms from 1998- 2002.

In Europe the same phenomena of divergent empirical results is experienced. Rose (2007) found no significant relationship between the gender diversity and Tobin Q ratio measure of performance for Danish listed companies. Campbell and Minguez- Vera (2008) established a positive relationship between gender diversity and firm performance for a sample of Spanish firms. A negative link was found following the approval of the law on women's quotas in Norway in the study carried out by Ahern and Dittmar (2012).

In Africa, we find a similar scenario of divergent empirical conclusions. In Kenya, Baraka and Brown (2008) concludes that board diversity in the Kenyan banks improves corporate social responsibility which in turn has a positive impact on the firm performance. On the other hand, Wachudi and Mboya (2012) conclude that gender diversity and firm performance have no correlation, when they looked at the effect of board gender diversity on the performance of commercial banks in Kenya. The difference in results across the studies carried out seems to arise from the differing period of analysis, inequality regimes and methodology used (Campbell & Minguez-Vera, 2008).

## 2.4 Conceptual framework

A visual map is used to represent the relationship between the variables used in this study as derived from reviewed literature (Campbell & Minguez-Vera, 2008). The independent variable in the study is gender diversity and the dependent variable is the firm performance.



The key assumptions made during the study were: First that board gender diversity had a direct effect on financial performance to the extent that the board was able to come up with informed policies which gave the company a competitive edge in the industry. And secondly, that the board was able to put in place an effective monitoring and control mechanism to safeguard shareholders' wealth. The firm size was picked as a controlling variable because size determines the capacity to generate internal funds and economies of scale. The board size affects the efficiency of the decision making process. The larger the board the longer it takes for the board to reach a consensus and in most cases some board members may be dormant. Therefore, it gives an indication of how efficient management of the company is in allocating assets efficiently to generate maximum earnings. Firm performance was measured using the information obtained from both the NSE and annual published financial statements of listed companies.

## **2.5 Operationalization of variables**

This section describes the variables; it identifies the dependent, independent and control variables. The section explains the reasoning behind the choice of each of the variables that were analysed in the study.

### **2.5.1 Dependent variable**

The dependent variable considered in the study was the firm performance. The study used an approximation of Tobin Q ratio of share return as a measure of firm value. The approximation of Tobin Q ratio was defined as the market value of stock divided by the book value of total assets.

The measurement of firm performance varies considerably in various studies carried out. In a study carried out by Campbell K. and Minguez A. (2008) to determine the effect of gender diversity at the boardroom and firm performance they utilized the Tobin Q ratio method to carry out data analysis. In various other studies accounting based measures have been used; for example, a study done by Ongore and K'Obonyo (2011) utilized the methods of Return on Asset, return on Equity and dividend yield to measure financial performance of firms listed at the Nairobi Securities Exchange; Renee and Mehran (2011) also used ROA and ROE to measure financial performance in the banking industry in USA.

This study used the Tobin Q ratio as a measure of firm performance rather than the accounting base measures. This approach was adopted because it reflects the market expectation of future earnings and is thus a good proxy for a firm's competitive advantage (Montgomery & Wernerfelt, 1988). The unit value of the Tobin Q ratio provides a clear yard stick for the measurement of the firm performance as firms with a Tobin Q ratio greater than 1.0 are expected by investors to be able to create more value by using available resources effectively, while those with a ratio less than 1.0 are associated with poor utilization of available resources. In addition to that, the Tobin Q ratio also accounts for risk and unlike the accounting measures like Return on asset, is not liable to reporting distortions due to tax laws and other accounting conventions (Lindenberg & Ross, 1981).

Accounting results are based on events that have already occurred and thus offer a view of past performance, while Tobin Q ratio focuses on expectations of future performance (Demsetz & Villalonga, 2001). A number of recent studies tend to use Tobin Q ratio, which has gained acceptance as a measure that helps to explain a wide variety economic phenomena like: management ownership (Griffith, 1999), corporate diversification (Hyland & Diltz, 2002) and the structure performance relationship (Smirlock M., Gilligan T. & Marshall W., 1997).

### **2.5.2 Independent variable**

The independent variable incorporated in the study was gender diversity. This variable was operationalized by PWOMAN that represented the proportion of women on the board of directors. This measure was used in the model to assess the effect of the relationship that exists between gender diversity and firm performance. It was calculated as the number of female directors divided by the total number of directors. This measure was also used to assess the level of firm adherence to the one third rule as appertains to gender diversity in the board of directors.

To improve the results, the study checked to ensure that there were no double functions. A double function happens when women in the sample seat in more than one company board. According to Konrad, Kramer and Erkut (2008), the more women on the board, the more their impact on the firm's performance,

### **2.5.3 Control variables**

The study utilized three control variables typically known to have an effect on firm performance. These variables include the size of the board given by the total number of board members (Erhardt, et al., 2003), the firm size measured by the logarithm of its total assets (Gallego, et al., 2010) and firm age calculated in terms of number of years since the was incorporated. The reason behind using the control variables is to sieve out what the impact of female representation would be on the firm's performance.

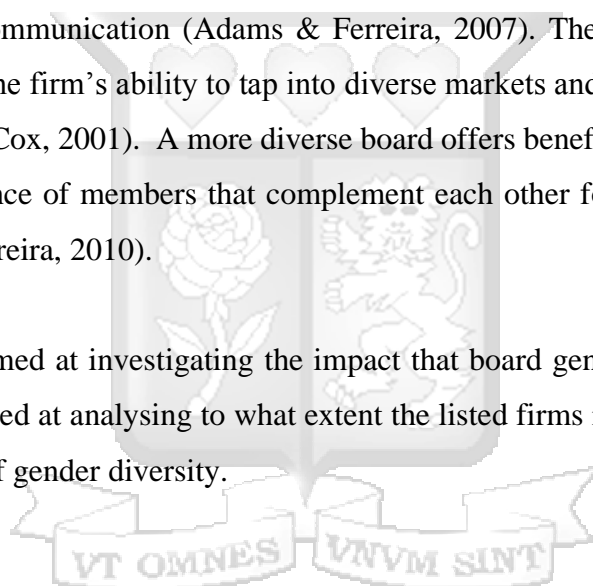
## **2.6 Chapter Summary**

The relationship between gender diversity in the boardroom and firm performance continues to draw more attention. There are several reasons as to why theoretically a higher number of women

on the board might be beneficial to the company. Greater gender diversity can enable the firm to be more creative and innovative (Singh & Vinnicombe, 2004). The decision making process could also be improved as more alternatives and their consequences are evaluated keenly (Eisenhardt, 1989; Judge & Miller, 1991). More women on the corporate board could also lead to a more positive image for the organization in the public eye and therefore, improved performance (Smith & Verner, 2005). The agency costs that arise due to homogenous board could also be reduced by having a gender diverse board (Bell, 2005).

On the other hand, there are also theoretical reasons as to why more women representation at the board level may lead to negative performance of the firm. The main issue being the emotional conflicts and lack of communication (Adams & Ferreira, 2007). The main purpose of gender diversity is to enhance the firm's ability to tap into diverse markets and increase its market share in the global economy (Cox, 2001). A more diverse board offers benefits from the range of skill, knowledge and experience of members that complement each other for better decision making (Davies et al., 2014; Ferreira, 2010).

Therefore, this study aimed at investigating the impact that board gender diversity had on firm performance. It also aimed at analysing to what extent the listed firms in the NSE are complying with the one third rule of gender diversity.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The purpose of the study was to assess the adherence to the one third gender diversity rule and the effect of board gender diversity on firm performance of listed firms in the Nairobi Security Exchange. This chapter outlines the procedures and methods used in carrying out the study, including the research design in section 3.2, the population and sample in section 3.3, data collection methods in section 3.4 and data analysis methods in section 3.5. The data obtained was used to measure the level to which firm performance changed in relation to gender diversity.

#### **3.2 Research Design**

Robson (1993) posits that research design begins with the selection of a topic and a paradigm. The study aims at accessing the adherence to the one third gender rule and the impact of gender diversity on the firm performance for listed firms in the NSE between the periods of 2007-2014. Thus it is explanatory in nature as it assesses whether gender diversity, together with other controlled variables affect the performance of firms listed in the Nairobi Security Exchange.

The study follows a quantitative paradigm to investigate the effect of gender diversity on performance of firms listed at the Nairobi Securities Exchange. Quantitative research objectively and systematically investigates variables and relationships with the intent to establish and authenticate relationships that can be generalized to a larger population (Leedy & Ormrod, 2010). The advantage of adopting a quantitative research is that it enables the study of variables at particular periods of time and thus investigation takes a shorter period of time. On the negative side, the study cannot establish any causal relationship between variables. In this study the shortfall is supplemented by the use of regression analysis to validate if there is any relation between gender diversity and firm performance. Therefore, to determine the relationship that exists between gender diversity at board level and firm performance, correlation analysis is used between the variables.

### **3.3 Target Population and sampling**

The unit of analysis for this study is the board of directors in the firm. The population covers the companies that had been trading in the NSE as at the beginning of 2007 and where still trading as at the end of 2014. The population covers the 47 companies listed at the Nairobi Securities Exchange as at the beginning of 2007 (Appendix 1). The population is drawn from the different industry sectors listed at NSE as at 1<sup>st</sup> January 2007. These sectors were: the agriculture sector (7 firms), the commercial and services sector (7 firms), automobile and accessories sector (3 firms), banking sector (9 firms), insurance sector (2 firms), investment sector (2 firms), manufacturing and allied sector (8 firms), construction and allied sector (5 firms) and energy and petroleum sector (4 firms).

The sampling technique used is the census approach. Reasons being the units of study are not too many and thus analysis can incorporate them easily (Saunders et al, 2007). Thus the study analyses the whole population of the forty-seven firms listed on the NSE as at the beginning of 2007 and which were still trading at the end of 2014. The study has excluded 2015 since most companies publish their annual financial reports after the first quarter of the year, thus at the time of the study data for 2015 was not available. As at the end of 2014, the total number of listed companies in the NSE was 64, however, 17 firms were excluded from the study because: 4 companies were delisted and the other 13 firms were listed after the beginning of 2007, thus these firms were not included in the study.

### **3.4 Data collection methods**

The study employed secondary data on firms listed on the Nairobi Securities Exchange over a period of eight years from 2007 – 2014. Secondary data on board size, firm size, firm age, and firm performance ratios was collected from various sources including published annual financial reports of the listed firms which were available in the company websites and at the Capital Markets Authority libraries.

### **3.5 Data analysis**

The analysis carried out initially was descriptive statistics which was based on the average values of the variables during the observed study period. The rationale for using average values is so as

to smooth out and to better control the effect of potential changes in female representation through resignations and new appointments (Erhardt, et al., 2003). Graphical presentations were used to depict the trend of the average proportion of female representation on the board of directors of the listed firms in the NSE from 2007- 2014. To analyse the adherence level to the one third gender rule, the sample was divided into three categories: Listed firms where the government has a majority stake (50%+1), listed firms where the government has a minority stake (<50%) and listed firms where the government has no stake at all. From this analysis, the study was able to analyse which of the three categories was complying with the 2010 legislation.

Moreover, the study used correlation analysis to analyse the kind of relationship that exists between the presence of females in the board of directors and firm performance. Correlation analysis was also used in the studies that were carried out by Adams and Ferreira in 2004 and 2008 to determine the relationship between female board representation and firm performance. This analysis was also used in the study carried out by Barako and Brown (2008) in Kenya as they analysed the effect of gender diversity on the board of directors to firm performance.

Multiple regression model was used to analyse the quantitative data collected in this study. Regression was used because it can show the relationship between variables. It does not only show positive, negative or no relationship but also tells the strength of that relationship (Jonson & Kuby, 2007). Multiple regression was chosen for this study as it was anticipated that there would be multi-collinearity among some independent variables, thus the need to investigate on their level of significance and whether further investigation needed to be conducted. This study is meant to reveal how firm performance tends to vary with presence of female representation on the board, with all else remaining constant, thus a multiple regression will clearly depict this relationship. Rose (2007) and Carter, et al. (2003) also employed the regression technique to establish the nature of the relationship between female representation and firm financial performance.

To carry out the correlation and multiple regression, the analysis was carried out on the whole data set of the forty-six firms. This enabled the study draw conclusions on whether firm performance improved with increase in women on the board in order to analyse whether gender

diversity has any impact on firm performance. The businesses have gone through eight complete financial years as at the end of 2014 and thus the study analysed the 8 years. Through making an analysis of the data, informed conclusion can be made on whether gender diversity has any influence on firm performance of listed companies in the NSE.

The algebraic statement of the regression model that was formulated to test the statistical significance of gender diversity on firm performance was:

$$Y_1 = \alpha + \beta_1(\log PWOMAN)_i + \beta_2(\log BrdSize)_i + \beta_3(\log firmsize)_i + \beta_4(\log firmage)_i + \mu_i$$

Where for the  $i^{th}$  company

$Y$  = Tobin Q ratio representing firm performance

$\alpha$  = constant of the regression equation

$\beta$  = Coefficient of the variable

$\mu$  = Error term

*PWOMEN*: Proportion of women on the board

*Logfirmage*: Number of years' firm has been in existence since incorporation

*Logfirmsize*: Logarithm of the total asset

*Logbrdsize*: Logarithm of the number of directors on the board

To measure firm performance the study employed the financial approximation ratio of Tobin Q ratio, this represented the dependent variable ( $Y_1$ ). The formula employed to calculate the ratio was:

$$\text{Tobin Q ratio} = \frac{\text{Market value of stock}}{\text{Book value of total assets}}$$

To measure board gender diversity, which represents the independent variable, the study employed PWOMEN. This measure was used to analyse the level of adherence to the one third gender diversity rule which was addressing specific objective one, and to also analyse the effect of gender diversity on firm performance. This was used as the basis of the model.

$$\text{PWOMEN} = \frac{\text{Number of female directors in the board}}{\text{Total number of directors in the firm}}$$

To improve the results, the study checked that there are no significant double functions, this are women in the sample that have a seat in boards of more than one company in the sample. According to Konrad, Kramer and Erkut (2008), the more women on the board, the more their impact on the firm's performance,

The control variables were measured using the outlined formulas below:

Size of the board (logBrdSize) = Logarithm of the number of board members

Firm age (logfirmage) = logarithm of firm age as at date of incorporation

The firm size (logfirmsize) = logarithm of total assets

The control variables were tested using multiple regression to determine if they were statistically significant in the model and whether they had a significant effect on firm performance. The P value tested the level of statistical significance of the variable in affecting the firm performance. In comparison with the P value calculated on gender diversity, the study was able to determine how significant gender diversity is to firm performance.

### 3.6 Data presentation

The qualitative information was presented using graphs, charts and tables. Multiple regression analysis output was presented in tables to show the level of significance in the relationship between the dependent and independent variables.

### 3.7 Ethical Consideration

This study took into account ethical consideration and the privacy and confidentiality of the respondent firms was upheld. The study complied with the set requirements under the ethical code of conduct of researchers. The study ensured accuracy of scientific knowledge, the research outcomes as well as protects intellectual property rights by acknowledging all sources of information obtained. The study was intended to increase the body of knowledge as well as advice

policy makers and other stakeholders on gender diversity issues and no harm was expected to result from the auctioning of this study.



## **CHAPTER FOUR**

### **DATA PRESENTATION AND ANALYSIS**

#### **4.1 Introduction**

The objective of the study was to assess the adherence to the one third gender diversity rule in the board of directors and the effect of gender diversity to firm performance of listed firms in the Nairobi Securities Exchange. In order to achieve this objective, statistical analysis was carried out on 46 companies that were continuously trading in the NSE between 2007- 2014 (Appendix 1). Descriptive statistics was used to explain the adherence and adoption of the one third gender rule by the listed firms. These companies are categorised into three groups: first group incorporates 3 firms in which the government has a majority shareholding (50%+1), the next groups incorporate 9 firms where the government has a minority shareholding (<50%) and the third group is made up of listed firms where the government has no shareholding (Appendix 2 and 3).

This chapter represents data analysis and findings of the research and discusses these results. The chapter findings are discussed in two main parts, each part addressing one of the two specific objectives of the study. The first objective uses descriptive statistics to discuss the level of adherence to the law across the three categories of listed firms in the NSE over the observed period. This is followed by a discussion of the second objective which analyses the impact that gender diversity at board level has on firm performance. The data is analysed using correlation and multiple regression and a discussion follows on how these findings address the research questions and objectives.

#### **4.2 General Information**

Before presenting the results of the analysis and the tests carried out in the study to address the two specific objectives, we first present preliminary findings of information that will be crucial for a better understanding of the results obtained in the study. The study analysed a population of 46 firms listed in the NSE for the period from 2007 to 2014 (Appendix 1). This sample encompasses firms operating across all sectors in the economy and is, therefore, a reliable representation of the entire population of listed firms in the NSE. In order to maintain the anonymity of the firms, in regards to the ethical consideration, the study used index names to

identify the listed firms in the NSE. The respective indices used to represent the listed firms are displayed in Appendix 1.

The number of observations used for analysis was from 46 firms rather than the 47 firms listed in the NSE between 2007- 2014. This is due to the fact that data from the firm indexed manufacturing A40 (Appendix 1) was eliminated from the analysis, the company was making huge losses and it had negative equity for the period of study, its firm performance ratio was negative and thus was significantly distorting the overall results of the study. Thus to standardize the data, the information from this firm were eliminated from the sample. The data required for analysis for the 46 firms was obtained from the published annual financial reports and market share valuation reports. This information enabled the calculation of the firm performance using the Tobin Q ratio, firm age, firm size, board size and percentage proportion of female directors in the board.

An overall analysis of the key control variables utilised in the study is relevant for a clearer understanding of the companies that were being studied. Table 4.1 displays descriptive statistics of variables of interest from the sample of listed firms in the NSE. The values in the table are average values of the measured variables over the observed period of 2007 – 2014.

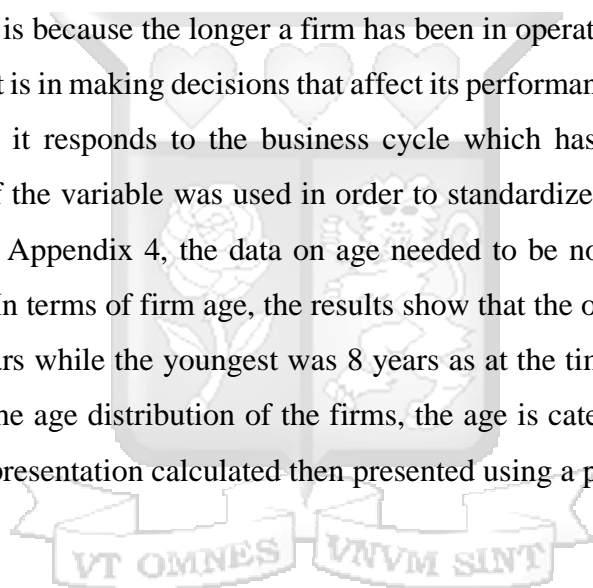
**Table 4.1: Independent Variables of the Listed Firms in the NSE**

	Minimum Kes'000	Maximum Kes '000	Mean '000	Std. Deviation
<b>Total Assets</b>	57,421.00	490,338,324.00	45,431,042.39	75,806,763.61
<b>Net Income</b>	(5,284,000.00)	24,445,666.00	1,857,328.90	3,186,988.83
<b>Tobin Q Ratio</b>	0.10	0.99	0.45	0.24
<b>Firm Age</b>	8 years	128 years	59 years	24.39
<b>Number of Observations</b>	352			

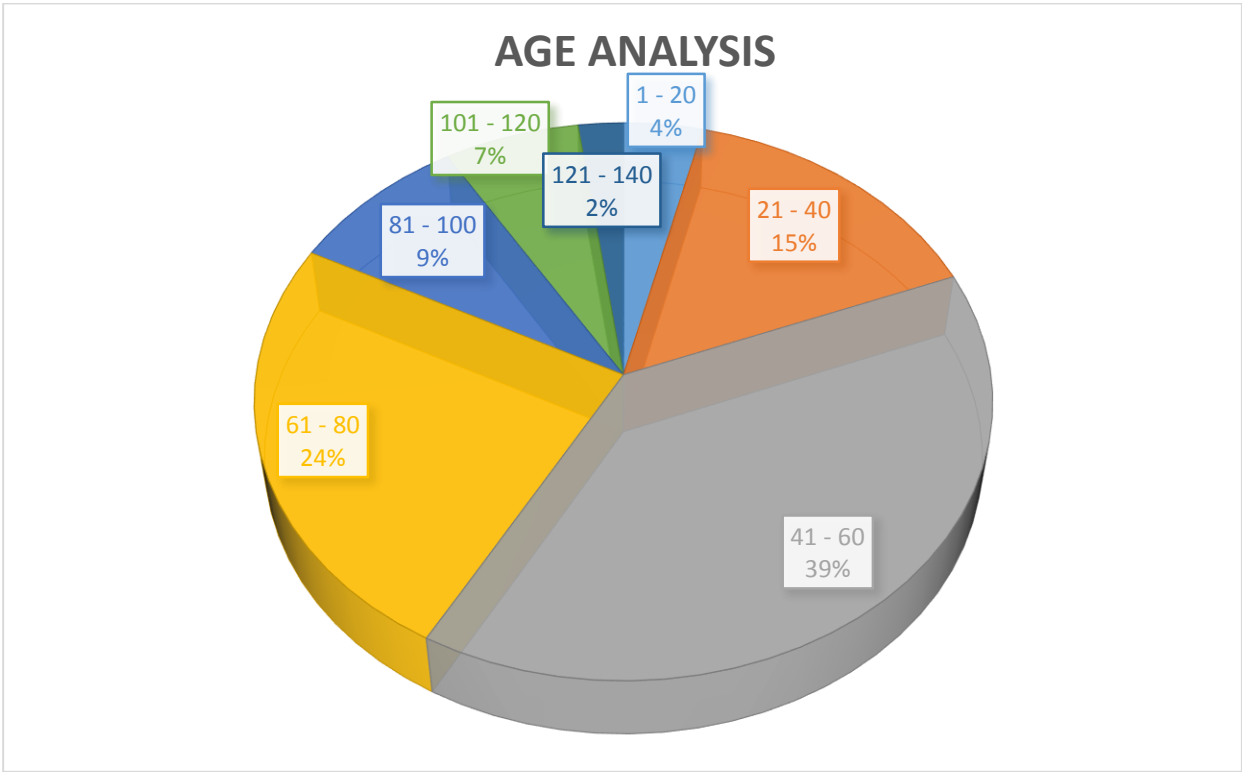
All the companies in the sample are relatively large companies with an average firm size of Kes 45Billion in asset value, and the smallest firm having a total asset value of Kes 57Million. Observing the standard deviation figure it is clear that firm size is not normally distributed and we have some firm whose sizes are outliers explaining why the maximum firm size is Kes

490Billion but the mean is only Kes 45Billion. The performance of these firms as measured by Tobin Q ratio was on average 45%, while the standard deviation is a low 24%. This indicates a positive return on investment and also that the firms under study relatively perform on a normal distribution and are affected relatively the same way by the business cycle. Even though some firms made losses during the period of study, as can be seen with the negative net income of Kes5.2Billion and also the negative return on asset of -0.31, on an overall look at the companies, their performance was positive, stable and growing throughout the period of the study.

The study incorporated firm age as one of the control variables and it was represented by the number of years the firms have been incorporated in Kenya. The reason for using the age of the firm since incorporation is because the longer a firm has been in operation the more efficient and effective its management is in making decisions that affect its performance. The age also improves firm experience in how it responds to the business cycle which has a direct impact on firm performance. The log of the variable was used in order to standardize it for normal distribution purpose, as indicated in Appendix 4, the data on age needed to be normalized in order for the analysis to be accurate. In terms of firm age, the results show that the oldest company among the listed firms was 128 years while the youngest was 8 years as at the time of the study. To give a clearer presentation of the age distribution of the firms, the age is categorised into ranges of 10 years and percentage representation calculated then presented using a pie chart.



**Figure 4.1: Age of Company based on number of years listed in NSE**



Results in Figure 4.1 show that with regard to the ages of the companies, a majority of them (39%) were incorporated between 41 and 60 years ago. This means that the firms that have been in existence for long are resource wise stable and have learnt how to survive the business cycle, thus their performance output is effective due to vast business experience and resource accumulation.

Thus in summary the firms are large, they have vast resources and their performance is relatively stable and positive. Therefore, with the chosen control variables being incorporated into the model, the study was able to analyse the impact that gender diversity at board level has on firm performance.

**4.3 Level of adherence to the one third gender diversity rule**

The Government of Kenya in 2010 advanced the gender diversity agenda using the Constitution of Kenya. The Constitution requires that state owned firms should not have more than two third of the appointed or elected members being from one gender. Therefore, looking at the Kenyan firm and the dominance of men in senior management, the law can be interpreted in corporate

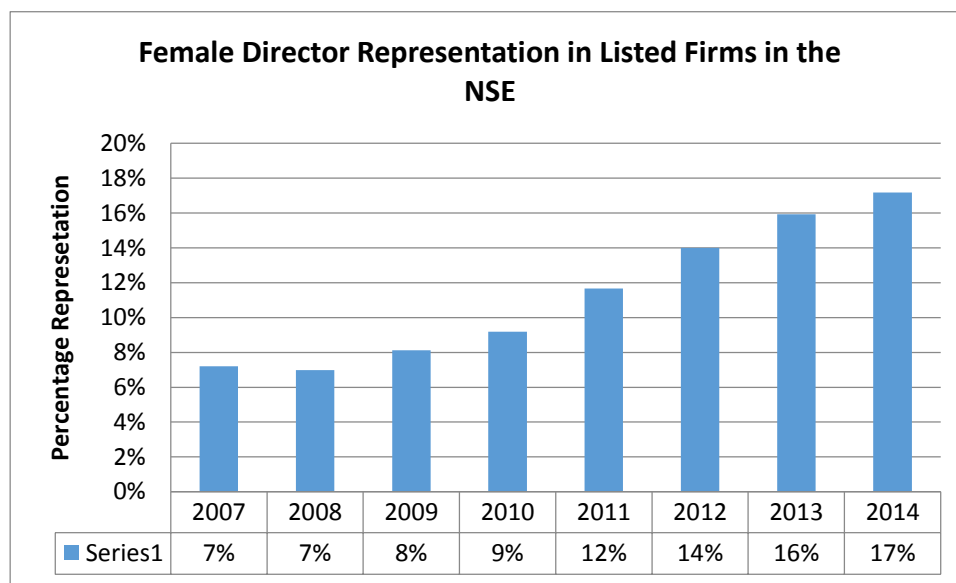
governance terms to mean that firms should have a minimum female representation of one third of the total board size. This rule was implemented to affect only the firms that had the government as a controlling shareholder. However, in 2014 the Capital Markets Authority introduced a code of conduct that advocates for the adoption of the one third rule on gender diversity in relation to all listed firms, this was aimed at promoting the adoption of the rule amongst all listed firms in the NSE. To get an overall look of the firms in terms of the board size visa vis the women representation across the eight years, Table 4.2 represents this information.

**Table 4.2: Women representation on the board of the Listed Firms in the NSE**

	Minimum	Maximum	Mean	Std. Deviation
<b>No. of Directors</b>	3	23	9	3.157
<b>Women directors</b>	0	6	1	1.228
<b>PWOMEN</b>	0%	5%	10%	.1050
<b>Number of Observations</b>	352			

The results from table 4.3 indicate that on average in the years under study, there was at least one female board member in the listed firms in the NSE. There was a disparity in the level of adoption by firms to the gender diversity law with some firms still maintaining boards that had zero female representation, whereas others embraced the concept of gender diverse boards and had a representation of 6 women members. The corresponding measure is the proportion of women on the board, which on average was 10%. Based on this figure, the ratio of female to male board members was roughly 1:10 from 2007–2014, which obviously deviates significantly from the one third gender diversity requirement of 3:8. The constitution advocates for a representation on 33%. It highlights that women are under- represented in the board level of listed firms in the NSE. It also indicates that the listed firms are not adhering to the one third gender diversity rule enforced in 2010. On a positive note one firm in the NSE, indexed as Manufacturing A45 in 2013 became the first Kenyan firm to have a widely gender diverse board with a representation of five women on its board.

The aim of this study was to investigate whether listed firms in the NSE have made any changes on their board composition based on gender diversity since the implementation of the one third gender diversity rule was put into effect. Figure 4.2 below displays the trend in the representation of women in corporate boards of the listed firms in the NSE from 2007 – 2014.



**Figure 4.2: Female Representation on Boards of Listed firms in the NSE**

On an overall outlook of all the listed firms in the NSE the number of women representation on the board has been on a gradual increase. Between 2007 and 2010 the percentage representation of women on the board was below 10% with a figure as low as 7% in 2007 and 2008. However, there is a gradual increase in the representation as from 2010. After the enforcement of the law in 2010 the women representation was on a gradual higher gradient rise than before and as at the end of 2014 it was at a high of 17% from a low of 9% in 2010, this signals a significant improvement in gender diversity during the eight-year period. The trend indicated that during the course of 2010 - 2014 several companies reconstituted their boards, enhancing their overall diversity attributes, more women got appointed to director positions.

In order to assess the level of adherence of the one third rule among the listed firms in the NSE, the listed firms were categorised into three groups: the firms where the government has majority shareholding (50%+1), the listed firms where the government has minority shareholding (<50%)

and firms where the government has no direct shareholding. Out of the forty-six listed firms whose data was analysed, the Government has a majority stake in three firms and a minority stake in nine firms (Appendix 2). It has no shareholding in the remaining thirty-four firms (Appendix 3). The sub section that follows discusses the findings in each of the three categories as appertains to the level of adherence to the one third rule at the board level.

### 4.3.1 Listed Firms with Government as a majority shareholder

Out of the 46 firms analysed in this study, the government holds a majority stake (50%+1 shareholding) in three firms (Appendix 2). The Constitution requires that state owned firms should not have more than two third of the appointed or elected members being from one gender. Therefore, looking at the Kenyan firm and the dominance of men in senior management, the law can be interpreted in corporate governance terms to mean that firms should have a minimum female representation of one third of the total board size. Therefore, under the Constitution of Kenya 2010, the firms in this category are expected to adhere to the one third gender diversity rule since they have a majority percentage ownership controlled by the Government. However, this is not the case as is presented in table 4.4 which makes a comparison of the average board size in relation to the women representation across the period of the study.

**Table 4.3: Women representation in State Controlled Listed Firms**

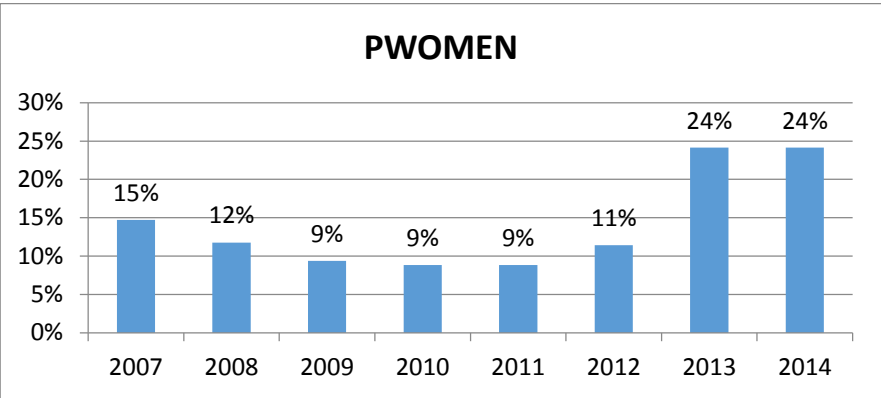
	Minimum	Maximum	Mean	Std. Deviation
<b>No. of Directors</b>	7	13	10.96	1.965
<b>Women directors</b>	0	4	1.52	1.082
<b>Number of observations</b>	23			

The average board size in the 3 firms is 10 members, however the average women directors in the board is only one, and yet the maximum women representation is 4 directors, this is an indication that although some firms are adhering to the one third gender diversity rule, there are others that are yet to adopt it. One of the firms has four women directors and is therefore adhering to the law,

but at the same time we have another firm having no women representation at all and thus the adoption of the law is not uniform across these 3 firms.

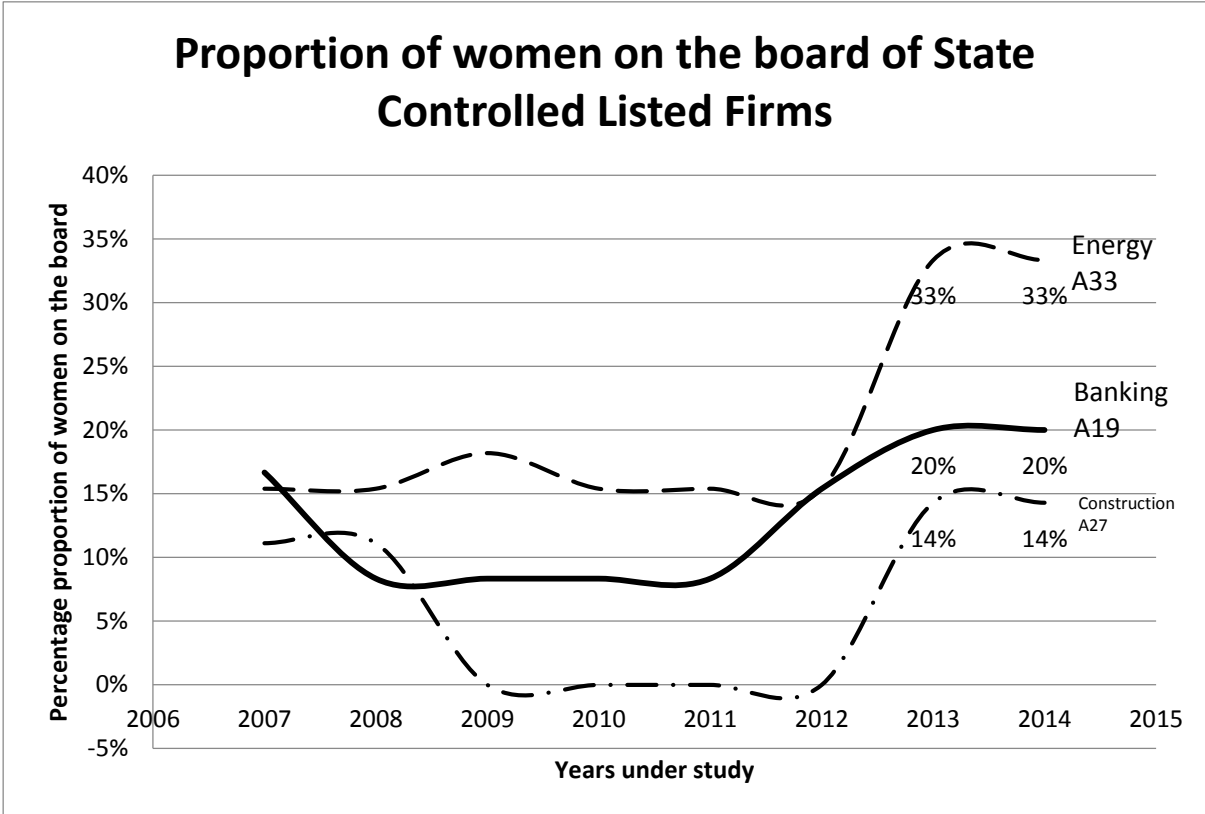
An analysis of the percentage proportion of women in the board of the three companies was carried out and the findings suggest that on overall this category does not fulfil the requirement by the 2010 Kenyan Constitution.

**Figure 4.3 Percentage proportion of women directors in State controlled listed firms**



In 2007 the proportion of women in this firms were at 15%, however, in the two years that followed the representation went down to 9% and stagnated until 2012 when it started rising exponentially. The proportion of women on the board has been on a gradual increase since 2011 from a low of 9% to 24% as at 2014. This is a positive move as it indicates effort by the firms to adhere to the one third rule, however, the study notes that the firms on average are still below the allowed threshold of 33% as per the Constitutional requirement. It is, however critical to analyse the adherence levels on each of the three firms that the government has a majority stake. This is displayed in figure 4.4.

**Figure 4.4 Percentage proportion of women directors in each of the State controlled listed firms**



It is important to note that among these three firms where the government holds a controlling stake, one of the firms, indexed as Energy A33 (Appendix 1) has since 2013 and 2014 abided by the one third rule by having a 34% and 33% representation of women on the board respectively (4 female directors out of a board size of 12 members). The other two firms were yet to adhere to the rule on gender diversity at board level as at the end of 2014 and thus this has pulled down the average percentage of overall group output in 2013 and 2014. Since the adoption of the Law in 2010 these firms have shuffled their board membership and as from 2012, all of them have at least a female representation on the board.

### 4.3.2 Listed Firms with Government as a minority shareholder

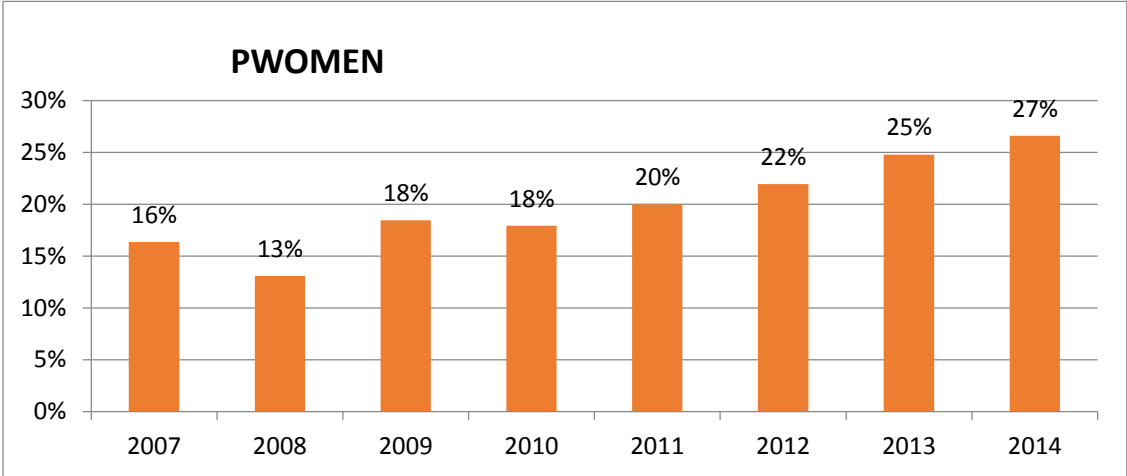
Out of the forty-six firms analysed in this study, the government holds a minority stake (<50%) in nine firms (Appendix 2). Under the Constitution of Kenya 2010, the firms in this category are not legally expected to adopt the one third gender diversity rule since they have a percentage minority owned by the government, therefore cannot be categorised as state owned. However, based on best practice under codes of corporate governance, they are expected to have gender diverse boards. However, this seems not to be the case as is presented in table 4.5 which makes a comparison of the average board size in relation to the women representation across the period of the study.

**Table 4.4: Women representation in Listed Firms with minority government shareholding**

Listed Firms where Government has a stake						
Measure	Mean	Median	Std Dev	Maximum	Minimum	
Number of Female Directors	2	2	0.12	4	0	
Total number of directors- Board size	11	11	0.13	15	6	

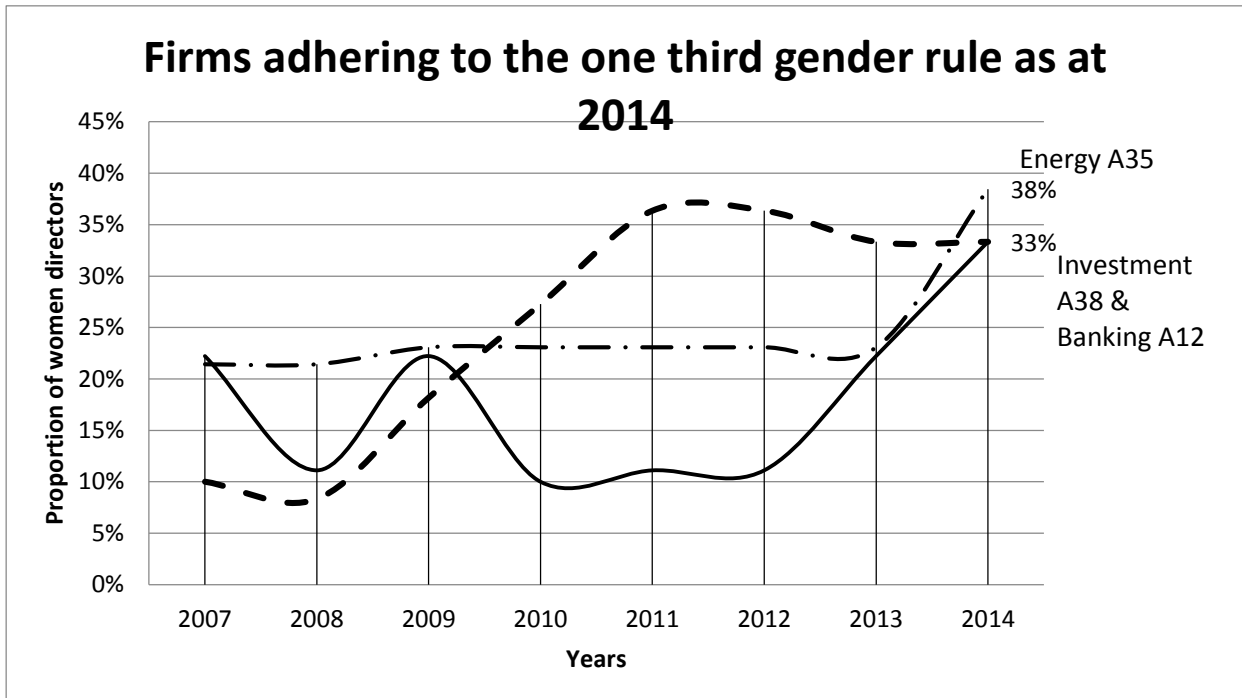
The average board size in the 9 firms is 11 members, however the average women directors in the board are only two, yet the maximum number of female directors is 4, this is an indication that although some firms are adhering to the one third gender diversity rule, there are others that are yet to adopt it. One of the firms has four women directors and is therefore adhering to the law, but at the same time we have another firm having zero women representation and thus the adoption of the law is not uniform across these 9 firms. An analysis of the percentage proportion of women in the board of the nine companies suggests that on overall this category does not adhere to the one third rule.

**Figure 4.5 Percentage proportions of women directors in Listed Firms with minority government shareholding**



The firms in this category have since 2007 had a proportion of their board composed of women, though the proportion of women was below 20% from 2007-2010, there was an increase in women in the corporate board from 2011. There was a gradual increase since 2011 when percentage of women on the board was 20% to a representation of 27% in 2014. This is a positive indication that the firms are moving towards adherence to the one third rule, however, the study highlights the fact that the firms on average are still below the allowed threshold of 33% as per the Constitutional requirement. It is important to note that among these nine firms, as at 2011, one firm was already adhering to the one third rule, Investment A38 and as at 2014, three of the firms in this category had a board membership that adhered to the one third rule. Figure 4.6 displays this information.

**Figure 4.6 Women representation of firms adhering to the one third gender diversity rule as at 2014**



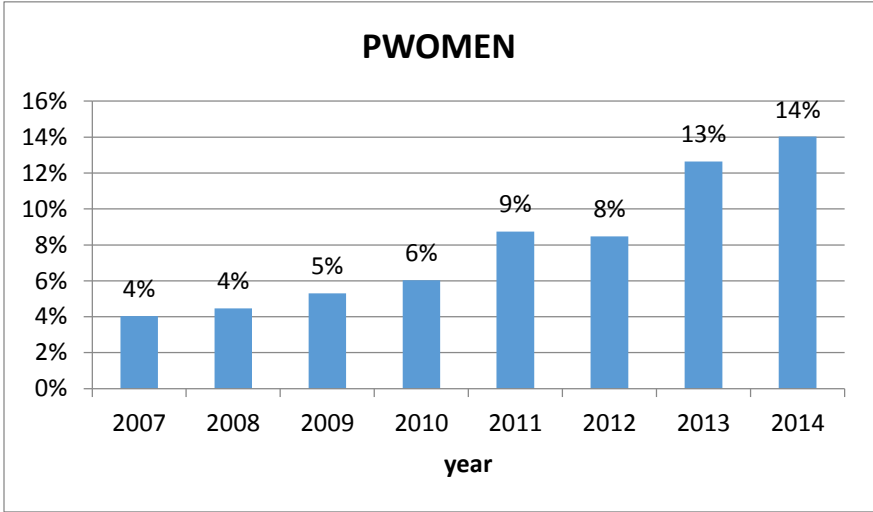
The other six firms are yet to adhere to the rule on gender diversity at board level and thus this has pulled down the average percentage of overall group output. It is important to also mention that as at 2014, all the firms in this group had female representation on the board, which is a positive move towards complying with the constitutional requirement of diverse board.

### 4.3.3 Listed Firms with no Government shareholding

Out of the forty-six firms analysed in this study, the private listed firms are a total of 34 firms (Appendix 3). Under the Constitution of Kenya 2010, the firms in this category have no obligation to abide by the one third gender diversity rule since the government has no stake in them. However, corporate governance principles advocate for a gender diverse board as a means of achieving equality and wider perspective in decision making. In a bid to promote equality among the listed firms in the NSE, CMA in 2014 introduced a code of conduct that advocates for listed firms to adhere to the one third gender diversity rule in Kenya. Therefore, firms in this category are guided by the code of conduct to adopt the one third rule on gender diversity. An analysis of

the percentage proportion of women in the board of the 34 companies suggests that on overall this category does not adhere to the rule.

**Figure 4.7 Percentage representations of women directors in listed firms with no Government stake**



The proportion of women on the board has been on a gradual increase since 2007 when percentage of women on the board was 4% to 14% in 2014. This is a positive indication by the firms towards adherence to corporate governance principle of equality and also an indication that the firms are working to adopt the one third rule. However, the study highlights the fact that the firms on average are still below the allowed threshold of 33% women representation on the board. CMA in conjunction with professional women in Kenya began an awareness campaign in 2013 to promote gender diversity in the boardroom in Kenya.

In 2014 CMA went ahead and introduced a code of conduct for all listed firms in the NSE that advocates for the adoption of the one third rule in terms of gender diversity at board level. This was aimed at increasing the level of adoption of the legislation by all firms in the NSE. The positive impact of these efforts can be seen from the analysis since we see a significant increase of women presence in the board from 2012 when it was 8% to 13% in 2013 to 14% in 2014. It is important to note that among these 34 firms, as at 2014, four of them had a board membership

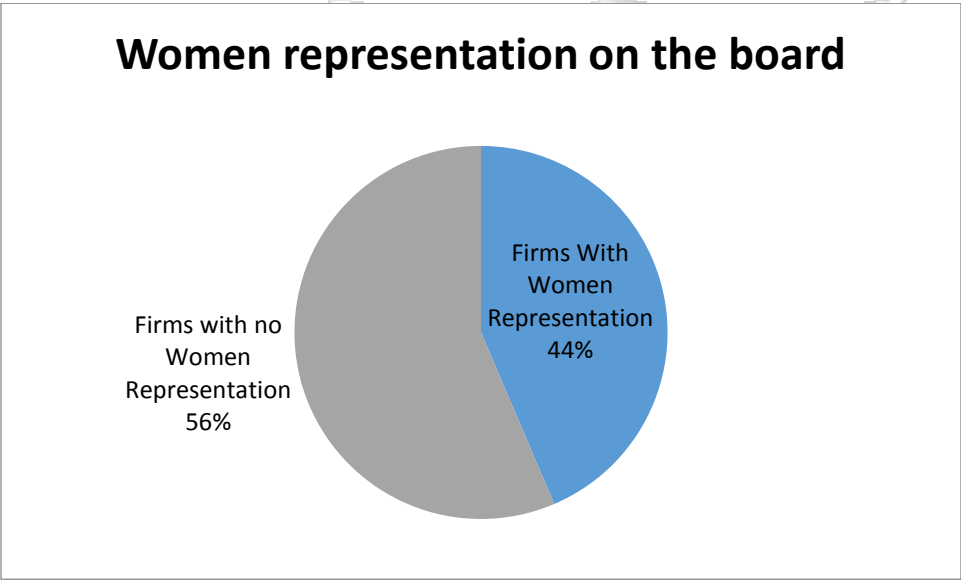
that adhered to the one third rule. Table 4.6 displays the firm, the size of the board and the number of female directors that were in the board as at end of 2014.

**Table 4.5 Firms adhering to the one third gender diversity rule with no government shareholding**

Company index	Size of Board	Female Directors	Percentage
Banking A15	9	4	44%
Manufacturing A45	11	5	45%
Banking A16	9	3	33%
Energy A34	9	3	33%

The other 30 firms are yet to adhere to the rule on gender diversity at board level and thus this has pulled down the average percentage of overall group output. A majority of the firms in this category are yet to adhere to the rule with 56% of the firms having no women representation on their boards during the period of study as is tabulated in figure 4.7.

**Figure 4.8 Women representation in listed firms with no government stake**



In the third category only 44% of the firms herein have at least one-woman representative in the board of directors. And out of the 44% only four firms have adhered to the one third gender diversity rule. The greater majority of the firms are yet to adopt the rule on gender diversity.

#### **4.3.4 Summary**

From the analysis above it can be concluded that female representation on the board room has been on a steady growth both in the listed firms where the government has share holdings and also in firms where the government has no shareholding. As at 2014 all firms where the government was a shareholder had at least a woman representation in their boards. Overall, the percentage of women in these boards has increased from 9% (37 female directors) in 2010 to 17% (68 female directors) in 2014. A lot of this growth can be attributed to the ongoing efforts of the civil society organizations like the Federation of Women lawyers, Women's Empowerment Link, CMA and the media, which are keeping companies accountable. From the analysis of the three categories it is evident that the State owned firms have higher numbers of women on the board as compared to their counterparts the privately owned firms. Private listed firms have been lagging behind in the adoption of a gender diverse board, with some firms still having no women representation on their board. However, there has been a tremendous improvement even in this group from 4% representation in 2007 to at least 14% in 2014. This is highly attributed to the activities by CMA to encourage all listed firms to adopt the gender diversity rule enshrined in the Constitution of Kenya. However, the board room still remain a strange place for Kenya Women, as most boards are still male dominated.

#### **4.4 Assessment of the effect of Gender Diversity on Firm Performance**

The aim of this study was to assess the relationship that exists between gender diversity and firm performance of listed firms in the NSE. This section discusses the results obtained from correlation and multiple regression analysis in relation to the tested relationship. The output provides insight in to the nature of the association between gender diversity and firm performance. The model that was used in the study was:

$$Y_1 = \alpha + \beta_1(\log PWOMAN)_i + \beta_2(\log firmAge)_i + \beta_4(\log firmsize)_i + \beta_5(\log brdsize) + \mu_i$$

Where for the  $i^{th}$  company

$Y$  = Tobin Q ratio representing firm performance

$\alpha$  = constant of the regression equation

$\beta$  = Coefficient of the variable

$\mu$  = Error term

*PWOMEN*: Proportion of women on the board

*Logfirmage*: Number of years' firm has been in existence since incorporation

*Logfirmsize*: Logarithm of the total asset

*Logbrdsize*: Number of directors on the board

The basis of the model was the percentage proportion of women on the board of directors. In order to assess the relationship that exists between gender diversity and firm performance of listed firms in the NSE, the study undertook to analyse data from the two groups that had companies adhering to the one third rule to see if there was a change in the effect of gender diversity on firm performance. Therefore, the analysis looks at firms where the government has a majority shareholding and the firms where the government has minority shareholding.

The diagnostic tests carried out also tested for multicollinearity. Since the number of observations used in the analysis was below 500, the acceptable level of multicollinearity adopted for the study as measured by variance inflation factors (VIF) was below 5. Rajdeep Grewal (2004) stated that a VIF of 5 or greater should indicate a reason to be concerned about multicollinearity but a figure below 5 is acceptable. The variables in the model had been applied by other researchers in different countries as control variables for firm performance of listed firms and thus it was crucial to test them in the Kenyan scenario to test their significance in the model. The variables used in the model have been normalised using logarithms, scatter diagrams representing the unstandardized data have been incorporated in the appendix.

Part 4.5.1 discusses the relationship between the dependent and independent variables for the firms where the government has a majority shareholding across the 8 years. Section 4.5.2 discusses the relationship between the dependent and independent variables for the firms where the government has a minority shareholding across the 8 years.

#### 4.4.1 Relationship between gender diversity and firm performance for firms listed in the NSE

In this section the study assesses the relationship that exists between gender diversity and firm performance for firms listed in the NSE. Firms listed in the NSE are required by principles of corporate governance as best practice to adopt a gender diverse board. In line with this, from 2010 onwards state controlled firms were mandated by the Constitution of Kenya 2010 to adhere to a two third gender diversity rule. In the case of Kenya where the boards are male dominated this can be interpreted to mean that this firms required to have at least one third representation of females in their board of directors. At least four firms out of the studies forty-six firms adhered to this rule as the end of 2014 by having a greater than 33% female representation on their board as discussed in objective one. The study aimed to find out whether there was any effect on the performance of firms listed in the NSE across the 8 years based on the increased number of female representatives in the board of directors.

**Table 4.6 Regression Analysis Results for Firms Listed in the NSE from 2007-2014**

OVERALL FIT	
Multiple R squared	0.8269
Adjusted R Squared	0.7939
Standard Error	0.1374
Observations	368

ANOVA	<i>df</i>	<i>F</i>	<i>p-value</i>	<i>sig</i>
Regression	4	28.4	2.86E-04	yes
Residual	363			
Total	367			

Coefficients					
	Estimate	Std. Error	t value	p value	VIF
(Intercept)	3.873439	1.757254	2.204	0.0359	
logPwomen	0.346919	1.118093	0.31	0.006786	1
logdirectors	0.053103	0.723606	0.073	0.00942	2.661194
logfirmsize	-0.50602	0.051181	-9.058	0.000815	2.106352
logage	0.019449	0.002174	0.851	0.00003402	3.216037

The model used forty-six companies for the eight years ( $N=46*8 = 368$ ) which were the firms listed in the NSE from 2007-2014. From the table above, the model has a correlation coefficient of 0.8269 which implies that 82.69% (R squared) of the four independent variables used: PWOMEN, firm age, size of board and firm size, can explain Tobin Q and 0.1374 is due to errors. The Adjusted R squared of 0.7939 implies that 79.39% of the independent variable is used to explain the dependent variable and the rest is due to unknown factors taking into account the use of four independent variables. The Analysis of Variance is important since the model has more than two variables. The correlation coefficients are statistically significant since the F value is 28.4, with 4 degrees of freedom and a P value of 2.86E-04 which is less than 0.05.

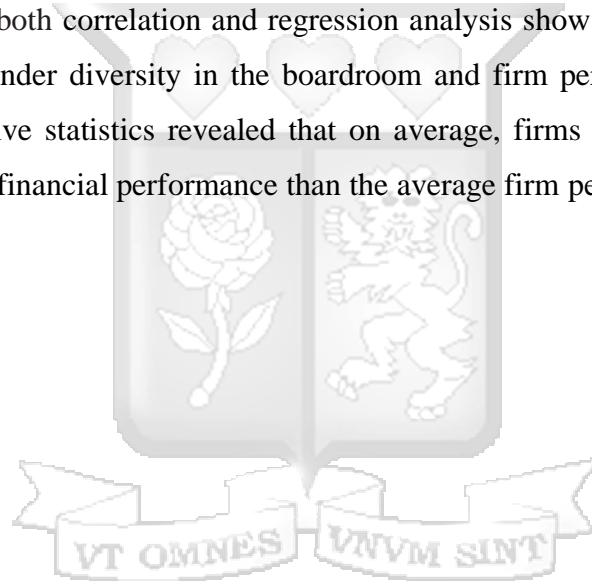
The variable LogFirmSize is significant in the model since the P value of 0.000815 is less than 0.05. The Log Firm size shows that a unit increase in Firm size will result in a less than 0.506 decrease in performance of the company as measured by Tobin Q index. Multicollinearity was measured using VIF and was found to be 2.1064 which is below 5 hence presence of multicollinearity does not warrant further investigation. A unit growth in the age of the firm increases the performance of that company by 0.019449 and it's statistically significant in the model at 0.05 confidence interval since the P value 0.00003402 is less than 0.05. The size of the board measured by number of directors is significant at a confidence level of 5% since the P value is 0.00942 is less than 0.05. The board size shows that a unit increase in number of directors will result in a less than 0.0531 increase in performance of the company as measured by Tobin Q index. Presence of women as presented by PWOMEN is statistically significant since the p value is 0.006786 which is less than 0.05. This means that a unit increase in percentage of woman in a company increases the performance of that company by 0.3469, holding other factors constant. The VIF is at 1 which is below the threshold of 5 thus does not warrant further investigation.

#### **4.4.2 Summary of the relationship between gender diversity and firm performance**

From the study it is evident that the model is significant since the R squared of the model used is 82.69%. Also in terms of the model suitability as predictors of firm performance, Pwomen is significant in the model. From the analysis the relationship between gender diversity and firm performance is positive and statistically significant.

#### 4.5 Summary

It can be concluded from the study that public listed firms in the NSE where the government has shareholding are at the forefront in adhering to the one third rule on gender diversity. This is due to the fact that state owned firms were the initial target when the legislation was enforced. Although the adoption rate by the private firms has been low there has been a positive progress by these firms to increase the level of gender representation on the board. Furthermore, with the enforcement of a code of conduct by CMA private firms are bond to increase the numbers of women on their boards to fulfil the one third rule. Arguments for increasing gender diversity on boards of directors range from ensuring equal opportunity to improving firm performance, but the empirical results are mixed and often negative. From analysis carried out in this study, the conclusion made using both correlation and regression analysis show a positive and significant relationship between gender diversity in the boardroom and firm performance. Together with these findings, descriptive statistics revealed that on average, firms with one or more female directors show a higher financial performance than the average firm performance of all the firms in the population.



## CHAPTER FIVE

### DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents the discussion of findings, conclusions and recommendations derived from the findings of the study. This chapter also presents the limitations that were encountered in the process of gathering and analyzing data.

#### 5.1 Discussions

The general objective of the study was to assess the adherence to the one third gender diversity rule and the effect of gender diversity in the board of directors to firm performance of listed firms in the Nairobi Securities Exchange. This was split into two specific objectives whereby one objective analysed the level of adherence to the one third gender diversity rule at the board level while the other objective tested the effect of the relationship between gender diversity and firm performance. In order to achieve this objective, statistical analysis was done for 46 companies quoted between 2007 and 2014. The discussions on these two objectives are done separately with section 5.1.1 discussing the results on the level of adherence to the one third gender diversity rule by listed firms in the NSE, while section 5.1.2 discusses the relationship that exists between gender diversity and firm performance of listed firms in the NSE.

##### 5.1.1: Level of adherence to the one third gender diversity rule

In response to the first research question – Are Kenyan listed companies in the NSE adhering to the affirmative action by the Kenyan Constitution for the one third rule on gender diversity at the board level? The study has made a conclusion that the adherence levels are still very low in the private listed company category with only 14% of the thirty-four firms in this category adopting the rule. The adherence to the one third rule law is slightly higher in the state owned listed firms than in the private listed firms. Where the government is a majority shareholder only one firm has adhered to the one third rule of gender diversity at board level, a 33% representation of that category, whereas the firms where the government holds minority shares their adherence level is at 33%, representing three firms out of the nine firms in this category. Therefore, both categories

where the government has a stake, whether majority or minority have the ratio of firms adhering to the one third rule being equivalent at 33% representation.

From the analysis above it can be concluded that female representation on the board room has been on a steady growth both in the listed firms where the government has share holdings and also in firms where it is not a shareholder. As at 2014 all firms where the government is a shareholder had women representation in their boards. Overall, the percentage of women in these boards has increased from a number of 37 female directors in 2010 to 68 female directors in 2014. A lot of this growth can be attributed to the ongoing efforts of the civil society organizations like the Federation of Women lawyers, Women's Empowerment Link and the media, which are keeping companies accountable. State owned firms have more women representation as compared to their counterparts the privately owned firms. Private firms where the government has no shareholding have lagged behind in the adoption of a gender diverse board. Some of those firms still have no women representation on their board. However, there has been a tremendous improvement even in this group from 4% representation in 2007 to at least 14% in 2014. This is highly attributed to the activities by CMA to encourage all listed firms to adopt the gender diversity rule enshrined in the Constitution of Kenya. Board room still remain a strange place for Kenya Women, as most boards are still male dominated. However, with the rate of growth being experienced in the country the level of women representation at board level is bound to increase.

### **5.1.2: Assessment of the effect of Gender Diversity on Firm Performance**

In response to the second research question – Does gender diversity have any impact on the firm performance of listed firms in the NSE? The study results confirm that there is a positive relationship between board gender diversity and firm performance, implying that gender diversity can add potential economic value to the firms in Kenya. Thus listed firms in the NSE should appoint more women to their board of directors and should adopt the one third gender diversity rule as introduced by the Constitution of Kenya 2010.

The study analysed data of firms listed in the NSE from 2007-2014. The relationship between gender diversity and firm performance is positive and significant. Indicating that an increase in females on the board will result in an increase in firm performance. The accuracy level of the

model was at 82.69% and this can be attributed to the large number of observations. The higher the number of observations the lower the model fitness due to an increase in the error term. The findings support the appointment and inclusion of women on corporate boards since the results indicate that firm performance will improve with the inclusion of more women on the board. The results suggest that on average, firms perform better the greater the gender diversity in the board is. This result is consistent with the argument that decision making process improves with greater gender diversity on boards since female board members improve board attendance and they tend to be tougher monitors of company executives, thus all this leads to improved firm performance (Adams R. & Ferreira D., 2009). The concept of diversity is promoted and emphasized in corporate governance circles, these findings suggest; therefore, that diversity could be an important corporate governance concept that leads to improved firm performance. The results were also consistent with studies carried out on 68 listed firms in Spain, 2,500 largest Danish firms and US Fortune 500 firms by Campbell and Minguez- Vera (2008) who found a positive relationship between the presence of women on the board and firm performance. Other study that found similar conclusions of a positive relationship between gender diversity at board level and firm performance were by Smith, et al. (2005) and Carter et al. (2003), they showed that on average, companies with higher female director proportions reported higher profitability returns than firms with all male boards.

The results are contrary to arguments that too much board monitoring can decrease shareholder value (Almazan and Suarez, 2003, Adams and Ferreire, 2007). These are findings are also contrary to the findings of Wachudi and Mboya, (2009) in Kenya, who established that the presence of women on the board is negatively related to the profitability of banks in Kenya though it was not a significant measure even in that study. The study results thus confirm that there is a significant relationship between board gender diversity and firm performance, implying that gender diversity can add potential economic value to the firms in Kenya if the one third gender diversity rule is adhered to by the listed firms. Therefore, the measure by the government to introduce the one third gender rule and the efforts by CMA to introduce a code of conduct with the aim of improving gender diversity in boards should be seen in a positive angle by firms listed in the NSE since it is statistically significant in improving the firm performance.

## 5.2 Recommendations

The legislation on the one third gender diversity rule at the board level increases the number of women on boards of directors, this has been argued to improve the decision-making process since women improve members' attendance to board meetings and they tend to be tougher monitors of company executives. Therefore, the study aimed to advice several stakeholders of the firm on how the adherence to the law and relationship between gender diversity and firm performance would be of benefit to them. The study results found a positive correlation relationship between gender diversity and firm performance. The study therefore, recommends a inclusion of female directors in the board of directors to provide some additional skills and perspectives that may not be possible with all male boards.

The study also recommends the strengthening of the oversight regulation by the governing authority of listed companies in Kenya. CMA must strengthen oversight of existing regulations, corporate governance guidelines and the requirement to fill annual company's information. Penalties and sanctions should be established and administered for noncompliance. This way companies will adhere to the one third rule more. CMA should also put stringent measures to ensure that the listed firms adopt the one third gender diversity rule, to promote adoption of the rule by all listed firms in the NSE.

The Government should tighten the legislation and regulations around the adherence of the one third gender diversity rule. Currently the law requires that state owned firms ensure that their boards have no more than two third of the same gender in appointed or elective posts. However, neither fines nor penalties have been introduced to ensure that this state owned firms adhere to the legislation and as such the level of adherence by firms in the NSE to have diverse boards has been very low. A legislative to act on noncompliance needs to be implemented in order to make push more firms to adhere to the laws.

From the correlation analysis the study has shown a positive relationship between gender diverse boards and firm performance. This suggests that an increase in the proportion of women on the board is associated with an increase in firm performance. Thus this should be a good incentive for firms to adhere to the one third gender diversity rule. The more the women on the boards of firms

the more the firms will experience an increase in firm performance. The study therefore, recommends that firms should adopt the one third gender diversity rule in order to promote the concept of corporate governance and enhance diversity in the organization top management. A more gender diverse board will provide some additional skills and perspectives that may not be possible with an all-male board.

From the analysis carried out in the study, the body of knowledge as appertains to the adaption of the one third gender rule by listed firms in the NSE has been increased substantially. Thus the academic world has received more data on the one third gender diversity law. The study has revealed the low level of adoption of the one third rule in the NSE and also suggested how the regulatory and governance bodies can improve the rate of adoption. Academicians thus have a greater understanding of the gender rule in Kenya and the level of adoption four years after its implementation.

Shareholders have been made aware of the benefits derived from a gender diverse board. The shareholders are mandated with the responsibility of voting in new directors, thus they should appoint more women to the board since this will have a positive impact on the firm performance. They are therefore able to embrace the principle of equality in corporate governance and also adhere to the one third gender diversity law.

### **5.3 Limitation of the Study**

The limitations experienced in the course of this study were the fact that as much as firms are required to publish their annual reports that incorporate both financial and non financial information, a number of the firms disclose only the financial information on their websites and exclude the non-financials. The research thus experienced delays due to the bureaucratic process of firms to release information.

A further drawback of this study is with respect to the chosen control variables used. The model does not include other variables that might have simultaneous effects on firm performance such as firm culture, corporate social responsibility, level of corporate employee training and development or aspects of behavioural differences that pertain to a gender diverse board, as all

these variables are particularly hard to measure and quantify. However, to improve on the significance of the model, the research incorporated all the relevant and significant financial control variables determined using a multiple regression model.

The study also faced a drawback with analysis of the effect of the one third rule on gender diversity and its impact on firm performance. This was due to the fact that the one third rule was implemented in 2010, however, as at 2014 only 4 out of the 64 listed companies had adhered to the one third rule. This presented only 6% of the population under study and thus was not sufficient to examine the effect that the one third gender diversity rule has on firm performance. The model's R Square was below 40% and thus not a statistically significant predictor of the relationship between the variable. Thus the study analysed the general relationship between gender diversity and firm performance of listed firms in the NSE.

#### **5.4 Suggestions for further research**

With the 2010 Kenyan Constitutional, no legislation was passed in 2010 to penalise firms that did not adhere to the one third gender diversity rule. However, at the end of 2014 legislation was passed to ensure state owned firms adhered to the law. It is highly likely that representation of women at the board level will rise and the nature of the tested relationship may significantly change with the increase of women in board positions. Thus it might be worthwhile to conduct a similar study in the future when gender diversity gains more prevalence in Kenya.

As at 2014, only four listed firms were adhering to the rule, with the CMA introducing codes of conduct for listed firms and the government implementing penalties for state owned firms that do not adhere to the rule, the level of adoption of the one third rule will increase among listed firms. Thus the sample size will increase and a study can be conducted to analyse how the one third gender rule affects firm performance.

The study concentrated on firms listed in the NSE, therefore the findings may not be generalizable to smaller non listed firms in the country due to difference in corporate and management structure. These smaller sized non listed companies across the country generate less revenue compared to the listed firms; nevertheless, these small entities also play a vital role in the economic

development of the country. These firms are not expected to adhere to the one third rule on gender diversity, however as best practice, corporate governance advocates for the adoption of equality at the board level based on gender representation. There may, therefore, be a need to undertake separate studies in the future to explore the nature of the relationship between gender diversity and firm performance for non-listed firms.



## REFERENCES

- Adams, R., Hermalin, B., & Weisbach, M. (2010). The Role of the Board of Directors in Corporate Governance: A Conceptual Framework and Survey. *Journal of Economic Literature* 48:1, 58-107.
- Adams, R.B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of financial economics* Vol. 94 (Issue 2), p.291-309.
- Agrawal, A., & Knoeber, C.R. (1996). Firm Performance and Mechanisms to Control Agency: Problems between Managers and Shareholders, *Journal of Financial and Quantitative Analysis* 31 (3), 377-397.
- Aguilera, R. (2005). Corporate Governance and Directors Accountability: An Institutional Comparative Perspective. *British Journal of Management*, Vol 16, S39- S53.
- Ahern, K., & Dittmar, A. (2012). The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation, *Quarterly Journal of Economics*, Vol. 127, N°1, p. 137-197.
- Arnegger, M., Hofmann, C., Pull, K., & Vetter, K. (2013). Firm size and board diversity. *Journal of Management and Governance*.
- Barako, D.G., & Brown, A.M. (2008). ‘Corporate social reporting and board representation: Evidence from the Kenyan banking sector’, *Journal of Management*, Vol. 12, pp. 309-324.
- Barako, D.G., Hancock, P., & Izan, H. Y. (2006). *Factors Influencing Voluntary Corporate Disclosure by Kenyan Companies*, *Corporate Governance: An International Review*, 14(2),107-125.
- Berman, S.L., Wicks, A.C., Kotha, S., & Jones, T.M. (1999). Does stakeholder orientation matter? The relationship between stakeholder management models and firm financial performance. *Academy of Management Journal*, 42(5), 488–506.
- Boyd, B. (1990). Corporate linkages and organizational environment: A test of the resource dependence model. *Strategic Management Journal* 11, 419-430.
- Brammer, S., Millington, A., & Pavelin, S. (2007). *Gender and ethnic diversity among UK corporate boards*. *Corporate Governance: An International Review*, 15, 393–403.
- Campbell, K., & Minguez Vera, A. (2010). Female board appointments and firm valuation: short and long-term effects. *Journal of Management and Governance*, 14(1), 37–59.

- Carneiro, J. (2005). Mensuração do desempenho organizacional: questões conceituais e metodológicas. In M. Gutierrez & H. Bertrand (Eds.), *Estudos em negócios IV* (pp. 145-175). Rio de Janeiro: Mauad.
- Carter, D. A., D'souza, F., Simkins, B. J., & Simpson, W. G. (2010). *The diversity of corporate board committees and firm financial performance*. *Corporate Governance: An International Review*, 18, 396–414.
- Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). *Corporate governance, board diversity, and firm value*. *Financial Review*, 38, 33–53.
- Carton, R. B., & Hofer, C. W. (2006). *Measuring organizational performance: metrics for entrepreneurship and strategic management research*. Cheltenham, UK; Northampton, MA: Edward Elgar.
- Combs, J.G., Crook, T.R., & Shook, C.L. (2005). The dimension of organizational performance and its implications for strategic management research. In D. J. Ketchen & D. D. Bergh (Eds.), *Research methodology in strategy and management* (pp. 259-286). San Diego: Elsevier.
- Constitution of Kenya, 2010, Article 27(8).
- Dale-Olsen, H., Schone, P., & Verner, M. (2013). *Diversity among Norwegian boards of directors: Does a quota for women improve performance*. *Feminist Economics*.
- Daily, M., Certo, S., & Dalton, R. (1999). A decade of corporate women: Some progress in the boardroom, none in the executive suite. *Strategic Management Journal* 20, 93-99.
- Darmadi, S. (2011). Board Diversity and Firm Performance: The Indonesia evidence. *Journal of Corporate Governance Ownership and Control*, Vol 8.
- Demsetz, H., & Villalonga, B. (2001). 'Ownership Structure and Corporate Performance', *Journal of Corporate Finance* 7, 209–233.
- Erhardt, N.L., Werbel, J.D., & Shrader, C.B. (2003). *Board of Director Diversity and Firm Financial Performance*. *Corporate Governance: An international review*, Vol.11 (Issue 2), pp. 102-111.
- Fama, E. & Jensen, M. (1983). Separation of Ownership and Control. *Journal of Law and Economics*, Vol. 26, N°2, p. 301-325.
- Fang, Y., Francis, B., & Hasan, I. (2012). *More than connectedness – Heterogeneity of CEO social network and firm value*. Bank of Finland Research Discussion Paper 26.

- Farrell, K., & Hersch, P. (2005). Additions to Corporate Boards: The Effect of Gender. *Journal of Corporate Finance*, Vol. 11, N°1/2, p. 85-106.
- Fryxell, G.E., & Lerner, L.D. (1989). Contrasting corporate profiles: Women and minority representation in top management positions. *Journal of Business Ethics*, 8(5), 341–352.
- Gabrielsson, J., & Huse, M. (2004). *Context, behaviour and evolution: Challenges in research on boards and governance*. *International Studies in Management and Organization*, 34, 11–36.
- Gakeri, J. (2013). Enhancing Kenya's Security Markets through Corporate Governance: Challenges and Opportunities. *International Journal of Humanities and Social Sciences*, Vol 3 No. 6.
- Grayson, D., Jin, Z., Lemon, M., Rodriguez, M. A., Slaughter, S., & Tay, S. (2008). *A New Mindset for Corporate Sustainability*. A white paper sponsored by BT and Cisco.
- Griffith, M. (1999). *CEO Ownership and Firm Value; Managerial and Decision Economics* 20,1–8.
- Grosvold, J., Brammer, S. & Rayton, R. (2007). *Board diversity in the United Kingdom and Norway: An explanatory analysis*. *Business Ethics: European Review* 16(4):344-357.
- Guidelines on Corporate Governance Practices by Public Listed Companies in Kenya, Gazette Notice No. 3362, available at:  
[http://www.cma.or.ke/index.php?option=com\\_docman&view=docman&Itemid=208](http://www.cma.or.ke/index.php?option=com_docman&view=docman&Itemid=208)
- Hede, A. (2000). *Affirmative action in Australia: employment equity at the crossroads*. In M. Davidson, & R. Burke (Eds.), *Women in management: Current research Issues*, 2,, 279-294.
- Hill, C. & Jones, T. (1992). Stakeholder- Agency Theory. *Journal of Management Studies* 29:2.
- Hillman, A.J., & Dalziel, T. (2003). *Board of directors and firm performance: Integrating agency and resource dependency perspectives*. *Academy of Management Review*, 28(3), 383–396.
- Hillman, A., Shropshire, C., & Cannella, A. (2007). Organizational Predictors of Women on Corporate Boards. *Academy of Management Journal*, Vol. 50, N°4, p. 941-952.
- Hyland, D., & Diltz, J. (2002). *Why Firms Diversify: An Empirical Examination*, *Financial Management* 31, 51–81.

- Ibrahim, N.A., & Angelidis, J.P. (1994). Effect of board members' gender on corporate social responsiveness orientation. *Journal of Applied Business Research*, 10(1), 35–40.
- Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3, 305-60.
- Jurkus, F., Park, J., & Woodard, L. (2007). *Gender Diversity and Firm Performance: Environmentally Reliant?* SSRN, 1-31
- Kochan, T., Bezrukova, K., Ely, R., Jackson, S., Joshi, A., & Jehn, K. (2003). *The effects of diversity on business performance: Report of the diversity research network*. Human Resource Management 42: 3–21. doi: [10.1002/hrm.10061](https://doi.org/10.1002/hrm.10061)
- Konrad, M., Kramer, W., & Erkut, S. (2008). *Critical Mass: The Impact of Three or More Women on Corporate Boards*. Organizational Dynamics, Vol. 37 (Issue 2), pp. 145-164.
- Lindenberg, E., & Ross, S. (1981). Tobin's Q Ratio and Industrial Organization. *Journal of Business* 54(1), 1–32.
- Michael, B., & Mwangi, S.K. (2008) Voting in Kenya: Putting Ethnicity in Perspective. *Journal of Eastern African Studies*, 2:2, 272-289
- Miller, T., & del Carmen Triana, M. (2009). Demographic diversity in the boardroom: Mediators of the board diversity-firm performance relationship. *Journal of Management Studies*, 46, 755–786.
- Montgomery, C., & Wernerfelt, B. (1988). *Tobin's Q and the Importance of Focus in Firm Performance*. American Economic Review 78(1), 246–250.
- Muturi, D., Sagwe, J., & Karugo, G. (2012). *Bringing the Other Half to the Boardroom: Case Study of State Corporations and Listed Companies in Kenya*. KIM Discussion Paper Series.
- Nuria, R.A., Pilar de Fuentes, & Joaquina, L. (2015). *Does Board Gender Diversity Influence Financial Performance? Evidence from Spain*. DOI 10.1007/s10551-015-2735-9.
- Oakley, J.G. (2000). Gender-based barriers to senior management positions: Understanding the scarcity of female CEOs. *Journal of Business Ethics*, 27(4), 321–334.
- Ongore, V., Obonyo, P. & Ogutu, M. (2015). Board Composition and Financial Performance: Empirical Analysis of Companies Listed at the Nairobi Securities Exchange. *International Journal of Economics and Financial Issues*, Vol 5, No. 1.

- Pande, R., & Ford, D. (2011). *Gender quotas and female leadership: A review*. World Development Report 2012: Gender Equality and Development.
- Pfeffer, J. (1972). *Size and Composition of Corporate Boards: The Organization and its Environment*, *Administrative Science Quarterly*, Vol. 17, N°2, p. 218-228.
- Pfeffer, J., & Salancik, G. (1978). *The external control of organizations: a resource dependence perspective*: New York, Harper & Row.
- Rajdeep, G., Joseph, C., & Hans, B. (2004). Multicollinearity and Measurement Error in Structural Equation Models: Implications for Theory Testing. *Journal of Economic and Statistics*, Vol 23, No 4, p.519-529.
- Randoy, T., Thomsen, S., & Oxelheim, L. (2006). *A Nordic perspective on corporate board diversity*. *Age*, 390, 0-5428.
- Richard, P.J., Devinney, T.M., Yip, G.S., & Johnson, G. (2009). Measuring organizational performance: towards methodological best practice. *Journal of Management*, 35(3), 718-804. doi: 10.1177/0149206308330560
- Ross, S. (1973). *The Economic Theory of Agency: The Principal's problem*. *American Economic Review*, 63, 134-9.
- Sener, I., & Karaya, A. (2014). *Board Composition and Gender Diversity: Comparison of Turkish and Nigerian Listed Companies*. 10<sup>th</sup> International Strategic Management Conference.
- Siciliano, J.I. (1996). The relationship of board member diversity to organizational performance. *Journal of Business Ethics*, 15(12), 1313–1320.
- Singh, V., & Terjesen, S. (2008). Female presence on Corporate Boards: A Multi- Country Study of Environmental Context. *Journal of Business Ethics*, Vol 83, pp 55-63.
- Smith, N., Smith, V., & Verner, M. (2005). *Do women in top management affect firm performance? A panel study of 2500 Danish firms*. IZA Discussion Paper Series, Nr. 1708, pp. 1-34.
- Smirlock, M., Gilligan, W., & Marshall, W. (1984). *Tobin's Q and the Structure–Performance Relationship*. *American Economic Review* 74, 1051–1060.
- Terjesen, S., Sealy, R., & Singh, V. (2009). *Women Directors on Corporate Boards: A Review and Research Agenda*. *Corporate Governance: An International Review*, Vol. 17, N°3, p. 320-337.

- Van der Walt, N., & Ingley, C., (2003). *Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors*. *Corporate Governance: An International Review* 11, 218-234.
- Venkatraman, N., & Ramanujam, V. (1987). Measurement of business economic performance: an examination of method convergent. *Journal of Management*, 13(1), 109-122. doi: 10.1177/014920638701300109.
- Wachudi, J.E., & Mboya, J. (2012). Effect of board gender diversity on the performance of commercial banks in Kenya. *European Scientific Journal*, 8(7), 128-148
- Webb, E. (2004). An examination of socially responsible firms' board structure. *Journal of Management and Governance*, 8(3), 255–277.
- Webber, S.S., & Donahue, L.M. (2001). Impact of highly and less job-related diversity on work group cohesion and performance: A meta-analysis. *Journal of Management* 27: 141–162. doi: [10.1177/014920630102700202](https://doi.org/10.1177/014920630102700202)
- Wellage, N. H., & Locke, S. (2013). Corporate governance, board diversity and firm financial performance: New evidence from Sri Lanka. *International Journal of Business Governance and Ethics*, 8, 116–136.
- Westphal, J., & Milton, L. (2000). *How Experience and Network Ties Affect the Influence of Demographic Minorities on Corporate Boards*. *Administrative Science Quarterly*, Vol. 45, N°2, p. 366-398.
- Zahra, S., & Pearce, J. (1989). Boards of directors and corporate financial performance: a review and integrative model. *Journal of Management*, Vol. 15, pp. 291-344.

## APPENDICES

### Appendix 1: Firms listed in the NSE consistently from 2007– 2014

Identification Index	Agriculture	Year of Listing	Year of Incorporation
Agric A1	Kakuzi Limited	1951	1966
Agric A2	Sasini Limited	1965	1952
Agric A3	Limuru Tea Company Limited	1967	1939
Agric A4	Eaagads Limited	1972	1946
Agric A5	Kapchorua Tea Company Limited	1972	1939
Agric A6	Williamson Tea Kenya Limited	1972	1952
Agric A7	Rea Vipingo Plantations Limited	1996	1939
	<b>Automobiles and Accessories</b>		
Automobile A8	Car & General (K) Limited	1940	1936
Automobile A9	Marshalls East Africa Limited	1969	1947
Automobile A10	Sameer Africa Limited	1994	1969
	<b>Banking</b>		
Banking A12	CFC Stanbic of Kenya Holdings Limited	1970	1992
Banking A13	NIC Bank Limited	1971	1959
Banking A14	Diamond Trust Bank Kenya Limited	1972	1945
Banking A15	Barclays Bank of Kenya Limited	1986	1925
Banking A16	Standard Chartered Bank Kenya Limited	1988	1969
Banking A17	Kenya Commercial Bank Limited	1989	1896
Banking A18	Housing Finance Co. Kenya Limited	1992	1965
Banking A19	National Bank of Kenya Limited	1994	1968
Banking A20	Equity Group Holdings Limited	2006	1984
	<b>Commercial and Services</b>		
Commercial A21	Standard Group Limited	1954	1902
Commercial A22	Nation Media Group Limited	1973	1959
Commercial A23	Express Kenya Limited	1978	1918
Commercial A24	Kenya Airways Limited	1996	1977
Commercial A25	TPS Eastern Africa Limited	1997	1970
Commercial A26	ScanGroup Limited	2006	1999
	<b>Construction and Allied</b>		
Construction A27	East African Portland Cement Co. Limited	1950	1934

Construction A28	Bamburi Cement Limited	1970	1951
Construction A29	East African Cables Limited	1973	1966
Construction A30	Crown Paints Kenya Limited	1992	1958
Construction A31	ARM Cement Limited	1997	1974
	<b>Energy and Petroleum</b>		
Energy A32	KenolKobil Limited	1959	1959
Energy A33	Kenya Power & Lighting Co. Limited	1972	1922
Energy A34	Total Kenya Limited	1988	1959
Energy A35	KenGen Company Limited	2006	1954
	<b>Insurance</b>		
Insurance A36	Pan African Insurance Holdings Limited	1963	1946
Insurance A37	Jubilee Holdings Limited	1984	1937
	<b>Investment</b>		
Investment A38	Centum Investment Co. Limited	1967	1967
Investment A39	Olympia Capital Holdings Limited	1974	1968
	<b>Manufacturing and Allied</b>		
Manufacturing A40	Kenya Orchards limited	1959	1950
Manufacturing A41	B.O.C Kenya Limited	1969	1886
Manufacturing A42	British American Tobacco Kenya Limited	1969	1902
Manufacturing A43	Unga Group Limited	1971	1971
Manufacturing A44	Carbacid Investments Limited	1972	1961
Manufacturing A45	East African Breweries Limited	1972	1922
Manufacturing A46	Mumias Sugar Co. Limited	2001	1971
Manufacturing A47	CMC Holdings Limited	1950	1971

## Appendix 2 Firms Where the Government has a Stake

Firm where Government has Majority shareholding	Government arm owning the shares	Percentage Stake
National bank of Kenya Limited	National Social Security Fund	48.5%
	Ministry of Finance	22.50%
East African Portland Cement Co. Limited	National Social Security Fund	27%
	Government	25.3%
Kenya Power & Lightning Co. Limited	Government	50.10%

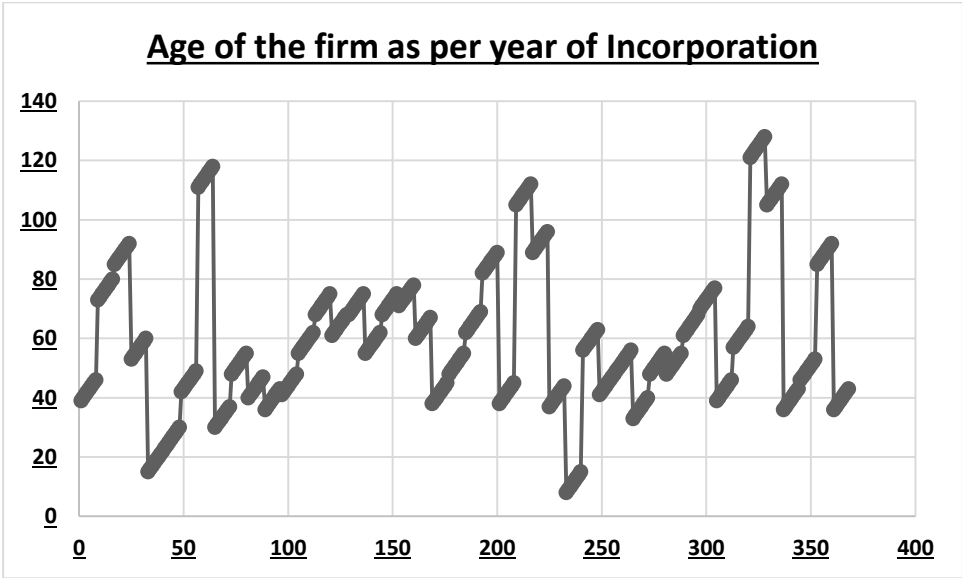
<b>Firm where Government has Minority shareholding</b>	<b>Government arm owning the shares</b>	<b>Percentage Stake</b>
KenGen Company Limited	Government	30.00%
CFC Stanbic of Kenya Holdings Limited	Government	1.10%
Equity Group Holdings Limited	National Social Security Fund	5.58%
Housing Finance Co. Kenya Limited NSSF	National Social Security Fund	6.80%
	Government	3.64%
Kenya Commercial Bank Limited NSSF	National Social Security Fund	7.62%
	Government	17.50%
Kenya Airways Limited Govt	Government	29.80%
Nation Media Group Limited NSSF	National Social Security Fund	3.44%
Centum Investment Co. Limited	ICDC	22.97%
Mumias Sugar Co. Limited	Government	20.00%

### **Appendix 3 Firms Where the Government has no Stake**

Eaagads Limited
Kakuzi Limited
Kapchorua Tea Company Limited
Limuru Tea Company Limited
Rea Vipingo Plantations Limited
Sasini Limited
Williamson Tea Kenya Limited
Car & General (K) Limited
Marshalls East Africa Limited
Sameer Africa Limited
Barclays Bank of Kenya Limited
Diamond Trust Bank Kenya Limited
NIC Bank Limited
Standard Chartered Bank Kenya Limited
Express Kenya Limited
Longhorn Kenya Limited
Standard Group Limited
TPS Eastern Africa Limited
ScanGroup Limited
ARM Cement Limited
Bamburi Cement Limited
Crown Paints Kenya Limited
East African Cables Limited
KenolKobil Limited
Total Kenya Limited
Jubilee Holdings Limited

Pan African Insurance Holdings Limited
Olympia Capital Holdings Limited
B.O.C Kenya Limited
British American Tobacco Kenya Limited
Carbacid Investments Limited
CMC Holdings Limited
East African Breweries Limited
Kenya Orchards limited
Unga Group Limited

**Appendix 4 Scatter Plot representing Age of the listed firms based on year of incorporation**



**Appendix 5 Scatter Plot representing size of the listed firms based on total asset value**

