



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

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

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Accepted: October 29, 2018

### ABSTRACT

Board composition is a critical element of corporate governance with the board mandated with supervisory and advisory roles on a company's management. This has created the belief that boards of directors can influence a firm's strategic decision making and subsequently its performance. However, existing empirical studies provide conflicting results regarding the effect of board composition on firm financial performance. This called for a further analysis to determine the effect of board composition on financial performance of listed firms in Nairobi Securities Exchange. Using secondary data Collection over a period of 8 years (2010-2017) the study adopted a descriptive and quantitative research design. The target population was the 55 companies listed at the Nairobi Securities Exchange as of 2010. The study findings showed that an insignificant negative relationship between board size and the financial performance of the listed firms in Kenya; a significant negative relationship between CEO duality and the financial performance of the listed firms in Kenya; a significant positive relationship between board gender composition and the financial performance of the listed firms in Kenya and a significant positive relationship between board independence and the financial performance of the listed firms in Kenya. The study concluded that that CEO duality, board gender composition and board independence as board composition components had a significant effect on the financial performance. The study also concluded that board size as a board composition component did not significantly affect the financial performance. The study recommended that the listed firms should adopt a leadership position where the CEO and the Board Chair positions are distinct and hence held by two different persons instead of a situation where the firm's CEO is also the board chair. In addition, the listed firms in Kenya should increase the proportion of female directors as well as the proportion of non-executive directors sitting in their boards.

**Key Words:** Board Size, CEO Duality, Gender Composition, Board Independence, Financial Performance

## INTRODUCTION

The dawn of industrial revolution in the early 18<sup>th</sup> Century and technological revolution in the late 19<sup>th</sup> Century heralded the phenomenon of large corporations which, consequently, created the need for separation of ownership of capital from its control. Due to the large size of emerging enterprises, entrepreneurs (principals) were effectively emasculated in their oversight role, unable to take full control over their capital either because of lack of expertise, time or interest, or a combination of some or all of these factors (Müller, 2014). Managers (agents) therefore, took over the day-to-day running of the enterprise on an agency basis. Unfortunately, the interests of agents often diverged from those of principals. In pursuit of their personal interests, agents usually engaged in sub-optimal decisions, characterized by adverse selection, moral hazard, and insider dealings among other managerial failings (Ameer, Ramli & Zakaria, 2010). To protect their wealth-creation interest in the firm, principals often incurred agency costs, including formation of boards to oversee the general health of the corporation and provide an independent evaluation of the entity's performance (Chatterjee, 2011).

In light of increased globalization and liberalization of financial markets, high profile corporate scandals, ongoing regulatory changes and increasing demands of stakeholders for accountability and transparency of organizations, board composition and its influence on organizational performance, is at the centre of today's corporate governance debate (Puni, Osei & Ofei, 2014). Ng'ang'a (2017) observes that in today's corporate arena boards are increasingly visible and with that comes consideration of how their composition affects all its stakeholders and the company's performance. According to Sarpal and Singh (2013), the individual personal traits of the board members impact firm decision processes. The board members should show confidence (born of courage and experience), integrity (personal character) and judgement (born of knowledge and

experience). As such it is important to have different personality types on the board and still be able to manage discussions, conflicts and general interactions in an efficient way (Wei, 2009). Nhung and Nguyen (2017) argue that the board's main responsibility is to monitor, supervise and give the management a strategic direction to follow.

The relationship between board composition and financial performance has long been the subject of an important debate in the corporate finance literature. The past few years have seen an explosion in publicity about corporate misbehaviour. Every month, it seems, brings a new revelation of large scale top management corruption and failure of board oversight in either the corporate or not-for-profit arena. This has led scholars and policy makers to believe that board composition may have an influence in strategic decision making and subsequently firm performance (Lamers, 2016).

In Kenya board composition is prescribed under Section 11(3) and 12 of the Capital Markets Authority Act (CMA Act, 2000) that empowers the Capital Markets Authority to make rules and regulations to govern capital markets in Kenya. The CMA guideline on board composition of 2002 proposes that the board of directors of every listed company should reflect a balance between the independent non-executive directors and executive directors. The guideline recommends that independent and non-executive directors should form at least one-third of the membership of the board to ensure that no individual or small group of individuals dominate board decision making processes (Ng'ang'a, 2017).

Financial performance is used to measure firm's overall financial health over a given period of time. Financial performance, as a measure of organizational performance, is concerned with the overall productivity of an organization in terms of its profitability and other financial related objectives such as efficiency, liquidity and gearing

(Marr & Schiuma, 2013). Whereas organizational performance evaluates the extent to which organizational goals are being accomplished, financial performance evaluates whether an entity is making profits or losses from its business activities. As such financial performance is a subjective measure of how well a firm can use or uses its assets from its primary mode of business to generate revenues (Kellen & Wolf, 2013). Financial performance measures thus aims to help firms monitor their financial performance and identify performance areas that need attention (Austin, 2013). In addition, financial measures of firm financial performance are also used to compare similar firms across the same industry or to compare industries or sectors in aggregation, thus help managers in decision making, that is, it provides an overall picture of how a firm is performing over time as well as relative to others. The measure of financial performance in this study was return on assets.

### **Statement of the Problem**

The concept of corporate governance, in both public and private entities, has been a priority on the policy agenda in both the developed and developing countries over the last several decades. The agency theory and many other corporate governance theories suggest that good corporate governance practices improve firm performance (Ahmed & Hamdan, 2015). However, recent global events that have seen the collapse of high profile companies such as Enron, WorldCom, Bank of Credit and Commerce International, Lehman Brothers, Carrian Group and Parmalat among others, have awakened the call for corporates to strengthen their corporate governance structures and practices in both developed and developing countries (Müller, 2014). Owing to the importance of board composition as a corporate governance element in the operation, stability, and survival of modern day business enterprises, the Corporate Governance Code requires entities to observe integrity and transparency, professional ethics, board oversight and competency, regulatory

independence and effective communication with the investors, as best practices for enhancing good corporate governance (Nhung & Nguyen, 2017).

In Kenya, a number of prominent companies have come close to collapsing owing to corporate governance related problems with CMC, Imperial, Uchumi, Mumias, Kenya Airways, TransCentury, Chase Bank, National Oil Corporation and National Bank of Kenya being good examples and which has occasioned investor losses estimated to over Kshs. 200 billion and huge job losses among other negative consequences in Kenya's corporate field (Ng'ang'a, 2017).

Despite board composition being an integral part of corporate governance in modern day business organizations, existing empirical evidence as to its effect on firm performance presents a paradox with some studies reporting that board composition positively relates with firm financial performance (Kalsie & Shrivastav, 2016; Müller, 2014; Oludele *et al.*, 2016) while others reported that it negatively relates with firm financial performance (Bublykova, 2014; Dogan *et al.*, 2013; Nhung & Nguyen, 2017) and yet others reporting no association with firm financial performance (Topak, 2011; Fernández, 2015; Panasian *et al.*, 2015). This lack of clarity as to the effect of board composition on firm performance provided the motivation for the current study.

### **Study Objectives**

- To establish the effect of board size on financial performance of listed firms in Nairobi Securities Exchange.
- To evaluate the effect of CEO duality on financial performance of listed firms in Nairobi Securities Exchange.
- To determine the effect of board gender composition on financial performance of listed firms in Nairobi Securities Exchange.
- To examine the effect of board independence on financial performance of listed firms in Nairobi Securities Exchange.

## LITERATURE REVIEW

### Theoretical Framework

#### Resource Dependency Theory

The Resource dependency theory (RDT) was developed by Jeffrey Pfeffer and Gerald Salancik in 1978 as captured in their publication titled "*The External Control of Organizations: A Resource Dependence Perspective*". Resource dependency theory posits that power is based on the control of resources that are considered strategic within the organization. As such this theory is underpinned by the idea that access and control over resources is critical to organisational success. The resource dependency theory has its origins in open system theory as such organizations have varying degrees of dependence on the external environment, particularly for the resources they require to operate.

According to this theory, the board of directors is seen as a tool to manage external dependency, reduce environmental uncertainty and reduce transaction costs associated with environmental interdependency by linking the organization with its external environment (Fernández, 2015). This theory provides us with a more appropriate theoretical framework to study link between board size and firm performance (Ameer *et al.*, 2010).

#### Stewardship Theory

The stewardship theory was first developed by Davis, Schoorman and Donaldson in 1997 who argued that a steward protects and maximizes shareholders wealth through firm performance, because by so doing, the steward's utility functions are maximized. In this perspective, stewards who are the company executives and managers working for the shareholders, seek to protect and enhance firm profitability for the shareholders (Ahmed & Hamdan, 2015). The theory suggests that stewards are satisfied and motivated when organizational success is attained. Stewardship theory recognizes the importance of structures that empower the steward and offers maximum autonomy built on

trust (Chiang & Lin, 2011). It stresses on the position of executives to act more autonomously so that the shareholders' returns are maximized.

#### Human Capital Theory

Human capital theory was proposed by Schultz in 1961 and later developed extensively by Becker in 1964 as cited in his publication titled "Human Capital: A theoretical and Empirical Analysis to special reference to education". Human capital theory was developed on the realization that the growth of physical capital was only a small part of the growth of organizational income (Tan, 2014). Based on Schultz's research on return-on-investment, Becker introduced the concepts of general-purpose human capital and firm-specific human capital that are widely used by human resource development practitioners worldwide to date (Josan, 2013). Human capital theory delves into a person's education, experience and skills that can be used to add value to an organization.

#### Agency Theory

The agency theory with its roots in economic theory was expounded by Alchian and Demsetz in 1972 and further developed by Jensen and Meckling in 1976. The theory defines the relationship between the principals who are mainly the shareholders and agents who are mainly the company executives and managers. In this theory, the principals delegate the running of business to the directors or managers, who are the shareholder's agents (Panasian *et al.*, 2015). The theory holds the proposition that in the presence of information asymmetry, agent actions may end up hurting the owners. Agency problems emerge when the wishes or objectives of the principal and agents' strife and when it is hard or expensive for the principal to determine the agents' operations (Wang & Oliver, 2014).

#### Empirical Literature Review

In a quantitative study carried out among Chinese listed companies, Wei (2009) reported that there existed a negative correlation between board size and the financial performance of listed firms in

China and this was attributed to high levels of bureaucracy and slow decision making resulting from the need for wide consultations among companies with larger board sizes compared to companies with smaller board sizes. In an empirical study, Badu and Appiah (2017) examined the impact of corporate board size on firm performance using evidence from Ghana and Nigeria. The study was based on a sample of 137 listed firms in Ghana and Nigeria. The findings of the study suggested a statistically significant and positive relationship between board size and firm performance, implying that in Ghana and Nigeria increasing the number of members sitting in the corporate boards tended to improve firm performance. Similarly, Topak (2011) investigated the effect of board size on firm performance using evidence from Turkey. The study aimed to identify the relationship between board size and the financial performance of Turkish firms. The study employed panel data techniques to measure the relation between board size and firm performance for a sample of 122 Turkish firms for the period of 2004-2009. The study established that as an emerging market, Turkey had some unique firm features such as ownership structure, social culture and legal system. However, unlike the findings of other studies, the study found no relationship between board size and the financial performance of Turkish firms. In an empirical investigation, Sarpal and Singh (2013) studied the link between board size and corporate performance. The study sought to find out whether the number of members sitting in a company's board of directors had any influence on the firm's financial performance. The study was based on the analysis of board size of BSE listed companies in India with operating profit margin, return on assets and return on equity applied as the indicators of firm financial performance and number of board members adopted as the indicator of board size. Results of the study indicated that both board size and firm financial performance were independent of each other as board size was found not to be associated with firm financial performance.

In an empirical study carried out in Turkey, Dogan, Elitas, Agca and Ögel (2013) examined the impact of CEO duality on firm performance using a sample of 204 listed firms on Istanbul Stock Exchange between the years 2009-2010. The results of the study showed that CEO duality had a negative impact on firm performance, consistent with the agency theory. On their part, Carty and Weiss (2012) sought to find out whether CEO duality affected corporate performance using evidence from the US banking crisis. The study investigated the correlation between CEO duality and publicly traded banks in the US that received Federal bailout funds, using available databases, and investigated bank regulators' attitudes to CEO duality using a series of structured interviews. Based on the study findings, no correlation was found between bank failure and CEO duality. The results of the study suggested that CEO duality was a less significant factor in corporate management than suggested by many previous researchers and policy makers. Similarly, Moscu (2013) carried out a study that sought to investigate whether CEO duality really affected corporate performance among listed firms in Romania. The empirical findings of the study were inconclusive as to the effect of CEO duality on firm performance. In an investigative study performed in Canada, Panasian *et al.* (2015) examined the association between board composition and firm performance using the case of the Dey report and publicly listed Canadian firms. The study used recent data to re-examine the relationship between CEO duality and firm performance, controlling for other important variables such as firm characteristics, ownership structure, CEO compensation, and agency costs. The study found that there was a recent trend of increased number of listed Canadian firms converting from dual to non-dual CEO structure. However, the empirical results of the study did not show a significant relationship between CEO duality and firm performance nor improvement in firm performance after change in leadership structure.

A descriptive cross-sectional study conducted in Jordan, Marashdeh (2014) evaluated the effect of corporate governance on firm performance. The study was based on data from a sample of 115 firms listed in the Amman Stock Exchange. A multiple regression panel data analysis was performed using the Generalised Least Square Random Effects models. The empirical investigation revealed a mixed set of results. CEO duality, managerial ownership and foreign ownership had a positive effect on the firms' performance while non-executive directors and ownership concentration were found to have a negative effect on the firms' performance. In addition, board gender composition was found not to have any significant effect on firm performance. The study concluded that the proportion of male or female directors sitting in the board was irrelevant to firm performance among listed companies in Jordan. In a study of the impact of board composition on financial performance, Müller (2014) investigated using econometric regression models the impact of corporate governance characteristics regarding board composition on the financial performance of FTSE100 constituents in UK. The empirical study investigated the link between company performance and board composition characteristics for companies listed on the largest European stock market (London Stock exchange) in the period 2010-2011. Through this research the researchers intended to contribute to the academic literature on the unsettled issue concerning the relationship between corporate governance and corporate performance. As hypothesized and in accordance with some previous researches the study found that board independence and the proportion of foreign directors in the total number of directors (as characteristics of corporate board composition) had a significant strong positive impact on firm performance. However, the study found no relationship between board gender composition and the performance of the FTSE100 constituent firms and thus concluded that board gender composition was not a critical element of board composition within the corporate governance

paradigm. However, in a study carried out in Kenya on the influence of corporate governance on financial performance of commercial banks in Kenya, the results of the study showed that board gender composition was found to have a statistically significant positive relationship with the banks' financial performance (Ng'ang'a, 2017). Similar findings were reported by Puni *et al.* (2014) who in a study of the effect of board composition on corporate financial performance established that board gender composition had a positive association with the financial performance of listed firms in Ghana.

In a study conducted in Bangladesh, Rashid *et al.* (2010) examined the influence of corporate board composition in the form of representation of outside independent directors on firm financial performance among 274 Bangladeshi firms. Results of the study revealed that outside (independent) directors did not add potential value to the firm's financial performance in Bangladesh. The study noted that while the idea of introduction of independent directors may have benefits for greater transparency, the non-consideration of the underlying institutional and cultural differences in an emerging economy such as Bangladesh may not result in economic value addition to the firm. In another empirical study, Wei (2009) sought to examine the correlation between board composition and firm performance among listed companies in China. The study results showed that no significant associations existed between the proportion of independent directors in the board and the performance of Chinese listed companies. The study concluded that having more or less number of independent directors in the board had no bearing on the performance of Chinese listed firms. However, in a study conducted in Taiwan focusing on the link between board composition and firm performance, Chiang and Lin (2011) found that listed companies in Taiwan suffered from the divergence between stock-control rights and earnings-distribution rights, and the divergence of rights was negatively associated with firm

performance. The study also found that CEO internalization was significantly positively associated with firm performance which was consistent with the viewpoint of agency theory that the controlling interests of CEO may induce them to enhance company performance. In addition, the results of the study also showed that the more outside independent directors a company had, the better the financial performance the company had.

### METHODOLOGY

With a target population of this study was all the listed companies in Kenya as provided for by the CMA database that were quoted by 2010 as the study covered the period 2010-2017. Secondary data for a period of 8 years (2010-2017) was analysed using a descriptive and quantitative research design.

The multiple linear regression analysis was chosen because the study had more than one independent variable.

The multiple linear regression model specification was as follows;

$$Y_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 CEO_{it} + \beta_3 BGC_{it} + \beta_4 BI_{it} + \epsilon_{it}$$

Where;

ROA<sub>it</sub> = Return on Assets (which is the dependent variable); BS = Board size; CEO<sub>it</sub> = CEO duality; BGC = Board gender composition; BI = Board independence; i = the 55 listed firms in Kenya as of 2010 from the 1<sup>st</sup> to the 55<sup>th</sup>; t = time period in years, [that is, 2010-2017];  $\beta_0$  = Constant;  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  = Regression model coefficients;  $\epsilon$  = Error term

### RESULTS

#### Model Summary

Based on Table 1, the value of R square was 0.578 which meant that 57.8% variation in the financial performance of the of listed firms in Nairobi Securities Exchange was due to variations in board size, CEO duality, board gender composition and board independence. Hence, 42.2% of variations in the financial performance of the listed firms in Nairobi Securities Exchange was explained by other factors not in the model or not focused on in the current study.

**Table 1: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.760 <sup>a</sup>	0.578	0.574	0.3912

Predictors: (Constant), board size, CEO duality, board gender composition and board independence

#### Analysis of Variance (ANOVA)

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a regression model and forms a basis for tests of significance. The "F" column provides a statistic for testing the hypothesis that all  $\beta \neq 0$  against the null hypothesis that  $\beta = 0$  (Weisberg, 2005). For this study, the predictor variables were board size, CEO duality, board gender composition and board independence while the response variable was financial performance as

indicated by ROA values. From the findings in Table 4.5, the significance value was 0.0000 which was less than 0.05 implying that the study's regression model was statistically significant in predicting how the predictor variables (board size, CEO duality, board gender composition and board independence) influenced the response variable (financial performance) of the financial performance of the listed firms in Nairobi Securities Exchange. The F critical at 5% level of significance was 2.39. Since F calculated (value = 148.911) was greater than the F critical value of 2.39, this also showed that the overall model was fit.

**Table 2: ANOVA (Analysis of Variance)**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.766	4	22.9415	148.911	.0000 <sup>a</sup>
	Residual	67.017	435	0.1541		
	Total	158.783	439			

a. Predictors: (Constant), board size, CEO duality, board gender composition and board independence

b. Dependent Variable: Financial performance

### Regression Model Results

The study findings in Table 3 showed that there was an insignificant negative relationship between board size and the financial performance of the listed firms in Kenya ( $\beta = -0.412$  and  $P$  value  $> 0.05$ ). The findings indicated that a unit increase in board size would lead to a decrease in the financial performance of the listed firms in Kenya by 0.412 units, though the decrease would not be significant. The findings agreed with Bublykova (2014) who in an investigation of the impact of board size on firm performance of Hungarian listed firms reported that board size had a negative impact on the firms' financial performance. Other studies that reported a negative relationship between board size and firm financial performance were those by Wei (2009) and Guest (2009). However, studies by Kalsie and Shrivastav (2016) as well as Badu and Appiah (2017) established a positive relationship between board size and firms' financial performance while Sarpal and Singh (2013) found no relationship between the two.

The study findings in Table 3 showed that there was a significant negative relationship between CEO duality and the financial performance of the listed firms in Kenya ( $\beta = -0.547$  and  $P$  value  $< 0.05$ ). The findings indicated that a unit increase in CEO duality would lead to a decrease in the financial performance of the listed firms in Kenya by 0.547 units. The findings agreed with those of Dogan *et al.* (2013) who also found a significant relationship between CEO duality and performance of listed firms in Turkey. Similar findings were reported by Amba (2013) and Wu *et al.* (2016). In contrast, a

study by Vo and Nguyen (2014) reported there was a significant positive relationship between CEO duality and firm performance while a studies by Nhung and Nguyen (2017), Carty and Weiss (2012) as well as Panasian *et al.* (2015) did not find any significant relationships between CEO duality and the companies' financial performance.

The study findings in Table 3 showed that there is a significant positive relationship between board gender composition and the financial performance of the listed firms in Kenya ( $\beta = 0.596$  and  $P$  value  $< 0.05$ ). The findings indicated that a unit increase in board gender composition would lead to an increase in the financial performance of the listed firms in Kenya by 0.596 units. The findings concurred with those of Puni *et al.* (2014) and Ng'ang'a (2017) who found board gender composition positively impacted firm performance. In contrast, in studies by Marashdeh (2014), Müller (2014) and Ahmed and Hamdan (2015), board gender composition as a corporate governance variable, was found not to have any significant impact on firm performance.

The study results in Table 3 also showed that there was a significant positive relationship between board independence and the financial performance of the listed firms in Kenya ( $\beta = 0.641$  and  $P$  value  $< 0.05$ ). Therefore, a unit positive change in the board independence would lead to an increase in the financial performance of the listed firms in Kenya by 0.641 units. The findings were in line with those of Ameer *et al.* (2010) and Oludele *et al.* (2016) who reported that that there was a significant positive linear relationship between board independence

and financial performance of listed manufacturing companies in Malaysia and Nigeria respectively. In contrast, results of a study by Rashid *et al.* (2010) revealed that board independence as reflected by

number of outside (independent) directors in the board did not add potential value to the firm's financial performance in Bangladesh with Wei (2009) arriving at the same conclusion in China.

**Table 3: Regression Analysis Results**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	B	
(Constant)	5.313	0.707		7.515	0.0000
Board size	-0.412	-0.267	-0.452	1.543	0.1253
CEO duality	-0.547	-0.218	-0.485	2.509	0.0134
Board gender composition	0.596	0.186	0.527	3.204	0.0017
Board independence	0.641	0.143	0.575	4.483	0.0000

### CONCLUSIONS AND RECOMMENDATIONS

The listed firms in Kenya with excessive board sizes should consider reducing the number of board members in light of the study finding that increases in board sizes have no significant effect on the financial performance of the listed firms in Kenya.

In view of the study finding that increasing CEO duality has an significant adverse effect on the financial performance of the listed firms, the listed firms should adopt a leadership position where the CEO and the Board Chair positions are distinct and hence held by two different persons instead of a situation where the firm's CEO is also the board chair.

In view of the study finding that increasing board gender composition/diversity has a significant

positive effect on the financial performance of the listed firms, the listed firms should increase the proportion of female directors sitting in their boards.

In view of the study finding that increasing board independence has a significant positive effect on the financial performance of the listed firms, the listed firms should increase the proportion of non-executive directors sitting in their boards.

### Suggested Areas for Further Research

Given that the current study explored the effect of board composition on financial performance of listed firms in Nairobi Securities Exchange, a wider study involving other Securities Exchanges in the East African Region is hereby recommended. This will facilitate a broader comparison and generalization of the study findings.

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