Journal of Finance and Investment Analysis, vol. 7, no. 1, 2018, 37-57
ISSN: 2241-0998 (print version), 2241-0996(online)
Scienpress Ltd, 2018

An Empirical Investigation of the Relationship between Board Structure and Performance of Financial Institutions in Kenya

Nebert Mandala[1], E. Kaijage, PhD[1], J. Aduda, PhD[1] and C. Iraya, PhD[1]

Abstract

The corporate scene has witnessed boardroom tussles and corporate collapses around the globe. The underlying thesis is that a crisis of governance is basically a crisis of board of directors. The decline in shareholders' wealth and most of these firm failures has been linked to the board of directors. The objective of the research was to examine whether an association exists among board structure, and performance. The study hypothesized that the influence of board structure on performance is not significant. Secondary data was collected from financial institutions in Kenya for a ten-year period from 2006 to 2015. The study used both a correlational descriptive research design and cross sectional survey design. The data collected was subjected to correlation, generalised estimating equation and regression analysis. The conclusions brought out mixed findings. The results show that, board structure had independent significant influence on performance of financial institutions. Board activity operationalized as the number of meeting in a year had a strongest independent influence on performance followed by board type. The results are in support of the agency theory and the convergence-of-interests theory. The results indicate that there is an optimal number of board of director meetings that have a significant influence on performance. The number of board of directors' meetings which optimize firm performance was found to be 11 to 15.

JEL classification numbers: L25, D22
Keywords: Board Structure and Firm Performance

1 Introduction

Corporate reforms aimed at aligning African corporate scene with international best practices have been on the rise across much of the continent in the past two decades. One outcome of this is the adoption of governance reforms aimed at harmonizing the standards of governance in Africa with the international best practices. This has also been attributed to firm failures

[1] School of Business, University of Nairobi, Kenya.

Article Info: *Received*: October 28, 2017. *Revised* : November 18, 2017
Published online : January 1, 2018

and corporate scandals witnessed in many parts of the globe and which include Commerce Bank (1991), Uchumi Ltd (2008), Enron (2001), CMC Ltd (2014), Adelphia (2002), Chase Bank (2015) and World Com (2002). Similarly, modern environment is characterized by uncertainty, risk and dynamism making it more difficult to forecast and manage factors which possibly can impact performance of the institutions. This study argues that adoption of better corporate governance practices may be one of the best viable proposals of enhancing performance, dealing with uncertainty and risk in modern corporate sector. Moreover, it enhances the possibility of attracting additional investment capital as a result of reducing risk levels. Adoption of good corporate governance practices has further been necessitated by the agency problems which have in the recent past become an integral part of the modern-day corporation, due to increased practice of separating ownership and control, intensifying diversification and segmentation of the corporations, and investor emphasis on short-term performance and return outcomes (Sanda et al., 2003).

Various corporate governance variables have an important bearing on firm performance in many ways. First, empirical evidence has concentrated on an internal corporate governance mechanism and identified the members of the board with the attendant board structure to be a key variable. There are studies that have demonstrated that the members of the board of directors (BoD) perform a major role in employee evaluation and monitoring besides reducing agency conflict between employees and equity holders (Drakos & Bekiris, 2010), and hence positively affecting firm performance (Setia-Atmaja, Tanewski & Skully, 2009). Second, studies have focused on the external governance mechanism of firm characteristics including ownership structure, and concluded that this might also affect firm performance (Piesse et. al., 2007 Demsetz & Villalonga, 2001; Dwivedi & Jain, 2005;). Additionally, the ownership structure is likely to exhibit big changes once reforms in the governance structure are undertaken.

Conceptualization in this study is underpinned by the agency theory whose key paradigm is the agency conflict which can be resolved by employee and directors share options so as to reconcile the interest of directors with those of the equity holders. The agency theory is centered on relationship between the principal and agent. The agency theory operates from the premise that, one party called the principal, delegates to another called the agent. This theory envisions that as a business grows and becomes more complex and technical to run, the principal being the shareholder or owner, delegates day to day running of organizations to the agents who are managers. However, the theory foresees the self-seeking interest of the managers, thus proposes need for strict monitoring and accountability (Lim, 2010). Convergence-of-interests' theory, argues that when the BoD members have no equity ownership, they are self-oriented but have petite power to overcome corporate controls designed to align their decisions to the benefit of the equity holders. Entrenchment theory in contrast postulates a negative effect of board equity ownership on performance of the firm (Morck et al., 1988). Shleifer and Vishny (1997)'s findings show that ownership concentration leads to a trade-off between incentive alignment and entrenchment effects. In this context, the question of whether board structure and ownership structure negatively affects firm performance becomes an empirical problem affected by politico-regulatory and institutional factors. Other theories that have a bearing in this research include the resource dependency theory, the Upper Echelons Theory and the stewardship theory.

Empirical research on the influence of the structure of the board on institutional performance has been done but with mixed and varied findings. The association among the structure of the board and institutional performance is important in developing effective corporate

management and public regulatory policies. The findings of empirical studies on the effect of board structure on firm performance range from positive (Johl. 2015; Kajola, 2004), negative (Demetz & Villalonga, 2001; Morck et al., 1988; Gurusamy, 2017) to mixed (Johnson, Daily and Ellstrand, 1996; and Ongore & K'Obonyo, 2011). The mixed findings on the effect of board of directors' structure on performance of institutions shown in prior work may point to the possibility, that important intervening variables such as executive tenure, or moderating variable such as firm characteristics may have been over-looked.

Despite the importance of the subject on the effect of board structure on performance of institutions limited empirical research exists in developing economies. The problem is further compounded by the fact that despite the importance of FIs on the economy the few existing studies have been contextualized in non-financial institutions. Such studies include the study by Letting et al., (2012) who studied board diversity and performance of companies listed on the Nairobi Securities Exchange (NSE). The main limitation in the study was that only one board structure variable was studied and contextually was limited to firms listed on NSE. Similarly, Ongeti, (2014) studied the relationship between organizational resources, CG structures and performance of State Corporations, the board structure variables were however limited to board size and composition; Kamaara et al., (2013) established that board characteristics influenced performance of Kenyan state corporations; however, this study did not focus on the role of ownership and other structures such as the board on performance. The study was also limited to commercial state corporations. This notwithstanding, the studies on corporate governance structures in Kenya have concentrated on the influence of a single structure such as the board (Letting et al., 2012; Kamaara et al., 2013) or ownership (Mangunyi, 2011; Ongore & K'Obonyo, 2011) on performance.

Additionally, there exists knowledge gaps that this study sought to address. These gaps are along conceptual, contextual and methodological spheres. Methodological issues arise in relation to studies on board structure choices. Previous studies have used statistical methods that do not enable the study to establish whether, board structure affects performance or performance affects board structure (Onwuegbuzie, Johnson & Coluns, 2009). The researcher holds that there is lack of empirical study done to establish the association among board structure and performance of financial institutions in Kenya. This study, therefore, sought to reduce this gap using data from the financial institutions in Kenya. More specifically, this study sought to find responses to the research question; does board structure impact firm performance of financial institutions in Kenya? The study hypothesized that there is no significant effect of board structure on performance and further developed six sub hypothesis each from the individual board structure variables adopted in the study.

2 Board Structure and Performance of Financial Institutions

The BoD of a firm is considered as the heart of its internal governance. According to Lim (2010), the board is the most fundamental corporate governance structure in any organization. Board attributes or characteristics that may influence strategic decision-making include resource allocation and subsequently firm performance (Mallin, 2010; OECD, 1999). Besides providing strategic direction, BoD is further a provider a major monitoring function for addressing agency problems in the firm (Fama, 1980). However, according to Ongore (2011), the board acting alone is not an adequate remedy to all the governance issues facing

corporations currently. To better appreciate the governance issues, firms are required to further factor risk-taking orientations of their equity holders which have a direct bearing on the type of investment decisions that managers prefer to make (Shleifer & Vishny, 1994). The firm ownership structure is therefore better discussed in terms of ownership identity and concentration. Empirical evidence is in agreement about the important variables representing board structure. How the various variables are characterized define how the board is structured. This include board size, tenure of board members, board independence, board activity, board diversity in terms of ratio of female to male, age, nationality, qualifications, work experience and organizational ownership (Campbell & Vera, 2008), CEO Duality, board busyness and board process. This study introduces a new variable the board type which denotes board members share ownership. The board structure has a bearing on the corporate relationship between firm characteristics and performance.

Board composition is the extent to which there exists independence between the members of a firm's board and it's CEO. Several approaches have been used to capture this perspective. One considers the proportion of executive board members to total board members (Baysinger, Kosnik & Turk, 1991) while other approaches focus on the proportion of non-executive board members to total board members. Board processes is characterized by the decision-making activities of the BoD members of institutions. Under the principle of CEO duality, the CEO of a firm plays the dual role of CEO and chairman of the BoD. Board type is categorized in this study as type 1 board, whose members directly own equity shares in the firm; type 3 board, where the board members do not hold any equity shares in the firm whose board they sit on; and type 2 which is a blend between the two extremes, some members own equity shares and some do not hold any equity shares. Board activity refers to the number and frequency of board meetings while board diversity is the ratio of male to female board members.

Studies have given more attention to examining five key characteristics of board structure, namely, the size of the board, board composition, board diversity, CEO duality and the number of board meetings. A number of research assignments have concluded that board structure variables are exogenously determined, including Jensen (1993), and Mak and Kusnadi (2002) who show that the smaller the size of boards the higher the firm value, Baysinger and Butler (1985), and Klein (1998), find that performance of firms is not significantly associated with a higher ratio of non-executive directors on the board, and Adams and Ferreira (2004) who concluded that regular meetings of the BoD contribute to improving performance of firms. Wah et al., (2015) find that board diversity measured by the number of female directors sitting on the board have significant positive impact on the performance of the firm. Research on CEO duality find mixed evidence on which is better, Yermack (1996) argue that performance is optimized when the CEO and chairman position are separate, while Daily and Dalton (1992) found lack of relationship between CEO duality and performance of the firm. Several theoretical and empirical study findings agree that board structure characteristics vary with firm characteristics (Prevost, Rao, and Hossain 2002, Baker and Gompers 2003, Lehn et. al., 2003, and Boone, et al. 2005). Hermalin and Weisbach (2003) noted that there is lack of adequate literature on the determinants of an optimal board structure or the factors that determine an optimal board size.

There have been indications that structure of the board and profitability of the firm may influence each other with both forces working simultaneously, implying that firm performance and board structure are endogenously determined. Prior research on the association among board structure and performance of a firm has generated mixed results and

conclusions (Dalton et al., 1998). Additionally, the effect of board structure on profitability of a firm is vague. This may be because of the fact that board structure and performance of a firm are endogenously determined and the relationship may be intertemporal as a result of financial reporting at intervals and unchangeable terms of the board. Dalton et al. (1998) found no support for the hypothesis that performance of a firm is significantly influenced by board composition.

Numerous explanations have been put forth to explain the contradictory association among structure of the board and its' performance. To begin with, which board structure results in which performance level has not been clearly established (Johnson, Daily & Ellstrand, 1996). Dalton and Daily (1999) established that several decades of studies aimed at linking board structure and profitability of a firm have been inconclusive.

The financial institutions in Kenya comprise government owned regulators, Nairobi Securities Exchange and Money and Capital market. They deal with a wide array of financial instruments which are available in other international financial centres. The Central Bank of Kenya which plays a regulatory and monitoring role of the commercial banks is at the apex of the industry with the rest of the banking industry being a pyramid of financial activity comprising; five regulators, 43 commercial banks,10 investment banks, two development banks, one mortgage finance company, 41 insurance companies, nine deposit taking micro-finance institutions, and 3,887 Savings and Credit Co-operatives Societies (SACCOs) (http://www.centralbank.go.ke). 31 of the commercial banks have local ownership while 12 mainly foreign owned and include: Citibank, Habib Bank, Standard Chartered and Barclays Bank. The Government of Kenya (GoK) also has a substantial stake in a number of Kenya's commercial banks. The rest of locally owned commercial banks in Kenya are largely owned by families. The main role of commercial banks in Kenya include accepting deposits from individual clients through which they make a profit by offering loans from the deposits to businesses at interest rates. The CBK regulates commercial banks through the Banking Act, the Central Bank Act and the Companies' Act, which espouses a number of guidelines including restrictions on the banks operations, financial reporting, governance and minimum capital requirements including reserve requirements.

The financial sector regulation in Kenya has adopted the institutional or silo system for regulation, this is different sectors of financial institutions is regulated by different regulatory institution. Regulation is therefore based on the institution being regulated as opposed to the nature of business being transacted.

3 Methodology

Descriptive correlational research design is used to describe relationships, as they exist, between specific variables. Using data from a developing country, Kenya, the research has determined the association among the variables, board structure and and firm performance. The data required was collected for a ten-year period from 2006 to 2015 for the institutions that were sampled from the financial sector in Kenya, through data collection sheets. The population of the research was 3989 financial institutions in Kenya comprising of five regulators, 43 commercial banks, 10 Investment banks, two development banks and one mortgage finance company, 41 insurance companies, nine deposit taking micro-finance institutions, and 3,887

Sacco's (http://www.centralbank.go.ke). Yamane (1967) developed a simplified formula that computes sample sizes (Equation 1 as shown below). By using Yamane's formula of sample size with an error term of 10% and with a confidence coefficient of 90% the calculation from a population of 3989 came up with a sample size of 98 FIs, consisting of three regulators, 30 commercial banks, two Investment Banks, 30 Insurance Companies, one mortgage finance company, one deposit taking MFI and 31 Saccos. The formula was applied to the population in each strata so as to determine the sample size for each of the strata.

$$n = \frac{N}{1 + N(e)^2} \tag{1}$$

Where n denotes the sample size, N denotes the population size, and e denotes the level of precision.
Table 1 provides a summary of the population and sample sizes.

Table 1: Summary of the Study population and Sample

Financial Institutions	**Population N**	**Sample n**	**Sample %**
Regulators	5	3	60
Commercial Banks	43	30	70
Investment Banks	10	2	20
Development Banks and Mortgage Finance Companies	3	2	70
Insurance Companies	41	30	73
Saccos	3,887	31	8
Total	3,989	98	25

(http://www.centralbank.go.ke) and Author, 2017

Empirical evidence provides several measures of performance and the study adopted canonical correlation to select measures of performance to be used in further analysis. Tobin's Q and ROA are the two most widely used performance measures thereby being a blend of both the market and accounting measures. However, in emerging markets, most companies are not listed on the securities market and, thus, the market values and Tobin's Qs of these institutions are not available. Empirical evidence in most cases use security market returns and profitability accounting ratios to distinguish non performing institutions from those whose performance is good (Faleye et. al., 2011). This choice of performance variables is derived from the main aim that institutions exist to benefit equity holders, and this ultimately leads to the rationalization of the choice of market values as a superior measure of institutional performance. However, other studies use profitability and security market return as a measure of institutional performance (Jung et. al., 2014). The company annual financial reports are regarded as useful in directing and monitoring the decisions of members of the board and other employees. The study therefore used ROA and Revenue Growth Rate to measure performance. Consistent with Rashid and Lodh (2008), the research computed ROA using EBIT scaled by the book value of total assets.

The study used multi variables to represent the board structure. This comprised of the size, composition, activity, diversity, CEO Duality, and type. Board size was adopted because it has several consequences of how the board functions and hence performance of the organizations (Coles et. al., 2008). Large BODs are presumed as having board members possessing varied educational qualifications and work experience and skills in addition to possessing numerous viewpoints that enhances the quality of decision making by the

management. CEO domination of the members of the board is decreased and thus members of the board can exercise their authority in managing the institution in a better manner (Zahra & Pearce, 1989). However, larger boards, usually exhibit more agency conflicts and hence are not in a position to act meritoriously in monitoring the employees (Hermalin & Weisbach, 2000). Board independence also referred to as composition (BDCOM) in this research referred to the ratio of outsiders or independent members of the board, who are not involved in the operations of the institutions consistent with the studies. The CEO duality is when the chairperson occupies the CEO position too. In line with several studies such as Daily and Dalton (1994) the CEO duality was a binary and described as a variable of the duality of the CEO, which was equal to zero if the CEO position was held by same person as the chairman, otherwise one. The study also introduced three other variables; the board busyness, activity and type as they are also likely to impact performance.

Table 2: Operationalization of Variables

Variable	**Type of Variable**	**Indicator**	**Operationalization**	**Literature**
Board Structure	Independent	Board Size (BS)	The natural logarithm of the total number of the members of the board-NBM	Coles et al, 2008 Zahra and Pearce, 1989
		Board Composition (BC)	Ratio of non-executive board members to the total members of the board- NIDOB	Kamaara, Gachunga and Waititu (2013); Rechner and Dalton, (1986).
		CEO Duality (CEOD)	Dummy: Value zero (0) where CEO duality exists & one (1) for otherwise. -CEOCP	Boyd (1994); Daily and Dalton (1994).
		Board Activity (BA)	Number of meetings and other activities-NBMeet	Letting, Aosa and Machuki (2012)
		Board Diversity (BD)	Proportion of female members of the board to the total board members -NfmDOB	Letting, Aosa and Machuki (2012)
		Board Type (BT)	Type 1 where board members own equity; 2 where some directors own equity and others do not; and 3 where board members do not own equity -NDOES-PDTEH	(Teresa & Joseph, 2011).
Firm Performance	Dependent	Return on Assets (ROA)	EBIT/TA	Rashid and Lodh (2008)
		Revenue Growth Rate (RGR)	Current Revenue - previous year's revenue/ previous year's revenue	

Once data were collected, they were prepared, analyzed, organized and used to report the findings as well as results of tests of hypotheses. Moderated and stepwise regression models and correlation analysis were adopted to investigate the association among board structure, and performance using ROA initially and then Sales growth. Correlation analysis was adopted in measuring how strong the association among the variables of the study was; board structure and performance; CEO tenure and performance; institutional characteristics and performance; as well as the relationship among all the variables taken together. Pearson's product moment coefficient of correction (R), was used to quantity the nature and magnitude of association among the variables. Simple, Multivariate and hierarchical stepwise regression analysis were used to test the hypotheses at 95 percent level of confidence.
The model tested hypothesis 1 together with the sub hypotheses as follows;

$$ROA_{i,t} = \alpha+\beta_1 BS_{i,t}+\beta_2 BC_{i,t} +\beta_3 CEOD_{i,t} + \beta_4 BA_{i,t} +\beta_5 BD_{i,t} +\beta_6 BT_{i,t} + \varepsilon_{i,t} \quad \text{.....1.1}$$
$$RGR_{i,t} = \alpha+\beta_1 BS_{i,t}+\beta_2 BC_{i,t} +\beta_3 CEOD_{i,t} + \beta_4 BA_{i,t} +\beta_5 BD_{i,t} +\beta_6 BT_{i,t} + \varepsilon_{i,t} \quad \text{.....1.2}$$

$$ROA_{i,t}= \alpha+\beta_1 BS_{i,t} +\varepsilon_{i,t} \quad \text{.....1.3}$$
$$RGR_{i,t}= \alpha+\beta_1 BS_{i,t}+ \varepsilon_{i,t} \quad \text{.....1.4}$$

$$ROA_{i,t}=\alpha+\beta_1 BC_{i,t} +\varepsilon_{i,t} \quad \text{.....1.5}$$
$$RGR_{i,t}=\alpha+\beta_1 BC_{i,t}+ \varepsilon_{i,t} \quad \text{.....1.6}$$

$$ROA_{i,t}=\alpha+\beta_1 CEOD_{i,t} +\varepsilon_{i,t} \quad \text{.....1.7}$$
$$RGR_{i,t}=\alpha+\beta_1 CEOD_{i,t}+ \varepsilon_{i,t} \quad \text{.....1.8}$$

$$ROA_{i,t}=\alpha+\beta_1 BA_{i,t} +\varepsilon_{i,t} \quad \text{.....1.9}$$
$$RGR_{i,t}=\alpha+\beta_1 BA_{i,t}+ \varepsilon_{i,t} \quad \text{.....1.10}$$

$$ROA_{i,t}=\alpha+\beta_1 BD_{i,t} +\varepsilon_{i,t} \quad \text{.....1.11}$$
$$RGR_{i,t}=\alpha+\beta_1 BD_{i,t}+ \varepsilon_{i,t} \quad \text{.....1.12}$$

$$ROA_{i,t}=\alpha+\beta_1 BT_{i,t} +\varepsilon_{i,t} \quad \text{.....1.13}$$
$$RGR_{i,t}=\alpha+\beta_1 BT_{i,t}+ \varepsilon_{i,t} \quad \text{.....1.14}$$

Where, ROA is Return on assets.
Board Structure is represented by; BS which is Board Size; BC is Board Composition; CEOD is Chief Executive Officer Duality; BA is Board Activity; BD is Board Diversity; and BT is Board Type; RGR is Revenue Growth Rate.

4 Descriptive Statistics & Results

The summary of descriptive statistics is provided in table 3 and 4 below. The findings reveal that the number of board members varies from different financial institutions but overall the mean board members were about 10 with a minimum of 2 and a maximum of 20. The findings show that on average, there were 10 board of directors in most of the financial institution with an average of 4 members being independent directors. The results show that 30 institutions had no independent directors. Most of the firms had between 2 and 7 independent directors.
The results further indicate that the median number of board of directors is 9, implying that, half the number of financial institution's board contains members less than or equal to 9, and half the number of financial institution's board contains members greater than or equal to 9. The results show that all the financial institution in Kenya had the CEO position held by a different person from the chairman except one of the financial institutions. The results

further indicate that the maximum number of female board members on any of the boards studied was 4, though there exist some boards with no female representation. The findings show that for most institutions the ratio of female directors was quite low. The range between the maximum and the minimum Percentage of Directors total equity holding in financial institutions' is 65% and on average 32% of the equity in financial institutions is held by directors. The results show that, in most cases, the companies considered have modest board sizes. This enhances performance of these companies and therefore considered appropriate. With regard to independence of the board, the study provides evidence that 40 percent of all board of directors are non-executive which suggest that these boards are in most cases not independent. This is based on the fact that empirical evidence agrees that the more non-executive directors there are on a board, the more independent the board is, for example, the work of Anthony et. al., (2000). From skewness, the study observed that the average score of all the board structure constructs are positively skewed and is very near to zero which clarified that the constructs are asymmetrical. Kurtosis values indicated that all the sub constructs have platy-kurtic distribution and it is concluded that they are normally distributed.

The results show that the maximum ROA of the financial institutions sampled was 24.9080, 25.9906 and 21.3785 on Banks, Insurance and Saccos respectively. Commercial banks with the largest asset base compared to the other categories of financial institutions, comes second in ranking for performance using ROA. The results further show that the minimum ROA was -15.5480, 3.8386 and 8.4797 on Banks, Insurance and Saccos respectively. The results also show that the average ROA in Banks, Insurances and Saccos are 3.205095, 6.831322 and 2.637850 respectively. Half the ROA on Banks, Insurance and Saccos are less than or equal to 3.207, 6.075 and 1.719 respectively whereas their respective ranges in ROA are 40.456, 29.829 and 29.858. From skewness, the study observed that the average score of all the firm performance constructs are positively skewed and is very near to zero which clarified that the constructs are asymmetrical. Kurtosis values indicated that all the sub constructs have platy-kurtic distribution and it is concluded that they are normally distributed. The results show that the maximum and minimum number of Growth of Sales in Banks, Insurances and Saccos are 35.99, 56.65 and 47.52 and -6.14, -23.56 and -20.90 respectively. The average growth of sales in Banks, Insurance and Saccos are 14.19, 19.12 and 16.52 respectively, whereas there corresponding medians are 13.50, 17.32 and 15.33 indicating that the means are not very far from their respective means implying that they follow a normal distribution and thus allowed for correlation and regression analysis to be undertaken. Additionally, growth in EBIT was analyzed and the results in table 4.6 above show that, the maximum and minimum number of Growth of EBIT in Banks, Insurances and Saccos are 40.78, 38.90, 53.43 and -14.37, -9.83, -11 respectively. The results also indicates that the respective means and medians are 14.26, 13.13 and 19.25 for Banks, Insurances and Saccos respectively.

Table 3: Descriptive Statistics for Board Structure Variables

		Mean	95% Confidence Interval		5% Trimmed Mean	Median	Variance	Std. Deviation	Minimum	Maximum	Range	Interquartile Range	Skewness	Kurtosis
			Lower Bound	Upper Bound										
Number of Board members	*Statistic*	9.57	9.28	9.86	9.45	9.00	10.700	3.271	2	20	18	4	0.595	0.772
	Std. Error	0.146											0.109	0.218
Number of independent directors on the board	*Statistic*	4.17	3.95	4.39	4.06	4.00	6.132	2.476	0	11	11	3	0.788	0.380
	Std. Error	0.111											0.109	0.218
CEO holds the Chairman position	*Statistic*	0.04	0.02	0.05	0.00	0.00	0.035	0.187	0	1	1	0	4.991	23.001
	Std. Error	0.008											0.109	0.218
Number of female directors on the board	*Statistic*	1.69	1.58	1.80	1.65	2.00	1.557	1.248	0	4	4	2	0.216	0.934
	Std. Error	0.056											0.109	0.218
Percentage of Directors total equity holding	*Statistic*	32.38	30.60	34.16	32.38	34.00	408.337	20.207	0	65	65	39	-0.081	-1.299
	Std. Error	0.905											0.109	0.218
Number of Directors owning equity shares	*Statistic*	5.24	5.01	5.48	5.06	5.00	6.924	2.631	1	22	21	4	2.282	10.453
	Std. Error	0.118											0.109	0.218
	Std. Error	0.069											0.109	0.218

Table 4: Descriptive Statistics for Firm Performance

		Mean	95% Confidence Interval		5% Trimmed Mean	Median	Variance	Std. Deviation	Minimum	Maximum	Range	Interquartile Range	Skewness	Kurtosis
			Lower Bound	Upper Bound										
ROA Bank	*Statistic*	3.205	2.809	3.600	3.145	3.207	10.443	3.231	-15.548	24.908	40.456	2.8622	1.419	20.264
	Std. Error	0.200												

ROA Insurance	*Statistic*	6.831	6.238	7.424	6.588	6.075	21.726	4.661	-3.838	25.990	29.829	5.9428	0.928	1.649
	Std. Error	0.300											0.157	0.313
ROA Sacco	*Statistic*	2.637	2.291	2.984	2.328	1.719	8.995	2.999	-8.479	21.3785	29.8582	2.3137	2.086	8.973
	Std. Error	0.176											0.143	0.285
Growth of EBIT	*Statistic*	16.610	15.633	17.587	16.677	16.515	195.496	13.981	-14.571	53.4332	68.0050	18.8570	-0.046	-0.338
	Std. Error	0.497											0.087	0.174
Growth of Sales	*Statistic*	16.548	15.518	17.578	16.751	15.684	217.219	14.738	-23.556	56.6533	80.2098	80.2098	-0.055	0.661
	Std. Error	0.524											0.087	0.174

			Mean	**95% Confidence Interval**		**5% Trimmed Mean**	**Median**	**Variance**	**Std. Deviation**	**Minimum**	**Maximum**	**Range**	**Interquartile Range**	**Skewness**	**Kurtosis**
				Lower Bound	**Upper Bound**										
Growth of EBIT	Bank	*Statistic*	14.89	13.02	16.76	15.096	14.259	233.541	15.282	-14.5718	40.7802	55.3520	25.2134	-0.155	-1.104
		Std. Error	0.949											0.151	0.302
	Insurance	*Statistic*	14.89	13.24	16.55	14.885	13.132	169.166	13.006	-9.8314	38.8980	48.7294	17.0886	0.196	-0.526
		Std. Error	0.839											0.157	0.313
	Sacco	*Statistic*	19.56	18.04	21.07	19.612	19.252	170.856	13.071	-11.0044	53.4332	64.4376	17.2052	0.027	0.809
		Std. Error	0.767											0.143	0.285
Growth of Sales	Bank	*Statistic*	14.19	12.84	15.53	14.069	13.495	121.568	11.025	-6.1423	35.9907	42.1331	18.6541	0.292	-0.890
		Std. Error	0.685											0.151	0.302
	Insurance	*Statistic*	19.12	16.73	21.52	19.511	17.332	354.415	18.825	-23.556	56.6533	80.2098	19.4190	-0.391	0.146
		Std. Error	1.215											0.157	0.313
	Sacco	*Statistic*	16.52	14.96	18.07	16.714	15.332	180.151	13.422	-20.901	47.5165	68.4178	9.5513	-0.072	1.013
		Std. Error	0.788											0.143	0.285

5 Hypothesis Testing

To assess if the board structure variables; size, independence, type, diversity, activity and CEO duality did not significantly predict ROA and Revenue growth of financial institutions in Kenya, the researcher applied Hierarchical multiple regression analysis. Several steps were used in carrying out the hierarchical multiple regressions with the first step involving regressing ROA as dependent variable against board structure variables as the predictor including size, composition, activity, diversity, type and CEO duality, the other steps involved dropping the variables representing board structure each at a time. The same steps were repeated using revenue growth rate. The study rejects the null hypothesis and concludes that board structure significantly affects firm performance with p-values of less than 0.05 for board activity and board type variables. The board structure variables that significantly affect firm performance are board activity and board type operationalized as the number of meetings and other activities held by the board annually and shareholder equity ownership respectively. The results show that the p-value for board activity was 0.02 and board type was 0.028. Table 5 to table 6 below presents the results of these regressions:

Table 5: Regression Analysis: ROA versus Board Structure Variables

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	7	65.895	9.4136	0.77	0.614
NBM	1	3.055	3.0551	0.25	0.619
NIDOB	1	1.589	1.5892	0.13	0.720
NBMeet	1	14.541	14.5407	1.19	0.281
NFmDB	1	0.464	0.4638	0.04	0.846
PDTEH	1	16.320	16.3204	1.34	0.254
NDOES	1	0.049	0.0490	0.00	0.950
CEOT	1	2.203	2.2029	0.18	0.673
Error	43	524.027	12.1867		
Total	50	589.922			

Model Summary

S	R-sq	R-sq (adj)	R-sq (pred)
3.49094	11.17%	0.00%	0.00%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	5.84	3.31	1.76	0.085	
NBM	0.227	0.454	0.50	0.619	7.83
NIDOB	0.181	0.502	0.36	0.720	5.64
NBMeet	-0.349	0.319	-1.09	0.281	1.13
NFmDB	-0.105	0.538	-0.20	0.846	1.52
PDTEH	-0.0296	0.0256	-1.16	0.254	1.07
NDOES	0.021	0.338	0.06	0.950	3.14
CEOT	-0.295	0.694	-0.43	0.673	1.30

Author, 2017

Regression Equation
ROA = 5.84 + 0.227 NBM + 0.181 NIDOB - 0.349 NBMeet - 0.105 NFmDB -0.0296 PDTEH + 0.021 NDOES - 0.295 NYSCEOA

From the hierarchical regression results in Table 5.1 above, regression models were generated. The computed p-value of the regression findings as shown in the analysis of variance table (0.614) indicates that the model as produced through the regression methodology is not statistically significant at α-level of 0.05 which demonstrates all the coefficients are not different from zero. The model, in this case, therefore lacks explanatory power. The calculated p-values of all estimated coefficients are greater than 0.05 which shows that they are not statistically significantly related to performance (ROA) at a-level of 0.05. However, type of the board measured by number of directors owning equity shares on the board has the highest calculated p- value indicating that it has the least explanatory power, followed by board diversity, board composition, board size and lastly board activity. Since the model is not a good predictor of firm performance, it cannot be used subject to the other goodness of fit tests discussed below.

The R^2 value shows that the predictors describe 11.17% of the variance in ROA. Adjusted R^2 is 0.00%, shows the number of predictors in the model. R^2 and adjusted R^2 values both indicate that the data available does present the model well. The adjusted coefficient of determination ($\bar{R}^2$), which describes the amount of variation in the dependent variable explained by all the independent variables taken together, the adjusted R^2 of 0.00% indicates that the model was statistically not significant and therefore not subject to tests of slope. Tests of the slope are aimed at determining strength of the association among the dependent variable and each of the independent variables. In general, it can be concluded that there is no significant influence of structure of the board on performance of financial institutions in Kenya when using ROA as the performance indicator. The second step involved regressing ROA as dependent variable against two board structure variables as the predictor; size and activity having dropped all the other explanatory variables for board structure. The result of this regression analysis is shown in table 6 below:

Table 6: Regression Analysis: ROA versus Board Size & Board Activity

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	2	95.081	47.5403	5.34	0.007
NBM	1	25.621	25.6210	2.88	0.094
NBMeet	1	94.235	94.2355	10.58	0.002
Error	77	685.725	8.9055		
Lack-of-Fit	75	685.479	9.1397	74.10	0.013
Pure Error	2	0.247	0.1233		
Total	79	780.806			

Model Summary

S	R-sq	R-sq (adj)	R-sq (pred)
2.98421	12.18%	9.90%	4.18%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	3.71	1.26	2.94	0.004	
NBM	0.218	0.129	1.70	0.094	1.23
NBMeet	-0.1993	0.0613	-3.25	0.002	1.23

Regression Equation Author, 2017

ROA = 3.71 + 0.218 NBM - 0.1993 NBMeet

A regression model was generated from the hierarchical regression results in Table 5.2. The p-value (0.007) for the regression model in the Analysis of Variance table 5.2 above demonstrates that the model as estimated by the regression analysis is significant at α-level of 0.05 showing that at least one coefficient is different from zero. The board activity as determined by the number of board meetings held is statistically related to the ROA which reported a p-value of 0.002. The p-value for size of board as operationalized through the number of board of directors is 0.094, showing that there is no association with ROA at α-level of 0.05. The model therefore is a good predictor of firm performance, and can be used subject to the other goodness of fit tests discussed below. The study therefore rejects the null hypothesis and concludes that Board structure significantly affects the firm performance of financial institutions in Kenya.

The predictor explains 12.18% of the variance in ROA as shown in the R^2 value. The adjusted R^2 is 9.90%, showing the number of predictors in the model, hence the model contains some information. It appears that of all board structure variables, it is the number of boards meeting that is related to ROA. All the VIFs are almost nearer to 1, showing that the independent variables are not correlated. The VIF values which are greater than 5-10 indicates that the regression coefficients are predicted poorly because of severe multicollinearity. Hypothesis one is therefore rejected.

In determining the relationship between the structure of the board and performance of firms using revenue growth rate as the measure of performance, stepwise regression was used. The table 7 below shows the association among board structure variables as predictor and performance of financial institutions (ROA) as dependent variable:

Table 7: Regression Analysis: Revenue Growth Rate and Board Structure

	----Step 1----		----Step 2----	
	Coef	P	Coef	P
Constant	-1.39		11.76	
NDOES	5.09	0.038	5.23	0.028
NBMeet			-2.52	0.031
S		13.7170		13.1964
R-sq		8.46%		17.01%
R-sq(adj)		6.59%		13.55%
R-sq(pred)		1.68%		8.18%
Mallows' Cp		4.17		1.39

α to enter = 0.15, α to remove = 0.15
Candidate terms: NBM, NIDOB, NBMeet, NFmDB, PDTEH, NDOES.

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	2	1712.8	856.4	4.92	0.011
NBMeet	1	860.7	860.7	4.94	0.031
NDOES	1	896.4	896.4	5.15	0.028
Error	48	8358.9	174.1		
Total	50	10071.7			

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
13.1964	17.01%	13.55%	8.18%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	11.76	9.63	1.22	0.228	
NBMeet	-2.52	1.14	-2.22	0.031	1.00
NDOES	5.23	2.30	2.27	0.028	1.00

Author, 2017

RGR = 11.76 - 2.52 NBMeet + 5.23 NDOES

The regression equation above shows that all other predictors had no explanatory power and were dropped except two variables: Board activity measured by the number of board meetings and other activities (NBMeet) and board type measured by the number of directors owning equity shares (NDOES). The p-values for these two variables show that they influence the revenue growth rate (RGR) at a-level of 0.05. The study therefore rejects the null hypothesis and concludes that board structure significantly affects the performance of financial institutions in Kenya.

All the VIFs are all close to 1, which indicate that the independent variables are not correlated. VIF values greater than 5-10 show that the regression coefficients are predicted poorly because of severe multicollinearity. The predictors explain 17.01 % of the variance in growth in revenue as indicated by R^2 value. The adjusted R^2 is 13.55%, accounting for the number of independent variables in the model. R^2 and adjusted R^2 values both show that the model fits the data reasonably well.

6 Discussion of Findings

The objective of the study was to examine the association among structure of the board and performance of financial institutions in Kenya. This study hypothesized that there is no significant influence of the structure of the board on performance of the institutions. The results led to a rejection of the first hypothesis implying that a statistically significant influence of the structure of the board on performance of financial institutions in Kenya exists. Both the hierarchical regression and GEE results show that board activity and board type are the board structure variables that affect performance of financial institutions in Kenya. The findings further provide evidence that the optimal number of board of directors' meetings and other activities that optimize performance of financial institutions in Kenya is 11 to 15 meetings in per year. Board type 1 where all members own equity shares are shown to have the greatest influence on performance of the institutions. The results indicates that the other board structure variables including size, diversity, CEO duality, and independence do not have a significant effect on financial performance of financial institutions in Kenya. Financial institutions in Kenya should therefore consciously structure the board to optimize performance.

The results confirm previous studies which have been done by other scholars such as Lipton and Lorsch (1992) and Byrne, (1996) who recommended that the more frequently a board meets, the higher the likelihood of performing its duties diligently to protect shareholders interests. This study found out that "the most extensively shared problem directors' have is lack of enough time to carry out their roles and responsibilities". Other researchers who have done studies in this area include: Jensen and Murphy (1990); Johl et.al. (2015); Palia and Lichtenberg (1999) who concluded that board members equity share ownership enhances the performance of the firm. Brickley et al. (1988) argued that employees and board of directors owning stocks are more motivated and keen to run the firm efficiently and to control managers carefully. Studies on board size has also yielded equivocal results with many studies debating, from many perspectives, whether the board is preferred to be of a large size

or small size (Jensen 1993; and Yermack, 1996). While others preferred smaller boards to enhance performance of the firm (e.g., Lipton & Lorsch, 1992; Jensen 1993; Yermack, 1996) several others have provided evidence that larger board sizes are better for improving the performance of the firm (Adam & Mehran, 2003; and Anderson et al., 2004). Other studies in the past have made similar conclusions on CEO duality. The supporters of agency theory argue that CEO duality weakens control mechanism and negatively influences monitoring role of board members. The research by Ujunwa (2012), Heenetigala & Armstrong (2007), Yasser et al. (2011) concluded that CEO duality has a negative impact on the firm performance. The findings provide evidence on the various categories of board type as defined in this study, a variable of board structure that has not been studied and conclude that it significantly affects performance of financial institutions in Kenya.

The study is not consistent with other studies that found mixed and contradicting effects of some of the board structure variables on firm performance. For instance, Bhatt and Bhattacharya (2015) studied various board structure variables such as independence, size, meeting and attendance at other events and CEO duality which are addressed in this study. The study, after controlling for firm-specific factors, provides evidence that larger sizes of the board were positively related to firm performance. The study failed to find any association among the number of board meetings and firm performance. However, attendance of the board members was found to be positively associated with firm performance. Other empirical studies including, Johl et al. (2015), Wah et al. (2015) and Gurasamy (2017) concluded that board size and board financial expertise have a positive influence on the performance of firms. Other studies have also demonstrated that meetings of the board of directors have adverse effects on performance of institutions. The findings also contradict the study by Hussein and Kiwia (2009) who examined the relationship between female board members defined as board diversity in this study and the performance of 250 US firms from 2000 to 2006. Their findings indicated a positive association among performance of institutions and the ratio of female board of directors. They further showed that better performing firms usually are dominated by females on their boards which help in conceding to government pressure, particularly in developed countries.

The results about the significance of the influence of board structure on performance are consistent with the agency theory. This postulates that one of the main purposes of the board of directors and how the board is structured is to provide reassurance to shareholders that managers will achieve results which are in the best interest of the shareholders (Shleifer & Vishny, 1997). This can be achieved through an effectively structured board that ensures the interests of the managers are in line with those of the shareholders and thus leading to improvement in firm performance. The results are also in support of the convergence-of-interests theory, which provides that when directors have no equity shares, they are motivated by selfish interests but they possess no power to circumvent business controls designed to align their decision making for the benefit of the equity holders. As equity share ownership increases, directors automatically and progressively align their interest with the equity holders leading to improved quality decisions that enhance the performance of the firm (Jensen and Meckling, 1976; Beasley, 1996).

The results indicate that various conclusions may be drawn on the association among the structure of the board and performance of institutions depending on the board structure variables used. Prior literature indicates that, there is no agreement as to which structure leads to what performance levels (Johnson, Daily & Ellstrand, 1996). Dalton and Daily (1999) noted that despite several decades of research designed to link the association among board structure and performance, findings have been 'vexing', 'contradictory', 'mixed' and 'inconsistent'.

7 Conclusion

Prior studies have implied corporate governance is critical to organizational success. Board structures have also been linked to performance. However, limited empirical literature exists on the influence of CEO tenure on the association among board structure and firm performance. This study sought to establish this relationship. The study results will arouse deeper academic discourse of the relationship of these concepts; form a basis for strengthening policy as well as managerial practice in financial institutions in Kenya and beyond.

References

[1] Anthony Kyereboah-Coleman & Nicholas Biekpe (2002). *The Relationship between Board Size, Board Composition, CEO Duality and Firm Performance:* Experience from Ghana.

[2] Barako, D.G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Journal compilation, Blackwell Publishing Ltd*, 14, 121-148

[3] Baysinger, B. D & H. Butler (1985). CG and the Board of Directors: Performance Effects of Changes in Board Composition. *Journal of Law, Economics and Organization* 1, 650–657.

[4] Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Lapides, P. D. (2000). Fraudulent Financial Reporting: Consideration of Industry Traits and Corporate Governance Mechanisms. *Accounting Horizons*, 14(4), 441–454.

[5] Becht, M., Bolton, P., & Roell, A. (2005). *Corporate Governance and Control.* European Corporate Governance Institute. ECGI Working Paper Series in Finance No. 02/2002, Updated August 2005.

[6] Bhagat, Sanjai & Bernard Black (2002). The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law* 27, 231-274.

[7] Brickley, J. A., Lease, R. C. and Smith, C. W. (1988) Ownership Structure and Voting on Antitakeover Amendments, *Journal of Financial Economics*, 20, 267–292.

[8] Byrne, J. A. (1996). *The National Association of Corporate Directors' New Guidelines Won't Tolerate Inattentive, Passive, Uninformed Board Members*. Business week. New York.

[9] Cho, M. H. (1998). Ownership structure, investment and the corporate value: An empirical analysis. *Journal of Financial Economics, 47*,103-121.

[10] Chung, K. H., & Pruitt, S. W. (1996). Executive Ownership, Corporate Value and Executive Compensation: A Unifying Framework. *Journal of Banking and Finance*. 20(7), 1135–1159.

[11] Coles, J.L., N.D. Daniel, & L. Naveen (2008). Boards: Does One Size Fit All? *Journal of Financial Economics* 87, 329–356.

[12] Conger, J. A., Finegold, D., & Lawler III, E. E. (1998, January-February). Appraising Boardroom Performance. *Harvard Business Review*, 76(1), 136–148.

[13] Dahya, J. and McConnell, J. J. (2007). Board Composition, Corporate Performance, and the Cadbury Committee Recommendation. *Journal of Financial and Quantitative Analysis*, 42(3), 535-564.

[14] Dalton, D., & Daily, C. (1999). What's wrong with having friends on the board? *Across the Board*, (March), 28-32.

[15] Davis, J., Schoorman, F., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, 22, 20-47.

[16] DeAngelo, H., DeAngelo, L., (1985). Managerial ownership of voting rights: A study of public corporations with dual classes of common stock. *Journal of Financial Economics* 14, 33-69.

[17] Demsetz H., Lehn K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, 93(6), 1155-1177.

[18] Demsetz, H & B, Villalonga (2001): Ownership structure and corporate performance. *Journal of Corporate Finance*, 7, 209- 233.

[19] Ezzamel, M. A. & R. Watson (1993). Organizational Form, Ownership Structure, and Corporate Performance: A Contextual Empirical Analysis of UK Companies. *British Journal of Management* 4(3), 161–176.

[20] Fama, E. F. & M. C. Jensen (1983). Separation of ownership and control. *Journal of Law and Economics*, 26, 301–325.

[21] Gurusamy P. (2017). Board Characteristics, Audit Committee and Ownership Structure Influence on Firm Performance of Manufacturing Firms in India. *International Journal of Business and Economics Research. Vol. 6, No. 4, 2017, pp. 73-87. doi: 10.11648/j.ijber.20170604.16*

[22] Hermalin, B. E. and M. S. Weisbach (2003). Board of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature, *Economic Policy Review, 9* (1): 7-26.

[23] Jackling, B. & Johl, S. (2009). Board Structure and Firm Performance: Evidence from India's Top Companies. *Corporate Governance: An International Review* 17(4), 492–509.

[24] Jensen, M. C & Meckling, W. (1976). Theory of the Firm: Managerial Behaviour, Agency Costs, and Ownership Structure. *Journal of Financial Economics*, 3,305-350.

[25] Jensen, M. C. (1993). The Modern Industrial Revolution, Exit and the Failure of Internal Control Systems. *The Journal of Finance*, 48 (3): 831-880

[26] Jensen, M.C. and Murphy, K. J. (1990). CEO incentives—it's not how much you pay, but how. *Harvard business review, (3)*, 138 -153

[27] Jesover, F. and G. Krikpatrick (2005). The Revised OECD Principles of Corporate Governance and their Relevance to the Non-OECD Countries, *Corporate Governance: An International Review, 13* (2): 127-136.

[28] Johl S.K, Kaur S., and Cooper B.J. (2015). Board Characteristics and Firm Performance: Evidence from Malaysian Public Listed Firms, *Journal of Economics, Business and Management.* Vol. 3, No. 2.

[29] Johnson, J., Daily, C., & Ellstrand, A. (1996). Boards of directors: A review and research agenda. *Journal of Management*, 22, 409-438.

[30] Jones, T., & Goldberg, L. (1982). Governing the large corporation: More arguments for public directors. *Academy of Management Review*, 7, 603-614.

[31] Kamaara, M. W., Gachunga, H. & Waititu, A.G. (2013). The relationship between board of director characteristics and performance of commercial state corporations in Kenya. *International Journal of Innovate Research and Studies,* 2, (11), 124-136.

[32] Klein, A. (1998). Firm Performance and Board Committee Structure. *Journal of Law and Economics, 41*(1), 275-30.

[33] Letting, N. K., Wasike, E. R., Kinuu D., Murgor P., Ongeti, W. J., and Aosa E. (2012). Corporate governance theories and their application to boards of directors: A Critical Review of Literature. *Prime Journal of Business Administration and Management, 2,* (12)782-787.

[34] Levinthal DA., & March JG. (1993).The myopia of learning. *Strategic Management Journal*, Winter Special Issue 14, 95-11.

[35] Lipton, M. & Lorsch, J.W. (1992). A modest proposal for improved corporate governance. *Business Lawyer, 48*(1) 59-77.

[36] Lorsch, J. W., & E. MacIver, (1989). *Pawns or potentates*. Boston, MA: Harvard Business School Press.

[37] M. C & Meckling, W. (1976). Theory of the Firm: Managerial Behaviour, Agency Costs, and Ownership Structure. *Journal of Financial Economics*, 3,305-350.

[38] Miller, D. (1991). Stale in the saddle: CEO tenure and the match between organization and environment. *Management Science* 37(1), 34-52.

[39] Morck, R., Shleifer, A. & Vishny, R.W. (1988). Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics*, 20, 293-315.

[40] Nicholson, G. J. & Kiel, G. C. (2007). Can directors impact performance: A case based test of three theories of corporate governance. *Corporate Governance: An International Review*, 15, 585-608.

[41] Ongeti, W.J. (2014). *Organizational Resources, Corporate Governance and Performance of Kenyan State Corporations.* University of Nairobi, Ph.D. Thesis (Unpublished).

[42] Ongore, V.O., & K"Obonyo, P.O. (2011). Effects of selected CG characteristics on firm performance: Empirical evidence from Kenya. *International Journal of Economics and Financial Issues,* 1 (3), 99-122.

[43] Palia, D., & Lichtenberg, F. (1999). Managerial Ownership and Firm Performance: A Re-examination Using Productivity Measurement. *Journal of Corporate Finance,* 5(4), 323–339.

[44] Parrino, R. (1997). CEO turnover and outside succession: A cross-sectional analysis. *Journal of Financial Economics 46, 165-97.*

[45] Rashid, A. & S. Lodh (2008). *The Influence of Ownership Structures and Board Practices on Corporate Social Disclosures in Bangladesh*, in Uddin, S. and M. Tsamenyi (Eds).
[46] Shleifer, A., & Vishny, R.W. (1997). A survey of corporate governance. *Journal of Finance,* 52(2), 737-783.
[47] Simsek, Z. (2007). CEO tenure and organizational performance: an intervening model. *Strategic Management Journal*, 28(6), 653-662.
[48] Singh, H., & Harianto, F. (1989). Management-Board Relations, Takeover Risk, and the Adoption of Golden Parachutes. Academy of Management Journal, 32(1), 7–24.
[49] Souder D, Simsek Z., & Johnson SG. (2012).The differing effects of agent and founder CEOs on the firm's market expansion. *Strategic Management Journal* 33(1), 23-4
[50] Vafeas, N. (1999). Board Meeting Frequency and Firm Performance. *Journal of Financial Economics,* 53(1), 113–142.
[51] Wallace N. Davidson III, & Wei Rowe (2004). Intertemporal Endogeneity in Board Composition and Financial Performance. *Corporate Ownership & Control* 1, (4).
[52] Weisbach, M. (1988). Outside directors and CEO turnover. *Journal of Financial Economics*, 20, 431-460.
[53] Wintoki, M. B., Linck, J. S. and Netter, J. M. (2012). Endogeneity and the Dynamics of Internal Corporate Governance. *Journal of Financial Economics*, 105(3), 581-606.
[54] Wu S, Levitas E, & Priem RL. (2005). CEO tenure and company invention under differing levels of technological dynamism. *Academy of Management Journal* 48(5), 859-873.
[55] Yermack, D. (1996). Higher Market Valuation of Companies with a Small Board of Directors. *Journal of Financial Economics* 40, 185-211.
[56] Yermack, D. (1996). Higher Market Valuation of Companies with a Small Board of Directors. *Journal of Financial Economics* 40, 185-211.
[57] Zahra, S. A., & Pearce, J. A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15, 291-334.