

The Effect of Board Structure and CEO Tenure on Performance of Financial Institutions in Kenya

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Abstract

The objective of this study was to determine whether a relationship exists among board structure, CEO tenure, and performance of financial institutions in Kenya. The study hypothesized that the influence of board structure on performance is not significant; there is no significant intervening effect of CEO tenure in the association among board structure and performance; and there is no significant joint effect of board structure and CEO tenure on performance. Secondary data was collected for a ten-year period from 2006 to 2015. Hierarchical regression analysis was performed on the variables. The results show that, overall, board structure had independent significant influence on performance of financial institutions. Board activity had a strongest independent influence on performance of financial institutions followed by board type. The findings further show that CEO tenure is not a significant intervening variable in this association; and, that board structure, and CEO tenure jointly have a significant effect on performance. The study has reduced the dearth of literature on board structure and performance and uncovered the importance of CEO tenure on this relationship. Formulation of managerial policy and practice that promote better governance practices that improve performance will be enhanced.

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1. Introduction

Managerial agency conflict emanating from the disintegrating ownership and control has dominated empirical studies without an ultimate solution being found (Jensen & Meckling, 1976). Several solutions have been suggested within the corporate governance mechanism to address this agency problem between the agents, in this case the managers and the owners who are the equity holders. Suggested corporate governance mechanisms include, enhanced bonus schemes, Chief Executive Officers (CEOs) tenure, employee share options, large individual and corporate shareholders monitoring, board size and independence, and firmer rights of shareholders (Demsetz & Lehn, 1985, and Jensen & Murphy, 1990). Empirical literature has found the existence of positive contemporaneous correlation between institutional performance and good corporate governance practices which further necessitate corporate governance reforms. The separation of shareholders and employees leads to uncertainty and risk sharing games between employees and shareholders. The employees in the modern firm are the decision makers, however they do not fully bear the consequences. The shareholders who are the residual claimants will ultimately bear the residual risk. Employees are therefore able to transfer risk or share a smaller part of the risk with the shareholders encouraging the employees to take more risks and or get involved in decisions that are unfavorable to investors (agency costs) as documented by Jensen and Meckling (1976). The agency conflict is clarified regarding asymmetries in pay offs, information liability and horizon and characterized as separation of basic leadership by employees from risk taking by equity and debt holders. This game plan prompts serious governance issues and agency conflict in light of the fact that the employees don't generally carry on to the greatest interest of owners. Along these lines, structures should be set up to direct adverse exercises by opportunistic managers.

The board of directors (BoD) plays a key responsibility as far as corporate governance is concerned through controlling the management, however, this has not been without shortcomings. The "board culture is a key element of board failure" (Jensen, 1993). Corporate scandals further lead to the question of whether firms are being managed in the best interests of stakeholders. The BoD and the executive management have control responsibilities over the firm while the owners may not be able to offer adequate monitoring or accountability, especially in firms with wide dispersion in ownership. This gives rise to agency conflicts which results from separation of ownership and control. Agency conflicts may not be fully resolved effectively through corporate governance structures hence managers may not act to maximize the wealth of equity holders without embracing necessary governance structures targeting large corporations with the aim of protecting equity holders' interests (Jensen & Meckling, 1976).

Recently, there have been a series of corporate scandals including, Imperial Bank, Chase Bank, Dubai Bank, Uchumi, Mumias Sugar, CMC and East Africa Portland in Kenya and Enron, WorldCom and HIH around the World which have led into questions on the ability of the BoD to execute its monitoring role. Various studies have attempted to answer this question, for instance, Geneen (1984) found out that 95% of the board of directors of fortune 500 companies, are not complying with legal, moral and ethical requirements as expected of them. The study argued that the BoD is a puppet of management, and dominated by the CEO. The research further documented that the board is beleaguered with the conflicts of interests. Jesover and Krikpatrick (2005) found out that interests of a controlling shareholder play a key role in the board's decision making. This leads to a fundamental question of monitoring the board: who will monitor the monitors? The board structure thus is likely to be an important driver of the firm performance. Several studies agree that equity holders monitor BoD by exercising their ownership right to electing or dismissing members of BoD. However, equity holders are not necessarily aware of the day to day internal activities of the firm.

The financial sector in Kenya is composed of different institutions comprising commercial banks, regulators, development banks, insurance companies and SACCO's. This leads to differences in the structure of the board and firm characteristics. Kenyan Banks which are critical players in the financial sector have been hiring chief executive officers (CEOs) at the quickest pace in the recent past, ushering in a new crop of corporate leaders in the banking industry that has maintained double-digit growth over a long period of time (Johnson, 2004). Between August 2012 and May 2013 eight banks unveiled new chief executives. These included: Ecobank, KCB, NBK, Barclays Bank, NIC Bank, Imperial Bank and Consolidated Bank. This brings to question whether the CEO tenure has an impact on performance and thus whether the growth will be sustainable in the coming years.

Empirical research on the effect of the structure of the board on institutional performance has been done but with mixed and varied findings. The findings of empirical studies on the effect of board structure on firm performance range from positive (Johl, 2015; Barako et al., 2006; Ongeti, 2014; Chung & Pruitt, 1996; Anthony et al., 2002; Jackling & Johl, 2009; Letting et al., 2012; and Kamaara et al., 2013), to negative (Demetz & Villalonga, 2001; Gurusamy, 2017; and Hermalin and Weisbach, 2003) to mixed (Dalton & Daily, 1999; 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.

In view of the above it can be concluded that empirical studies that have been conceptualized along the influence of either the CEO tenure and or firm characteristics on the effect of board structure on performance in developing countries are rare. Prior research on corporate governance has mainly focused on its best practices in the developed countries (e.g., Dahya and McConnell, 2007; Wintoki et. al. 2012). It is therefore important to note that some institutional factors of newly-industrializing countries are considerably different and therefore this study shifts to a new setting, and examines the impact board structure, and CEO tenure, on firm performance. The study sought to determine the effect of board structure on performance of financial institutions, determine the intervening effect of CEO tenure on this relationship and determine the joint effect of board structure and CEO tenure on the association.

2. Board Structure, CEO Tenure and Performance

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.

Wallace et al. (2004) developed a theory of intertemporal endogeneity of board composition and performance of a firm using data from US mutual funds. Their study was centred on closed-end mutual fund firms and they found minimal support for intertemporal endogeneity. The evidence that performance of a firm is affected by board composition is weak. This is because it is dependent on factors like definitions of performance of a firm, board composition and the statistical model used. They however found significant proof that previous performance of a firm affects board composition with reference to the definition of board structure. The methodology used in the study is causality tests in panel regressions of three years of data from more than one hundred mutual fund firms. Dalton et.al. (1998) analyzed more than one hundred and thirty samples and the results yielded a positive association among profitability of a firm and number of members of the board whereas the study carried out by Yermack (1996) showed proof that boards with fewer members resulted in better performance of a firm. This showed that intertemporal endogeneity applies to various issues in a firm.

Of all empirical evidence that has focused on the board, the association among structure of the board and profitability of a firm has been studied by several scholars (Bhagat & Black, 2002). Close focus has been on CEO duality and board independence (Zahra & Pearce, 1989). Many scholars have concluded that CEO duality is disadvantageous to firms as it is equated to somebody sitting an exam and marking their own paper. Separation of the two roles results in proper monitoring of the board activities; availability of an advisor to the CEO and no interference of members of the board on management (Fama & Jensen, 1983). On the contrary some believe that CEO duality leads to strengthened leadership coupled up with internal effectiveness. The firm will have one voice speaking on its behalf and disagreements between CEO and the chairperson are avoided (Davis, Schoorman & Donaldson, 1997). Stewardship theorists agreed with this conclusion calling it CEO duality and stating that it improved organizational leadership efficacy. Agency theorists however, are in support of separating the CEO and Chairman roles to promote proper checks on management. Various studies have concluded that the association among CEO-chairperson duality and performance of a firm is disputed and ambiguous.

Proposition of outside-inside directors is the other aspect of board structure that has been researched by several scholars. Some scholars are of the opinion that outsiders will consider diversity when making decisions and be more impartial (Jones & Goldberg, 1982). Those of the contrary opinion argue that outsiders lack the necessary prowess and time to discharge their duties properly. Therefore, the conclusions are still quite vague. Lorsch and MacIver (1989); Zahra and Pearce (1989) are in support of boards incorporating a great number of outsiders even Ezzamel and Watson (1993) concluded that outsiders improve the profitability of a firm. Baysinger and Butler (1985) conducted a study on more than 250 firms in the US and concluded that profitability of firms was higher when the board had more outsiders. More scholars have concluded that there is a positive association among profitability of a firm and board independence (Rosenstein and Wyatt, 1990).

In Kenya a study by Ongeti (2014) on organizational resources, governance structures and performance of Kenyan State Corporations, concluded that overall, there is a considerable relationship between organizational resources and profitability. While moderation of either ownership or board structures did not occur, the introduction of these two governance structures independently strengthened the relationship between resources and performance. The study was however limited to State Corporations and the corporate governance variables used were not exhaustive.

Conger et al. (1998) concluded that board efficacy is dependent on board meetings for improvement. Similarly, Vafeas, (1999) viewed the strength of board activity

as a significant value-relevant board attribute. They concluded that the frequency of board meetings and discussion of the different issues raised against the firm, strongly influences the effectiveness of the board. Conscientious boards can improve the level of supervision, resulting in better firm performance. For a board to be diligent, however, board meeting is not the only important aspect; other aspects are rather important; such as readiness prior to meetings, being alert during the meeting, contributing to the discussions and following up to ensure that the matters discussed are acted upon. Despite these assertions the relationship between board activity intensity and profitability of a firm is vague. Yet, many studies asserted that shareholders find importance in the board meetings with emphasis on the frequency of these board meetings. For instance, Zahra and Pearce (1989) speculated that productive meetings are crucial for the board to discharge its duties properly. Similarly, Vafeas (1999) argued that increased board meetings map the intensity of board activity and concluded a significant association among board meetings and profitability of an organization.

Lipton and Lorsch (1992) and Byrne (1996) recommended that the more frequent a board meets, the higher the likelihood of performing its duties diligently to protect equity holders' interests. In this study it was stated that "the common problem for directors is lack of time to perform their roles". Also, Beasley et al. (2000) observed that fraud records increase at firms that have less number of audit committee meetings.

Empirically, many studies indicate that when directors own shares, it increases the profitability of the firm (Chung & Pruitt, 1996; and Palia & Lichtenberg, 1999). Brickley et al. (1988) argued that management and board ownership of shares motivates effective running of the firm and proper checks on managers. However, other researchers have not been obvious in stating the relation between managers owning shares and profitability of a firm. De Angelo and De Angelo (1985) agree with the agency theory stating that if managers own substantial shares in the firm, it will make it difficult to change management and thus result in agency problems. Morck et al. (1988) and Shleifer and Vishny (1997) foresee the possibility of managers taking advantage of the firm for their own benefit. Becht et al., (2005) concluded that allowing CEOs to own shares will cause them to use their position to benefit financially at the expense of other equity holders. Other researchers have argued that share ownership by management is endogenic (Cho, 1998).

Research on the size of the board has also produced equivocal results with most studies debating, from several viewpoints, whether the board is desired to be of a large size or small size (Jensen 1993) Some scholars are in support of boards comprised of few individuals arguing that it increases profitability of a firm (e.g., Lipton & Lorsch, 1992; Yermack, 1996) however, others support the notion that big boards are more ideal for increasing profitability of a firm (Coles et al., 2008). For example; Lipton and Lorsch (1992) argued for smaller boards claiming that they would help the firm to avoid social loafing and free-riding. Jensen (1993)

added that smaller boards usually ease co-ordination, cohesiveness and communication. On the contrary, larger boards were deemed efficient because they result in proper monitoring of the management activities and availability of an advisor to the CEO (Coles et al., 2008). Klein (1998) argued that increased complexity of an organization increases the CEO's need for advice. Furthermore, the agency theory supports larger boards for their monitoring effectiveness that is developed by limiting the CEO's hold on the board and shielding shareholders from exploitation (Singh & Harianto, 1989).

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.

Very early in their term, CEOs are more open to learning; this builds their prowess as they learn to take risks. Their skills develop quite fast and this translates to increased profitability of the firm (Wu, Levitas, & Priem, 2005). Later on as their tenure progresses, they become risk averse and stick to outdated decisions as they play safe. This negatively affects the profitability of the organization (Miller, 1991; Levinthal & March, 1993). The relationship between the CEO's term and profitability of the firm can be illustrated as an 'inverted U'. Current research has shown that the effect of CEO tenure on the profitability of the organization is much more than direct impact (Simsek, 2007; Souder, Simsek, & Johnson, 2012). Studies indicate that imposing CEO term period and forced exit has a negative impact on the profitability of the organization (Parrino (1997)). The effectiveness of boards of directors in controlling CEOs, however, remains controversial. Weisbach (1988), for example, established that only 7.1% of organizations in the bottom ten percentile in terms of earnings had changed their CEOs in a span of 2 years. Various researchers indicate that a weakness in management is the reason for existence of a weak relationship between CEO turnover and profitability. Especially when it becomes difficult to change the CEO (e.g., Morck, Shleifer & Vishny (1988)). Low CEO turnover can also be attributed to the fact that it takes a while before the board can fully understand the skills and abilities of the CEO which are affected by board structure.

The research was carried out within the confines of the agency and stewardship theories. Empirical evidence points towards the fact that equity share ownership by board members brings about independent advice ignored by the stewardship theory (Nicholson and Kiel, 2007). Likewise, consistent with the agency theory, this research puts forth an argument that not owning equity shares negatively impacts the performance of institutions. This diminishes the monitoring role of the board members due to lack of self-interest, and this consequently may lead to a negative impact on performance of the institutions.

The conceptual model has integrated the theories of agency, entrenchment and convergence of interests to present a conceptualised interaction among board structure (independent variables), and performance (dependent variables). The model further Conceptualizes CEO tenure as intervening in the relationship. This position is depicted in hypothesis two in the diagram. Finally, the model tests the joint effect of the three variables on performance in hypothesis three.

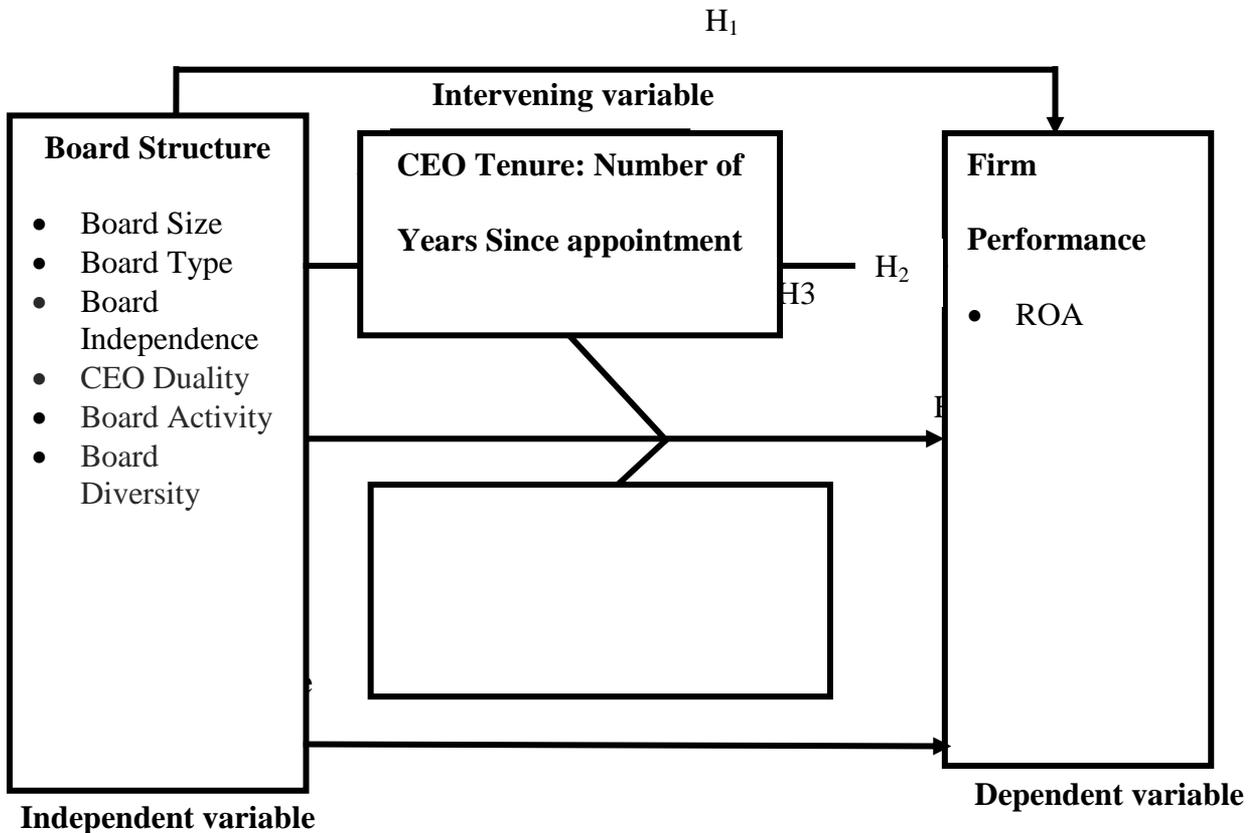


Figure 1: Conceptual Model

From the above conceptual model, the following three hypotheses were formulated and tested:

H₀₁: There is no significant effect of board structure on performance of financial institutions in Kenya.

H₀₂: There is no significant intervention effect of CEO tenure in the relationship between board structure and performance of financial institutions in Kenya.

H₀₃: There is no significant joint effect of board structure, CEO tenure and firm characteristics on performance of financial institutions in Kenya.

3. Methodology

Using data from a developing country, Kenya, a correlational research design was developed. 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>). The study followed the simple stratified random sampling in obtaining viable set of data sets and sampled 98 firms from all the categories.

The study used ROA to measure performance. Consistent with Rashid and Lodh (2008), the research computed ROA using EBIT scaled by the book value of total assets. It 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). 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 by Gurasamy (2017). The CEO duality is when the chairperson occupies the CEO position too. In line with several studies, 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 the 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. Board activity was measured by the number of meetings, board diversity as the ratio of female board members and board type by board members equity ownership.

Descriptive statistics including measures of central tendency were calculated. Moderated and stepwise regression models and correlation analysis were adopted to investigate the association among board structure, and performance. Some variables were denoted in logarithm form since they are measured in millions while others were denoted as rates where the values were also high and the rest as absolute numbers. The usage of logarithm was to enhance standardization of values in the model.

The model tested the hypothesis together with the sub hypotheses as follows;

$$ROA_{i,t} = \alpha + \beta_1 BS_{i,t} + \beta_2 BC_{i,t} + \beta_3 CEOD_{i,t} + \beta_4 BA_{i,t} + \beta_5 BD_{i,t} + \beta_6 BT_{i,t} + \epsilon_{i,t} \quad (1.1)$$

$$ROA_{i,t} = \alpha + \beta_1 BS_{i,t} + \beta_2 BC_{i,t} + \beta_3 CEOD_{i,t} + \beta_4 BA_{i,t} + \beta_5 BD_{i,t} + \beta_6 BT_{i,t} + \beta_7 CEOT_{i,t} + \epsilon_{i,t} \quad (1.2)$$

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. CEOT is Chief Executive Officer Tenure; α denotes the intercept, β denotes the regression coefficient and ε denotes the error term.

4. Results

The regression was done through a panel process; A number of alternatives of panel data hierarchical regressions were run, fixed and random effects, ordinary least squares commonly called OLS, generalized least squares (GLS) and a dynamic panel. Hierarchical multiple linear regression (HMLR) model was employed in assessing the nature of the relationship between various variables as hypothesised in the study at 5% level of statistical significance. Reliability tests on the regression models were then computed to determine the strength of the relationship among the variables. These tests included multicollinearity tests, adjusted coefficient of determination (adjusted R), F-tests and t tests. The data used in running the regression was the averages for all the 10 years per company.

Table 1: 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	0.014
NBM	1	3.055	3.0551	0.25	0.019
NIDOB	1	1.589	1.5892	0.13	0.020
NBMeet	1	14.541	14.5407	1.19	0.081
NFmDB	1	0.464	0.4638	0.04	0.046
PDTEH	1	16.320	16.3204	1.34	0.054
NDOES	1	0.049	0.0490	0.00	0.050
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	0.003	
NBM	0.227	0.454	0.50	0.019	7.83
NIDOB	0.181	0.502	0.36	0.020	5.64
NBMeet	-0.349	0.319	-1.09	0.081	1.13
NFmDB	-0.105	0.538	-0.20	0.046	1.52

PDTEH	-0.0296	0.0256	-1.16	0.054	1.07
NDOES	0.021	0.338	0.06	0.050	3.14

Regression Equation

$$\text{ROA} = 5.84 + 0.227 \text{NBM} + 0.181 \text{NIDOB} - 0.349 \text{NBMeet} - 0.105 \text{NFmDB} - 0.0296 \text{PDTEH} + 0.021 \text{NDOES} - 0.295 \text{NYSCEO}$$

From the hierarchical regression results in Table 1 above, regression models were generated. The computed p-value of the regression findings as shown in the analysis of variance table (0.014) indicates that the model as produced through the regression methodology is statistically significant at α -level of 0.05 which demonstrates all the coefficients are different from zero. The calculated p-values of all estimated coefficients are smaller than 0.05 which shows that they are 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. It can be concluded that there is a significant influence of structure of the board on performance of financial institutions in Kenya when using ROA as the performance indicator.

The second objective of the research was to examine the intervening effect of CEOs tenure on the relationship between board structure and performance of financial institutions in Kenya. The influence of CEO tenure was studied based on the number of years since the CEO appointment. These were further assessed against the indicators of board structure variables: size, type, activity, diversity, composition and CEO duality and indicators of firm performance being return on assets and revenue growth rate. In testing for the impact on variables, various regression procedures were performed to determine whether the joint effects were adequate to support the hypotheses.

Several steps were used in carrying out the multiple regressions with the first step involving regressing ROA as dependent variable against board structure variables as the predictor including size, composition, activity, board diversity and board type; and CEO tenure as an intervening variable. The study failed to reject the null hypothesis thus indicating that CEO tenure does not significantly intervene in the association among board structure and performance of financial institutions in Kenya. The results of these regressions are reported in table 2 and table 3 below:

Table 2: Regression Analysis: ROA versus NBM, NIDOB, NBMeet, NFmDB, NYSCEOA, and BoType

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	6	80.598	13.4330	1.16	0.344
NBM	1	9.269	9.2694	0.80	0.376
NIDOB	1	0.011	0.0114	0.00	0.975
NBMeet	1	1.327	1.3273	0.11	0.737
NFmDB	1	0.426	0.4262	0.04	0.849
NYSCEOA	1	3.777	3.7772	0.33	0.571
BoType	1	15.600	15.6002	1.34	0.252
Error	48	556.801			
Total	54	637.399			

Model Summary

S	R-sq.	R-sq.(adj)	R-sq.(pred)
3.40588	12.64%	1.73%	0.00%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	1.95	2.93	0.67	0.509	
NBM	0.245	0.274	0.89	0.376	3.20
NIDOB	-0.010	0.332	-0.03	0.975	3.35
NBMeet	-0.063	0.185	-0.34	0.737	2.70
NFmDB	-0.098	0.511	-0.19	0.849	1.54
NYSCEOA	-0.356	0.624	-0.57	0.571	1.17
BoType	2.51	2.16	1.16	0.252	2.76

Regression Equation

When BoType = 0

$$\text{ROA} = 1.95 + 0.245 \text{ NBM} - 0.010 \text{ NIDOB} - 0.063 \text{ NBMeet} - 0.098 \text{ NFmDB} - 0.356 \text{ NYSCEOA}$$

When BoType = 1

$$\text{ROA} = 4.46 + 0.245 \text{ NBM} - 0.010 \text{ NIDOB} - 0.063 \text{ NBMeet} - 0.098 \text{ NFmDB} - 0.356 \text{ NYSCEOA}$$

From the hierarchical regression results in Table 2 above, regression models were generated. The p-value for the regression equation in the analysis of variance table (0.344) indicates that the model predicted by the regression technique is not significant at α -level of 0.05. The P-Value is greater than the α -level of 0.05. Therefore the study failed to reject the hypothesis as formulated and concludes that the variables NBM, NIDOB, NBMeet, NFmDB, NYSCEOA, BoType does not significantly affect the ROA of financial institutions in Kenya. This leads to the conclusion that CEO tenure does not significantly intervene in the relationship among structure of the board and performance of the firm. The p-values for all estimated coefficients are greater than 0.05, showing that they are not significantly

related to ROA at a-level of 0.05. However, the NIDOB has the highest p value indicating that it has the least explanatory power, followed by NFmDB, NBMeet, NYSCEOA, NBM and the BoType. Since the model is not a good predictor of ROA, it cannot be used subject to the other goodness of fit tests discussed below. The R^2 value shows that the independent variables account for 12.64% of the variance in ROA. The adjusted R^2 of 1.73%, indicates the number of independent variables in the model. Both values reveal that the model does not fit the data well. The adjusted coefficient of determination (\bar{R}^2), indicates the amount of variation in the dependent variable as accounted for by all the independent variables taken together, is 0.00% indicating that the model was statistically not significant and therefore not subject to tests of slope. VIF values of less than 5 shows that the regression coefficients are not poorly predicted as a result of severe multicollinearity. In general, there is no significant influence of CEO tenure on the association among structure of the board and performance (ROA) of financial institutions in Kenya resulting in the failure to reject hypothesis two (H_{02}).

The third objective of this research was to examine the joint association among board structure, CEO tenure and performance of financial institutions in Kenya. The influence of CEO tenure was evaluated based on the number of years since the CEO appointment. These were assessed against the indicators of board structure being size, type, activity, diversity, composition and CEO duality and indicators of firm performance being return on assets and revenue growth rate. In testing the influence on dimensions, various regressions were conducted to determine if the joint effects were adequate to support the hypotheses.

Multiple regression analysis was performed to assess the association between performance (dependent variable), CEO tenure (intervening variable) and board structure (independent variable). Table 3 below shows that the model was statistically significant ($p\text{-value} < .05$). The multiple regression model produced $\bar{R}^2 = 20.09\%$, $F=3.02$, $p < .05$. The study therefore rejects the null hypothesis and concludes that the joint influence of the structure of the board and CEO tenure on performance of financial institutions is significant. The results of the tests are presented in table 3 below.

Table 3: Regression Analysis: ROA versus NBMeet, NYSCEOA, TAssets (log), NBMeet* NYSCE.

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	6	156.843	26.140	3.02	0.011
NBMeet	1	50.772	50.772	5.86	0.018
NYSCEOA	1	18.739	18.739	2.16	0.146
TAssets (log)	1	47.242	47.242	5.45	0.022
NBMeet* NYSCEOA	1	1.601	1.601	0.18	0.669
NBM*TAssets (log)	1	62.443	62.443	7.21	0.009
TAssets (log)* NYSCEOA	1	17.238	17.238	1.99	0.163
Error	72	623.963	8.666		
Total	78	780.806			

Model Summary

S	R-sq.	R-sq.(adj)	R-sq.(pred)
2.94383	20.09%	13.43%	0.00%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	63.9	25.2	2.54	0.013	
NBMeet	-3.03	1.25	-2.42	0.018	530.70
NYSCEOA	-9.45	6.43	-1.47	0.146	196.49
TAssets (log)	-5.60	2.40	-2.33	0.022	40.33
NBMeet*NYSCEOA	0.116	0.270	0.43	0.669	139.19
NBM*TAssets (log)	0.2628	0.0979	2.68	0.009	269.92
TAssets (log)*NYSCEOA	0.854	0.605	1.41	0.163	248.18

Regression Equation

$$\text{ROA} = 63.9 - 3.03 \text{ NBMeet} - 9.45 \text{ NYSCEOA} - 5.60 \text{ TAssets (log)} + 0.116 \text{ NBMeet* NYSCEOA} + 0.2628 \text{ NBM*TAssets (log)} + 0.854 \text{ TAssets (log)*NYSCEOA}$$

From the regression results in table 3 above, regression equations were generated, one for each level of the categorical predictor and combination variables firm size (Log of total assets) and CEO tenure. The p-value for the regression equation (0.011) indicates that the equation predicted through the regression technique is significant at α -level of 0.05. This indicates that the relationship between ROA and board structure variables, considering the intervening effect of CEO tenure and moderating effect of firm characteristics is significant, and that is at least one variable predict ROA. Therefore, the study rejects the hypothesis as formulated and comes to the conclusion that there is a significant joint effect of board structure, CEO tenure and firm characteristics on performance of financial institutions in Kenya. The results indicate that the predictor variables of NBMeet,

TAssets (log) and NBM*TAssets (log) are significant based on the fact that all their p-values are less than 0.05 level of significant.

The R^2 value indicates that regression equation accounts for 20.09% of the variance in the strength, proving that the model fits the data well. R^2 (pred) is 13.43%. The VIFs are very high. VIF values less than 5 show that the regression coefficients are not poorly predicted as a result of severe multicollinearity. The study rejects the hypothesis as formulated.

7. Conclusion

Hypothesis one (H_{01}) hypothesized that there is no significant effect of board structure on performance of financial institutions in Kenya. Results of hierarchical multiple regression provide evidence that there is a significant influence of board structure on performance of financial institutions in Kenya. Board activity and board type are identified as the two board structure variables that have a statistically significant influence on performance of financial institutions in Kenya. The results further show that the optimal number of board of directors' meetings and other activities that optimize performance of financial institutions in Kenya is the 11 to 15 meetings in a year. Board type is also found to have a significant effect on performance of financial institutions in Kenya with board type 1 whose all members own equity shares being shown to have the greatest impact on performance of financial institutions in Kenya. The results indicate that the other board structure variables including board size, board diversity, CEO duality, and board composition do not have a significant effect on financial performance of financial institutions in Kenya.

Hypothesis two (H_{02}) examined the intervening influence of CEO tenure on the association among board structure and firm performance. Hypothesis two is not rejected implying that there is no significant intervening effect of CEO tenure in the relationship between board structure and performance of financial institutions in Kenya. Hypothesis three (H_{03}) assessed the joint effects of board structure, and CEO tenure on performance of financial institutions in Kenya. The findings of this study show the overall model is statistically significant, implying that board structure and CEO tenure jointly have a significant effect on performance of financial institutions in Kenya.

Several future research possibilities based on the findings of this study exists. Board structure variables studied included size, CEO duality, activity, type, diversity and composition. However, no evidence has been found that board process, board busyness and expertise among others have been widely used as a variable. A research gap exists as to how these variables may impact financial performance. The question remains as to the casual relationship between these

variables. Researchers could therefore consider introducing other variables in similar studies such as the external environment, firm characteristics, strategy among other variables and establish their influence on performance. Researchers could equally consider using other statistical tools to analyze data such as structural equation modeling, Tobin Q or factor analysis. A blend between quantitative and qualitative approach would also provide a rich insight into the relationship among board structure, CEO tenure, and firm performance. Future studies could also want to investigate the reasons for positive and negative influence of interaction term when combined with other variables. Also future research needs to look at non- financial performance measures.

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