

# **Board Composition and Financial Distress of Listed Firms in Kenya. An Empirical Analysis**

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## **Abstract**

The purpose of this paper was to examine the relationship between board composition and financial distress of listed firms in Kenya. The study specifically sought to determine the effect of board size, board independence, board tenure, multiple directorship and financial expertise on financial distress. The research design used in this study was exploratory design. The study employed panel regression analysis and simultaneously used pooled regression and random effects on sample size of 39 listed firms in Kenya during the period of 2004-2013. The study found that board independence is negatively and significantly related with financial distress ( $\beta=-0.044$ ;  $p<0.05$ ) while board tenure was found to be positively and significantly related to financial distress ( $\beta=0.059$ ;  $p<0.01$ ). This study adds value to theory by not only studying board attributes but by empirically analyzing the extent of relationship between board composition and financial distress. The paper fills an important gap in academic literature by providing insights into the role of board composition in financial distress particularly in developing economies. This study complements other studies focusing in China and Middle East. In addition given the increasing collapsing of companies in developing nations, this paper provides policy makers with evidence on the implications of board composition on financial distress.

**JEL classification numbers:** G2, G3

**Keywords:** Board Composition, Financial distress, board size, board tenure, multiple directorships, financial expertise

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## 1 Introduction

Research on financial distress has attracted a lot of attention in academic literature (Cruz *et al.*, 2014). Financial distress is defined as the inability of a firm to meet its financial obligations as and when they fall due (Grice and Dugan, 2001; Davydenko, 2005; Mumford, 2003). Other researchers view financial distress as a condition when the firm is faced with negative cumulative earnings for at least a few consecutive years (Gilbert, 1990). Indeed there is consensus that a firm is deemed to be in financial distress when it is unable to meet its financial obligations.

An analysis of many corporate failures indicates that the causes of corporate financial distress are financial factors such as leverage (Amoa-Gyarteng, 2014), profitability (Zulkarnain and Hasbullah 2009) and assets turnover (Zulkarnain and Hasbullah, 2009). Furthermore, non-financial factors such as lack of consistent policies (Milton, 2002), control procedures, guidelines and mechanisms (Jimming and Weiwei, 2011) also play an important role in financial distress.

Studies have also indicated that most of the causes of financial distress are dependent on the quality of the decision makers who are the board of directors (Argenti, 1986; Daily and Dalton, 1994; Cheng *et al.*, 2009). The board is the internal corporate governance mechanism that aligns the shareholders' interests with those of the management (Norwahida *et al.*, 2012; Fama and Jensen, 1983). Jensen (1993) argues that the board of directors is crucial for an effective internal control system. Jensen further contends that the problems associated with corporate internal control systems start with the board of directors. Thus, the board is a corporate governance mechanism that is conceived as a device to mitigate managerial self interest and enable the firm to optimally create wealth for shareholders and reduce financial distress (Platt and Platt, 2012).

The composition of the board and its role has been studied by scholars and practitioners in the recent times (Kosmidis and Stavropoulos, 2014). According to Kosmidis and Stavropoulos (2014) the recent collapse of multi-national firms were as a result of failure of the board to detect questionable practices which management engaged in. Mohd-Mohid *et al.*, (2004) argue that the failure of big companies to continue their business is often associated with weak controlling and monitoring mechanism over the strategic decision making process of the board of directors. Salloum and Azour (2012) are of the opinion that poor governance and agency problems are among the reasons for financial distress that is spread among several companies in different industries and countries across the globe. The failure of the world international companies has therefore resulted in search for ways to eliminate these failures and as a result the concept of corporate governance has arisen.

According to La Porta *et al.*, (2000) weak corporate governance increases the probability of opportunistic behavior of management to act for their interest thus increasing the likelihood of financial distress. Argenti (1986) argue that corporate failures are associated directly with CEOs, boards of directors and top

management members. In addition agency theorists opine that poor corporate governance is as a result of management acting in self interest manner at expense of shareholders. The actions of management to safe guard their interest may lead a firm to end in financial distress. Board composition that aligns managements' interest and shareholders goals has been linked with CEO entrenchment (Argenti, 1986).

### **1.1 The Kenyan Context**

Trading in shares in Kenya started growing in 1954 when the Nairobi Stock Exchange (NSE) was constituted as a voluntary organization of stockbrokers (Ngugi, 2003). The introduction of NSE saw the enactment of rules and regulations governing stock trading, along with initiatives to promote the capital market, such as the Capital Issue Committee (CIC) and Capital Market Authority (CMA). Capital Market Authority was established in 1990 through the Capital Market Authority Act (Cap 485A) in order to regulate stock market activities (Kemboi and Tarus, 2012). The CMA had a mandate to regulate corporate governance mechanisms of the firms listed on the stock exchange.

In this regard, the authority initiated a number of measures to address issues of corporate governance: for instance, it facilitated the enactment of the corporate governance code, in the form of a Sample Code of Best Practice of Corporate Governance in Kenya 2002, in order to strengthen governance mechanisms among Kenya's listed firms (Tarus and Aime, 2014). Among the corporate governance structures suggested, was the composition of the board (The Capital Market Act, Cap. 485A, 2002).

The corporate governance guidelines and regulations for intermediaries provided by (CMA) recommends that one third of board members should be independent and the board should have at least eight board members. In addition, the board should have a balance of skills, experience and background and outside directorship held by board members should not exceed five.

Despite of extensive regulatory reforms undertaken to improve corporate governance mechanism, Kenya is characterized by a weak legal and regulatory framework (Tarus, 2011; Gakeri, 2013) just like any other emerging economy. For instance, in the past few years there have been a number of corporate failures occasioned by financial distress among listed firms. This phenomenon of financial difficulties in Kenyan public companies has been witnessed by the increase delisting of companies. Notable cases of corporate failure include Kenya Bulk medical limited, A Baumann, Kenya Corporative Creameries, Uchumi Supermarkets, CMC Kenya Ltd. among others (Ngugi *et al.*, 2009). Besides, the restructuring and mergers of firms indicate the financial difficulties the Kenyan companies are experiencing which has led some firms to retrench employees (Ngugi *et al.*, 2009).

Studies have indicated that the main reason attributed to corporate failures in emerging economies is the inefficiency of boards of directors (Waweru, 2014). Although CMA has enacted and implemented the corporate governance guidelines, there remains a need to determine whether board composition and a corporate governance mechanism enhance effective decision making in emerging economies such as Kenya, particularly with regard to financial distress.

The inspiration for studying corporate governance in an emerging country such as Kenya arises due to the increasing use of corporate governance guidelines and the absence of empirical studies linking corporate governance to financial distress. This study therefore sought to highlight the existing relationship between board composition and financial distress and shed light on the moderating role of CEO entrenchment in Kenya.

## **1.2 Theory and Hypotheses Development**

Agency theory is founded on the assumption that managers are opportunistic and that they pursue selfish interests to the detriment of shareholders (Jensen and Meckling, 1976). This divergence of interests precipitates conflicts between shareholders and management, which results in agency cost. One of the major costs incurred by shareholders is the need to monitor management through the introduction of a layer of scrutiny in the form of a board of directors (Fama, 1980; Fama and Jensen, 1983). The board of directors is charged with the responsibility of monitoring the decisions and actions of management, thereby reducing opportunistic behavior. According to Jensen and Meckling (1976) the shareholders are assured that the managers will make optimal decisions only if appropriate incentives are given and only if the agent is monitored.

While Agency theory assumes that principals and agents have divergent interests and that agents are essentially self-serving and self-centered, stewardship theory takes an opposite perspective. It suggests that agents are essentially trustworthy and good stewards of the resources entrusted to them (Donaldson and Davies, 1991). Stewardship theory defines situations in which managers are not motivated by individual goals rather are stewards whose motives are aligned with the objectives of their principals (Davies *et al.*, 1997). Organisational role-holders are conceived as being motivated by a need to achieve, to gain intrinsic satisfaction through successfully performing inherently challenging work, to exercise responsibility and authority, and thereby to gain recognition from peers and bosses (Davies *et al.*, 1997).

The stewardship perspective views directors and managers as stewards of the firm and as stewards, directors are likely to maximize the shareholders' wealth. Stewards derive a greater utility from satisfying organisational goals than through self-serving behavior (Davies *et al.*, 1997). The steward realizes the tradeoff between personal interests and organizational objectives and believes that by working toward organizational, collective ends, personal needs are met (Davies *et al.*, 1997). According to Davis and Donaldson (1991) the attainment of

organisational success also satisfies the personal needs of the stewards. Stewardship theory therefore suggests that managers should be given autonomy based on trust, which minimizes the cost of monitoring and controlling.

Boards of directors have different characteristics, which all contribute to firms' corporate governance mechanisms, although some characteristics provide more controlling mechanisms than others. In this study, we examine some of the variable facets of board composition that are commonly discussed in the literature, such as board independence, board size, board tenure, multiple directorships and financial expertise of directors.

## **2.1 Board Size**

Board size is defined as the total number of directors on the board in a particular year (Maeri *et al.*, 2014). According to Jackling and Johl (2009) board size is an important determinant of corporate governance effectiveness. In addition resource dependency theory views board size as a proxy to measure the diversity of the knowledge pool and the availability of resources provided by the board.

A larger board is expected to have a wider range of skills, knowledge and expertise which in turn may contribute to both its monitoring and servicing roles (Corbetta and Salvato, 2004). Moreover, a large board may counter the influence of the CEO (Maere *et al.*, 2014). As per agency theory the main argument in favor of a larger board of directors is that the increase in the number of members raises their disciplinary control over the CEO (Brédart, 2014). Additionally, large board size implies more external links (Goodstein *et al.*, 1994) and a diversification of the expertise (Zahra and Pearce II, 1989). Extending the resource dependence perspective to the context of bankruptcy Gales and Kesner (1994) argue that the more directors serve the board, the better connected the firm is to critical resources. These connections may protect the organization from adversity hence reduce chances of financial distress (Zahra and Pearce II, 1989).

However, not all researches support large board as an asset. According to Jensen (1993) larger boards are inefficiently incapable of monitoring top management and it may result to causes of financial distress. Eisenberg *et al.*, (1998) found that financial distress is negatively associated to large boards. Salloum and Azoury (2010) agree that financial distress status highly depends on board size that is larger boards could lead to financial distress by impeding coordination. By impeding coordination, boards are prevented from participating in strategic decision making and in turn lowering both the monitoring and service roles (Raheja, 2005; Harris and Raviv, 2008). More often than not, members of large boards get divided into sub-groups who are at loggerheads with each other therefore doing more harm than good to the company (Cadbury, 2002). Therefore, we propose that

*Hypothesis 1: Board size is not significantly related to financial distress*

## 2.2 Independent Directors

Independent director is a member of the board who has no affiliation with the firm other than the affiliation derived from being on the firm's board of directors (Beasley, 1996). The Kenyan Capital Market Authority Act, Cap. 485A defines an independent director as a director who has not been employed by the company in the last five years, who is not related to a senior member of management, who has no contract with the company, and who is not a member of the immediate family of senior managers. Thus, a director is deemed independent if he/she is independent of management and free from any business or other relationships that could interfere with the exercise of independent judgment.

Independent directors provide a unique monitoring function Jensen and Meckling (1976) and Fama (1980) due to external markets that reward and punish non executive directors. Hence, independent directors are likely to be diligent in constraining practices that deteriorate financial statement quality or violate securities laws. Byrd *et al.*, (2001) states that companies' rescue from financial crisis depends on the independent directors' role in the board. It therefore indicates that financial distress could be due to insider dominated board (Pfeffer, 1972). According to Weisbach (1988) independent directors are in a better position to monitor the actions of the CEO.

Several empirical studies argue that a high number of independent directors can produce better performance (Daily and Dalton, 1994). Weisbach (1988) argues that as a result of their position in the firm and the existence of possible inherent contracts with the CEO, internal directors would not be as fair as independent ones. Daily and Dalton (1994) argue that a dependent board of directors would exacerbate the rigidity of the company and limit the organization's adaptive abilities, and thus, its ability to respond to crises. Uzun *et al.*, (2004) argues that companies with more independent directors are less probable to malfunction and the financial crisis would be less likely to occur. Darrat *et al.*, (2010) also found that those companies with high representation of independent directors on their boards are more likely to remain solvent. According to Chen *et al.*, (2006) when independent directors are more, frauds are less and so financial distress would be less probable.

However, Harris and Raviv (2008) differ in opinion by arguing that in reality companies would prefer insider-controlled board of directors. The reason is explained in the information importance, that is available to insiders rather than to outsiders. If the cost of losing information is higher than the agency costs associated with inside control, the insider-controlled board is preferable (Harris and Raviv, 2008). This view is supported by stewardship theory Donaldson and Davis (1991) that superior financial conditions will be linked to a majority of inside directors. Thus, we hypothesize that

*Hypothesis 2; Higher representation of independent directors is not significantly related to financial distress*

### 2.3 Board Tenure

Board tenure is the average number of years the firm's directors have served on the board (Hambrick and D'Aveni, 1992; Finkelstein and Hambrick, 1990). Board tenure reflects the possibility that board members' control over the monitoring of executives will increase as the average tenure period increases.

Directors with longer tenure would logically accumulate more firm-specific knowledge while sitting on the board (Johnson *et al.*, 2013; Hillman and Dalziel, 2003; Forbes and Milliken, 1999). According to Forbes and Milliken (1999) firm-specific knowledge is a form of tacit knowledge about the firm which allows board members to deal effectively with strategic issues and improving board's ability to provide resources to the firm. Hillman and Dalziel (2003) pointed out that board capital, including firm-specific knowledge and experience, is also useful for enhancing the board's ability to monitor management, given its deeper insight into management behavior and the firm's situation. In sum, director tenure should be able to enhance a board's ability both to monitor and provide resources to the firm, and by so doing, reduce its risk of financial distress.

Maere *et al.*, (2014) in their recent study found a negative association between director tenure and financial distress. Thus, they concluded that firms ending in financial distress are likely to have boards with shorter tenures compared to those in with longer tenure. In addition the expertise hypothesis is used to argue that longer tenure is associated with improved director performance, because directors develop more expertise over time and become more willing to criticize the management (Bebchuk *et al.*, 2002).

However, other studies argue that long tenure is associated with allegiance to management allegiance hypothesis. Bryd *et al.*, (2010) that suggests that long tenure directors develop an allegiance towards management. Striking a similar note, Vafeas (2003) proposes a management friendliness hypothesis, which suggests that directors with long term tenure are more likely to befriend and less likely to monitor their managers. Schnake *et al.*, (2006) argues that in addition to becoming too management-friendly, other disadvantages may accompany long board tenure. Long board tenure may limit cognitive conflict among board members, and may restrict the number of views and opinions that are openly discussed and debated by the board. As a result, long-tenured board members may be slow to detect and react to certain legal violations committed within the firm. Hence, we postulate that

*Hypothesis; Board tenure is not significantly related with financial distress*

### 2.4 Multiple Directorships

Multiple directorships refer to the number of directorship appointments in different companies held by members of the board (Maere *et al.*, 2014). Recent studies by Maere *et al.*, (2014) argue that overburdened or "busy" directors are

less likely to give proper time and attention to gathering and analyzing important information about the firm, thus hampering their ability to provide strategic advice or other service roles to the firm.

Fich and Shivdasani (2006) found that in listed firms, 'busier boards' are significantly associated with financial distress. Beasley (1996) reported that the probability of committing accounting fraud is positively related to the average number of directorships held by non executive directors. Core *et al.*, (1999) also argue that busy directors set excessively high levels of CEO compensation suggesting that such directors provide an inadequate check on management which in turn leads to financial distress.

Contrasting arguments in the literature suggest that by having more outside directorships, board members can better serve the firm by expanding the firm's network with outside groups (George *et al.*, 2001). Carpenter and Westphal (2001) suggest that a director's network of appointments directly affects his or her ability to provide monitoring, advice, and counsel to the board. According to Hillman *et al.*, (2000) and Nicholson and Kiel (2007) argue that linkages can provide the firm with external resources and might also reduce outside threats and uncertainty, which may be especially important for firms in distress.

Multiple directorships have therefore been linked with the resource dependency theory as there appears to be a theoretical argument that a board with a high level of engagement with the external environment provides access to various resources that improve firm performance. Thus, we propose that

*Hypothesis 4; Multiple directorship of directors is not significantly related with financial distress*

## **2.5 Financial Expertise**

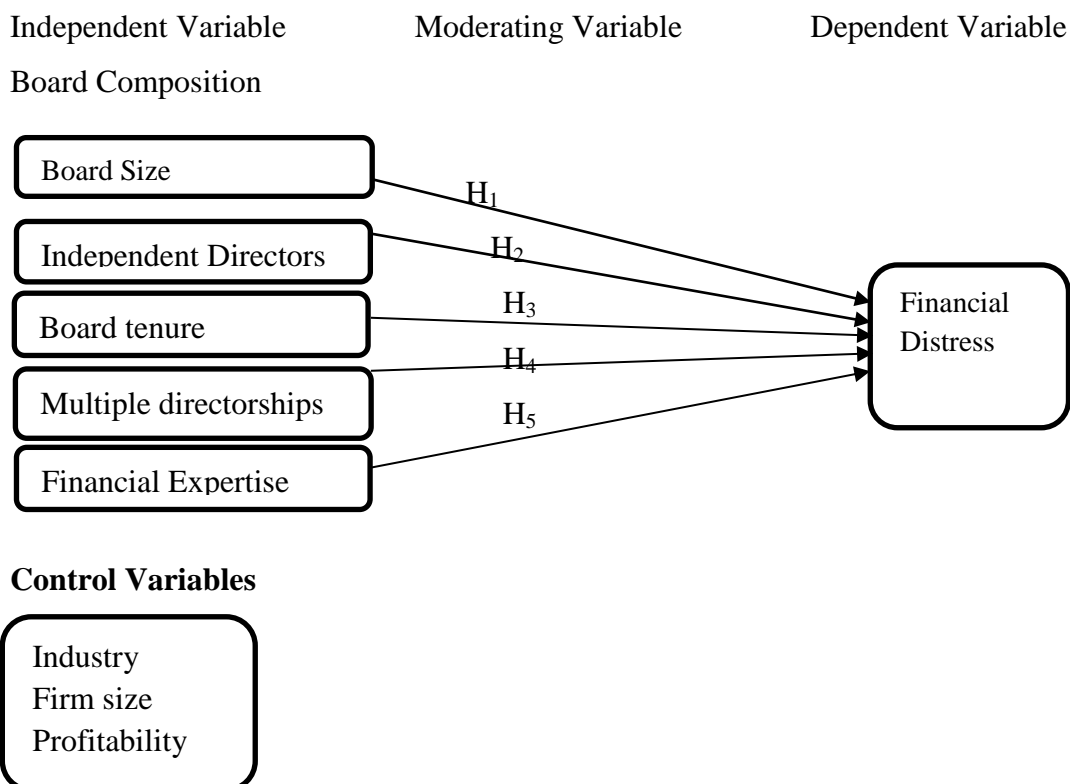
A director is considered a financial expert if he/she possess the knowledge and experience in finance related areas (Iskandar *et al.*, 2013; Guner *et al.*, 2008). The recent wave of financial scandals in the world has caused concern on the need for financial/accounting experts to be on board to ensure greater accountability on wide range of issues (Guner *et al.*, 2008).

Financial literacy of board of directors has been identified significant to increase the credibility of company financial position from the perspectives of the customers, banks, and government bodies (Hasyudeen, 2003). Appropriate financial experience and expertise of board members is negatively associated with financial distress (Kroll *et al.*, 2008; McDonald *et al.*, 2008). A financially literate board is able to give guidance to the company in obtaining sources of capital effectively to help overcome financial problems (Lee *et al.*, 1999). According Kor and Sundaramuthy (2009) directors who have reasonable financial backgrounds are more effective in providing internal control system mechanisms to control firm performance and hence financial distress. Johl *et al.*, (2015) also found a positive and significant relationship between accounting expertise and financial performance of Malaysian firms, hence less likely to be financially distressed.



Therefore, the existence of qualified board members enhances the integrity of the board in controlling and monitoring firm management. This is supported by resource dependency theory that a board equipped with adequate skills and expertise it enhances its monitoring and controlling roles. However, Noor and Iskander (2012) found a non significant relationship between financial expertise of directors and financial distress. We thus hypothesize that

*Hypothesis 5; Presence of financial experts in the board is not significantly related to financial distress*



### 3 Methods and Data

Exploratory research design was used in this study. Panel data was used in this study which was derived from publicly listed firms in Kenya during the period 2004-2013. The total number of firms listed on the Nairobi Securities exchange (NSE), as at the end of 2013, was 57: these firms fall under different sectors of the economy, such as agricultural, commercial and services industry, telecommunications and technology, automobile and accessories, investment, manufacturing and allied, and construction. We considered only those firms that

traded throughout the period under study: thus, firms that were first listed after 2004 and those that were suspended during the period were excluded.

For the purpose of this study, companies were excluded if the relevant financial information was not available either in the company annual financial reports or on company websites. Therefore, total number of firms used in the study was 39, yielding a total of 390 firm year observations.

### 3.1 Measurement of Variables

#### Dependent Variable:

Financial distress was measured using Altman  $Z''$ -Score (Altman, 2006). Altman amended the formula to allow its application to certain situations not originally included in the original sample set (Altman, 2006).

$$Z'' = 6.56 X_1 + 3.26 X_2 + 6.72 X_3 + 1.05 X_4 \quad Z'' < 1.10 \text{ bankrupted/distressed}$$

$$Z'' > 2.60 \text{ non distressed/ non-} \\ \text{bankrupted (safe)}$$

$$Z'' = 1.10 \text{ to } 2.60 \text{ grey area}$$

#### Independent Variables

Board size was measured by counting the number of individuals serving on the board of directors (Tarus and Aime, 2014; Maere *et al.*, 2014).

Board independence was measured as the percentage of membership held by the independent directors, where independent directors are those with no affiliation to the firm which has been considered in prior studies (Morellec *et al.*, 2012; Bhagat and Bolton, 2008 and Zahra and Stanton, 1988).

Board tenure was measured dividing the number of years the firm's directors have served on the board by total directors serving the board. Multiple directorships was measured by dividing the sum of all directorships held by every director of the firm by the number of directors on the board (Jackling and Johl, 2009) and (Ferris *et al.*, 2003).

Financial expertise of directors is the number of directors who possess knowledge and experience in finance related areas (Iskandar *et al.*, 2013; Guner *et al.*, 2008). Thus, we followed studies by Iskandar *et al.*, (2013) and Guner *et al.*, (2008).

#### Control Variables

The study incorporates control variables into the analysis, especially variables known to affect financial distress. Firm size was measured, as a natural log of total assets as measured by Choi *et al.*, (2012). This was controlled because previous studies have found firm size to be significantly related with financial distress (Iskandar *et al.*, 2012).

Industry was measured as a dummy variable and controlled in the study, because firms in different industries adopt varied capital structures (Jensen, 1989) thus

affecting financial soundness of a firm. According to Nwachukwu and Mohammed (2012) firms in the manufacturing industry have assets with a collateral value that improves their capacity to borrow which have a bearing on financial distress of firms. Following this observation, and consistent with the approach used by Barroso *et al.*, (2011) and Plambeck and Weber (2010), this study assigned “1” to firms in the manufacturing sector and “0” to the rest.

Consistently with previous studies, profitability was controlled in the study because of strong indications of its effect on financial distress. Thus, consistently with literature, profitability in this study was calculated as earnings before depreciation, interest, and tax (EBDIT), divided by total assets (Sirtaine *et al.*, (2005) and (Maere *et al.*, 2014).

### 3.2 Model Specification

$$Z_{it} = \beta_0 + \beta_3 I_{it} + \beta_4 FS_{it} + \beta_1 P_{it} + \varepsilon_{it} \dots \dots \dots \text{Model 1}$$

$$Z_{it} = \beta_0 + \beta_3 I_{it} + \beta_4 FS_{it} + \beta_1 P_{it} + \beta_5 BS_{it} + \beta_6 BI_{it} + \beta_7 BT_{it} + \beta_8 MD_{it} + \beta_9 FE_{it} + \varepsilon_{it} \dots \dots \dots \text{Model 2}$$

Where

$Z_{it}$  = Financial distress of the firm  $i$  ( $i=1, 2, \dots, 57$ ) in time  $t$  ( $t=1, 2, \dots, 10$ )  $BS$  = Board size of firm  $i$  in time  $t$ ,  $BT$  = Board tenure of firm  $i$  in time  $t$ ,  $BI$  = Board independent of firm  $i$  in time  $t$ ,  $MD$  = Board Multiple directorship of firm  $i$  in time  $t$ ,  $FE$  = Board Financial Experts of firm  $i$  in time  $t$ ,  $FS$  = Firm Size,  $I$  = Industry Dummy,  $P$  = Profitability,  $\varepsilon$  = the random error term.

## 4 Results

### 4.1 Descriptive Results

Table 1 indicates descriptive results. The descriptive statistics indicate that Kenyan firms have an average of .745 board independence. The average board size is 8.75 while the minimum number of board members was 4 and the maximum was 16. The average board tenure is 6.78 years. For the directors with financial related skills and experience the minimum was 1 while the maximum was 9 at an average of 3.78.

Table 1: Descriptive statistic

	N	Mean	Std. Deviation	Min	Max
Financial Distress	390	4.882	2.879	0.050	19.110
Profitability	390	0.759	0.248	-0.280	1.940
Firm Size (Log)	390	22.372	-0.429	15.660	26.540
Board Size	390	8.746	2.243	4.000	16.000
Board Independence	390	0.745	0.155	0.290	1.270
Board Tenure	390	6.779	4.829	0.444	27.250
Board Multiple directorship	390	1.494	0.923	1.110	4.769
Director Financial expertise	390	3.783	1.842	1.000	9.000

Source Research data (2015)

The Pearson correlations results on board independence was found to be negatively and significantly correlated with financial distress (-.371;  $p < 0.01$ ). Board tenure had a positive and significant relationship with financial distress (114;  $p < 0.01$ ) implying that long tenure directors in the board increase the chances of the firm being financially distressed. CEO entrenchment was found to have a negative and significant correlation with financial distress ( $p < 0.05$ ). This implies that the more entrenched the CEO is the lower likelihood are that the firm is likely to be in financial distress. The possible explanation to this could be that as the managing director's influence increases, he (she) assumes more power to make influential managerial decisions which are likely to help firms be financial solvent.

Table 2: Pearson Correlation Coefficients

	1	2	3	4	5	6	7	8	9	10
1. Financial distress	1									
2. Board Size	-.052	1								
3. Board Independence	-.371**	.352**	1							
4. Board Tenure	.114*	-.305**	-.291**	1						
5. Multiple Directorship	-.055	.282**	.132*	-.090	1					
6. Financial Expertise	-.070	.738**	.389**	-.143**	.331**	1				
7. Profitability	-.005	.152**	.332**	.032	-.050	.195**	1			
8. CEO Entrenchment	-.125*	-.007	.182**	.085	-.157**	.012	.045	1		
9. Firm Size	.008	.199**	.018	-.055	.290**	.368**	-.270**	.052	1	
10. Industry	-.068	-.382**	-.213**	.107*	-.202**	-.489**	-.286**	.097	.140**	1

Source: Research Data (2015)

## 4.2 Empirical Results

Data was subjected to several tests before the regression analysis. Firstly, we tested for the presence of multicollinearity using Variance Inflation Factors (VIF) and tolerance. Multicollinearity exists when two or more predictor variables are strongly correlated (Field, 2005). Hair *et al.*, (2006) suggested a threshold of VIF values of 10. Each of the variables used in this study, including the control variables, range from 1.201-3.269, suggesting the absence of multicollinearity. A tolerance of below 0.10 or a VIF greater than 10 or a correlation coefficient above 0.8 is regarded as indicative of serious multi-collinearity problems (Field, 2009).

Independence of error terms was tested using a Durbin-Watson statistic, and the results ranged between 1.53 and 1.737, which is within the threshold of 1.5-2.5 (Hair *et al.*, 2006). Outliers were checked using box plots, and the results indicated the absence of outliers in the sample. According to Gujrati (2003); Granger and Newbold (1974) data series must be primarily tested for stationarity in all econometric studies. In this study we conducted unit root test for the variables using the Augmented-Dickey-Fuller unit root test. The p-values for the ADF-Fisher Chi-square statistic were less than theoretical values of 0.05 for multiple directorships, profitability and financial distress. This implies that these variables/ panels (had no unit roots) and therefore suitable for modelling and forecasting. To correct for non stationarity in board size, board independence, board tenure, financial expertise of directors and firm size the first difference of the variables [D (var)] were used in the regression models.

We reported the results of the analysis using random effects regression. A Hausman test suggested that a random effects regression model would be preferable to a fixed effects model. Consistent with the approach used by Kim *et al.*, (2008), we tested the hypotheses using hierarchical regression analysis because it allows fitting of the model to individual measurements while accounting for systematic unexplained variations among firms.

Hypothesis 1 predicted a non-significant relationship between board size and financial distress. The results indicate a positive but insignificant relationship between the size of the board and financial distress ( $\beta=0.001$ ;  $p>0.05$ ) therefore, the hypothesis is supported. Hypothesis 2 proposed a non-significant relationship between board independence and financial distress. The results exhibited a negative and significant relationship between board independence and financial distress ( $\beta=-0.044$ ;  $p<0.05$ ) therefore rejecting the hypothesis. Hypothesis 3 postulated there is no significant relationship between board tenure and financial distress. The results showed positive and significant relationship between board tenure and financial distress ( $\beta=0.589$ ;  $p<0.05$ ) thus we rejected the hypothesis. Hypothesis 4 predicted non-significant relationship between multiple directorship and financial distress. The results showed a negative and insignificant relationship between multiple directorship and financial distress ( $\beta=-0.009$ ;  $p>0.05$ ) hence, we failed to reject the hypothesis. Finally, hypothesis 5 suggested that the presence of financial experts in the board is not significantly related with financial distress. The results indicated a negative and insignificant relationship between financial

expertise of directors and financial distress ( $\beta=-0.007$ ;  $p>0.05$ ) thus we failed to reject the hypothesis.

Table 4.1: Regression Analysis

Variables	Model 1	Model 2
Controls		
Constant	0.658(3.677)**	0.559 (3.967)**
Firm Size	-0.000(-0.058)	0.000(0.121)
Industry	0.007(0.239)	-0.016(-0.778)
Profitability	0.180(1.344)	0.311(1.012)
Board Size		
Board Independence		0.001(0.490)
Board Tenure		-0.044(-2.138)*
Multiple Directorships		0.059(6.164) **
Financial Expertise		
		-0.007(-0.355)
R Squared	0.024	0.196
Adjusted R	-0.051	0.107
R <sup>2</sup> Change		0.172
F-Statistic	0.056	4.415
Prob. of F-Stat.	0.956	0.000
Durbin Watson Stat.	1.502	1.568

\*\* 1 percent significance level; \* at 5 percent level

Figures in parenthesis are t-statistics

Source: Research Data (2015)

## 5 Discussion and Conclusion

In this paper, we have examined the relationship between board composition and financial distress using data from firms listed on the Nairobi Securities Exchange. Specifically, we have investigated the effect of board composition variables; board size, director independence, board tenure, multiple directorships and financial expertise of directors on financial distress. Our analysis showed a number of findings; the findings indicated that higher representation of independent directors has a negative association with financial distress while, long tenure board is positively associated with financial distress. Our first finding backs the view that independent directors are effective monitors which is consistent with agency theory (Jensen and Meckling, 1976).

Secondly, the study found that boards with long firm tenure are positively associated with financial distress of the firm ( $\beta=0.059$ ;  $p<0.001$ ). This finding indicates that a firm with long tenure board has high chances of facing financial distress. These results support the management friendliness hypotheses Vafeas (2003) and CEO allegiance hypotheses Byrd *et al.*, (2010). Based on this hypothesis, firms with long tenure boards would be expected to be financially

distressed. In other words, boards that have close relationships with management shift their allegiance away from shareholders towards management, thus curtailing the incentive to criticize management proposals.

The results relating to board size were not significant. Indeed, extant literature on corporate governance suggests board size studies are inconclusive. This result therefore confirmed the diverging views of researchers regarding the ideal board size. Our results did not find any significant relationship between the multiple directorship and financial distress. Lastly, the results provided no evidence of significance relationship between presence of financial experts in the board and financial distress. The possible reason for insignificance of finance related knowledge and skills of directors in the board could be attributed to the concentrated ownership structure of Kenyan firms which gives more power to the CEOs.

Overall, the study suggests that the board plays an important role in the decision making of the firm. Board independence was found to be having a negative and significant effect on financial distress. This study concludes that board directorship should have more independent directors as they reduce probability of facing financial distress. Board tenure was also found to be positively and significantly related with financial distress. This result confirms the hypothesis that long tenure boards tend to befriend management hence compromising their role of oversight. Therefore, this result implies that tenure of board directors should be reduced since seasoned directors tend to lose their objectivity and independence.

Notably, the findings of this study supported the prescriptions of agency theory that independent directors provide better control over management and that average tenured boards are beneficial to the firms than seasoned directors. The study therefore has boosted the existing literature on financial distress and board composition which provide a reference point for academic discourse and future reference.

As the corporate governance reformations are vigorously advocated in Kenya, this study provides insights into the roles of corporate governance in financial healthiness. As such the findings of this study provide valuable insights to authorities, managers and stakeholders on corporate governance. Specifically, these findings can be beneficial to authorities that formulate the policies, mainly the Capital Market Authority and Nairobi Securities Exchange.

Firstly, the study found the relationship between board independence and financial distress was negative and significant. Therefore, the composition of boards should take cognizance of members who are independent of management. Hence, the study recommends that the authorities should put structures that enhance the appointment of independent directors who have requisite skills and knowledge in the board.

Second, the study also appreciates the value of average long board tenure. The researcher believes that entrenched boards serve the interests of the CEO as

opposed to those of shareholders. This is specifically important in Kenya, given the family ownership structure that is common to most firms. Consistent with CEO allegiance hypothesis, longer board tenure breeds management friendliness and therefore to address the allegiance problem, term limits need to be set for board members. The study recommends that governance policies need to set the term limits for which board members serve the organization.

It is essential to note the study's limitations. Firstly, the study has relied on archival data, especially information contained in financial statements. Secondly, while the study has considered several board variables, there are other important board measures that are particularly important in a Kenyan context, such as compensation, ownership structure, and audit committee. Thirdly, the study was based on a sample of firms listed on the Nairobi Securities Market, which may be considered a small sample. This may limit the generalizability of the findings. Future research using a larger sample size and different types of firms private non-listed firms may provide additional insights and enhance our understanding of the issues explored here.

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