

DO BOARD CHARACTERISTICS AFFECT FIRM PERFORMANCE? Empirical Evaluation of Some Corporate Governance Mechanisms in the Nigerian Stock Exchange

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ABSTRACT

The board of directors and the features that characterize them have been said to have significant effects on firm performance. In this paper, we examine a number of characteristics of the board of directors of the firms listed in the Nigerian Stock Exchange (NSE) in order to assess their impact on firm performance. To achieve this objective, data were obtained from the firms listed in NSE from 1996 to 2004. Over the nine-year period of the study, a database of 13,267 directorships was developed. It was found that the listed firms were characterized with a fairly small board size (averaging 8.4 persons), and a quarter of the firms that were studied had members of the same family on their boards of directors. Furthermore, regression results show that such a pattern of family control of boardrooms tend to reduce shareholders value and tends to foster long CEO tenures that may not be justified by improved firm performance. Whatever its shortcomings as an estimator, our OLS technique has provided results that seem to offer a reassuring conclusion that membership of boards of directors should be based on performance, and that the current wave of family affiliation in Nigerian boardrooms is not congenial to sound corporate governance and firm performance.

JEL classification: G3, H54, R11, R38

1. Introduction

CORPORATE governance is the way a corporate body is governed. 'It includes a method of management, or ... a system of regulations...the manner in which authority or power is exercised to fulfil duties and obligations to ... stakeholders' (Impavido, 2002: 9). Given the spate of corporate scandals that has gripped many large corporations in the US and Europe and many other parts of the world, the subject of corporate governance and board characteristics have received attention

in recent years. This renewed interest in the subject by researchers and policy makers in government and industry is understandable in view of the importance of healthy corporate governance to the economy. Levine (2004) emphasizes the link between corporate governance and economic growth. According to Levine, sound corporate governance makes it more likely for owners of capital to monitor the activities of managers either directly, through voting on crucial matters or indirectly, through the board of directors. He argues that sound governance mechanisms protect shareholders' interests and promote savings, investments and economic growth.

Various ways of improving the governance characteristics of boards of directors have been suggested. They include: achieving a reasonable size of a board of directors (Monks and Minow, 1995); ensuring that the board comprises members that have adequate knowledge of the firm and are able to exercise independent judgement (Udeni, 1998) and ensuring that the CEO's tenure does not last beyond the period that can be justified by the chief executive's performance (Tsai et al., 2006). These suggestions underscore an important point – the composition of the board of directors is an important feature of sound corporate governance. An appropriate composition of the board of directors aids sound corporate governance, which in turn helps to align the interests of the management, shareholders and other stakeholders interested in the well-being of the firm.

Since the Asian financial crisis of 1997/98 and the string of corporate scandals at Enron and other large US and European corporations, policies have been promulgated to deal with such problems through the strengthening of corporate governance in general and the boards of directors in particular. In Nigeria, the authorities (e.g., the Securities and Exchange Commission (SEC)) have been concerned about ways to improve sound governance practices especially for a stock exchange buoyed by the privatization exercise, as well as the reforms of the banking sector. In the US and the UK, the response to the string of corporate scandals has been swift and extensive. In the United States, the Sarbanes-Oxley Act came into being in 2002, heralding new far-reaching measures aimed to strengthen corporate governance and restore investor confidence (Jensen and Fuller, 2002). Building on the progress made in the reports by Cadbury (1992), (Greenbury) 1995 and Hempel (1998), the United Kingdom in 2003, implemented the New Combined Code, an outcome of the company law review and a report by the Higgs Committee.

Despite the importance of board characteristics as a corporate governance mechanism, the literature on corporate governance in developing countries in general and Nigeria in particular is rather exiguous. Adenikinju and Ayorinde (2001) and Sanda et al (2005) are the only empirical studies in the area of corporate governance in Nigeria. Although these studies contributed meaningfully

towards the understanding of corporate governance in Nigeria, they have their limitations;

- (i) they did not cover all the firms in the Nigerian Stock Exchange, and
- (ii) they were based on the data, covering the 1990s or earlier years, a period during which Nigeria had not developed a code of corporate governance.

In order to make a modest contribution to this important area of corporate governance, this paper therefore examines the relationship between the characteristics of boards of directors and firm financial performance. To achieve this objective, the rest of the paper is organised as follows: Section two presents the literature review, section three focuses on the overview of the regulatory environment, while section four outlines the theoretical framework and empirical methods. In section five, the results and implications are presented, while the last section concludes the paper.

2. Literature Review

The literature on boards of directors as a corporate governance device has suggested a number of ways of strengthening sound governance. First, keeping the size of the board at an appropriate level, for an overly large board could reduce firm performance, just as a board comprising a small number of members may not benefit from the experience and expertise needed for running the affairs of the firm. A reasonably-sized board is expected to be more effective in its statutory function of monitoring the management. However, it is believed by some scholars that the larger the size of the board the better the performance of a firm. While there may be no one-size-fits-all recommendation for the optimal size of a board, empirical works from the United States and the United Kingdom (Monks and Minow, 1995; Lipton and Lorsh, 1992) have suggested a board size of ten. Recent evidence for Nigeria (Sanda et al., 2005) was consistent with this recommendation.

The second feature of board characteristics, commonly discussed in the literature, is concerned with the characteristics of the CEO. Boards with members of the same family are less likely to be able to replace a CEO in the event of poor performance because he or she is a member of the family.

Similarly, a board with a CEO, who has had a long tenure, is not likely to be as independent of the management as one whose tenure is short (Shleifer and Vishny, 1997; 1998). However, some scholars (such as Tsai et al, 2006) argue that in a family-controlled board, a family member is motivated by the bond of family ties to promote organizational rather than individual goals, since the success and continuity of the family business is of paramount importance. Thus, they reason, family controlled boards could in fact be more effective than other boards in removing the agency problem and thus aligning the interests of managers and shareholders.

However, like other scholars, (Tsai et al. 2006) are not oblivious to the possibility of a family-controlled board to protect the interests of the family, even when such interests may run counter to those of other shareholders such as the tendency for such a board to use family connections, rather than performance, as the basis for the elongation of the tenure of a chief executive. The argument by Tsai et al, is remarkable in that it presents a more balanced view of the impact of a family-dominated board. Indeed, the authors test the two hypotheses using the data drawn from listed firms in Taiwan. They reported evidence in favour of their thesis that compared to other boards, family-dominated boards tend to be more effective in relating CEO turnover with performance.

Morck and Yeung (2003), however, contend that a family-controlled board would pursue the interests that may hurt minority shareholders. They further state that share ownership tends to be more diffuse, limiting each shareholder's risk to the relatively small investment they have made, when the board is not influenced major shareholders who are members of a family. Thus, boards of firms with diffuse ownership are more able to pursue risky, high return projects, since each shareholder's risk exposure is comparatively small. In contrast, a family-dominated board is not characterized by such diffuse ownership – the interest of the family is often highly significant. Therefore, in order not to expose the family to significant levels of risk, such a board will pursue low-return, less risky projects; an objective that may hurt small shareholders. Thus, the conflict of interests between families with significant investments and the small shareholders will continue to prevail. Indeed, Morck and Yeung (2003) buttress this argument by referring to the work of Johnson et al. (1985), who find that stock prices tend to rise on the news of the death of a long-tenured CEO (presumably of a family-controlled board).

Investigating the effects of the above characteristics of the board of directors requires controlling other variables believed to have an impact on the performance of the firm. The size of the firm can be measured by using any reduced form regression involving board characteristics and firm performance. In fact, this variable has been controlled for even under different model specifications. The use of the number of employees as a control for firm size and a number of other studies has been reported in the literature (Bigsten et al., 1997; Mayers et al., 1997; Sanda et al., 2005; Shivdasani and Yermack, 1999). Despite various views, an empirical fact seems to emerge: a family-dominated board tends to elongate the tenure of the CEO and record lower levels of firm performance, compared to other boards.

3. An Overview of the Regulatory Environment

Until recently, Nigeria did not have a code of corporate governance. Before the introduction of a code of corporate governance, there were three legislations that regulated the operations of enterprises: (i) The Companies and Allied Matters Act (1990), which prescribes the duties and responsibilities of managers of all limited liability companies; (ii) the Investment and Securities Act (1999), which requires the Securities and Exchange Commission to regulate and develop the capital market, maintain orderly conduct, transparency and sanity in the market in order to protect investors and (iii) Banks and other Financial Institutions Act (1991) empowers the Central Bank of Nigeria to register and regulate banks and other financial institutions.

These legislations have evident gaps. They are by no means comprehensive in terms of corporate governance provisions. In June 2002, the Securities and Exchange Commission, in partnership with the Corporate Affairs Commission, set up a committee to develop a draft code of corporate governance. The code, launched in November 2003 (Ndanusa, 2004) makes a number of recommendations for improving the composition of the board of directors as an effective mechanism of corporate governance. Among other recommendations of the code is that the 'audit committee' should comprise at most one executive and at least three non-executive directors. Members of that committee must be able to read and understand financial reports. There is a recommendation that the post of CEO should be separated from that of the chairperson; unless it is absolutely necessary for the two to be combined, in which case the code recommends that a strong, non-executive director should serve as vice-chairperson of the board. Other provisions of the code related to strengthening the board of directors as a corporate governance mechanism include the recommendation that non-executive directors (NED) should have no business transactions with the firm, while a NED should chair the audit committee.

It is observed, however, that the code lacks legal authority, as there is no enforcement mechanism and its observance is entirely voluntary (Nmehielle and Nwauche, 2004).

The importance of non-executive directors in the promotion of board independence and corporate governance has also been realized at the level of policy. In Nigeria, the authorities are concerned about the ways to improve sound governance practices, especially for the stock exchange, buoyed by the privatization exercise, as well as the reforms in the banking sector. The commitment of the authorities towards promotion of corporate governance is reflected by the establishment of a code of corporate governance for publicly listed firms in the country. In 2002, a committee on corporate governance was set up to make recommendations to government with a view to developing a home-grown code of corporate governance. The committee submitted its report, making a number of recommendations on how to improve corporate governance in general

and in particular, how to make the board of directors more independent. As far as the posts of CEO and chair are concerned, the committee recommended that the two positions should be separate. This recommendation, however, seems to have been weakened by the provision in the same report that 'where the chairman is also the chief executive, it is important to have a strong independent element on the board' (SEC, 2003, p. 10). The committee also recommended that non-executive directors should be in the majority.

Recognising the potential problem of family members on the board interfering with effective governance, the committee recommended that in order for the board to be 'truly independent, (outside) directors should not be connected with the immediate family of the members of the management'.

4. Theoretical Framework and Empirical Methods

Agency theory provides the theoretical framework for this study. The theory states *that in the presence of information asymmetry, the agent is likely to pursue interests that may hurt the principal, or shareholder* (Ross, 1973; Fama, 1980). Within the context of the stakeholder theory, the problem of agency has been widened to allow for multiple principals. Thus, instead of treating shareholders as the sole group whose interest the agent should protect, the stakeholder theory sees other groups, such as employees of the firm, creditors, government etc also as having equally vital stakes in the performance of the firm, a fact amply demonstrated by the thousands of job losses, reduced tax revenues, high costs of litigation etc that came in the wake of such high-profile corporate fraud that occurred at Enron, Global Crossing, Parmalat, Worldcom to name but a few. Since there are many stakeholders, the agent is sometimes confronted with the difficult choice of meeting competing stakeholder interests.

In a review of the stakeholder theory, John and Senbet (1998) have noted that the multiplicity of principals tends to give rise to conflicting interest, but that a vital and independent board and a sound committee structure can overcome agency problems. They also emphasize the importance of board size, noting that after some point the size of the board could be detrimental to firm performance. Extending the stakeholder theory, Jensen (2001) proposes the enlightened stakeholder theory: *that by pursuing the goal of maximizing the long-term value of the firm, managers could serve the interests of all stakeholders*.

These theories have provided the basis upon which many empirical works have been written. In addition to the work of Levine (mentioned above) on the role of corporate governance on economic growth, Oman et al (2003) have made another argument to support that link. According to these writers, well-governed firms are more able to attract capital at lower costs, with significant ramifications to the economy. They also argue that if governance structures in general, and the boards of directors in particular are weak, this will create conditions for managers

to pursue their own interests, or to promote the interests of a narrow class of shareholders, to the detriment of other shareholders. Thus, strengthening corporate governance is essential to the protection of all shareholders and other stakeholders interested in the well-being of the firm. Oman et al (2003) also argue that corporate governance is required to support the current wave of reforms that many developing countries are pursuing. This argument is also relevant also to Nigeria, where the government of President Obasanjo pursued two major economic reforms: (i) the pension system was overhauled, and (ii) reforms of the banking system were undertaken, with the number of banks reduced considerably from 89 to 25 as a result of a new capitalization requirements etc.

Such reforms, by themselves, may not attract the required attention of investors if companies do not adopting the right corporate governance practices that will achieve and maintain investor confidence. Thus, corporate governance is expected not only to increase investor confidence and attract resources into the developing countries, but also to reduce the colossal wastes associated with rent-seeking behaviour of a narrow class of individuals that attempt to promote their own parochial interests to the detriment of the shareholders and the economy at large.

Data for this study were obtained from a number of sources. From the Abuja Office of the Nigerian Stock Exchange, nine issues of the NSE *Annual Factbook* (hereafter, *Factbook*) for the year 1997 to 2005 were obtained. As there is a one-year lag in data collection, the Factbooks covered the data for the period 1996 to 2004 respectively. The availability of comprehensive factbooks from the NSE informed the choice of this period.

Given the scope of this study, two main categories of data were extracted: the list of directors on the one hand, and some measures of firm size (number of employees and total assets) on the other. For this category of data, nearly all firms listed on the Nigerian Stock Exchange were included, and the list of such companies are presented in appendix 1. From the annual reports of the Security and Exchange Commission (SEC), data on price-earnings (PE) ratio and market capitalisation were extracted over the period of 1996 to 2003.

There are three categories of variables that are measured in this work. The first set comprises measures of firm performance while the second consists of measures of board characteristics. The board as a tool of corporate governance, could have a significant effect on firm performance. The third category consists of control variables which are commonly associated with firm performance. Some accounting measures of firm performance are considered at this level of data analysis. They are: return on assets (ROA), return on equity (ROE) and PE ratio. ROA is obtained by expressing net profit as a proportion of total assets. ROE is obtained by computing net profit as a proportion of equity value. Data on PE ratio were obtained directly from the SEC.

A number of governing characteristics of the boards of directors were obtained for this study. To examine the effects of CEO tenure on firm performance, average CEO tenure for the entire market was computed, and firms with CEO tenure below this average were assigned a value of 0 and those with CEO tenure above the average assigned a value of 1. The resulting dummy variable for tenure was then used in the set of regressors. A second dummy variable was also created to examine the effect of family connections in the boardroom. The variable took a value of 0 for firms with no evidence of family members on their boards; and 1 for those with evidence of family members on the board.

Another variable of interest is the extent to which board members are busy with schedules unrelated to the affairs of the firm. The extent to which a member of one board is also serving on another board could have positive or negative effects on performance. The literature suggests that a board member serving on two other boards can be regarded as busy (Core et al., 1999; Ghosh and Sirmans, 2003). Data on this variable is available and has accordingly been used to run some basic preliminary results that are presented in the subsequent sections of this paper.

The estimation procedure involved two kinds of methods. In the descriptive part, some basic statistical tests involving the independent *t*-test, and the one-way analysis of variance were used. The results from these tests are presented in the basic results section of this paper. In the second part, the OLS regression analysis was also performed¹ to examine the effects on performance of some of the board characteristics mentioned in the literature. Specifically, the following model OLS model was adopted:

$$Y_i = \alpha_0 + \beta_1 X_{1i} + m_i \quad (1)$$

where:

- Y_1 = a measure of the firms performance (ROE, ROA, and OE ratio)
- α = the intercept term
- β = the vector of parameters for explanatory variables
- X = the vector of explanatory variable (board size, board size,² firm size, family connection dummy and CEO tenure dummy
- μ = the error term

¹ We are aware to the shortcomings of OLS but are content with the application of this technique since the data has more cross-sectional, than time-series component.

It is important at this point to mention a couple of issues: the need to justify the choice of agency theory as the theoretical framework for this study; and second, to justify the inclusion of the set of regressors into our model given in equation 1.

The agency theory predicts that in the presence of information asymmetry, the agent can pursue selfish interests, and that this sort of behaviour could hurt the principal. This theory is an appropriate framework for our analysis since boards of directors are hired by shareholders to protect the interests of the firm, but it is possible for such board members to pursue interests that may not be compatible with those of shareholders, as the experience of Enron and other large corporations illustrates.

A second issue is the need to justify the inclusion of regressors into the above model. First, as seen in the literature review section of this paper, Monks and Minow (1995), Lipton and Lorsh (1992) and Sanda et al. (2005) reported that ten is the optimal size of a board of directors. The two variables (board size and board size squared) were therefore included into the set of regressors in order to uphold or refute this important proposition. Second, the number of employees included in the regression model in view of the observations in the literature review section of this paper that Bigsten et al. (1997), Mayers et al. (1997), Sanda et al. (2005) and Shivdasani and Yermack (1999) argue for the need to control for board size.

Third, the regression model includes a dummy for family connection in order to examine the merits of the arguments by Tsai et al. (2006) and Morck and Yeung (2003) discussed in section 2 of this paper that family control of boardrooms could have an impact on the performance of a firm. Finally, the literature review in this paper also alluded the point raised by Shleifer and Vishny (1997) prolonged CEO tenure may be detrimental to firm performance. In order to test this proposition, we included in the regression model, a variable to capture the effect of CEO tenure; it is expected this variable will have a negative sign if the argument by Shleifer and Vishny (1997) is valid.

5. Analysis of Results and Policy Implications

5.1 Basic results

For the board of directors to perform its mandatory functions of serving as an effective watchdog for protecting shareholder interests, the literature has argued for a number of desirable characteristics that the board should have in order to perform this role. Such characteristics include board size, length of CEO tenure and whether or not the board of directors includes members of the same family.

Data on the board of directors from the NSE were fairly large. A total of 13,267 directorships were obtained from the data collection exercise.² From this database, the directorship list was sorted by the surname of directors and a comprehensive list of 2805 directors was obtained. Table 1 summarizes the features of the data. It can be seen from the table that the number of directorships and firms in the sample have tended to rise over time. In 1996, there were a total of 1,173 directorships amongst a sample of 139 firms, compared to a total of 1,716 amongst a set of 204 firms in 2004. Although both the number of firms as well as the number of directors have tended to rise over time, the average size of board of directors has remained minimally changed, within a narrow range of 8.4 for most of the years and a peak of 8.6 in 1999. The analysis of variance test shows no significant difference in board size across the nine-year study.

The distribution of directorship across the 27 sectors of the exchange was also examined. Table 2 reports the sectoral distributions of firms, directors, and average board size. Average size of board has varied rather widely across the different sectors, ranging from a minimum of 6.0 in the maritime sector to a peak of 10.6 amongst firms in the banking sector.

Table 1. Yearly Distribution of Directors and Average Size of Board of Directors

Year	No. of directorships	No. of firms	Board Size		Mean
			Minimum	Maximum	
1996	1173	139	3	21	8.5
1997	1428	168	3	19	8.5
1998	1423	170	3	20	8.4
1999	1412	164	3	19	8.6
2000	1382	162	4	22	8.5
2001 ²	1532	182	3	22	8.4
2002	1574	187	3	22	8.4
2003	1618	193	2	17	8.4
2004	1716	204	2	17	8.4

Source: Authors' computations

An analysis of variance confirms that compared to other sectors, the breweries, banking, food/beverages, petroleum, building, textile, engineering, construction and packaging sectors have significantly higher mean size of board of directors. This difference can be attributed to the larger size of firms in these sectors compared to others.

² The list of all directors for all firms listed in the Nigerian Stock Exchange for the period 1996-2004 is 394 pages and could not be included here.

Table 2. Sectoral Distribution of Directorships

Sector	No. of directorships	No of firms in 2004	Board size		
			Mean	Min	Max
Agriculture	385	5	8.0	5	11
Airlines	57	2	6.3	2	8
Automobiles	407	6	7.7	5	14
Banking	2002	36	9.8	5	22
Breweries	603	7	10.6	6	15
Building materials	653	8	9.1	5	13
Chemicals and paints	461	7	7.3	3	12
Commercial/services	82	1	9.1	8	10
Computer and office equipment	390	6	7.2	4	10
Conglomerates	718	9	9.2	6	16
Construction	389	5	8.4	4	12
Emerging markets	796	17	7.4	3	14
Engineering technology	222	3	8.9	6	13
Food/beverages and tobacco	1069	13	9.2	4	15
Footwear	119	2	7.4	5	10
Healthcare	716	11	7.5	5	14
Hotel	7	1	7.0	7	7
Industrial/domestic	797	12	7.8	5	12
Insurance	1191	21	7.6	5	12
Machinery (marketing)	180	3	6.7	4	9
Managed funds	57	1	7.1	7	8
Maritime	6	1	6	6	6
Packaging	537	8	8.4	5	16
Petroleum (marketing)	635	8	9.1	3	13
Printing and publishing	243	4	8.2	5	11
Real estate	49	1	7.0	7	7
Textiles	487	6	9.0	4	15

Source: Authors' computations

The effectiveness of the board of directors in checking the affairs of the management and protecting stakeholder interests is argued in the literature to depend on the ability of the board members to exercise a degree of independence from the chief executive. A board replete with members closely aligned to the CEO may not create the appropriate environment for it to exercise the required level of independence. There are several ways in which the independence of the board from the CEO may be gauged, and one such measure is whether or not the board members are related to the CEO through family or marriage relationships. In 2004 alone, 53 of the 204 firms had boardrooms with two or more members of

the same family.³ A closer look at the data also revealed that 39 of the 53 firms have two members of the board that are members of the same family. Eight of the firms have three board members with this kind of relationship. Two of the firms each reported having six family members on the same board. The results also show that out of the 53 firms in which the board of directors contained family relations, 30 of them were related either to the MD (7), chairperson (19) or both (4). These results, although tentative, argue for the recurring observation that corporate governance in developing countries may be weakened by the prevalence of relationship-based, rather than rules-based procedures (Oman et al, 2003; Bates, 2006). While the proportion of family relations in the Nigerian boardrooms may appear to be high as suggested by these results, two points of caution are in order. First, it is not always the case that a common surname will indicate a family relationship so there is need for this research to confirm the secondary data from the individual firms themselves. Second, although family relationships could be strong and often mar progress towards effective corporate governance, it is not impossible for other forms of relationships (friendship, intermarriage amongst the board members etc) to be just as powerful in cementing the bond of relationships amongst them.

The length of CEO tenure was also examined. From the data set of the directors, a subset comprising only the CEOs and MDs was extracted, giving a total of 410 observations. For each of the CEOs, we computed the number of years they have stayed in that position. Table 3 shows the distribution of CEO tenure. From the results in table 3 it can be seen that most of the CEOs (157, or 38.3%) have spent only a year in the boardroom. Whether or not those in this category have abdicated this post is unclear. What is certain is that there are a good number of CEOs that have retained their positions for a fairly long period of time, with about 33% of them having been on that post for a period of four years or longer.

It will be of interest to know whether CEOs with long tenure are associated with better-performing firms, or with some other characteristics of the board itself. This question was investigated by separating the CEOs into two groups, the first with boardrooms having family-related members and the second with no evidence of such family relations. The results from an independent *t*-test which are shown in appendix 2, easily suggest significant differences in CEO tenure of the two categories of firms. In particular, CEOs in the midst of family relations have spent an average of 3.9 years, compared to an average of 2.91 years for those without a family members on their board. The question of whether some sectors of the

³ The list of such firms as well as of family-related board members is too lengthy to include even as an appendix.

NSE are associated with longer CEO tenures was also investigated. An analysis of variance was performed for this purpose. It was found that textile firms, with an average CEO tenure of 7.25 years, recorded the highest, followed by airlines (6.5), building (4.4) and footwear (4.33). The banking sector recorded an average of 2.3 years, amongst the lowest of all the sectors.

Table 3. CEO Tenure

CEO tenure (years)	Number of CEOs	Percentage
1	157	38.3
2	63	15.4
3	55	13.4
4	32	7.8
5	28	6.8
6	21	5.1
7	22	5.4
8	18	4.4
9	14	3.4
Total	410	100

Average CEO tenure in the sample = 3.09 years

Source: Authors' computations

Do short-tenure CEOs perform better than the long-tenure ones? This question was investigated using three measures of performance (ROE, ROA and PE ratio). In each case, an independent *t*-test suggested no significant difference in performance of the two categories of CEO-tenure firms. These independent *t*-test results seem to indicate that although family connections might contribute towards the elongation of CEO tenure, there is no evidence to suggest that such elongation is adding any value by way of better performance.

The extent to which the board of directors may serve as an effective tool for the promotion of corporate governance depends in part on the extent to which the members are involved in other assignments. It is assumed that the greater the number of boards on which a person sits, the less time they will have on a single board. This assumption has a drawback in the sense that membership of other boards could enrich experience and widen exposure, both of which could have positive effects on firm performance. Despite the possibility of the potential gains of multiple directorship, the literature considers as busy a director sitting on three or more boards (Ghosh and Sirmans, 2003 and Pass, 2004). Directors who are too busy will be unable to pay attention to strategic issues for effective governance and discipline of the executives.

In the United States, the phenomenon of multiple directorships has led the National Association of Pension Fund (NAPF) to call for a limitation on the number of non-executive directorships an individual can hold at the same time to not more than five (Pass, 2004). It is with these arguments in mind that we have examined the data for any evidence of the extent of multiple directorships of Nigerian quoted firms. Of the list of 2,805 directors, 2,406 (85.8%) of them sit on the board of just one company. A total of 297 of them (10.6%) serve on two different boards. While 102 (or 3.6%) are engaged in the service of three or more boards. The 5 busiest directors sit on the boards of 6 different quoted firms. Although the literature has suggested the benchmark of 3 as an indication of A crowded schedule, it is important to take this benchmark with caution. In Nigeria, there are many small unquoted companies, and the involvement of these directors in such companies is not captured by our data, which was drawn only from the listed firms. Thus, a director sitting on just one board may turn out to have a busier schedule than one, with multiple directorships, if the former is more deeply involved in the running of unquoted firms.

The use of family relations by the chairperson or chief executives may have deleterious consequences for the firm and its performance. In the face of poor performance it is likely that firms with family relations sitting on the board will find it harder to rid themselves of poor-performing chief executives. The network of friends and relations on the board could make it difficult for this to happen. Our analysis of data at this point is quite basic, employing no more than frequency distributions, the independent *t*-test and analysis of variance. More definitive conclusions need await further data collection and application of regression analysis. The results obtained from the analysis of variance show that family dominated boards are generally large in size, and the number of directors on their board tends to be large as well.

5.2 Regression results

A summary of the results obtained from the regression analysis is presented in table 4.

Four sets of regression results are presented; 2 with ROE as the dependent variable, and the other 2 with ROA and PE ratio each as the dependent variable. In column 2 of the table, firm performance (ROE) is regressed against linear and quadratic measures of board size, and a measure of firm size, proxied by the natural log of the number of employees of the firm, as recommended by Bigsten et al. (1997) in their study of manufacturing firms in Africa.

There are two other regressors, one intended to gauge the effect of family connections in the boardrooms, and the other intended to examine the effects of CEO tenure on firm performance. From the results in column 2, we obtained an

optimal board size of 10.⁴ This is consistent with the optimal size of 10 reported by Sanda et al. (2005) in an earlier study of the Nigerian Stock Exchange. Unlike Sanda et al. (2005), the results in table 4 examine further the importance of family connections and CEO tenure in the boardrooms. A number of authors have attempted to examine the effects of boardroom family connection on firm performance (see second paragraph of the literature review). In the regression results given above, a dummy variable, taking a value of 1 for firms with boardroom family connection, and 0 otherwise, was included in order gauge the evidence from the Nigerian data.

Table 4. Basic Regression Results

Independent variables	Dependent variable			
	ROE		ROA	PERATIO
	2	3	4	5
Board size	0.59 (2.15)**	0.64 (2.14)**	0.016 (0.20)	2.45 (1.27)
Board size square	-0.03 (-1.98)**	-0.03 (-2.00)**	-.002 (-0.45)	-0.02 (-0.18)
Log number of employees	0.50 (3.66)***	0.51 (3.62)***	0.11 (3.15)***	-2.60 (-2.89)***
Family connection dummy	-	-0.04 (-0.11)	-	-17.90 (-4.16)***
CEO tenure dummy	-	-	-0.18 (-1.95)**	-2.98 (-1.32)
Adjusted R ²	0.03	0.03	0.01	0.04
F	8.48***	6.07***	3.34***	7.09***

Significant at 1% (***), 5 % (**)

As can be seen in column 4 of the table, CEO tenure is negatively related to firm performance, suggesting that firms in which the CEOs stay longer than the average duration, have a poorer performance than those in which the tenure of the chief executive does not exceed the overall average. The results also show that firms with two or more members of the same family sitting on their board tend to have a poorer performance than those with no family relations on their board.

⁴ See endnote on how the optimal board of directors was found to be 10.

5.3 Policy implications

A number of implications flow from the findings. First, given that an optimal board size of ten was found, and that many firms in Nigeria have a board size below this number, an immediate implication is the need for firms to bear in mind this number when constituting the board of directors for their firms. A second policy implication arising from the results is that a mechanism should be found to ensure that CEOs do not stay longer than necessary. Our results show that CEOs often prefer to stay in the midst of relations on their boards. It is therefore likely that such CEOs may hang on even when they are underperforming. The regulatory authorities may need to ensure that firms are governed by CEOs who have a track record of performance, rather than by those whose poor performance is condoned by their relations who are members on their boards.

6. Conclusions

This paper uses data for the period 1996 to 2004 to examine the effects of certain board characteristics on firm performance. Broadly speaking, the findings suggest that some of the characteristics of boards of directors in Nigeria are not congenial to sound corporate governance. A board in which a good number of the members are from the same family could be detrimental to firm performance as such members are likely to be reluctant to remove the low-performing CEO. By the same token, a board comprising directors with multiple directorships risks jeopardizing the performance of the firms, for the ability of busy directors to effectively monitor management will be weakened. In a recent paper, Levine (2004) pointed out the implications that family-dominated boards could have, not only for the firm itself, but also for the economy at large. Where members of the same family or profession (such as retired military officers) take control of an array of firms, such equity stake could translate into political power, raising the possibility for them to influence the shaping of policies (such as granting of subsidies) that could be counterproductive to the economy at large.

There is the need for further work in this area of corporate governance in Nigeria. Although this study provides fresh evidence on the relationship between corporate governance variables and firm performance in Nigeria, the subject should be revisited, especially when newer data sets are available, to enable the application of other methods of estimation such as panel data regressions, and to better understand how corporate governance is related to firm performance.

Endnote

The purpose of this endnote is to explain how we arrived at the optimal board size of 10. The results given in column 2 of table 4 were obtained by estimating the following model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_1^2 + \beta_3 X_2 + \epsilon$$

where:

- Y = ROE, a measure of firm performance
- X_1 = Board size
- X_1^2 = Board size squared
- X_2 = Firm size (where number of employees was used as a proxy)

To obtain the optimal board size, we differentiate Y with respect to X_1 to get:

$$dY/dX_1 = \beta_1 + 2 * \beta_2 X_1$$

We now set the derivative to zero to obtain optimal values so that:

$$\begin{aligned} \beta_1 + 2 * \beta_2 X_1 &= 0 \\ X_1 &= -\beta_1 / (2 * \beta_2) \end{aligned}$$

The parameters in column 2 of table 4 can then be substituted into the above equation to get:

$$\begin{aligned} X_1 &= -(0.59) / (2 * (-.03)) \\ &= -0.59 / -0.06 = 10 \end{aligned}$$

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Appendix 1. List of Companies in the Sample

1.	Ellah Lakes Plc	Agriculture
2.	Grommac Industries Plc	Agriculture
3.	Livestock Feeds Plc	Agriculture
4.	Okitipupa Oil Palm Plc	Agriculture
5.	Pressco PLC	Agriculture
6.	The Okomu Oil Palm Plc	Agriculture
7.	Albarka Air PLC	Airlines
8.	Aviation Development Co. Plc	Airlines
9.	Bewac (Nig.) Plc	Automobiles
10.	Dunlop Nigeria Plc	Automobiles
11.	Incar Nigeria Plc	Automobiles
12.	Intra Motors Nigeria Plc	Automobiles
13.	R.T. Briscoe Nigeria Plc	Automobiles
14.	Rietzcot Nigeria Co. Plc	Automobiles
15.	ACB International Bank	Banking
16.	Access Bank Nigeria Plc	Banking
17.	Afribank Nigeria Plc	Banking
18.	African Express Bank Plc	Banking
19.	Chartered Bank Plc	Banking
20.	Co-operative Bank Plc	Banking

21.	Cooperative Development Bank Plc	Banking
22.	Diamond Bank Plc	Banking
23.	EIB International Bank Plc	Banking
24.	Fidelity Bank Plc	Banking
25.	First Atlantic Bank Plc	Banking
26.	First Bank of Nigeria Plc	Banking
27.	First City Monument Bank Plc	Banking
28.	FSB International Bank Plc	Banking
29.	Guaranty Trust Bank Plc	Banking
30.	Gulf Bank of Nigeria Plc	Banking
31.	Hallmark Bank Plc	Banking
32.	IMB International Bank Plc	Banking
33.	Inland Bank (Nigeria) Plc	Banking
34.	Intercontinental Bank Plc	Banking
35.	Investment Banking and Trust Company Plc	Banking
36.	Liberty Bank Plc	Banking
37.	Lion Bank of (Nigeria) Plc	Banking
38.	MannyBank Plc	Banking
39.	NAL Bank PLc	Banking
40.	Oceanic Bank PLc	Banking
41.	OmegaBank Plc	Banking
42.	Regent Bank Plc	Banking
43.	Standard Trust Bank Plc	Banking
44.	Trade Bank Plc	Banking
45.	Trans International Bank	Banking
46.	Union Bank of Nigeria Plc	Banking
47.	United Bank for Africa Plc	Banking
48.	Universal Trust Bank Plc	Banking
49.	Wema Bank Plc	Banking
50.	Zenith Bank Plc	Banking
51.	Champion Breweries Plc	Breweries
52.	Golden Guinea Breweries Plc	Breweries
53.	Guinness (Nigeria) Breweries Plc	Breweries
54.	International Breweries Plc	Breweries
55.	Jos International Breweries Plc	Breweries
56.	Nigerian Breweries Plc	Breweries
57.	Premier Breweries Plc	Breweries
58.	Ashaka Cement Plc	Building Materials
59.	Benue Cement Company Plc	Building Materials
60.	Cement Company of North (Nigeria) Plc	Building Materials
61.	Ceramics Manufacturing (Nigeria) Company	Building Materials

62.	Nigeria Ropes Plc	Building Materials
63.	Nigeria Wire Industries Plc	Building Materials
64.	Nigerian Cement Company Plc	Building Materials
65.	West African Portland Cement Plc	Building Materials
66.	Berger Paints Plc	Chemicals & Paints
67.	CAP Plc	Chemicals & Paints
68.	DN Meyer Plc	Chemicals & Paints
69.	IPWA Plc	Chemicals & Paints
70.	Nigeria-German Chemicals Plc	Chemicals & Paints
71.	Premier Paints Plc	Chemicals & Paints
72.	African Paints (Nigeria) Plc	Chemicals & Paints
73.	Trans-Nationwide Express PLC	Commercial/Services
74.	Atlas Nigeria Plc	Comp and Office Equipment
75.	Hallmark Paper Products Plc	Comp and Office Equipment
76.	NCR (Nigeria) Plc	Comp and Office Equipment
77.	Thomas Wyatt (Nigeria) Plc	Comp and Office Equipment
78.	Tripple Gee & Company Plc	Comp and Office Equipment
79.	WTN Plc	Comp and Office Equipment
80.	CFAO (Nigeria) Plc	Conglomerates
81.	Chellarams Plc	Conglomerates
82.	John Holt Plc	Conglomerates
83.	P Z Industries Plc	Conglomerates
84.	SCOA (Nigeria) Plc	Conglomerates
85.	UACN Plc	Conglomerates
86.	Unilever Nigeria Plc	Conglomerates
87.	UTC (Nigeria) Plc	Conglomerates
88.	A. G. Leventis (Nigeria) Plc	Conglomerates
89.	Cappa & D''Alberto Plc	Construction
90.	Costain (West Africa) Plc	Construction
91.	G. Cappa Plc	Construction
92.	Julius Berger (Nigeria) Plc	Construction
93.	Roads (Nigeria) Plc	Construction
94.	Arbico Plc	Emerging Markets
95.	Afrik Pharmaceuticals Plc	Emerging Markets
96.	Anino International Plc	Emerging Markets
97.	Capital Oil Plc	Emerging Markets
98.	Cutix Plc	Emerging Markets
99.	Flexible Packaging Plc	Emerging Markets
100.	Juli Plc	Emerging Markets
101.	Krabo Nigeria Plc	Emerging Markets
102.	NewPak Plc	Emerging Markets
103.	Rak Unity Petroleum Company Plc	Emerging Markets

104.	Rokana Industries Plc	Emerging Markets
105.	Smurfit Print Nigeria Plc	Emerging Markets
106.	Tropical Petroleum Products Plc	Emerging Markets
107.	Udeofson Garment Factory Nigeria Plc	Emerging Markets
108.	Union Ventures & Petroleum Plc	Emerging Markets
109.	West Africa Aluminium Products Plc	Emerging Markets
110.	Adswitch Plc	Emerging Markets
111.	Interlinked Technologies Plc	Engineering Technology
112.	Nigerian Wire & Cables Plc	Engineering Technology
113.	Onwuka Hi-Tek Industries Plc	Engineering Technology
114.	Beverages (West Africa) Plc	Food/Beverages & Tobacco
115.	Cadbury Nigeria Plc	Food/Beverages & Tobacco
116.	Ferdinand Oil Mills Plc	Food/Beverages & Tobacco
117.	Flour Mills (Nigeria) Plc	Food/Beverages & Tobacco
118.	Foremost Diaries Plc	Food/Beverages & Tobacco
119.	National Salt Company (Nigeria) Plc	Food/Beverages & Tobacco
120.	Nestle Foods (Nigeria) Plc	Food/Beverages & Tobacco
121.	Nigerian Bottling Company Plc	Food/Beverages & Tobacco
122.	Northern (Nigeria) Flour Mills Plc	Food/Beverages & Tobacco
123.	P S Mandrides & Company Plc	Food/Beverages & Tobacco
124.	Tate Industries Plc	Food/Beverages & Tobacco
125.	Union Dicon Salts Plc	Food/Beverages & Tobacco
126.	7-Up Bottling Company Plc	Food/Beverages & Tobacco
127.	Footwear & Accessories Manufacturing and Distribution Plc	Footwear
128.	Lennards (Nigeria) Plc	Footwear
129.	Aboseldehyde Laboratories Plc	Healthcare
130.	BCN Plc	Healthcare
131.	Christlieb Plc	Healthcare
132.	Ekocorp Plc	Healthcare
133.	Evans Medical Plc	Healthcare
134.	Glaxo SmithKline Beecham Consumer Nigeria Plc	Healthcare
135.	Maureen Laboratories Plc	Healthcare
136.	May & Baker Nigeria Plc	Healthcare
137.	Morison Industries Plc	Healthcare
138.	Neimeth International Pharmaceuticals Plc	Healthcare
139.	Pharma-Deko Plc	Healthcare
140.	Tourist Company of Nigeria PLC	Hotel
141.	Aluminium Extrusion Industries Plc	Industrial products
142.	Aluminium Manufacturing Company Plc	Industrial products

143.	B. O. C. Gases Plc	Industrial products
144.	Epic Dynamics Plc	Industrial products
145.	First Aluminium Nigeria Plc	Industrial products
146.	Liz-Olofin and Company Plc	Industrial products
147.	Nigerian Enamelware Plc	Industrial products
148.	Nigerian Lamps Industries Plc	Industrial products
149.	Nigerian Yeast & Alcohol Manufacturing Plc	Industrial products
150.	Oluwa Glass Company Plc	Industrial products
151.	Vitafoam (Nigeria) Plc	Industrial products
152.	Vono Products Plc	Industrial products
153.	Acen Insurance Company Plc	Insurance
154.	Aiico Insurance Plc	Insurance
155.	Amicable Assurance Plc	Insurance
156.	Baico Insurance Plc	Insurance
157.	Confidence Insurance Plc	Insurance
158.	Cornerstone Insurance Plc	Insurance
159.	Crusader Insurance Plc	Insurance
160.	First Assurance Plc	Insurance
161.	Guinea Insurance Plc	Insurance
162.	Lasaco Assurance Plc	Insurance
163.	Law Union & Rock Insurance Plc	Insurance
164.	Linkage Assurance Plc	Insurance
165.	Mutual Benefits Assurance Plc	Insurance
166.	NEM Insurance Plc	Insurance
167.	Niger Insurance Plc	Insurance
168.	Prestige Assurance Plc	Insurance
169.	Royal Exchange Assurance Plc	Insurance
170.	Security Assurance Plc	Insurance
171.	Sun Insurance Plc	Insurance
172.	Unic Insurance Plc	Insurance
173.	West African Providence Insurance Company Plc	Insurance
174.	BHN Plc	Machinery (Marketing)
175.	Nigerian Sewing Machine Manufacturing Company Plc	Machinery (Marketing)
176.	Stokvis (Nigeria) Plc	Machinery (Marketing)
177.	C & I Leasing Plc	Managed Funds
178.	Japaul Oil and Maritime Services Plc	Maritime
179.	Abplast Products Plc	Packaging
180.	Avon Crowncaps & Containers Plc	Packaging
181.	Beta Glass Company Plc	Packaging
182.	Hampak Nigeria Plc	Packaging

183.	Poly Products (Nigeria) Plc	Packaging
184.	Studio Press (Nigeria) Plc	Packaging
185.	Van Leer Containers (Nigeria) Plc	Packaging
186.	West Africa Glass Industries Plc	Packaging
187.	African Petroleum Plc	Petroleum (Marketing)
188.	Afroil Plc	Petroleum (Marketing)
189.	Conoil Plc	Petroleum (Marketing)
190.	Eterna Oil & Gas Company Plc	Petroleum (Marketing)
191.	Mobil Oil (Nigeria) Plc	Petroleum (Marketing)
192.	Oando Nigeria Plc	Petroleum (Marketing)
193.	Texaco Nigeria Plc	Petroleum (Marketing)
194.	Total Nigeria Plc	Petroleum (Marketing)
195.	Academy Press Plc	Printing & Publishing
196.	Daily Times Plc	Printing & Publishing
197.	Longman Nigeria Plc	Printing & Publishing
198.	University Press Plc	Printing & Publishing
199.	UACN Property Development Plc	Real Estate
200.	Aba Textiles Mills Plc	Textiles
201.	Afprint Nigeria Plc	Textiles
202.	Asaba Textile Mills Plc	Textiles
203.	Enpee Industries Plc	Textiles
204.	Nigerian Textiles Mills Plc	Textiles
205.	United Nigeria Textiles Plc	Textiles

Appendix 2. Independent T-test Results

Firm Category	Average CEO Tenure
Boards without family relations	2.91
Boards with family relations	3.89
t-Statistics -2.88***	*** Significant at 1 %

Appendix 3. One-Way ANOVA Results

Sector	Average CEO Tenure
Hotel	1.00
Maritime	1.00
Agriculture	2.27
Banking	2.33
Commercial	2.33
Conglomerate	2.63
Insurance	2.67
Petroleum	2.71
Automobile	2.75
Chemical	2.88
Printing	3.00
Breweries	3.17
Healthcare	3.17
Real Estate	3.50
Packaging	3.54
Computer	3.58
Construction	3.58
Engineering	3.67
Food/Beverages	3.68
Industrials	3.80
Machineries	3.80
Managed Funds	4.00
Emerging Markets	4.11
Footwear	4.33
Building	4.41
Airlines	6.50
Textiles	7.25
F-Statistics 1.92***	*** Significant at 1%