

CORPORATE GOVERNANCE, OWNERSHIP STRUCTURE AND PERFORMANCE OF MANUFACTURING FIRMS IN NIGERIA

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Abstract

Recognizing the weakness in the use of the OLS model in the panel data analysis of corporate governance and firm performance, this study augmented the model with the use of fixed effect model for a sample of 76 listed non-financial firms in Nigeria. Moreover, the study accounted for the role of some vital control variables excluded by previous researchers from Nigeria. Our results suggest that findings based on OLS models could be misleading. Foreign ownership that was found to have a negative impact on firm performance was the only positive and significant variable in the fixed effect model. Ownership concentration was found to have a negative impact on performance using the ROA. Our study confirmed the expropriation hypothesis for Nigeria.

Keywords: corporate governance, ownership, performance, Nigeria

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1. Introduction

The analysis of the impact of corporate governance and firm performance has occupied the attention of scholars, business men, government and several international agencies in the recent decade. The issue has been much discussed at several global forums. The issue was re-kindled following the collapse of financial markets in the South East Asia and the financial scandals that rocked many companies in the west such as Adelphia, Enron, World Com etc. Ever since then, researchers have tried to establish the nature and impact of corporate governance on firm performance.

In this milieu, several researchers in Nigeria have also contributed to debate on the nature and the impact of corporate governance on firm performance. However, in this study our interest is much more fundamental than the issue of the crisis that rocked the South East Asia financial system. Rather our perspective derives from the significance of the two issues at stake, i.e. 'corporate governance' and 'manufacturing performance' for pro-poor growth strategy for reducing poverty in developing countries. The manufacturing sector of any economy occupies a very special position in the growth process. It is found to possess some special growth-inducing properties, which include linkages with key economic sectors

from specialization and dissemination of technologies. Specialization in the manufacturing sector is more guaranteed than in any other sector in the economy and it assists in technology development and dissemination throughout the economy (U.S. Department of Commerce, 1995). While the manufacturing sector has contributed immensely towards the growth and development of advanced countries, it has also led to a tremendous economic growth and reduction in the level of poverty in the South East Asian countries in the recent decades. As a matter of fact, progress towards the MDG goal of reducing poverty by half in year 2015 is fast being achieved in these countries, whereas, it is still far from been realized in many sub Saharan African countries especially Nigeria.

On the other hand, corporate governance has been identified as an important variable in the growth and development of the market economies. Claessens (2003) identified several links between corporate governance and development. First, it is a source of increased access to external financing which could lead to larger investment, higher growth, and greater employment creation. Second it leads to reduction in the cost of capital that is associated with higher firm valuation. Third, it results in better operational performance through better allocation of resources and better management which creates wealth more

generally. Fourth, it leads to reduced risk of financial crises which can have large economic and social costs, and finally, improved relationships among stakeholders is expected to promote social and labour relations as well as environmental protection.

In the context of the foregoing, it is pertinent to take a brief look at the state of manufacturing performance in Nigeria for a good appreciation of corporate governance for Nigeria's manufacturing sector. Adenikinju (2005) shows that the sector's share of GDP rose from 5.4 percent in 1980 to peak at 8.1 percent in 1990 and subsequently declined to 6 percent in 2001. Exports increased from 0.3 percent in 1980 to 0.6 percent in 2001, however, manufacturing contribution to foreign exchange earnings was found to be less than 1 percent while about 81 percent of the nation's total foreign exchange earning was utilized by the sector. In terms of employment generation, about 10 percent of the population was employed compared to 70 percent in agriculture and 20 percent in services.

Further statistics on the structure of the sector in 1993 from Adenikinju (2005) reveals that 69 percent of all industries relied on low technology, while 18 and 13 percent relied on medium and high technology respectively. A total of about 59 percent manufacturing value added was found to come from the consumer goods sector while 28 percent and 13 percent were from the intermediate and capital goods respectively. The corresponding figure for South Africa was put at 40 percent, 41 and 19 percent respectively. The dismal performance of Nigeria's manufacturing sector is manifested in the high level of graduate unemployment, poverty, corruption and other types of social vices which constitutes a threat to the nascent democracy and further investments in Nigeria, thereby perpetuating underdevelopment.

Hence the poor performance of the manufacturing sector has necessitated the study of the factors determining the performance of firms in that sector. In addition, the adoption of the neo-liberal policies by Nigeria since 1986 has placed more responsibilities in the hands of the private sector for driving economic growth and development, hence, a good understanding of the determinants of performance of this sector will go a long way in ensuring good policy formulation and implementation that will enable Nigeria realize the dynamic gains of manufacturing development.

While several studies have been conducted around the world to find out the impact of corporate governance mechanisms on firm performance, there has really not been a consensus among researchers on the nature and variables of impact. The situation is not so different in Nigeria; while studies conducted in Nigeria have basically made use of the OLS regression models which is subject to econometric

problems¹, certain important control variables have conspicuously also been omitted in the models². For instance, the role of business cycle, market structure and competition were omitted, hence results emanating from such analysis cannot really be relied upon for robust policy formulation and analysis. This study therefore was initiated to advance a clearer understanding of the role of corporate governance on firm performance in Nigeria.

Having looked at the introduction in section one, section two takes a look at the theoretical framework and literature review, section three presents the methodology while section four presents the empirical analysis and section five gives the conclusions and recommendations.

2. Theoretical framework/literature review

The theoretical foundation of the role of corporate governance on performance of firms is rooted in the agency theory of the firm by Jensen and Meckling (1976). Agency relationship was defined as a contract under which one party, the principal (shareholders) engages another party, the agent (managers) to perform some service on their behalf. This contract often results in agency costs due to the fact that in view of asymmetric information, the agents can pursue objectives that are at variance with that of the principal. These costs consist of monitoring, bonding, and residual loss. Two types of corporate governance mechanisms can be used to minimize agency costs. These include, internal and external. Internal mechanisms consist of ownership concentration, director or managerial ownership, board of directors, executive compensation and debt. External corporate governance mechanism consists of the market for corporate takeover and competition.

2.1. Ownership concentration

Theoretical reviews on the impact of ownership concentration on firm performance are basically of two types—monitoring and expropriation hypotheses. Monitoring hypothesis can be associated with the works of Berle and Means (1932) and the works of Shleifer and Vishny (1986). Their view was predicated on the agency cost arising from incomplete contracts inherent in asymmetric information between the principal and the agent when there is a separation of ownership from control. They viewed ownership

¹ Wintoki et al (2009) demonstrated that estimating the corporate governance model with the OLS will result in a bias result because it ignores unobservable heterogeneity.

² Serlarka (2005) observed that firm performance can be influenced by a host of some factors and the omission of such factors may lead to spurious relation between firm value and ownership structure.

concentration as a corporate governance mechanism that provides incentive for monitoring managers from maximizing their utilities at the expense of shareholders.

In the 1980's however, emphasis shifted from the monitoring hypothesis to the expropriation hypothesis. In a concentrated ownership structure, monitoring was believed not to be a problem as large shareholders were assumed to be active in corporate governance. However, concentrated ownership was seen as a response to the risk of expropriation by the large shareholders. Hence, in this framework, ownership concentration was viewed as having adverse effect on firm performance in several ways.

First, Aghion, Tirole (1997) hypothesized that in a concentrated ownership structure, incentives to managerial initiatives to acquire information can be stifled. By contrast, a dispersed ownership structure was seen as a signal of guarantee to the managers that their actions will not be verified; this is expected to stimulate managerial activism with powerful incentives (Cremer, 1995). When managerial incentives and initiatives are very important, especially in the face of uncertainty, concentrated ownership may adversely affect firm performance.

Second, ownership concentration was seen as a sign of illiquidity in the market which was viewed to act as a limitation to the information role of the market (Holmstrom, Tirole, 1993). Hence, in an uncertain environment or where there is a need for management of low performing firms to change hands (Allen, 1993), concentrated ownership will hinder such move, which may have adverse impact on firm performance.

Furthermore, ownership concentration is viewed to limit the shareholders' tolerance to risk and diversification. Hence, a dispersed ownership is believed to enhance investment decisions of the managers (Demsetz, Lehn, 1985; Heinrich, 2000).

Empirical studies on the impact of concentrated ownership on performance have produced mixed results. Some studies have confirmed the monitoring hypothesis, in which case, ownership structure was found to impact positively on the performance of firms. These studies include, Hill and Snell (1988), Hill and Snell (1989), Agrawal and Mandelker (1990) from the United States; Deb and Chatuvedular, (2003), Ganguli and Agrawal (2008) from India, and Grosfeld (2006) from Poland, among others. Some other studies have however confirmed the expropriation hypothesis in which case ownership concentration was found to have impacted negatively on firm performance. These studies include, Leech and Leahy (1991), Mudambi and Nicosia (1998) from the UK, Boubaker (2005) from France and Kirchmaier and Grant (2006) from six European countries which include, Germany, Spain, France, Italy and UK. Some other studies have found no relationship or non-linear/quadratic relationship between ownership concentration and firm

performance. Some of these include, Demsetz and Lehn (1985), Morck, Shleifer and Vishny (1988), Loderer and Martin (1997), and Cho (1998). A non-linear relationship was found by Gedaklovic and Shapiro (1998) for the US and German firms. In Spain, Miguel, Pindado and Torre (2003) found a quadratic relationship between ownership concentration and firm performance. Firm performance was found to increase as ownership increases between 0% and 87%, while it subsequently declined beyond this threshold.

In conclusion, ownership concentration is found to have a positive impact on firm performance in the developed countries such as U.S with a very fluid capital market (Hill & Snell, 1989), and also in some underdeveloped markets like China (Cho & Rui, 2007), transition economies like Poland (Grosfeld, 2006), and in emerging markets such as India, South Korea, Egypt and Thailand.

2.2 Managerial/Insider Ownership

Theoretically, explanations of the impact of managerial/insider ownership also falls under two major hypotheses. The Convergence-of-Interest and the Entrenchment hypotheses. The Convergence-of-Interest hypothesis as espoused by Berle and Means (1932) and Jensen and Meckling (1976) noted that given the fact that managers or insiders will pursue their selfish interest at the expense of outside owners, an increased allocation of shares to insider owners is therefore expected to motivate the managers to pursue interests that converge with that of the external shareholders. Hence, it is hypothesized that the higher the managerial ownership, the higher the profitability of the firm.

The Entrenchment hypothesis as explained by Fama and Jensen (1983) observed that firms with low insider ownership can still perform better in the face of product market competition, but when the level of insider ownership becomes very high, this may give them opportunity to pursue their selfish interest without a risk of job and salary loss. Hence, excessive insider ownership was viewed to have a negative impact on performance.

Empirical evidences in support of the convergence of interest hypothesis include Mehran (1995), Seifert, Gonene and Wright (2002) etc. Supporters of the entrenchment hypothesis include; Lins (2002), Lee and Ryu (2003). The third category of studies did not find a systematic impact of managerial ownership on firm performance. Mock, Shleifer and Vishny (1998) found a positive impact on firms with managerial ownership of between 0 – 5 percent, a negative impact from 5 – 25 percent and a positive impact for firms with more than 25 percent. In summary, a positive relationship was found to exist between management ownership and firm performance in multi-country observations i.e. U.S, U.K, Germany and Japan (Wright, et al. 2002) and

also in continental Europe with bank-centered corporate governance system like Germany (Kaserer & Mouldenhauer, 2007); Swiss (Schmid & Zimmermann, 2007) and also in Asian countries like Hong Kong (Leung & Hartzwatz, 2007).

2.3. Ownership Structure (Foreign Ownership)

Many studies have considered the identity of the largest shareholder in explaining firm performance. The identity of owners studied includes, family, government, bank, pension funds, mutual funds, non-financial business firms and dispersed ownerships. A cursory look at the ownership structure of manufacturing firms in Nigeria reveals a structure of ownership that is dichotomized between foreign and domestic ownership. Hence, this study examines the impact of foreign ownership on firm performance. Oxelheim and Randoy, 2003).

Theoretical explanation of foreign ownership on firm performance recognizes the role of globalization of equity ownership. Globalization is presumed to affect the value of the firm because, it removes barriers to trade and capital flows and also removes the cross-border barriers to information flows and corporate governance.

The removal of cross-border barriers to information flows and corporate governance is hypothesized to enable a firm break away from domestic corporate governance system to embrace the Anglo-American corporate governance system which is adjudged to be the best corporate governance system in the world. Breaking away from the domestic system can be achieved via two routes; first, by foreign listing on the Anglo-American market and; two, by board membership of Anglo-American foreign members. These two routes present the firms with the opportunity to bridging cross-border information gaps and improvement in corporate governance system, which are expected to attract new investors and consequently increase the share price of the company and lower the cost of capital.

Globalization of ownership is presumed to create opportunities for foreigners to buy a large ownership stake in the company which can enable them perform a proper monitoring role on the management, (Shleifer and Vishny, 1986). In addition, foreign board members are presumed not to accept benefits that do not accrue to other shareholders. Furthermore, strict compliance with the international governance regimes and monitoring is hypothesized to increase costs which may discourage the managers from extracting private benefits which in turn strengthens the commitments of the firm to protecting the interests of minority shareholders (Reece and Weisback, 2001).

An alternative to foreign listing which may be cost-intensive is to import a foreign board member. A foreign board member may be appointed in an attempt

to achieve a global capital at a lower outright cost. A foreign member on the board is expected to serve as a signal of commitment to corporate monitoring and transparency. This can result in having a board that is more effective and independent of the executive.

Hence, given the role of globalization of ownership, foreign ownership is expected to increase or improve firm performance as against domestic firms that did not break away from the local capital requirements.

2.4. The Size of the Board of Directors

The board of directors is expected to provide an oversight function on the executives. However, the board can only be very effective if its size is not too large, otherwise, decision making, effective communications and control can be hindered under a large board. Lipton and Lorsch (1992) spoke against large board members, they advised that board membership should be limited to about seven or eight. Hence, theoretically, large board members exercise a negative impact on the performance of firms.

Empirical evidences in support of the hypothesis include Yermack (1996), Eisenberg, Sundgren and Wells (1998), Bhagat and Black (2002). However, Coles, Daniel and Naveen (2008) have found a positive impact on firm performance in large diversified firms.

2.5. Empirical Literature from Nigeria

There are about four relevant empirical studies emanating from Nigerian researchers on the issue of corporate governance and firm performance³. The first is the work of Ahmadu et al. (2009). Their study assembled 93 firms⁴ between 1996 and 1999 from the Nigerian Stock Exchange and made use of the Pooled OLS regression analysis to analyze their data while controlling for size with the total asset of firms. Their results showed a positive relationship between firm financial performance and board size, expatriate CEOs, ownership concentration and debt. A negative impact was recorded for director shareholding, CEO status and square of ownership concentration proxying for non-linear relationship.

³ There are several other works that may have been conducted in Nigeria, however, the ones reviewed were easily retrieved from the internet and they are about the most relevant to our current study. Most of the authors have referenced the work of Adenikinju and Ayorinde (2001) sponsored by the AERC, but we could not lay our hands on it. Moreover, studies conducted after their own laid claims of improving the work.

⁴ When we removed the number of financial firms from their study, the sample of non-financial firms dropped to 63 which is less than 76 used by our current study.

The second relevant study was by Kajola (2008) who assembled only 20 non-financial firms between 2000 and 2006 also making use of the Pooled OLS regression analysis. His result also was positive for board size but negative for CEO status which did not support Ahamadu et al findings.

Uadiale (2010) surveyed a cross section of 30 non-financial firms in 2007 also making use of the OLS model. He recorded a negative and significant impact for director shareholding in line with Ahmadu et al study, while a positive and statistical significant impact was also recorded for the CEOs status which was in agreement with Kajola's study and contrary to Ahmadu's work. In the case of board size, a perfect agreement with previous studies was recorded; a positive and significant impact was recorded by all the researchers.

The final study was by Babatunde (2009) who assembled 62 firms between years 2002-2006. His study differed from previous ones in the methodology. He adopted a fixed and random effects method for his analysis. However, all his findings were not different from those of the earlier scholars. Moreover, no control variable was accounted for the model.

These studies reported a perfect agreement in the role of board size on firm performance. They all reported that board size has a positive impact on board performance⁵. Moreso, managerial shareholding was also unequivocally found to exercise an adverse effect on firm performance. Also, Ahmadu reported a positive impact of debt on profitability. Apart from these variables, there were no agreements on impact on corporate governance on firm performance in Nigeria.

3. Methodology

3.1. Model Specification

This study makes use of two models. First we estimated the OLS model and then compared the results with the fixed effect model. The basic model is specified as follows:

This is explicitly stated as follows:

$$ROA = f(\text{Market Structure}_{it} + \text{Ownership Concentration}_{it} + \text{Foreign Ownership} + \text{Ownership Control}_{it} + \text{Log of Board Size}_{it} + \text{Managerial Ownership}_{it} + \text{Competition}_{it} + \text{Log of Number of Workers}_{it} + \text{Log of Total Assets}_{it} + \text{Business Cycle}_{it}) + \eta_i + \epsilon_{it} \quad (1)$$

$$TBQ = f(\text{Market Structure}_{it} + \text{Ownership Concentration}_{it} + \text{Foreign Ownership} + \text{Ownership Control}_{it} + \text{Log of Board Size}_{it} + \text{Managerial Ownership}_{it} + \text{Competition}_{it} + \text{Log of Number of Workers}_{it} + \text{Log of Total Assets}_{it} + \text{Business Cycle}_{it}) + \eta_i + \epsilon_{it} \quad (2)$$

ROA is the return on Asset, and TBQ is the modified Tobin's Q, η_i is the unobserved firm heterogeneity; ϵ_{it} is the random error term. The definition of the variables is presented in appendix 1.

3.2. Data Sources and Collection

Data for 76 non-financial firms from 1997 to 2007 were collected. This is about the largest dataset collected in Nigeria on non-financial firms for studies on corporate governance. Our main source of corporate data was from the annual reports of the companies sourced majorly from the Nigerian Stock Exchange. We also made use of African Financials' website which compiles annual report of public companies operating in Africa. Data relating to the risk free interest rate was collected from the Central Bank of Nigeria Statistical Bulletin of various years. The market value of equity was obtained by multiplying the closing market price of the shares at the end of a trading year or beginning of a trading year by number of outstanding shares.

4. Data Analysis and Interpretation

First we present the descriptive statistics of our corporate governance variables before presenting the econometric results. The summary statistics of the corporate governance and control variables are presented in table 1.

The average board size (BDZ) did not display much variation throughout the period of study. The mean number of board members can be put at 9 with a standard deviation of 3 and a median of also 9.

⁵ This result suggests that higher number of board members will be suitable for firm performance; however, all of them recommended a moderate board membership of about 8 to 10.

Table 1. Summary Statistics of Corporate Governance and Control Variables

| Panel A: Mean (Median) [Standard Deviation] of Corporate Governance Variables | | | | | | | | | | | |
|--|-----------------------------|-----------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Board Size | 9.47 (9.00) [2.47] | 9.42 (9.00) [2.64] | 9.25 (9.00) [2.38] | 9.04 (9.00) [2.49] | 9.03 (9.00) [2.44] | 8.93 (8.50) [2.47] | 8.89 (9.00) [2.47] | 9.16 (9.00) [2.49] | 8.93 (9.00) [2.30] | 8.93 (9.00) [2.30] | 8.93 (9.00) [2.30] |
| Own. conc. | 0.48 (0.50) [0.19] | 0.48 (0.50) [0.19] | 0.48 (0.50) [0.19] | 0.49 (0.52) [0.19] | 0.50 (0.55) [0.19] | 0.50 (0.57) [0.20] | 0.51 (0.56) [0.20] | 0.50 (0.55) [0.20] | 0.51 (0.57) [0.19] | 0.51 (0.57) [0.19] | 0.51 (0.57) [0.19] |
| Dir. Inte. | 0.39 (0.41) [0.18] | 0.40 (0.42) [0.18] | 0.40 (0.43) [0.18] | 0.40 (0.45) [0.19] | 0.47 (0.45) [0.19] | 0.42 (0.47) [0.20] | 0.41 (0.46) [0.19] | 0.41 (0.47) [0.19] | 0.42 (0.46) [0.19] | 0.42 (0.46) [0.19] | 0.42 (0.46) [0.19] |
| Largest S/holder | 0.39 (0.40) [0.17] | 0.40 (0.41) [0.17] | 0.40 (0.42) [0.18] | 0.40 (0.44) [0.18] | 0.41 (0.45) [0.19] | 0.42 (0.46) [0.19] | 0.41 (0.55) [0.19] | 0.41 (0.45) [0.19] | 0.42 (0.46) [0.19] | 0.42 (0.46) [0.19] | 0.42 (0.46) [0.19] |
| Rent | 0.52 (0.70) [0.39] | 0.50 (0.60) [0.36] | 0.51 (0.66) [0.35] | 0.39 (0.36) [0.40] | 0.50 (0.60) [0.40] | 0.59 (0.58) [1.05] | 0.53 (0.71) [0.39] | 0.54 (0.71) [0.38] | 0.64 (0.81) [0.36] | 0.60 (0.76) [0.35] | 0.67 (0.79) [0.33] |
| Tobin's Q | 2.48 (1.52) [3.27] | 1.84 (1.18) [2.57] | 1.37 (0.82) [1.52] | 2.34 (0.97) [4.09] | 2.12 (1.09) [3.16] | 1.74 (0.83) [2.37] | 2.22 (0.96) [3.14] | 2.67 (1.03) [6.48] | 2.46 (1.08) [5.94] | 2.67 (1.06) [5.89] | 2.37 (0.90) [5.86] |
| Panel B: Mean (Median) [Standard Deviation] of Control Variables | | | | | | | | | | | |
| | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Vertical Integ. | 0.50 (0.34) [0.80] | 0.35 (0.31) [0.22] | 0.42 (0.27) [0.90] | 0.34 (0.27) [0.26] | 0.29 (0.25) [0.20] | 0.31 (0.25) [0.25] | 0.31 (0.24) [0.17] | 0.27 (0.21) [0.25] | 0.27 (0.22) [0.26] | 0.26 (0.21) [0.25] | 0.25 (0.19) [0.25] |
| Return on Assets | 0.06 (0.11) [0.37] | 0.07 (0.10) [0.14] | 0.07 (0.09) [0.13] | 0.05 (0.08) [0.16] | 0.11 (0.11) [0.15] | 0.09 (0.11) [0.16] | 0.09 (0.12) [0.14] | 0.09 (0.10) [0.19] | 0.05 (0.08) [0.24] | -0.00 (0.09) [0.51] | 0.12 (0.08) [0.94] |
| Debt | 0.72 (0.62) [0.73] | 0.64 (0.64) [0.27] | 0.67 (0.64) [0.36] | 0.70 (0.68) [0.36] | 0.75 (0.66) [0.64] | 1.08 (0.66) [3.33] | 0.81 (0.65) [0.69] | 0.81 (0.68) [0.57] | 0.88 (0.68) [0.83] | 1.00 (0.64) [1.30] | 0.81 (0.66) [0.96] |
| Total Assets (=N=' Mil) | 2,977 (1,123) [4,018] | 3,654 (1,253) [6,592] | 5,508 (1,405) [17,388] | 4,765 (1,471) [7,884] | 5,326 (1,643) [8,043] | 6,438 (1,815) [9,434] | 8,479 (2,136) [15,648] | 8,016 (2,207) [11,416] | 9,457 (2,359) [13,342] | 10,897 (2,665) [15,595] | 13,228 (3,389) [20,243] |
| Workers | 1,470 (563) [2,609] | 1,402 (525) [2,648] | 1,311 (444) [2,418] | 1,276 (456) [2,352] | 1,336 (400) [2,714] | 1,266 (387) [2,543] | 1,245 (345) [2,427] | 1,072 (371) [1,845] | 1,213 (345) [2,349] | 2,165 (342) [8,946] | 1,070 (312) [2,287] |

Ownership concentration (OWC) was found to progressively increase from 1997 to 2007 from 0.48 to 0.49 in year 2000 and 0.50 in year 2002 and 0.51 in years 2005, 2006 and 2007. The impact of this is that it can be much easier for the bulk owners to collude if they so wish to expropriate the minority shareholders. On the other hand, they can also use their strength to effectively monitor the executives to taking good strategic decisions for improved corporate performance. The mean of the share of the largest shareholder (LUS) hovers between 0.39 and 0.42. It was also found to be stable throughout the period. The distribution of the mean shows that, a controlling shareholding of 51 percent by one shareholder was relatively absent among the companies.

The mean of the managerial shareholding (DIR) was also found to be relatively stable over the review period. It hovers between 0.39 and 0.47. The highest mean was however recorded in year 2001 while the mean changes between 0.41 and 0.42 in the post 2001

period. This level of ownership could still be said to be substantial for the managers to act in the interest of the shareholders.

We present the econometric results in two parts. The first part presents the impact of corporate governance variables on firm performance while the second part presents the non-linear relationships of the model.

The pooled OLS result using the ROA as the dependent variable in table (2). None of the corporate governance variables had a positive impact on performance of firms. The significant variables which were however negative were ownership concentration and debt, however, when we used Tobin's Q as a measure of corporate performance, two corporate governance variables were positive and statistically significant. These includes, share of the largest shareholder (LUS) and logarithm of board size (LBDZ). While the sign of the ownership concentration variable was in line with apriori

expectation, the sign of the log of board members did not conform. Three other variables recorded a statistical and negative impact on firm performance. These include; ownership structure (OWS), this refers to firms with foreign ownership, ownership control (OWC) and debt (DBT). The control variables in these models were however the chief significant factors explaining firm performance. Market structure (VIT) measured by vertical integration, log of number of workers (LWKR) and log of total assets (LTST) all recorded negative impact on firm performance, while business cycle had a positive and statistical impact on firm performance in Tobin's Q model.

In the fixed effect model, only ownership concentration (OWC) and ownership structure (OWS)

were significant corporate governance variables impacting on firm performance. Ownership concentration (OWC) was found to have a negative impact on firm performance both in the ROA and Tobin's q model; however, it was only significant in the former. This suggests that the expropriation hypothesis may be valid in Nigeria. The structure of ownership measured by foreign or local ownership was found to be positive in the two models, but it was statistically significant for Tobin's q. This suggests that the differences in the profit performance of firms that are owned by foreigners compared to that of the domestic owners were very significant.

Table 2. Effect of Corporate Governance on Firm Performance

| | Pooled OLS | | Fixed Effect | |
|-------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|
| | ROA | TBQ | ROA | TBQ |
| Largest Shareholder (LUS) | -0.1458 (0.2035) | 6.4382 (3.3732) ^b | -0.0189 (0.3069) | 3.655 (3.5953) |
| Ownership Concentration (OWC) | -0.1659 (0.0681) ^b | 0.8674 (1.1297) | -0.2491 (0.1432) ^c | -2.6790 (1.6775) |
| Ownership Structure (OWS) | -0.0160 (0.0236) | -2.3160 (0.3914) ^a | 0.0354 (0.0988) | 1.9109 (1.1573) ^c |
| Ownership Control (LUC) | 0.0397 (0.0296) | -1.7454 (0.4902) ^a | 0.0431 (0.0565) | -0.8889 (0.6623) |
| Log of Board size (LBDZ) | 0.0290 (0.0376) | 1.8347 (0.6225) ^a | 0.0004 (0.0683) | 0.2261 (0.7991) |
| Directors' interest (DIR) | 0.2762 (0.1774) | 1.7598 (2.9393) | 0.2135 (0.2844) | 3.0389 (3.3323) |
| Debt (DBT) | -0.0581 (0.0071) ^a | -0.2377 (0.1184) ^b | -0.0465 (0.0075) ^a | 0.0326 (0.0874) |
| Market structure (VIT) | -0.0555 (0.0216) ^a | -0.1934 (0.3577) | -0.0230 (0.0228) | 0.2356 (0.2671) |
| Competition (RNT) | 0.0610 (0.0184) ^a | 0.9965 (0.3049) ^a | 0.0297 (0.0207) | 0.7534 (0.2412) ^a |
| Log of workers (LWKR) | -0.0105 (0.0089) | -0.5750 (0.1476) ^a | -0.0088 (0.0165) | 0.0394 (0.1937) |
| Log of Total Asset (LTST) | -0.0034 (0.0107) | -0.4132 (0.1759) ^b | 0.0429 (0.0157) ^a | 0.3562 (0.1833) ^b |
| Business Cycle (CYC) | 0.0304 (0.0107) ^a | 0.5735 (0.1760) ^a | 0.0863 (0.0180) ^a | -0.1359 (0.2101) |
| Constant | 0.1966 (0.1359) | 4.0526 (2.2491) ^b | -0.0425 (0.2688) | -4.4480 (3.1477) |
| R^2 | 0.1800 | 0.129 | | |
| AR^2 | 0.168 | 0.116 | | |

a, b, c represent significance at one percent, five percent and ten percent

This study has further confirmed results of previous researchers from developing countries (Goethals and Ooghe, 1997; Alan and Steve, 2005; Piscitello and Rabbiosi, 2005). Furthermore, debt

financing (DBT) was found to have a negative⁶ and statistical impact on firm performance. In the fixed

⁶ In Sanda et al results, debt was found to have a positive impact on performance. Our result does not

effect model, competition (RNT), log of total asset (LTST) and business cycle (CYC) which were introduced as control variables were found to have positive and statistical impact on firm performance. Hence, the result of our fixed effect model which is a more reliable result has shown that only foreign ownership had a positive impact on performance. Apart from this variable, no other corporate governance variable had any positive impact on firm performance. When we compare our result with the previous studies, we can comfortably conclude that the positive impact of corporate governance on firm performance obtained by previous studies should be taken with utmost caution. Factors that were found to explain firm performance positively are in lack of competition (monopoly power), business cycle and larger asset base of the companies, and not corporate governance.

When we incorporated the effect of non-linear relationship into our model in which the result is presented in table (3), our results remained unaltered. We checked for the effect of the non-linear relationship of largest shareholding (LUSSQ), Board Size (LBDZSQ) and Directors' interest (SQDIR). It was only the LBDZSQ that recorded a negative impact on firm performance using the pooled OLS and TBQ as the dependent variable, however, in the fixed effect model, it was found to be non-significant. Apart from the Debt (DBT) variable, only the control variables, which include; competition (RNT) log of Total assets (LTST) and the business cycle (CYC) provided a positive and significant explanation for the changes in performance experienced by the firms in Nigeria.

support the earlier work. Our results shows that the higher the debt, the lower the profit performance.

Table 3. Effect of Corporate Governance on Firm Performance (Considering the Non-Linear Relationships)

| | Pooled OLS | | Fixed Effect | |
|---------------------------------------|----------------------------------|-----------------------------------|----------------------------------|---------------------------------|
| | ROA | TBO | ROA | TBO |
| Largest Shareholder (LUS) | -0.6244 (0.4451) | 9.4465 (7.3532) | 0.6007 (1.2155) | 8.3424 (14.2381) |
| Square of Largest shareholder (LUSSQ) | 0.7377 (0.6169) | -3.6915 (10.1918) | -0.7208 (1.3340) | -5.5953 (15.6251) |
| Ownership Concentration (OWC) | -0.1588 (0.0693) ^b | 0.4809 (1.1459) | -0.2486 (0.1435) ^c | -2.6389 (1.6815) |
| Ownership Structure (OWS) | -0.0174 (0.0237) | -2.3589 (0.3918) ^a | 0.0531 (0.1027) | 2.1594 (1.2032) ^c |
| Ownership Control (LUC) | 0.0232 (0.0355) | -1.3389 (0.5854) ^b | 0.0546 (0.0583) | -0.7647 (0.6829) |
| Log of Board size (LBDZ) | 0.1516 (0.4272) | 17.8770 (7.0562) ^a | -0.0638 (0.5512) | 3.2214 (6.4577) |
| Square of Log of Board Size (LBDZSQ) | -0.0291 (0.0972) | -3.6635 (1.6061) ^b | 0.0154 (0.1262) | -0.6861 (1.4789) |
| Directors' interest (DIR) | 0.6011 (0.4026) | 2.9917 (6.6509) | 0.2748 (1.2202) | 4.0573 (14.2970) |
| Square of Directors' Interest (DIRSQ) | -0.5029 (0.5793) | -2.2787 (9.5680) | -0.07634 (1.3239) | -1.1811 (15.5117) |
| Debt (DBT) | -0.0575 (0.0072) ^a | -0.2505 (0.1186) ^b | -0.0467 (0.0075) ^a | 0.0291 (0.0877) |
| Market structure (VIT) | -0.0562 (0.0218) ^a | -0.2071 (0.3595) | -0.0244 (0.0229) | 0.2331 (0.2685) |
| Competition (RNT) | 0.0612 (0.0184) ^a | 0.9807 (0.3043) ^a | 0.0291 (0.0208) | 0.7482 (0.2424) ^a |
| Log of workers (LWKR) | -0.0086 (0.0090) | -0.5594 (0.1492) ^a | -0.0082 (0.0166) | 0.0439 (0.1942) |
| Log of Total Asset (LTST) | -0.0044 (0.0107) | -0.4111 (0.1760) ^b | 0.0448 (0.0159) ^a | 0.3725 (0.1851) ^b |
| Business Cycle (CYC) | 0.3001 (0.0108) ^a | 0.5333 (0.1773) ^a | 0.0855 (0.0180) ^a | -0.1404 (0.2107) |
| Constant | 0.0846 (0.4824) | -13.8759 (7.9710) ^c | -0.1308 (0.6679) | -9.0391 (7.8255) |
| R^2 | 0.182 | 0.136 | | |
| AR^2 | 0.167 | 0.120 | | |

a, b, c represent significance at one percent, five percent and ten percent

5. Conclusion

The analysis of corporate governance and firm performance in Nigeria has been conducted by several researchers without due recognition of the defects plaguing the OLS methodology of analysis. Furthermore, most of the studies were conducted without accounting for some vital control variables that may influence performance. This study subsequently analyzed the impact of some corporate governance mechanisms on firm performance taking into account some of these observed weaknesses in previous studies. Mechanisms analyzed include

ownership concentration/structure, board size and managerial ownership. These were modeled together with some control variables which include, market structure, competition and size of the firms.

We adopted the OLS model which was used by previous studies and later compared the results with a fixed effect model. The results shows that inferences based on the OLS model can be misleading, as none of the corporate governance variables except debt and ownership structure (OWS) that were significant in the OLS model were significant in the fixed effect model. Moreover, the ownership structure which was captured by foreign ownership which recorded a

negative impact on profitability in the OLS models, however, turned out with a positive and significant effect in the fixed effect model. Factors predicting firm performance were simply, market structure, competition and the size of the firm. The structure of the market which was captured by vertical integration variable had a negative impact on profitability, in other words, the more vertically integrated a firm is, the lower the profitability, the explanation for this could be found in the managerial theory of the firm where managers can decide to diversify the firm beyond the profit maximizing level of output so as to maximize their own utility. This explanation is well supported by the suggested lack of competitive pressure in the industry. For instance, the competition variable (RNT) which recorded a positive relationship on firm performance indicates that the ability of the firms to earn rents exercise a positive impact on the firms' profitability. A negative sign of the competition variable would have meant that some form of competitive pressure exist in the industry. The size of the firm was also found to have a positive impact on performance, this can be explained via the economies of large scale production or external economies such as finance and managerial, which may be available to big and established firms in Nigeria. Finally, business cycle was a major factor explaining firm financial performance in Nigeria. Business performance was found to be highly sensitive to fluctuations in the business cycle, hence, in periods of economic prosperity, probably occasioned by oil windfall in Nigeria, expectedly businesses also performs well.

It is of note that foreign-owned firms were found to be more profitable than locally owned firms. This finding is very instructive in that, foreign companies or multinationals operating in Nigeria are part of companies operating in Europe or America with strong adherence to corporate governance codes in such countries. So in effect, the level of compliance to corporate governance codes by locally owned companies in Nigeria may still be far from ensuring good profit performance.

These findings call for a major policy consideration. In order to ensure a good profit performance of firms in Nigeria, domestic firms should be made to comply with the corporate governance practices of foreign owned firms. Alternatively, in the absence of a strong regulatory body, i.e. the stock exchange, a comprehensive competition policy that can stimulate the domestic firms to adopting sound corporate governance practices such as those of the foreign-owned firms needs to be fashioned out by the government.

This study however still needs to be improved on, since the use of the fixed effect model has also been adjudged to be inefficient in the face of endogeneity problem which was not addressed by this paper. However, we hope to pursue this further by collecting more data on corporate governance

variables that were not covered in this work and subject them to General Methods of Moments estimation. Moreso, profit performance may not reflect a good performance variable for a firm in that it could be a short term objective pursued by managers which may not be in the long term competitive position of the firm. Hence, in future we hope to explore other performance measures such as productivity behavior and capital formation of the firms.

References

1. Adenikinju, A.F. (2005). Productivity Performance in Developing Countries: Country Case Studies, A Report Submitted to UNIDO.
2. Adenikinju, O.O. and Ayorinde F. (2001). Ownership Structure, Corporate Governance and
3. Corporate Performance: The Case of Nigerian Quoted Companies, Final Report Presented to the AERC, Nairobi. Kenya.
4. Agrawal, A., and Mandelker, G (1990). Large shareholders and the monitoring of managers: the case of antitakeover charter amendments, *Journal of Financial and Quantitative Analysis*, vol. 25, pp. 143-161
5. African Financials Website. www.africanfinancials.com/
6. Aghion, P., Tirole J. (1997). Formal and Real Authority in Organizations, *Journal of Political Economy* 105 (1), pp. 1-29.
7. Ahmadu, Sanda, Aminu, S. Mikailu and Turur, Garba (2010). Corporate Governance Mechanisms and Firms' Financial Performance in Nigeria, *African Journal of Accounting, Economics, Finance and Banking Research*, 2(1) September, pp. 22-39.
8. Alan, G. and Steeve, B. (2005). Foreign Acquisitions by UK Limited companies Short and Long-run Performance, *Journal of Empirical Finance*, 12(1), pp. 99-125
9. Allen, F. (1993). Stock Market and Resource Allocation, [in:] C. Mayer, X. Vives (eds), *Capital Markets and Financial Intermediate*, Cambridge, Massachusetts, The MIT Press.
10. Babatunde, M. Adetunji and Olaniran, O. (2009). The Effects of Internal and External Mechanism on Governance and performance of Corporate Firms in Nigeria, *Corporate Ownership and Control*, Vol. 7, no 2, Winter.
11. Bhagat, S., and Black, B. (2002). The Non-Correlation between Independence and Long Term Firm Performance, *Journal of Corporation Law*, 27(2), pp. 231-273.
12. Berle, A., and Means, G. (1932). *The Modern Corporation and Private Property*, New York, Commerce Clearing House.
13. Central Bank of Nigeria, Statistical bulletin, Various Issues
14. Cho, S.P.L and Rui, O.M. (2007). Exploring the Effects of China's Two-Tier Board System and Ownership Structure on Firm Performance and Earnings Informativeness, SSRN Working Paper Series, no. 1111424.
15. Claessens, S. (2003). Corporate Governance and Development. www.ifc.org/ifcext/cgf.nsf/

16. Coles, J.L., Daniel, D.N., and Naveen, L. (2008). Boards: Does One Size All? *Journal of Financial Economics*, 87, pp. 329-356.
17. Cremer, J. (1995). Arm's Length Relationship, *Quarterly Journal of Economics* 110, pp. 275-300
18. Debb, S.S. and Chaturvedula, C. (2003). Ownership Structure and firm value: Empirical Study on Corporate Governance System of Indian Firms. SSRN Working Paper Series, no. 594221
19. Demsetz, H., and Lehn (1985). The Structure of ownership: Causes and Consequences, *Journal of Political Economy* 93(6), pp. 209-33.
20. Eisenberg, T., Sundgren S., and Wells, M.T. (1998). Larger Board Size and Decreasing Firm Value in Small Firms, *Journal of Financial Economics*, 48, pp. 35-54.
21. Fama, E.F. and Jensen, M.C. (1983). Separation of Ownership and Control, *Journal of Law and Economics*, No. 26, pp. 301-325.
22. Goethals, J. and Ooghe, H. (1997). The Performance of Foreign and National Take-overs in Belgium, *European Business Review*, 97(1), pp. 24-37.
23. Grosfeld, I. (2006) Ownership Concentration and Firm Performance: Evidence from an emerging Market, William Davidson Institute Working Paper no. 834.
24. Heinrich, R.P. (2000). Complementarities in Corporate Governance: Ownership Concentration, Capital Structure, Monitoring and Pecuniary Incentives, Kiel Working Paper No. 968, Kiel, Kiel Institute of World Economics.
25. Hill, C. and Snell, S. (1989). Effects of Ownership Structure and Control on Corporate Productivity, *Academy of Management Journal*, vol. 32, pp. 25-46.
26. Holmstrom, B., Tirole J. (1993). Market liquidity and performance Monitoring, *Journal of Political Economy* 51, pp. 678-709
27. Jensen, M.C., (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems, *Journal of Finance*. 48, pp. 831-880.
28. Jensen, M. and Meckling (1976). Theory of the Firm: *Managerial Behavior, Agency Costs and Ownership Structure*, *Journal of Financial Economics* 3, pp. 305-60
29. Kajola, Sunday O. (2008). Corporate Governance and Firm Performance: The Case of Nigerian Listed Firms, *European Journal of Economics, Finance and Administrative Sciences*, no 14. <http://www.eurojournals.com>.
30. Lipton, M., and Lorch, J.W. (1992). A Modest Proposal for Improved Corporate Governance, *The Business Lawyer*, 48, 1, pp. 59-77
31. Piscitello, L. and Rabbiosi, L. (2005). The Impact of Inward FDI on Local Companies' Labour Productivity: Evidence from the Italian Case, *International Journal of the Economics of Business*, 12(1), pp. 35-51.
32. Kaserer, C. and Moldenhauer, B. (2005). Insider Ownership and Corporate Performance: Evidence from Germany, CEFS Working Paper Series, no. 1. <http://ssrn.com/abstract=94043>
33. Leech, D & Leahy, J. (1991). Ownership Structure, Control Tuye classifications and the performance of Large British Companies, *The Economic Journal*, vol. 101, pp. 1418-1437.
34. Lee, S.M. and Ryu, K. (2003). Management ownership and Firm's Value: An Empirical Analysis Using Panel data. The Institute of Social and Economic Research Discussion Paper, No. 593, Osaka University. <http://ssrn.com/abstract=444420>
35. Leung, S. and Horwitz, B. (2007). Is Concentrated Management Ownership Value Increasing or Decreasing? Evidence in Hong Kong, China during the Asian Financial Crisis, SSRN Working Paper Series, No. 984403. <http://ssrn.com>
36. Lins, K.V. (2002). Equity Ownership and Firm Value in Emerging market, SSRN Working Paper Series No. 214909. <http://SSRN.com>
37. Mehran, H. (1995). Executive Compensation Structure, Ownership and Firm Performance, *Journal of Financial Economics*, Vol. 38, pp. 163-184.
38. Morck, R., Shleifer, A. and Vishny, R.W. (1988). Management Ownership and Firm Value: An Empirical Analysis, *Journal of Financial Economics*, Vol. 20, pp. 175-180. <http://ssrn.com/abstract=297938>.
39. Mudambi, R & Nicosia, C. (1998). Ownership Structure and Firm Performance: evidence from the UK Financial Services Industry, *Applied Financial Economics*, vol. 8, pp. 175-180.
40. Olayinka, Marte Uadiale (2010). The Impact of Board Structure on Corporate Financial Performance in Nigeria, *International Journal of Business and management*, vol. 5, No. 10.
41. Oxelheim, L. and Randoy, T. (2003), The Impact of Foreign Membership on Firm Value, *Journal of Banking and Finance*, Vol. 27, No. 12, pp. 2369-2392.
42. Reece, W. Jr., and Weisback, M., (2001). Protection of minority shareholder interests, cross-listings in the United States, and subsequent equity offerings. NBER Working Paper #8164.
43. Schultz E.M., Tan, D.T., and Walsh K.D. (2010). Endogeneity and Corporate Governance-Performance Relation, *Australian Journal of Management*, 35(2) 145-163
44. Seifert, B., Gonenc, H. and Wright, J. (2002). The International Evidence on Performance and Equity Ownership by Insiders, Blockholders, and Institutions, paper presented in EFMA London meetings. <http://SSRN.com/abstract=314276>.
45. Shleifer, A., Vishny, W.R. (1986). Large Shareholders and Corporate Control, *Journal of Political Economy* 94, pp. 461-88.
46. Schmid, M.M. and Zimmermann, H. (2007). Managerial Incentives and Firm Valuation: Evidence from Switzerland, SSRN Working Paper Series, no. 784187 <http://ssrn.com>
47. U.S. Department of Commerce (1995). Manufacturing Industries in the U.S. Economy, Economics and Statistics Administration Office of Business and Industrial Analysis
48. Wintoki M.B., Linck J.S., and Netter F.M. (2010). Endogeneity and the dynamics of internal corporate governance. CELS 2009 4th Annual Conference on Empirical Legal Studies. Available at SSRN: <http://ssrn.com/abstract=970986>.
49. Wright, M., Buck, T., and Filatotchev, I. (2002). Post-privatization Effects of Management and Employee Buyouts. *Annals of Public and Cooperative Economics*, 73(3): 303-352.

51. Yermack, D., (1996). Higher Market Valuation of Companies with a Small Board of Directors, *Journal of Financial Economics*, 40, pp. 185-211.
52. Zingales, Luigi. (1998). "Corporate Governance". *The New Palgrave Dictionary of Economics and the Law*. London: Macmillan

Appendix 1. Definition and Measurement of Variables

1. *Market Structure = Extent of vertical Integration (VIT)* = $\frac{\text{Total Inventory}}{\text{Total Turnover}}$

2. *Competition is measured by rent, which is the ex post measure of market power (RNT)*

$$RNT = \frac{\text{Value Added} - \text{Capital Cost}}{\text{Value Added}}$$

$$\text{Value added} = \text{Sales} - \text{Material Costs} - \text{Wages}$$

$$\text{Capital cost} = \sigma + r_f \quad \sigma = \text{depreciation rate (7\%)}$$

$$r_f = \text{risk free interest rate}$$

3. *Ownership Concentration is measured in two ways:*

$$LUS = \frac{\text{Number of shares held by the largest shareholder}}{\text{Total outstanding shares of the company}}$$

$$OWC = \frac{\text{Sum of bulk shares in excess of 10\%}}{\text{Total outstanding shares of the company}}$$

4. *Director Ownership is given as proportion of shares held by directors*

5. *Board Size is given as total number of board members*

6. *Ownership Control (LUC)*

$$(LUC) = \text{dummy variable}$$

$$= 1 \text{ for ownership greater than 50\% and zero otherwise}$$

7. *WKR = Number of workers*

8. *TST = Total Assets = Fixed Assets + Current Assets*

9. *Business Cycle (CYC) = (Y - Ŷ) = (b₀ + b₁t) - (b̂₀ + b̂₁t); Y = Sales, t = time*

10. *Performance*

$$ROA = \frac{\text{Profit After Tax} + \text{Interest}}{\text{Total Asset}}$$

$$\text{Tobin's } q = \frac{\text{Market Value of Equity}}{\text{Book value of Assets}}$$

11. *Ownership Structure (OWS), Firms with Foreign controlling shareholding.*