

Corporate Governance, Ownership Structure and Firm Performance in Nigeria

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Abstract

This paper examines the relationship between two patterns of ownership structures (concentrated and foreign) and their impact on firm performance in Nigeria. The paper seeks to ascertain whether cross-sectional variations between concentrated and foreign ownership structures result in systematic variations in performance among Nigerian firms. The sample comprises a panel of 72 non-financial firms listed on the Nigerian Stock Exchange (NSE), covering the period 2003 to 2007. The combination of 72 firms for a five-year period provides a balanced panel of 360 observations which can be analyzed using panel data methodology. The performance measures used in this study are market price and earnings per share. The postulated hypotheses were tested, using the Ordinary Least Squares (OLS) method of data analysis. The empirical results suggest that concentrated ownership has significant negative impact on firm performance. The results do not, therefore, lend credence to government's unremitting emphasis on ownership concentration as a governance mechanism that can address the dismal performance of the state-owned enterprises (SOEs). The results however, show that foreign ownership has significant positive impact on firm performance. The findings resonate with policy initiatives that promote foreign ownership investments.

Keywords: Corporate Governance, Ownership Structure, Concentrated Ownership, Foreign Ownership, Firm Performance, State-owned-enterprises, Nigeria.

1. Introduction

Since the late 1960s, Nigeria has adopted different and, sometimes, conflicting corporate ownership structures in an attempt to address, inter alia, the dismal performances of the state owned enterprises (SOEs). For instance, prior to independence and up to the late 1960s, foreign ownership was a dominant structure in corporate Nigeria. But, immediately after the civil war in 1970, the Nigerian Government embarked on large scale indigenization programme which drastically curtailed foreign ownership interests and participation in most SOEs (Federal Government of Nigeria 1972). Effectively, this policy compelled foreign owners to sell their stakes in the slated businesses to their Nigerian counterparts. However, in the late 1980s, the thumb shifted to ownership restructuring of the SOEs to pave way for private equity holdings and diversification of investor base among Nigeria's geopolitical zones. In the late 1990s, there was yet another policy shift towards promoting ownership concentration and increased foreign participation in businesses, hitherto exclusive to Nigerians. But, why is Government's obsession with these varying governance structures an important issue to warrant empirical investigation?

Anecdotal evidence has shown the SOEs to be more predisposed to changing ownership structures due mainly to their perennial abysmal performance with substantial loss of stakeholders' value. Indeed, the reported concern of Nigerian Government – which led to the 2012 Senate probe of the activities of the Bureau of Public Enterprises (BPE), the agency of Government responsible for privatization and commercialization of SOEs - over the observed failure of almost all the privatised SOEs is attributable to a failure of two interrelated kinds: failure of ownership structure and governance failure. The literature on this subject, voluminous as it is, does not present conclusive evidence (see, for example, Demsetz & Lehn 1985; McConnel & Servaes 1990; Demsetz & Villalonga 2001; Pivovarsky 2003; Welch 2003; Chu & Cheah 2006; Farooque *et al.* 2007). The majority, however, find either no relationship or, at best, conflicting results. Thus, an objective conclusion from the results of the vast research effort undertaken to date suggests that there is no strong, robust, and uniform support for the theoretical argument about the relationship

between ownership and firm performance. Besides, it is generally conceded that the nature of the relationship between ownership and firm performance remains a major governance concern.

Most empirical assessments of this relationship have been predicated on data from developed countries, notably Anglo-American, Europe and Japan. Thus, studies espousing the relationship between ownership structure and firm performance in developing or emerging economies have been rather sparse. Notable exceptions include Adenikinju & Ayorinde (2001), Estrin *et al.* (2001), Bai *et al.* (2005), Sanda, Mikailu & Garba (2005), Barako & Tower (2006), Farooque *et al.* (2007), and Javed & Iqbal (2007). Despite the geopolitical and economic significance of Nigeria as an emerging nation and, in particular, as the second largest economy in the Sub-Saharan Africa, the scant empirical assessment of the phenomenon of interest begs the question. The two reported Nigerian studies - Adenikinju & Ayorinde (2001) and Sanda, Mikailu & Garba (2005) - that examined the relationship between ownership concentration, insider ownership and firm performance, yielded conflicting results. Our immediate conjecture is that the modelling apparatus of received corporate ownership structure is insufficiently microanalytic to deal with the transactional phenomena of dismal performance of Nigeria's privatized SOEs.

Although the main objective of this paper is to offer empirical evidence on the impact of variations in ownership concentration and foreign ownership on firm performance in Nigeria, and not to derive a set of definitive policy implications, some general principles nevertheless emerge from the analysis about how Nigeria can increase the benefits from, and control the contradictions arising from the mixed results in earlier studies. We seek to mitigate the contrasting evidence by using a broader sample, adopting various firm performance measures which utilise market prices and earnings, and applying rigorous methodologies than earlier Nigerian studies.

The rest of the paper proceeds as follows. Section 2 develops the theoretical framework, reviews the related theoretical and empirical literature on corporate ownership structure and firm performance, and specifies the hypotheses of the study. Section 3 describes the research methodology. Section 4 discusses the results, while Section 5 presents summary and conclusions emanating from the study.

2. Literature Review

2.1 Theoretical Framework

Although ownership structure can, in theory, help to promote corporate governance and firm performance, there is as yet no robust empirical evidence that this causal relationship is quantitatively very important. A growing body of evidence exists in the finance literature pointing to the relationship between ownership structure and firm performance. This literature is rooted in the agency framework (Jensen & Meckling 1976). The framework presumes fundamental tension between shareholders and corporate managers. This tension was first identified over two centuries ago by Smith (1776) with the suggestion that effective mechanisms be put in place to ensure that corporate managers enhanced the value of the owners of firms. Much later, however, Berle & Means (1932) proposed that managers of firms with dispersed ownership were likely to pursue suboptimal (opportunistic) goals different from the interests of the shareholders. Their classical entrepreneur or owner-manager-risk bearer model of the firm, which is central in both Alchian-Demsetz and Jensen-Meckling analyses, has progressively moved to acknowledge the economic behaviour of managers as agents within the firm. This neoclassical notion thus identifies the firm as a nexus of contracts, with separation of ownership and control between shareholders (as principals) and managers (as agents), in which managers' aggressive and opportunistic pursuit of individual interests redounds to the disadvantage of the firm's shareholders (Alchian & Demsetz 1972; Jensen & Meckling 1976; Demsetz 1983; Dockery, Herbert & Taylor 2000; Javed & Iqbal 2007).

The agency theory, derived principally from the organizational economics and management literatures, brings striking insight by viewing the firm as a set of contracts among factors of production. The main thesis is that in structuring and managing contract relationships, the separation of ownership and control can be viewed as an efficient mode of economic organization within the 'nexus of contracts' perspective (Fama 1980). The theory postulates behavioural attribute of the economic man with respect to transactional characteristics as a devious, self-interest seeking being with divergent, opportunistic and suboptimal pursuit different from efficiency goal pursuit of the firm. Since it is generally conceded that the economic man is boundedly rational, on the one hand, and opportunistic, on the other, either or

combination of which gives rise to exchange difficulties (Herbert, 1995), the agency theory thus presumes that the firm serves to attenuate suboptimal goal pursuit as well as egregious distortion and opportunistic proclivity of managers. The theory further presumes that maximization of firm value would be infeasible under managerial discretionary disposition (Turnbull 1997).

The agency model presents a particular problem within the context of the development and dissemination of social science theories: a collection of strictly self-interested actors may occasion conflicts of interest which may be resolved through incentives, monitoring, or regulatory action (Cohen & Holder-Webb 2006). In this regard, corporate managers will need constant monitoring to checkmate their pursuit of policies potentially inimical to the firm's prosperity. Ex post monitoring and its mode will be a function of the firm's ownership structure.

2.2 Corporate Governance and Corporate Ownership Structure

Corporate governance broadly refers to the systems or structures (internal and external) – processes, rules, regulations and control mechanisms - that govern the conduct of an organization for the benefit of all stakeholders. An effective corporate governance, for example, creates organizational efficiency by (a) specifying the rights and responsibilities of all stakeholders, to wit: owners (shareholders), employees (managers and staff) and third parties; (b) balancing shareholder interests with those of other key stakeholder groups, including customers, creditors, government and communities; (c) ensuring that the organization operates in accordance with the best practices and accepted ethical standards; and (d) instituting incentive and control techniques to mitigate abuse of corporate power and other egregious frictions and distortions within the firm. In short, effective or good corporate governance is the joining of both the letter and spirit of the law to achieve all of the above (See also Sanda, Mikailu & Garba 2005; Javed & Iqbal 2007).

An important objective of corporate governance, therefore, is to secure accountability of corporate managers as shareholders' agents who are provided with authority and incentives to promote wealth-creating strategies (Dockery, Herbert & Taylor 2000). There is, therefore, a strong connection between ownership structure and corporate governance because the former is considered to be one of the core governance mechanisms along with others such as, debt structure, board structure, incentive-based compensation structure, dividend structure, and external auditing (Farooque *et al.* 2007).

The need for corporate governance derives from the 'expectation gap' problem which arises when the behaviour of corporate enterprise falls short of the shareholders' and other stakeholders' expectations (Achua 2007). Kay & Silberton (1995) attribute the phenomenal pre-eminence accorded corporate governance recently to the increasing incidence of corporate fraud and corporate collapse on a previously unimagined scale; the dominance of the corporation in modern business, occasioned principally by privatization and consolidations; the collapse of socialism and centralized planning and; greedy bosses.

The variety of corporate ownership structures commonly investigated in extant literature includes the dominant/largest shareholder, diffuse versus concentrated ownership, insider (board or managerial) ownership, foreign ownership, institutional ownership, and government ownership. The focus of the present study is on diffuse versus concentrated ownership, and foreign ownership because both have emerged as the preferred governance mechanisms in Nigeria's differing and conflicting policies on corporate ownership through the indigenization and privatization programmes (see FGN 1972 & 1999).

2.2.1 Diffuse versus concentrated ownership structure

The seminal work of Berle & Means (1932) provided the incipient conceptual framework upon which the theory of diffuse ownership is based. They see diffuseness in ownership as undermining the role of profit maximization as a guide to resource allocation since it could render owners powerless to constrain professional managers. Demsetz & Lehn (1985) hold the view that Veblen (1924) anticipated Berle and Means' thesis ahead of time with the belief that he was witnessing the transfer of control from capitalistic owners to engineer-managers and that the consequences of this transfer were to become more pronounced as diffusely owned corporations grew in economic importance.

Berle and Means' work depicts a typical modern firm as having numerous shareholders who have no specific management functions and the managers with little or no equity interest in the firm. They argue that under such circumstances, there is the tendency for the individual shareholders to take no interest in monitoring managers who are, consequently, inclined to pursue interests that are at variance with the interests of the firm's owners. The behaviour of individual shareholders under a diffuse ownership structure constitutes the free-rider problem which emanates from the argument that diffuse ownership weakens the supervisory role of individual shareholders since their individual stake may not be significant to warrant them incurring extra cost to monitor managers especially if such ex-post monitoring costs are prohibitively high (Dockery & Herbert 2000).

Another argument which antagonizes diffuse ownership is that it encourages owners and managers to engage in shirking which results to poorer performance of the firm. Shirking could be perpetuated by owners who use their time and energies on other tasks and indulgencies, rather than monitoring managers, which benefits accrue entirely to them. The cost of shirking, presumably the poorer performance of the firm, is shared by all owners in proportion to the number of shares they own (Demsetz & Lehn 1985). It is, therefore, expected that in a very diffusely owned firm, the divergence between benefits and costs would be much larger for the typical owner, and he can be expected to respond by neglecting some tasks of ownership. Managers may also engage in shirking in the absence of proper monitoring by owners.

The inefficiencies occasioned by the free-rider problem and confounded by possibilities for shirking by owners and managers dictate against diffuse ownership structures which are not expected in a 'rational' world except there are counterbalancing advantages. However, large public corporations are often characterized by diffuse ownerships that effectively separate ownership from control of corporate decisions (Demsetz & Lehn 1985). This suggests the existence of counterbalancing advantages. One of such advantages is that as firms increase in size, ownership becomes more dispersed. Its funding needs may also extend beyond the financial capabilities of the present shareholders who have to invest greater amounts to either maintain or obtain a given level of shareholding (Welch 2003). Demsetz & Lehn (1985) support this argument with the value-maximizing size of the firm theory. They argue that the size of firms that compete successfully in product and input markets varies within and among industries. This means that the larger the firm size, the larger the firm's capital resources and greater the market value of its equity, *ceteris paribus*. The conclusion is that the higher market price of the firm should in itself reduce the degree of ownership concentration.

Another argument is that large corporations are encouraged because they bring a complementarity of transferable skills and technology, technical know-how and managerial expertise. In the US, Bebchuk & Roe (1999) report that there is an arsenal of laws, both statutory and judicatory, which encourage diffuse ownership and one beneficial to the professional managers of such companies. La Porta, Lopez-de-Silanes & Shleifer (1999) also support the argument that corporations are diffusely held only in countries with good shareholder protection. Theoretical models have also demonstrated that the firm's shareholders' wealth is at its maximum when ownership is atomistic (widely held) (see, for example, Donker & Zahir 2008).

Concentrated ownership structure, the converse of diffuse ownership, is an idiosyncratic model which presumes that the relationship between ownership structure and firm performance is enhanced in the presence of a dominant (crucial) or controlling single-shareholder, or a given number of dominant or controlling shareholders. A number of affirmative arguments conduce to ownership concentration. First, Shleifer & Vishny (1997) have argued that a combination of legal rules and ownership concentration could be used to mitigate governance problems of wealth expropriation by controlling shareholders. The authors contend that shareholders with effective control over their firms will, *ceteris*

paribus, not be afraid of expropriation and can, in fact, afford to sell shares to raise new capital to diversify their risk. Furthermore, small investors can afford to take minority ownership interests in firms when they know that managers or controlling shareholders will not expropriate their ownership stakes.

Second, a high concentration of shares in the hands of a few large shareholders tends to create more pressure on managers to behave in ways that are value-maximizing (Dockery, Herbert & Taylor 2000; Pivovarsky 2003). This presumption is also supported by the analyses of takeover models in which a single large (crucial) shareholder is found to potentially affect the outcome of a takeover (Bagnoli & Lipman 1988; Holmstrom & Nalebuff 1992). Third, it is argued that weak legal systems and capital markets increase risk and cost of capital and depress asset values (see La Porta *et al.* 2002). Consequently, Shleifer & Vishny (1997) suggest that firms can limit costs associated with legal systems and inefficient capital markets by adopting concentrated ownership structures. Fourth, Demsetz & Lehn (1985) affirm support for ownership concentration because of its control potentials which is the wealth gain achievable through more effective monitoring of managerial performance by firm owners. They argue that if the market for corporate control and managerial labour market perfectly aligned the interest of managers and shareholders, then control potential would play no role in explaining corporate ownership structure but, in the presence of costs of maintaining corporate control, the market imperfectly disciplines corporate managers who work contrary to the wishes of shareholders. Concentrated ownership could, therefore, serve as a governance mechanism that disciplines entrenched managers towards value maximization.

Arguments against ownership concentration are sparse in extant literature. The major known argument against ownership concentration, highlighted by Bai *et al.* (2005), is that it gives the largest shareholders too much discretionary powers to deploy firm resources in ways that advance or serve their own interest at the expense of other shareholders. In other words, ownership concentration enables controlling shareholders to exert more control at minimal capital expense, thereby making tunnelling much easier. Tunnelling denotes the transfer of resources out of the firm for the benefit of the controlling shareholders (see Johnson *et al.* 2000). Bai *et al.* (2005) disclosed that the reported corporate scandals in China's capital markets followed the unconstrained misuse of firm resources by large shareholders. The plausibility of tunnelling by controlling shareholders portrays ownership concentration as a double-edged sword.

2.2.2. Foreign ownership structure

The term 'foreign ownership' encompasses all forms of foreign private investment which confers control and ownership over a package of resources in a foreign country (Herbert 1995). Usually, the package consists of embodied or disembodied technology, financial capital, expertise (management, financial and marketing skills), etc. (*ibid*). The benefits accruing from such participation vary according to the level of economic development of the host nation. It is generally conceded, especially in developing and emerging market economies, that foreign ownership has positive effect on firm performance. The premise of this perspective is that the influx of foreign investments through foreign direct investment (FDI) unleashes certain firm-specific assets such as technology, managerial ability, access to foreign markets, other intangible benefits, and corporate governance techniques. The interaction effects of foreign multinational corporations (MNCs) promote efficiency and enhance the development of domestic market.

Foreign firms are also presumed to possess superior ownership and internalisation advantages (greater business experience, technology, capital, managerial, and entrepreneurship skills) than their domestic counterparts and are, therefore, more dynamic in their management style (Laing & Weir 1999; Estrin *et al.* 2001). Furthermore, the international business literature has long established that foreign firms possess a range of competitive advantages that prospectively lead to and/or sustain successful multinationalization, and these allow them to leapfrog their domestic counterparts. Herbert (1995) identified and classified the sources of these advantages into privileged, ownership-specific advantages (due to common governance), and corollary advantages of multinationality. Essentially, foreign firms enjoy advantages of proprietary technology, managerial, marketing or other skills specific to organizational function, large size reflecting scale and scope economies, and large capital (or capacity to raise it).

The envisaged positive effect of foreign ownership notwithstanding, it is contended that more equity ownership by managers will worsen financial performance since managers with large ownership stakes may be so powerful that they need not consider the interest of other shareholders. This argument could be extended to foreign owners who

participate in the management of the firm. Bebchuk & Roe (1999) have also explained that foreign insider shareholders may not have an incentive to improve corporate governance within the context of the theory of private benefits and control. The arguments in favour of the positive effects of foreign ownership structure are overwhelming; they also lend credence to the continuing academic enquiry into the relationship between ownership structure, corporate governance and firm performance. This study attempts to augment the stock of empirical knowledge in this area.

Despite the foregoing, the empirical literature on the relationship between foreign ownership structure and firm performance is very sparse. The few studies that have investigated this relationship include Estrin *et al.* (2001) and Bai *et al.* (2005). Both studies report significant positive relationship between foreign ownership and firm performance. Our conjecture in this study is that a significant positive relationship exists between foreign ownership and firm performance among the Nigerian listed firms.

2.3. Empirical Literature on the Relationship between Ownership Structure and Firm Performance

The relationship between corporate ownership structure and firm performance/value has been a subject of several empirical investigations since the seminal work of Berle & Means (1932). The match of the most relevant studies examining this relationship with their authors and results is summarized in Table 1.

At least three main conclusions are perceptible from the table. First, the relationship between concentrated ownership structure and firm performance/value has received a fair amount of empirical attention. Second, the findings of the studies are somewhat mixed: slightly over fifty percent of them found significant positive relationship, while over forty percent did not find significant relationship, between concentrated ownership structure and firm performance/value. Third, the analysis of the relationship between corporate governance, ownership structure and firm performance in developing countries in general, and Sub-Saharan African (SSA) countries in particular, has received little or limited empirical attention. Yet, the level of economic reforms involving large scale restructuring and privatization of SOEs would suggest that studies on the relations between ownership structure models and corporate governance would have important policy implications. This paper seeks to add to the stock of knowledge on the phenomenon of interest.

Table 1. Summary of Selected Studies on the Relationship between Concentrated Ownership Structure & Firm Performance

Authors	Results
Demsetz & Lehn (1985)	No significant relationship between concentrated ownership and firm value.
McConnell & Servaes (1990)	A positive but insignificant relationship between firm performance and concentrated ownership
Demsetz & Villalonga (2001)	No significant relationship between concentrated ownership and firm performance.
Adenikunji & Ayorinde (2001)	No significant relationship between concentrated ownership and firm performance.
Pivovarsky (2003)	Significant positive relationship between ownership concentration and firm performance.
Welch (2003)	Significant relationship based on accounting profit. No relationship based on Tobin's Q.
Sanda, Mikailu & Garba (2005)	Significant positive relationship between concentrated ownership and firm performance.
Bai et al. (2005)	Ownership concentration and foreign ownership have significant positive relationship with firm value.
Kapopoulos & Lazaretou (2006)	Significant positive relationship between firm performance and ownership structure.

2.4 Statement of the hypotheses

The foregoing discussion provides the context for two important hypotheses that track the relationship between ownership structure (concentrated and foreign) and firm performance, formulated in the null form, to wit:

H₁: Concentrated ownership does not have significant impact on firm performance.

H₂: There is no significant relationship between foreign ownership and firm performance.

3. Methodology

3.1 Sample

The study sample comprises a panel of 72 non-financial firms listed on the Nigerian Stock Exchange (NSE) as at 1 January 2003. These companies account for less than 50% of the firms listed on the NSE. Two selection criteria were applied in selecting the sample. First, the firm must be listed on the NSE prior to the commencement of year 2003. Second, the firm must be in operation for the entire study period, that is, 2003 to 2007. Firms with incomplete data, such as financial performance indices and shareholding structure, and firms that underwent major reorganizations

within the study period, such as the banks, were excluded from the sample. The combination of 72 firms and five periods studied provides a balanced panel with 360 observations for analysis using panel data methodology.

3.2 Variable Definitions and Measurement

Three sets of variables are used in the econometric models applied in this study, namely dependent, independent, and control variables. The dependent variables are the measures of firm performance that are likely to be affected by corporate ownership structure. Studies, such as Demsetz & Lehn (1985) and Shleifer & Vishny (1986) used share price, Tobin's Q ratio, and profits as measures of performance. The present study employs firm performance measures which utilize share price and profits, but does not use Tobin's Q for two main reasons. First, information on replacement cost, which is required for the computation of Tobin's Q, is not available for the sample firms. Second, since Tobin's Q is the ratio of valuation of shareholders to the market value of the firm's assets, at the margin, the shareholders' valuation will approximate to, and will be captured by, the firm's share price. Thus, it is postulated here that the market price, which is already available and published, will yield the same, if not better, results as Tobin's Q. According to the Tobin's Q theory, if $q > 1$, it implies a positive or high firm value which is reflected in high share price. Conversely, if $q < 1$, it implies negative or low firm value which is also depicted by low share price.

Thus, the firm value measures employed in this study are market price per share (MPS) and earnings per share (EPS). The MPS represents the current stock market price, that is, the price at which the shares are traded in the stock market. The MPS is important because it reflects the investor's perception of the value of the firm. The use of MPS as a proxy for firm value has received limited appeal in the empirical literature on the relationship between corporate ownership and firm performance, yet it offers a robust and unbiased (market-determined) measure. It is used in this study because it is determined by market forces and is, therefore, outside the direct influence of management. This enhances its objectivity and reliability as a measure of firm value. The MPS contrasts with accounting profit-based measures which are constrained by standards set by the accountancy profession, such as different valuation methods applied to tangible and intangible assets, and are, therefore, prone to manipulation by management (Kapopoulos & Lazaretou 2006). The EPS is expressed as the net profit after tax divided by the number of shares in issue. Its use is supported by the general concession that it is a reflection of the firm's performance; hence a higher EPS depicts a higher firm performance, vice versa.

The independent variables are the two corporate ownership structures investigated in the study, namely concentrated ownership, and foreign ownership. Concentrated ownership is measured as the minimum number of dominant shareholders that control the firm. It has been hypothesized that the effect of ownership concentration on firm performance may depend on the size of individual stakes (Pivovarsky, 2003). Prior studies have, accordingly, used either a linear combination of ownership stakes held by a group of large shareholders (such as top 5, top 10, or top 20) or a transformation of such combination that would give greater weights to large individual stakes (Demsetz & Lehn 1985; Bai *et al.* 2005). This measurement of concentration does not capture the essential elements of ownership and control envisaged in this investigation. For instance, the combined shareholding of the top 5 or top 10 shareholders in some firms may not give them a controlling vote, whereas in others a single shareholder may control the firm. The measure of ownership concentration adopted in this study, therefore, captures the vital elements of control addressed in this investigation. Foreign ownership is construed as the participation in the ownership structure of a firm by non-nationals. In practical terms, foreign ownership confers on the foreign investor equity interest of at least 10% and is represented on the board where control is exercised. We measure it here as the percentage of shares held by foreigners in the firm.

It is plausible that several factors may jointly affect ownership structure or firm performance and hence induce spurious correlation between them (see Welch 2003). As a control measure, we use two firm-specific variables: firm size and leverage. In modeling the relationship between ownership structure and firm performance, it is necessary to control for firm size to account for the possibility that performance and ownership may be related through the size of the firm. This is necessary because firm size accounts for the scale and scope of institutional operations and may therefore confound the relationship between ownership structure and firm performance (see, for example, Chen & Metcalf 1980). Size may portray a firm's ability to operate at more profitable levels; it may also attract better

enterprise in terms of human resource (intellectual capacity) and hence the capacity to manage risks better than smaller firms (Barako & Tower 2006). Kapopoulos & Lazareto (2006) argue further that “the larger is the size of the firm, *ceteris paribus*, the greater its capital resources and the greater the market value of a given fraction of shares”. This implies that larger firm size requires more investment from the shareholders, and thus, a more diffuse ownership structure. However, existing findings on the relationship between firm size and firm performance are mixed and it is thus a subject of further empirical evaluation (Nguyen & Faff 2006). Accordingly, size would be used as a control variable to account for variations in firm performance which are not explained by the main explanatory variables. The total book values of the firms’ assets are used as proxies for their sizes.

Leverage is included as a control (explanatory) variable to capture the “value enhancing or value reducing effects of the differences that might exist between the interest obligations incurred when borrowing took place” (Demsetz & Villalonga 2001). The inclusion of leverage as a control variable is supported by Kapopoulos & Lazaretou (2006) because “it reflects the notion that management chooses not to hold as many shares if creditors may add to monitoring management of the firm”. In other words, high values of debt should be associated with lower fraction of shares owned by large shareholders and, consequently, the more diffuse the ownership structure of the firm.

Leverage is also construed as another way of exerting control if the lending arrangements warrant take-over bids in case of default. It is expected that a high levered firm stands the risk of interference from lenders who do not have equity stake in the firm and this could depress the value of the firm to outside investors. There is, therefore, the need to include this variable which has the potential to affect the outcome of the investigation in the model. Leverage is measured in this study as the ratio of long term debt to issued equity.

Table 2 below presents the summarized picture of how the variables are measured and sourced.

Table 2 - Variable Measurement and Sources

Variable	Measurement Index	Source(s)
<i>Dependent</i>		
Market price (MPS)	Market price per share.	NSE daily performance reports.
Earnings per share (EPS)	Net profit after tax divided by the number of shares in issue.	Annual reports and accounts.
<i>Independent</i>		
Concentrated ownership (CON)	Minimum number of shareholders that jointly control the firm.	Firm registrars/Annual reports and accounts.
Foreign ownership (FOR)	The percentage of shares held by foreign owners.	Firm registrars/Annual reports and accounts.
<i>Control</i>		
Firm size (SIZ)	Total assets of the firm.	Annual reports and accounts.
Leverage (LEV)	Total long term debts divided by issued equity.	Annual reports and accounts.

3.3 Model Specification

We use the Ordinary Least Squares (OLS) model to examine the impact of concentrated ownership and foreign ownership on firm performance. The OLS model is specified thus:

$$Y = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_n X_{ni} + e_i \quad (1)$$

where: Y is the dependent variable or firm performance.

X_1, X_2, \dots, X_n are the independent variables or corporate ownership structures.

$\beta_0, \beta_1, \beta_2, \dots, \beta_n$ are the correlation coefficients; and

e_i is the random variable.

We further estimate three equations based on the models adopted by Sanda, Mikailu & Garba (2005) and Barako & Tower (2006). By substituting in Equation 1, Equation 2 is derived and estimated for each measure of firm performance, namely market price and earnings per share.

$$PER_i = \beta_0 + \beta_1 CON_i + \beta_2 FOR_i + e_i \quad (2)$$

Where: PER represents firm performance i.e. market price per share (MPS) and earnings per share (EPS); CON represents concentrated ownership; FOR represents foreign ownership; and other variables are as defined in Table 2.

Equation 3 is obtained by adding total assets and debt ratio to Equation 2 in order to control for firm size and leverage. This equation is estimated for each measure of firm performance, namely MPS and EPS.

$$PER_i = \delta_0 + \delta_1 CON_i + \delta_2 FOR_i + \delta_3 SIZ_i + \delta_4 LEV_i + e_i \quad (3)$$

Where: SIZ denotes firm size; LEV represents leverage; and other variables are as defined in Table 2.

The OLS model is a parametric statistical test that is based on a number of assumptions, the violation of which could affect the reliability of the results. In this study, we address two of the most commonly encountered problems in OLS tests, namely normality problems (i.e. relating to normal distribution of the variables), and multicollinearity of the independent variables.

Test for Normality

Table 3 - Skew Ratio Analysis Results

Variable	Skewness	Standard Error of Skewness	Skewness Ratio
CON	5.066	0.129	39.27
FOR	-0.030	0.129	-0.233
MPS	0.526	0.129	4.078
EPS	1.768	0.129	13.705
SIZ	-0.054	0.129	-0.419
LEV	2.882	0.129	22.341

We employ Skewness ratio analysis to test for normality. The results, presented in Table 3, indicate that concentrated ownership (CON), market price per share (MPS), earnings per share (EPS) and leverage (LEV) are not normally distributed at the 5% level. These variables have skewness ratios in excess of 1.96. We further performed log transformation to normalize the non-normally distributed variables as suggested by Burns & Burns (2008).

Table 4 - Correlation Matrix and Variance Inflation Factors (VIF)

Variable	CON	FOR	SIZ	LEV	VIF
CON	1.000				1.137
FOR	-0.236	1.000			1.249
SIZ	0.160	0.336	1.000		1.615
LEV	0.093	0.177	0.537	1.000	1.405

Multicollinearity checks: Table 4 presents a summary of correlations between the independent and control variables for each company and the associated variance inflation factor (VIF) values. The highest correlation is between concentrated ownership (CON) and firm size (SIZ) (Pearson correlation = 0.537). The empirical literature suggests that the correlation between the independent variables is considered undesirable for multivariate analysis only if it exceeds 0.8 (see Barako & Tower 2006). An alternative measure of multicollinearity which is more vigorous and diagnostic is the VIF for the independent variables (ibid). The VIF for all the variables is less than 2, which is far less than 10 considered harmful for regression analysis (Gujarati & Sangeetha 2007). The correlation matrix and the VIF values, therefore, suggest that multicollinearity is not a source of concern in this study.

4. Empirical Results

4.1 Descriptive Statistics

The sample descriptive statistics presented in Table 5 below suggest wide dispersion of concentrated ownership, earnings per share and firm size, evidenced by their respective standard deviations. The statistics further reveal that debt is sparsely used by the sample population. This is likely to accord management more discretion without fear of possible threats of takeover bids by debt holders.

Table 5 - Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std Dev
CON (Nos.)	1.00	593	24.34	86.26
FOR (%)	0.00	88.44	32.55	27.13
MPS (Kobo)	27	26,355	2,311	4,465
EPS (Kobo)	-930.86	1,261.32	100.43 9	229.72
SIZ (N'ns)	67.31	162,684.05	11,875.67	1,940,000
LEV (%)	0.00	52.82	3.93	6.83

4.2 Regression Results

Due to the inherent limitations of descriptive analysis which obfuscate the possibility of drawing general conclusions about firms outside the sample or even about the same firms over a different time period, we use regression analysis as a remedial measure. The results of the regressions, based on Equation 2, are presented in Table 6 below.

Table 6 – Equation 2 Coefficients

Variable	MPS			EPS		
	Standardized Beta coefficient	t-values	P-values (2-tailed)	Standardized Beta coefficient	t-values	P-values (2-tailed)
CON	0.182	3.536***	0.000	0.040	0.756	0.450
FOR	0.322	6.27***	0.000	0.272	5.173***	0.000
Adjusted R ²	0.104		-	0.065		-
F-Statistics	21.866**		0.029	13.500**		0.013

*Significant at 10% level; **Significant at 5% level; ***Significant at 1% level

The explanatory power of the model, the adjusted R², is 10.4% for MPS and 6.5% for EPS. These signify low levels of explanatory power. However, the F-statistic, which assesses the reliability of the regression, is significant at 5% level for both measures of firm performance. Thus, the model can be said to be very reliable for the data analysis.

We make two important observations about the above results. First, CON has a positive coefficient for MPS and EPS, suggesting that as more dominant shareholders jointly control the firm, performance is enhanced, vice versa. This implies that ownership concentration is negatively related to firm performance. This relationship is, however, significant at 1% level for MP only. Second, FOR has positive coefficients for MPS and EPS, which depicts a strong positive relationship between foreign ownership structure and firm performance. This relationship is significant at the 1% level for each performance measure.

Table 7 - Equation 3 Coefficients

Variable	MPS			EPS		
	Standardized Beta coefficient	t-values	P-values (2-tailed)	Standardized Beta coefficient	t-values	P-values (2-tailed)
CON	0.003	0.092	0.927	-0.084	-1.885*	0.060
FOR	0.045	1.158	0.248	0.082	1.758*	0.080
SIZ	0.545	12.317***	0.000	0.257	4.840***	0.000
LEV	0.286	6.918***	0.000	0.413	8.321***	0.000
Adjusted R ²	0.566		-	0.374		-
F-Statistics	118.222***		0.000	54.729***		0.000

*Significant at 10% level; **Significant at 5% level; ***Significant at 1% level

Table 7 reports the results of equation 3 which addresses the possible defect in model specification by including both firm size (SIZ) and leverage (LEV) as control variables. The results show remarkable improvements in adjusted R^2 and F-statistics values, compared to those in Table 6. The F-statistics are significant at 1% level for both MPS and EPS. The coefficient of CON is positive for MPS but negative for EPS. However, none of them is significant at the 5% level. The coefficient of FOR is positive for both measures of firm performance, but none is significant at the 5% level. Furthermore, both control variables (SIZ and LEV) are positively and significantly related to the two performance measures at the 1% level.

4.3 Discussion of Results

This subsection discusses the findings with respect to the three study hypotheses, *seriatim*.

H_1 : *Concentration ownership has no significant impact on firm performance.*

The evidence from this study suggests three things (see Table 6). First, concentrated ownership structure has a strong negative and significant impact on firm performance as proxied by MPS. Second, foreign ownership has a strong positive impact on firm performance in both measures (i.e. MPS and EPS). Third, concentrated ownership has no significant impact on firm performance as measured by EPS. The import is that diffuse ownership positively impacts firm performance. The null hypothesis is, therefore, rejected on the first two counts above, but accepted on the third count. This evidence aligns with the affirmative features attributed to diffuse ownership such as meeting the funding needs of large publicly traded corporations (Welch 2003) and attracting both the technical know-how and managerial expertise (Roe 1999). Moreover, theoretical models have also demonstrated that the firm's shareholders' wealth is at its maximum when ownership is atomistic (widely held) (see, for example, Donker & Zahir 2008). When adjusted with the control variables (firm size and leverage), the results are somewhat different (see table 7). In general, the relationship between ownership structure and firm performance appears to increase (that is stronger and more significant) with firm size and leverage.

The results of this study are inconsistent with the findings of Demsetz & Lehn (1985), McConnel & Servaes (1990), Demsetz & Villalonga (2001), and Adenikinju & Ayorinde (2001) who report no significant relationship between concentrated ownership and firm performance. The evidence is however consistent with the results obtained by Pivovarsky (2003), Welch (2003), Bai *et al.* (2005), Sanda, Mikailu & Garba (2005), Kapopoulos & Lazaretou (2007), and Alonso-Bonis & Andrés-Alonso (2007) who report significant positive relationship between concentrated ownership and firm performance. In an earlier investigation of Nigerian firms, Sanda, Mikailu & Garba (2005) measured ownership concentration as the percentage of shares held by the largest five, ten, fifteen or twenty shareholders, whereas we measured it as the minimum number of the dominant/largest shareholders that can jointly exercise control over the firm. Despite the methodological differences between the two studies, their findings are largely similar.

H_2 : *Foreign ownership does not have significant impact on firm performance.*

The results of this study offer evidence of significant positive impact of foreign ownership on firm performance, which suggests a rejection of the null hypothesis. The results are, however, not robust when firm size and leverage are included as control variables. This finding is consistent with the alternative hypothesized positive relationship between foreign ownership and firm performance. Foreign firms are presumed to possess competitive advantage in know-how (technical expertise), capital, marketing and a host of other complementary ownership-specific advantages which, in combination offer the capacity to overcome incremental boundary spanning (internationalisation) challenges in developing and transition economies.

5. Conclusion and Recommendation

This study was motivated by (i) the desire to ascertain whether two corporate ownership structures - concentrated ownership and foreign ownership - have significant impact on firm performance in Nigeria, and (ii) the confounding evidence on Nigeria's conflicting policies, regarding these two ownership structures. Nigeria's conflicting policies regarding corporate ownership shifted from foreign and concentrated ownership structure immediately after

independence to diffuse ownership through her indigenization programme in the 1970s. The late 1980s witnessed further diversification of investor base through private holdings in the state owned enterprises (SOEs). Ownership concentration and foreign participation were again encouraged in the late 1990s. This has warranted an empirical investigation into whether the varying ownership structures are associated with differential firm outcomes. This is underscored by the conflicting results of prior studies that were majorly undertaken in matured economies.

The study used a balanced panel data drawn from a sample of 72 firms listed on the Nigerian Stock Exchange (NSE) for a five-year period resulting to 360 observations. The empirical models employed have yielded results which suggest that (a) concentrated ownership has a significant negative impact on firm performance. In other words, ownership diffuseness has affirmative features; and (b) foreign ownership exerts significant positive impact on firm performance in Nigeria. In other words, diffuse ownership and firm performance have significant positive relationships. These findings followed a series of robust checks. For instance, in the regression analysis, two control variables were introduced - firm size (SIZ) and leverage (LEV), and they (the control variables) were found to have significant positive impact on firm performance, which is consistent with prior findings.

Given the significant positive effect foreign ownership structure has on firm performance in Nigeria, policy initiatives that prospectively encourage inward foreign direct investment should advisedly be aggressively pursued by government. The study also recommends further investigations into the relationship between ownership structure and firm performance, using larger sample size, covering more years, and including particularly the banking sector that has witnessed major reforms since 2005 and plays a critical role in the economic development of Nigeria.

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