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CORPORATE GOVERNANCE AND FINANCIAL PERFORMANCE OF QUOTED PHARMACEUTICAL FIRMS IN NIGERIA

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ABSTRACT

The aim of this study was to investigate corporate governance and financial performance of quoted pharmaceutical firms in Nigeria. The broad objective of this study was to determine the relationship between board size, board independence, board meeting, audit committee meeting and financial performance of quoted pharmaceutical firms in Nigeria. Samples of six (6) pharmaceutical firms quoted on the Nigeria Stock Exchange were conveniently selected for a period of seven (7) years (2012 — 2018). Panel Least Square (PLS) regression technique was employed in estimating the data and testing the formulated hypotheses. The results of the study revealed that there is a significant relationship between board size, audit committee meeting and financial performance of pharmaceutical firms in Nigeria. While board independence and board meeting were statistically insignificant, hence did not influence financial performance of pharmaceutical firms in Nigeria for the period under review. In line with the findings, it is therefore recommended that the SEC code of corporate governance specify the maximum number of meeting the board should have annually; this is enhanced the financial performance of pharmaceutical firms in Nigeria.

INTRODUCTION

The pharmaceutical sector in any economy plays a prominent role in the general health of citizens residing in the country. Nigeria is not an exception. Owing to its significance in the general welfare of the economy, it is imperative to give serious attention to issues that concern this sector (Obukohwo, Olele & Buzugbe, 2018). The Nigerian pharmaceutical sector has come a long way from the pre-independence era when the pharmaceutical sector involved the distribution of imported drugs by the representatives of the different foreign manufacturers such as Beecham, May and Baker, Pfizer, Glaxo and J. |. Morrison (Ugbam & Okoro, 2017). Today, there are about 130 pharmaceutical firms operating in the country and 5 indigenous companies control 58 percent of the manufacturing of pharmaceutical products (Ugbam & Okoro, 2017).

According to Binta and Bazza (2018) pharmaceutical industry is the backbone of a country's economic growth and development. It brings about an increased volume and varieties of manufactured drugs resulting in increased employment and improved standard of living of the citizens. Pharmaceutical industry is also regarded as a veritable channel of attaining the lofty and desirable national goals and quality of life for the citizenry (Binta & Bazza. 2018). It forms the central object of economic policy in most developing economies and is seen as a crucial and powerful integral part of overall development and structural process of an economy. However, despite the quantum of efforts by pharmaceutical industry in increasing employment, improving standard of living of the citizens as well as enormous contribution to the country Gross Domestic Product (GDP), majority of newly established pharmaceutical industry fail to survive their first two years, while existing ones are either shutting or operating at sub-optimal levels. The reason or causes of high rate of pharmaceutical industries' mortality rate may be attributed to poor corporate governance.

The term "governance" has been reported to be as old as mankind. There is also an emphasis that the concept started as far back as creation in the Garden of Eden. This was as a result of the inborn desire of man to ensure good governance wherever they find themselves (Dabor, Isiavwe, Ajagbe & Oke, 2015). The concept of governance as it relates to Limited Liability Company (LLC) is an offshoot of the agency problem (Ajagbe & Ismail, 2014), which in turn is a result of dichotomy between ownership and management of the corporation's (Cheng, 2008). This dichotomy results in information asymmetry between managers and owners such that managers stand in vantage position to act in ways that are detrimental to the interest of shareholders (Ajagbe & Ismail, 2014).

According to Akinleye, Olarewaju and Fajuyagbe (2019), the tendency of a firm to survive the dynamics of business environment is to a greater extent influenced by the soundness of the components that defined the corporate governance of the organization, because corporate governance is fundamentally the corporate: path through which the interrelation between the organization and society as whole can be put in the right perspectives, in order to foster optimum resources management and performance.

Statement of the Problem

In Nigeria, the issue of corporate governance and its best practice is still generating heat especially since the financial crises and the collapse banks, private and public corporations in the past decades. Companies like Leventis Plc, Nigerian Coal Corporation, Asaba Textile Industry, Kaduna Textile Industry all failed because of poor corporate governance (Modum, Ugwoke & Oniyeanu, 2013). Since ever the collapse of the financial institutions in Nigeria, many researchers like (Sanda, Mikalu & Garba 2005; Kajola 2008; Babatunde & Olaniran, 2009; Semiu & Temitope, 2010) conducted research on corporate governance mechanisms and financial performance in the country. Other researchers examined the effectiveness of audit committee reporting in Nigeria (Okoye & Cletus, 2010; Owolabi & Ogbechia 2010; Madawaki & Amran 2013). None of these studies examined explored the relationship between corporate governance and financial performance of quoted pharmaceutical firms in Nigeria.

It is against this backdrop that this study therefore aims to find out the link between corporate governance and financial performance among listed pharmaceutical firms in Nigeria;

Research Objectives

The main objective of this study is to examine corporate governance and financial performance.

The specific objectives are:

1. To ascertain the relationship between board size and financial performance of quoted pharmaceutical firms in Nigeria.
2. To ascertain the relationship between board independence and financial performance of quoted pharmaceutical firms in Nigeria.
3. To determine the relationship between board meeting and financial performance of quoted pharmaceutical firms in Nigeria.
4. To determine the relationship between audit committee meeting and financial performance of quoted pharmaceutical firms in Nigeria.

Research Questions

1. What is the relationship between board size and financial performance of quoted pharmaceutical firms in Nigeria?
2. To what extent does board independence influence financial performance of quoted pharmaceutical firms in Nigeria?
3. What is the relationship between board meeting and financial performance of quoted pharmaceutical firms in Nigeria?
4. Is there significant relationship between audit committee meeting and financial performance of quoted pharmaceutical firms in Nigeria?

Research Hypotheses

The following hypotheses will be tested in the course of this study.

Ho_1: There is no significant relationship between board size and financial performance of quoted pharmaceutical firms in Nigeria.

Ho_2: There is no significant relationship between board independence and financial performance of quoted pharmaceutical firms in Nigeria.

Ho_3: There is no significant relationship between board meeting and financial performance of quoted pharmaceutical firms in Nigeria.

Ho_4: There is no significant relationship between audit committee meeting and financial performance of quoted pharmaceutical firms in Nigeria.

Literature Review

Concept of Corporate Governance

Corporate governance has been exhaustively defined by Onuorah and Imene (2016) as a mechanism for managing, directing and supervising the activities of the company with the aim of creating value for shareholders. Similarly, Ponduri, Sailaja and Begum (2014) say that corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders. It spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set and the means of attaining those objectives a monitoring performance.

Adigwe, Nwanna and John (2016) argued that there exists a narrow approach to corporate governance, which views the subject as the mechanism through which shareholders are assured that managers will act in their interests.

Financial performance

Financial performance which assesses the fulfillment of a firm's economic goals has long being an issue of interest in managerial researches. Firm financial performance relates to the various subjective measures of how well a firm can use its given assets from primary mode of operation to generate profit. Kothari (2001) defined the value of a firm as the present value of the expected future cash flows after adjusting for risk at an appropriate rate of return.

To Eyenubo (2013) it is the success in meeting pre-defined objectives, targets and goal within a specified time target. Qureshi, (2007), put forward four different approaches in which the value of a firm has been identified in corporate finance literature. These are: the financial management approach which focus on the evaluation of cash flows and investment levels before identifying and assessing the impact of financing sources on firm value; the capital structure approach which studies the impact of capital structure changes on the value of firm and how different factors impact directly or inversely the debt and equity component of the firm capital structure; the resource based approach which explains the value of firm as an outcome of firm's resources; and finally, the sustainable growth approach which is a summary of the above three approaches to firm value, taking into account the firm's operating performance, its investment and financing needs, the financing sources, and its financing and dividend policies for sustainable development of firm's resources and maximization of firm value. This study examines two key accounting measures of firms' financial performance which are Return on Equity and Return on Assets.

Return on Assets (ROA)

One of the widely used accounting based measures of corporate governance in literature is the return on assets (ROA) (Finkelstein and D"Aveni 1994; Weir and Laing 1999). It assesses the effectiveness of capital employed and provides a basis in which investors can measure the earnings generated by the firm from its investment in capital assets (Epps and Cereola 2008). The return on assets (ROA) is a measure which shows the amount of earnings that have been generated from invested capital. It is an indication of the number of kobo earned on each naira worth of assets. It allows users, stakeholders and monitoring agencies to assess how well a firm's corporate governance mechanism is in securing and motivating efficient management of the firm (Chagbadari 2011). The ROA is the ratio of annual net income to average total assets of a business during a financial year. It is measured thus: ROA = Annual Net Income/Average Total Assets.

Board Size

Boards of directors, which consist of top level executives of firms and non-executive outside members, are institutions that carry out the role of ratifying and monitoring the managerial decisions with the help of their non-executive outside members. Therefore, apart from the mix of executive and

non-executive directors, the appropriate size is a precursor and critical factor in financial reporting quality. The board size consists of the total number of directors on the board (Ibadin & Dabor, 2015).

Board size is the number of individuals serving on the board of a firm. As earlier mentioned, the code emphasizes that, the number of non-executive directors should be more than that of executive directors subject to a maximum board size of 20 directors (CBN, 2006) and 1S directors (St. C, 2003). What this implics is that, large board sizes are emphasized by both codes. Extant literature has revealed mixed positions regarding board size and financial performance. While some studies posit that the smaller the board size the higher the performance, (Jensen 1993; Sanda, Mikailu and Garba, 2005; and James and Okafor, 2011); Others show that the higher the number of directors sitting on the board the better the pertormance (Belkhir, 2006; Adams and Mehran, 2010).

Fich and Shivdasani (2006), Adam and Meheran (2010) and Thomas and Muhammed (2011) however, add that financial performance can deteriorate if busier directors serve on the board. But Yermach (1996) and Eisenberg et al (1998) find negative relationship between board size and financial performance; Bhagat and Black (2002) say the negative relationship is not strong. Arguing differently, Mak and Li (2001) posit that, the nature and significance of the relationship between board size and performance is sensitive to the estimation methods used.

Board Independence

Board comprises both executives and non-executive directors. Non-executive directors (board independence) act as mechanism that enhances efficient monitoring. Nonexecutive directors help to curtail managerial excesses that are capable of lowering the quality of accounting information conveyed to the users of financial statements (Dabor & Dabor, 2015). They further opine that one of the key functions of non-executive directors is to ensure that the board does not to collude with management.

An "Independent director" is a non-executive director on the board of a company who has integrity, sense of accountability, track record of achievements, financial literacy, experience and the independence to balance the interests of various stakeholders, ability to think strategically, degree of commitment, sense of devotion (Jan & Sangmi, 2016)

Independent Directors play an active role in various committees to be set up by a company to ensure good governance. Listed Companies are required to set up audit committees of minimum three directors, on which, two-thirds should be Independent Directors. The audit committee chaired by an Independent Director shall inspect the company's financial statements and can also recommend replacement of the statutory auditor. Independent directors are responsible for formulating and implementing business strategies on behalf of shareholders and have to ensure that the business activities of the company are compatible with all legal requirements. They have to perform crucial governance functions. The presence of independent Directors on the Board, capable of challenging the decisions of the management, is widely considered as a means of protecting the interests of shareholders and other stakeholders (Jan & Sangmi, 2016).

The entrance of outside directors on board is attributed as board independence. Board independence is one of the significant determinants of board effectiveness. People outside the firm other than current or past employees of organization are supposed to be independent directors and are representatives of shareholder interest. Outside directors having no attachment with organization might be true representatives of shareholders interest (Rehman & Shah, 2013).

Board Diligence

Board meeting (diligence) refers to the gathering of directors on the board to discuss issues regarding the company. It is measured as the number of meetings during a year by a company board of directors (Kakanda, Salim and Chandren, 2016). Board meetings play a Significant role to the success of a company. In addition, board meetings serve as an important avenue tor effective decision making of a company. Board of directors hold meetings on behalf of the company to discuss issues of the past, present and future that is related to the company, and resolutions passed during board meetings. Therefore, the more the number of board meetings, the better for a company, because the boards will have more and better chances of making various decisions (Kakanda, Salim and Chandren, 2016).

Audit Committee Size

Emeh and Appah (2013) define audit committee as a committee appointed by a company as a liaison between the board of directors and the external auditors; this committee normally has a majority of non-executive directors and is expected to view the company's affairs in a detached and dispassionate manner. Audit Committees were relatively rare until the 1970s, when large corporations increased their voluntary formation. As the use of audit committees increased, policy makers, private interest groups, and researchers have advanced numerous concerns about a lack of relevant accounting, auditing and corporate governance knowledge and experience among audit committee members. The Companies and Allied Matters Act 1990, as amended and consolidated in the 2004 Act, stipulates that every public company in Nigeria must have an audit committee. The functions of the committee are spelt out in section 359(6) as follows: "(i) ascertain whether the accounting and reporting policies of the company are in accordance with legal and agreed ethical practices; (ii) review the scope and planning of audit requirements; (iii) review the findings on management matters in conjunction with the external auditors and departmental responses thereon; (iv) keep under the effectiveness of the company's system of accounting and internal control; (v) make recommendations to the board in regard to the appointment, removal and remuneration of external auditors of the company; and (vi) authorize the internal auditor to carry out investigations into any activities of the company which may be of interest or concern to the committee." .

Ilaboya and lyafekhe (2014) assert that the audit committee plays crucial role in assisting the Board in fulfilling its responsibilities by overseeing the accounting and financial reporting processes. They (Ilaboya and lyafekhe, 2014) posited that one mechanism that has been widely used in worldwide corporate organizations to monitor the financial reporting process and corporate governance is the establishment of an audit committee comprising a majority of independent directors.

Sharinah, Mohd and Azlina (2014) maintain that an audit committee is a subcommittee of a corporate governance structure. The committee plays a significant role in monitoring the financial reporting process as delegated by the Board of Directors. According to them, there are four fundamental responsibilities of an audit committee — assessing risk and control environment, overseeing financial reporting, evaluating the audit process and reviewing conflict of interest and related party transaction. These roles and responsibilities require the members of the audit committee to have specific characteristics and background to effectively and efficiently perform their task.

Ibadin and Afensimi (2015) opine that, in Nigeria, the Companies and Allied Matters Act, 1990 states that a public limited liability company should have an audit committee (maximum of six members of equal representation of three members each representing the management/ directors and shareholders) in place. The members are expected to be conversant with basic financial statements. The committee has the following objectives: (i) Increasing public confidence in the credibility and objectivity of published financial statements. (ii) Assisting the directors, especially the nonexecutive directors, in meeting their responsibilities of financial reporting. (iii) Strengthening the independent position of a firm's external auditors by providing an additional channel of communication.

According to Moses (2016) the exact sum of members of audit committee is particularly important as it affects the commitment of memberships to monitor management and detect deceitful behaviours. A bigger size of the audit committee can alleviate material differences throughout the tested equity submissions.

Audit Committee Meeting

The numbers of audit committee meeting are considered to be an important attribute for their monitoring effectiveness. Al-Matari, Al-Swidi, Fadzil and Al-Matari (2012) noted the number of audit committee meetings is considered as a proxy for audit committee activity. Therefore, the audit committee that meets more frequently with the internal auditors is better informed about auditing and accounting issues. When an important auditing or accounting issue arises, the audit committee can direct the proper level of internal audit function to address the problem promptly. Therefore, an audit committee that meets frequently can reduce the possibility of financial fraud.

According to Osarumwense and Aderemi (2016) audit committee diligence (meetings) implies the number of times an audit committee member meets. This is quite different from attendance at meetings. Frequent audit committee meetings allow for better communication between audit committee members and auditors (both external and internal) and enable the audit committee to be more effective.

Salleh and Haat (2014) argue that an audit committee that meets more frequently will be more effective in overseeing and monitoring the financial activities such as the preparation and reporting the firm's financial information.

Theoretical Framework

Corporate governance theories are important especially in monitoring the performance of the management and board. This study examines corporate governance variables based on agency, stakeholders and transaction costs theories.

The Agency Theory

Agency theory was developed by Jensen and Meckling (1976) who argued the theory refers to the relationship between the principals, such as shareholders and agents such as the company executives and managers. In this theory, shareholders who are the owners or principals of the company, hires the gents to perform work. Principals delegate the running of business to the directors or managers, who are the sharcholder's agents. Jensen and Meckling (1976) further specified the existence of agency costs which arise owing to the conflicts either between managers and shareholders (agency costs of equity) or between shareholders and debt holders (agency costs of debt). According to agency model, the separation of ownership and control creates an inherent conflict of interest between the shareholders (Principal) and the management (Agent) (Aguilera et al., 2008). Although managers are said to be rational, but cannot be trusted to remain faithful by always acting in the best interest of the principal since they are also presumed to be self-interested (Williamson, 1975). Therefore, managers must be controlled to avoid moral hazard using some risk-bearing and monitoring mechanisms that checkmate their deviant behaviors.

Agency theory advocated for a clear separation between decision management and control (Fama & Jensen, 1983; Jensen, 1986; Jensen & Meckling, 1976) Further, Eisenhardt (1989) elaborated that agency theory is concerned with resolving two problems that can occur in agency relationships. Agency problem that arises when the desires or goals of the principal and agent conflict and/or when it is difficult or expensive for the principal to verify what the agent is actually doing. Eisenhardt (1985) posits agency theory suggests two underlying Strategies of control: behavior based and outcome based. Both strategies rely upon performance evaluation. Taking agency theory into consideration, financial performance may be indicative of an agency problem. As a consequence, enhancing corporate governance should result in increased financial performance and achievement of Vision 2030.

Stakeholder Theory

Stakeholders have been broadly defined as any group or individual who can affect or is affected by the achievement of the organization's objectives (Freeman, 1984).The theory argues that corporations should serve all groups or individuals who have a stake in the corporation, typically including employees, customers, suppliers, and local communities. While shareholder theory espouses the "free market" doctrine, stakeholder theory argues that the problems of free rider, moral hazards, and monopoly power inherent to the free market justify government intervention and corporate social responsibility. In the stakeholder view, corporations cannot maximize the shareholder interests at the expense of other stakeholders because doing so is neither moral nor economically efficient (Alkhafaji, 1989). According to Ayuso et al (2012) the stakeholder model proposes extending the focus of managers beyond the traditional interest group of shareholders in order to understand the needs, expectations, and values of groups previously perceived to be external to the company. In this sense, stakeholders of a firm can be defined as "individuals and constituencies that contribute, either voluntarily or involuntarily, to its wealth-creating capacity and activities, and who are therefore its potential beneficiaries and/or risk bearers (Post et al., 2002). In this evolving literature, stakeholder theory has been presented in three broad ways:

descriptive, instrumental, and normative. Stakeholder theory has both normative (moral/ethical), descriptive and instrumental (profit/wealth-enhancing) implications, as dealing with stakeholders can be regarded as a responsibility to meet the legitimate claims of all stakeholders and/or as a means to maximize organizational wealth (Donaldson & Preston, 1995; Jones & Wicks, 1999),

In order to actualized board effectiveness and performance derive, the stakeholder theory advocated for large and well diversified corporate board size that accommodate and facilitate the alignment of the interest of each constituent especially those that create value to the firm(Clarkson, 1995; Evan & Freeman, 1993; John & Senbet, 1998; Zingales & Rajan, 1998) .As a consequence, enhancing stakeholders participation in corporate governance should result in increased financial performance, growth of manufacturing sector and achievement of Vision 2030

Transaction Costs Theory

The theory argues that governance regimes consist of formal and informal structures and rules that enable carrying out economic transactions in an economic manner. The theory explains why companies expand or source out activities to the external environment. When external transaction costs are higher than the company's internal bureaucratic costs, the company will grow, because the company is able to perform its activities more cheaply, than if the activities were performed in the market (Ronald 1937; Wieland, 2005; Williamson, 1975: Williamson, 1981; Williamson, 1996). Transaction cost theory explains why companies exist. and why companies expand or source out activities to the external environment. According to Ronald (1937) every company will expand as long as the company's activities can be performed cheaper within the company, than by e.g. outsourcing the activities to external providers in the market. Williamson (1981) asset that a transaction cost occurs when a good or a service is transferred across a technologically separable interface. Therefore, transaction costs arise every time a product or service is being transferred from one stage to another, where new sets of technological capabilities are needed to make the product or service. The central problem of transaction cost economics is carrying out of economic transactions by the efficiency of the chosen governance structures that have been tailored to carry out the transactions at hand (Wieland, 2005).

In other words, the organization and structure of a firm can determine price and production. The unit of analysis in transaction cost theory is the transaction. Therefore, the combination of people with transaction suggests that transaction cost theory managers are opportunists and arrange firms' transactions to their interests (Williamson, 1996). Governance regimes consist of formal and informal structures and rules that enable carrying out economic transactions in an economic manner. Transaction cost economics focus on hierarchical governance structures such as firms and other organizations as alternative to the market as governance structure. The corporate governance problem of transaction cost economics is, therefore, not the protection of ownership rights of shareholders, rather the effective and efficient accomplishment of transactions by firms in their cultural and political environment (Williamson, 1996).

METHODOLOGY

Research Design

The cross sectional research design is adopted for this study. It is used to make inferences about a population at a point in time. It is used to determine the frequency of particular attributes at a particular point. Cross-sectional 'studies involve the use of cross-sectional regression, in order to reflect the existence and magnitude of causal effects of one or more independent variables on a dependent variable of interest at a given point in time. This research design can be conducted using any mode of data collection.

Population and Sample Size of the Study

The population of this study comprises of all the eight (8) pharmaceutical firms quoted on the floor of the Nigerian Stock Exchange as at December, 2018.

A total of six (6) pharmaceutical firms quoted on the Nigerian Stock Exchange form the sample size of this study. The convenient sampling technique was utilized in selecting each of the firms. However,

the choice of the sample size is based on the availability of data tor all the variables included in the model (in all the proposed years to be studied). The study covers a period of seven (7) years (2012 — 2018).

Model Specification and Method of Data Analysis

The function form of the model is express as follows:

FPER = f(BSIZE, BIND, BMEET, ACMEET) .....(1)

Mathematically, the model is specified as

$FPER = \beta_0 + \beta_1 BSIZE + \beta_2 BIND + \beta_3 BMEET_t + \beta_4 ACMEET_t + e_t$ .....(2)

Where:

FPER = Financial performance (proxied for Return on Asset)

BSIZE = Board Size

BIND = Board Independence

BMEET = Board Meeting; ACMEET = Audit Committee Meeting

e_t = Error Terms

Apriori expectation: $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5 > 0$

The Panel Least Square (PLS) regression was adopted for this study; it is a generalized linear modeling technique that could be used to model a single variable which has been recorded on at least an interval scale. The technique may be applied to single or multiple explanatory variables and also category explanatory variables that have been appropriately coded. The panel least square is a statistical tool that enables the researcher to establish if there is any relationship between two variables. The use of ordinary least square as the research tool is informed by its simplicity in estimating unknown parameters in a linear regression model.

Operationalization of Variables

Variables	Definition	Type	Operationalization
FPER	Financial Performance	Dependent	Is proxied by Return on Asset (i.e Profit Before Tax/Total Asset)
BSIZE	Board Size	Independent	Is the total number of directors on board
BIND	Board Independence	Independent	Is the number of independent directors on board
ACMEET	Audit Committee Meeting	Independent	Number of audit committee meeting during the year
BMEET	Board Meeting	Independent	This is measured by the number of board meetings attended by the board of directors

Data Presentation and Analyses

This section contains the presentation, analyses and interpretation of the data collected for this research work. Consequently, it entails the application of both mathematical and statistical techniques to provide the basis for the testing of the research hypothesis. Hence, it is a vital part of any research work, since it forms the basis of recommendations and conclusion at the end of the research.

This study analyzes the influence of corporate governance on financial performance of quoted pharmaceutical firms in Nigeria. To achieve the objectives of the study, it employed a period of seven (7) years (2012 — 2018) and a small unit of six (6) pharmaceutical firms quoted on the Nigerian Stock Exchange. The variables used in this study include financial performance (FPER) proxied by Return on Asset (ROA) — the dependent variable, while the independent variables consist of Board Size (BSIZE), Board Independence (BIND), Board Meeting (BMEET) and Audit Committee Meeting (ACMEET). The model was estimated in the previous section and the data are run with E-Views 9.0 econometric computer software. The hypotheses were tested using the t-ratios from the Panel Least Square (OLS) regression result.

The presentation of the results is as follows; firstly, the descriptive statistics result is presented. Secondly, the correlation result and analysis is also presented. Next, the ordinary least squares regression result is presented and analyzed.

Descriptive Statistics

The results of the descriptive statistics are analyzed in the table below:

Table 1: Descriptive Statistics

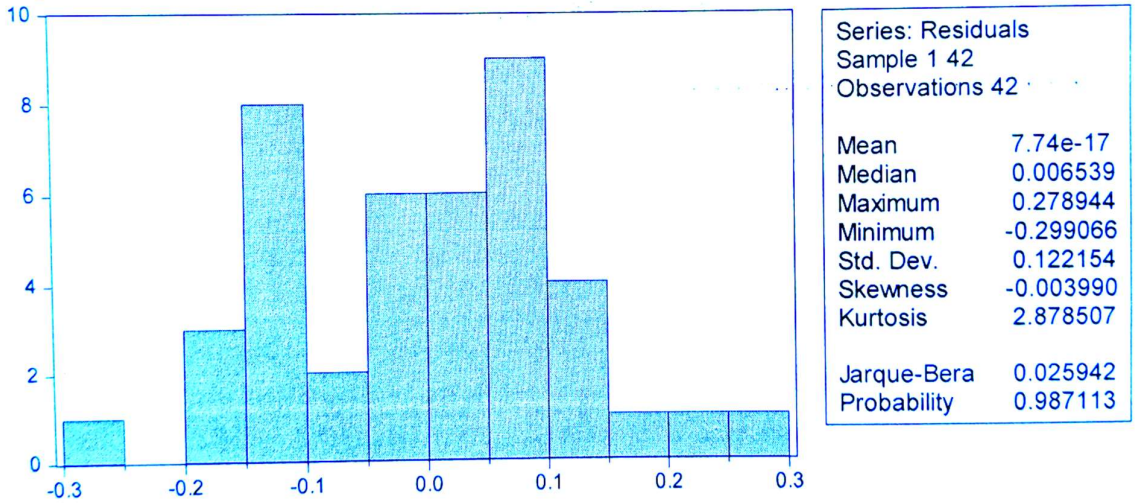
	FPER	BSIZE	BIND	BMEET	ACMEET
Mean	0.007736	8.619048	0.628690	4.428571	3.833333
Median	0.041215	8.000000	0.625000	4.000000	4.000000
Maximum	0.273016	12.00000	0.900000	7.000000	6.000000
Minimum	-0.352874	5.000000	0.200000	3.000000	2.000000
Std. Dev.	0.138024	1.820646	0.136212	0.769633	0.934871
Skewness	-0.572366	0.137610	-0.366612	1.379167	0.698256
Kurtosis	3.264369	2.351350	3.773934	4.853564	3.087875
Jarque-Bera	2.415526	0.868862	1.989038	19.32718	3.426443
Probability	0.298865	0.647633	0.369901	0.000064	0.180284
Sum	0.324897	362.0000	26.40500	186.0000	161.0000
Sum Sq. Dev.	0.781079	135.9048	0.760703	24.28571	35.83333
Observations	42	42	42	42	42

Source: Eviews 9 (2020)

The descriptive statistics in table 1 shows the characteristics of the variables from the six (6) selected companies that formed the overall sample of the study. As observed, the mean value of the dependent variable Financial Performance (FPER) showed positive and negative values ranging from -0.352874 to 0.273016 suggesting that the level of Financial Performance (FPER) of the selected companies for the period under review skewed towards the positive and negative. The mean values of all the other independent variables [Board Size (BSIZE), Board Independence (BIND), Board Meeting (BMEET) and Audit Committee Meeting (ACMEET)] equally showed positive values with mean values of 8.619048, 0.628690, 4.428571 and 3.833333 respectively. The standard deviations of each of the variables showed minimal dispersion (+) from the mean values which are highly desirable. More so, the probability values of the Jargue Bera test for all factors are significantly lower than the 0.05 indicating that the series are uniformly distributed.

However, to ensure the reliability of the result, other tests were conducted; they are normality test, Variance Inflation Factors (multicollinearity), heteroscedasticity, serial correlation (auto correlation) tests as well as hausman test.

Figure 1 Normality Test



Source: Researchers Computation, 2023

The histogram normality and other descriptive statistics of the regression variables are revealed in the normality test above. The result showed a mean Jarque-Bera test of 0.025942 and associated probability value of 0.987113 which is significantly greater than the 5% level indicating that not all the series are evenly distributed. Thus, the issue of endogeneity arising from the heterogeneous nature of the data are likely evident.

Table 2: Correlation Analysis
Covariance analysis: Ordinary
Date: 05/14/20Time: 19:19
Sample: 142
Included Observation: 42

Correlation t-Statistic Probability	FPER	BSIZE	BIND	BMEET	ACMEET
FPER	1.000000				

BSIZE	-0.334375	1.000000			
	-2.243934	-----			
	0.0304	-----			
BIND	-0.102327	0.634757	1.000000		
	-0.650590	5.195407	-----		
	0.5190	0.0000	-----		
BMEET	-0.126988	0.397859	0.363777	1.000000	
	-0.809697	2.742700	2.469951	-----	
	0.4229	0.0091	0.0179	-----	
ACMEET	0.037309	0.448999	0.058578	0.372884	1.000000
	0.236125	3.178085	0.371116	2.541633	-----
	0.8145	0.0029	0.7125	0.0150	-----

Table 2 presents the correlation matrix of variables adopted in the study. The aim is to show how the variables are related among themselves and to also check for possible high correlations which could lead to multicollinearity problem. As observed from the result, an insignificant positive correlation exists between the dependent variable Financial Performance (FPER) and the variables of Board Size (BSIZE), Board Independence (BIND) and Board Meeting (BMEET) at -0.33, -0.10 and -0.12 respectively; while the variable of Audit Committee Meeting (ACMEET) showed significant positive associations with the dependent variable Financial Performance (FPER) at 0.03. However, the variables that have significant association with the dependent variable of Financial Performance (FPER) passed the scale at 1% level of confidence. This suggests that all the independent variables move in the same direction with the dependent variable. It is also observable that the issue of high-correlation is not evident among the variables as none of the correlation coefficients is above 0.90.

Diagnostic Tests

To ensure reliability and validity of the empirical results, some diagnostic tests were conducted. In order to test for the presence of multicollinearity in the model, the Variance Inflation Factor (VIF) was carried out, the Hereroskedasticity test was conducted using Breusch-pagan-Godfrey test.

Table 3: Variance Inflation Factors
Variance Inflation Factors
Date: 05/14/20 Time: 19:19
Sample: 142
Included observations: 42

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
BSIZE	0.000285	56.20293	2.345899
BIND	0.043643	45.82417	2.345899
BMEET	0.000917	47.02481	1.346735
ACMEET	0.000716	28.27735	1.551718
C	0.018964	48.17105	NA

Source: E views 9 (2023)

The result of the variance inflation factor in Table 3 shows the absence of multicolinearity. The centered VIF values of the explanatory variables are far below the benchmark of 10. The explanatory variables of Board Size (BSIZE) reported a centered VIF of 2.345899; Board Independence (BIND) 2.007836, Board Meeting (BMEET) 1.346735 and Audit Committee Meeting (ACMEET) 1.551718. All the variables of the model recorded a centered VIFs that are not substantially different from 1.00 and are not indicative of the problem of multicollinearity.

Table 4: Heteroskedasticity Test: Breusch-Pagan-Godfrey
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-static	1.399190	Prob. F(4.37)	0.2533
Obs*R-squared	5.518352	Prob. Chi-Square(4)	0.2381
Scaled explained SS	4.022510	Prob. Chi-Square(4)	0.4030

Source: Researcher's Compilation (2023)

The test for Heteroskedasticity is presented in Table 4.4. It checks for the presence of non-constant variable leading to the breakdown of the BLUE properties in which the efficiency and consistency property may be lost. The decision rule is to conclude that there is no Heteroskedasticity if the F-statistic values are respectively greater than the critical values at 5% level. In the absence of this (i.e. if the critical values at 5% is greater than the F-statistic and observed R-square value), we conclude that there is Heteroskedasticity. As shown in Table 4.4, the p-value (4.37%) of the corresponding observed chi-square value is greater than 5%. Hence, we accept the null hypothesis of heteroskedasitic error term which is desirable. The implication of this is that the regression results can be applied reliably.

Estimation Results

The fixed effect and random effect model estimation technique were to be adopted. However, in order to ascertain the one that is most appropriate. The Hausman's Test was applied; the result obtained is show below:

Table 5: Hausman Test Result
Correlated Random Effects - Hausman Test
Equation: Untitled
Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob
Period Random	2.297348	4	0.6813

Source: Researcher's Compilation (2023)

Null Hypothesis: Random effect model is not desirable
Alternative Hypothesis: Random effect model is desirable.
Decision Rule: Accept null if product is greater than 5%,
Accept alternative if product is less than 5%,
From the result of the Hausman Test, the chi-square statistics has a value of 2.29 and the corresponding p-value is greater than 5%, Hence, the null hypothesis was accepted. This implies that the random effect model is most appropriate for the study, (see appendix) in order to provide a comprehensive overview of the results.

Table 6: Regression Results
Dependent Variable: FPER
Method: Panel EGLS (Period random effects)
Date: 05/14/20 Time: 19:23
Sample: 2012 2018
Periods included: 7
Cross-sections included: 6
Total panel (balanced) observations: 42
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BSIZE	-0.050553	0.017576	-2.876193	0.0066
BIND	0.348640	0.217345	1.604086	0.1172
BMEET	-0.021848	0.031504	-0.693495	0.4923
ACMEET	0.053444	0.027839	1.919741	0.0626
C	0.116154	0.143272	0.810723	0.4227
Effect Specification				
			S.D.	Rho
Period Random			0.000000	0.0000
Idiosyncratic Random			0.133781	1.0000
Weighted Statistics				
R-square	0.216741	Mean dependent var		0.007736
Adjusted R-squared	0.132065	S.D. dependent var		0.138024
S.E. of regression	0.128588	Sum square resid		0.611787
F-statistic	2.559637	Durbin-Watson stat		1.617494
Prob(F-statistic)	0.054583			
Unweighted Statistics				
R-squared	0.216741	Mean dependent var		0.007736
Sum squared resid	0.611787	Durbin-Watson stat		1.617494

Source: Researcher's Computation via Eviews 9 (2023)

From 4.6 above, it can be seen that the R? statistic is 0.21 while the adjusted R? Statistic is also 0.13%. This is an indication that about 13% of systematic variations in Financial Performance (FPER) are explained by changes in the explanatory variables of the model. Similarly, the F-statistic, 2.559637 is statistically significant at the 5% level (probability value of 0.054583). These statistics indicate that our model satisfies the overall goodness of fit statistical test.

The Durbin-Watson statistic of 1.61 shows the absence of autocorrelation. Thus, our econometric model meets both statistical and diagnostic criteria and represents a good and consistent estimator that can be useful for policy direction.

In addition to the above, the specific finding from each explanatory variable from the Panel Least Square (PLS) regression models is provided as followings:

Board Size (BSIZE), based on the coefficient of -0.050553 and p-value of 0.0066 was found to have a negative impact on financial performance (FPER) but was statistically significant. This result, therefore, suggests that we should reject the null hypothesis, which means that there is a significant relationship between board size and financial performance of pharmaceutical firms in Nigeria.

Board Independence (BIND), based on the coefficient 0.348640 and p-value of 0.1172, appears to have a positive influence on our sampled quoted pharmaceutical firms' financial performance (FPER) and was statistically significant. This result, therefore, suggests that we should accept the null hypothesis, which means that there is no significant relationship between board independence and financial performance of pharmaceutical firms in Nigeria.

Board Meeting (BMEET), based on coefficient of -0.021848 and p-value of 0.4923 appears to have a negative influence on our sampled quoted pharmaceutical firms' financial performance (FPER), and was not statistically significant. This result therefore suggests that we should accept the null hypothesis which means there is no significant relationship between board meeting and financial performance of pharmaceutical firms in Nigeria.

Audit Committee Meeting (ACMEET), based on coefficient of 0.053444 and p-value of 0.0626 appears to have a positive influence on our sampled quoted pharmaceutical firms' financial performance (FPER) and was statistically significant. This result therefore suggests that we should accept the alterative hypothesis which means there is a significant relationship between audit committee meeting and financial performance of pharmaceutical firms in Nigeria.

CONCLUSION

The study investigates corporate governance and financial performance of quoted pharmaceutical firms in Nigeria. A sample of six (6) pharmaceutical firms from the listed pharmaceutical firms on the Nigeria Stock Exchange (NSE) for 2018 was selected. The study depended on the use of descriptive statistics, correlations analysis and the Panel Least Square (PLS) regression analysis. The study tested for the relationship between board size, board independence, board meeting, audit committee meeting and financial performance of quoted pharmaceutical firms on the Nigeria Stock Exchange.

Of all the variables examined, two of the variables (board size and audit committee meeting) were found to be statistically significant, while board independence and board meeting were found to be statistically insignificant.

RECOMMENDATIONS

In light of the foregoing discussions, it is our opinion and recommendation that the following should be put in place.

1. The negative and significant relationship between board size and financial performance of quoted pharmaceutical firms indicates that an increase in board size bring about increase in financial performance of quoted pharmaceutical. It is therefore recommended that the SEC code of corporate governance specify the maximum number of directors to be on the board of directors. This will help to prevent companies from having large boards, which do not necessarily improve performance but instead incur coordination costs.
2. Corporate organization in Nigeria should pay proper attention to their board independence as it positively influence corporate performance as indicated by the findings of this study.
3. It is recommended that the SEC code of corporate governance specify the maximum number of meeting the board should have annually; this is enhanced the financial performance of pharmaceutical firms in Nigeria. so - 4, This study recommends that audit committee should meet as many times as possible to be able to carry-out their prescribed roles and functions which in-turn helps pharmaceutical firms sustain their financial performance.

REFERENCES

Adams, R. & Mehran, H. (2010). Financial performance, board structure and their determinants in the banking industry. *Mimeo FRBNY*, New York.

Aguilera, R. V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization Science, 19*(3), 475-494.

Ajagbe, A. M. & Ismail, K. (2014). Factors influencing venture capital assessment of high growth companies in Malaysia. *International Journal of Entrepreneurship and Small Business, 21*(4), 457 -494.

Akinleye, G. T., Olarewaju, O. M. & Fajuyagbe, B. S. (2019). Corporate governance and financial performance: An empirical analysis of selected multinational firms in Nigeria. *Problems and Perspectives in Management, 17*(1), 11 — 18.

Akinleye, G. T., Olarewaju, O. M. & Fajuyagbe, B. S. (2019). Corporate governance and financial performance: An empirical analysis of selected multinational firms in Nigeria. *Problems and Perspectives in Management, 17*(1), 11-18.

Alkhafaji, A. F. (1989). A stakeholder approach to corporate governance: Managing in a dynamic environment. *New York: Quorum Books*.

Al-Matari, Y., Al-Swidi, A., & Fadzil, H. (2012). Audit committee effectiveness and performance of Saudi Arabia listed companies. *Wulfenia Journal, 19*(8), 169-188.

Ayuso, S., Rodriguez, M. A., Garcia-Castro, R., & Arifio, M. A. (2012). Maximizing Stakeholders' Interests: An Empirical Analysis of the Stakeholder Approach to Corporate Governance. *SAGE Publications*, 1-26.

Belkhir, M. (2006). Board Structure, Ownership Structure and Financial performance. Laboratoire d'Economie d'Oleans Working Paper 02

Bhagat, S. & Black, B., (2002). The non-correlation between board independence and long term performance. *Journal of Corporation Law, 27*(2), 231-43.

Binta, M. & Bazza, A. M. (2018). Appraisal of the impact of industrialization on economic growth in Nigeria. *JOSR Journal of Business and Management, 20*(1), | — 10.

Chagbadari M. F. (2011). Corporate governance and financial performance, *International Conference on Sociality and Economic Development, 10* (1), 484-489.

Cheng, S. (2008). Board size and variability of corporate performance. *Journal of Financial Economics. 87*(2), 157 — 176.

Dabor, A. O. & Dabor, E. L. (2015). Audit committee characteristics, board characteristics and financial reporting quality in Nigeria. *International Journal of Economics, Commerce and Management, 111*(11), 1292 — 1304.

Dabor, A. O., Isiavwe, D. T., Ajagbe, M. A. & Oke, A. O. (2015). Impact of corporate governance on firms' performance. *International Journal of Economics, Commerce and Management, 3*(6), 634 — 653.

Eisenberg, T., Sundgren, S. & Wells, M. T. (1998). Larger Board Size and Decreasing Firm Value in Small Firms. *Journal of Financial Economics 48.*

Eisenhardt, K. M. (1989). Agency Theory: An Assessment And Review. Academy of Management. *The Academy of Management Review, 14*(1), 57-74.

Emeh, Y. & Appah, E. (2013), Audit committee and timeliness of financial reports: empirical evidence from Nigeria, *Journal of Economics and Sustainable Development, 4*(20), 14-25.

Epps, R. W & Cereola, S. J (2008). Do Institutional Shareholder Services (ISS) corporate governance ratings reflect a company's operating performance?', *Critical Perspectives on Accounting, 19* (1), 1138-1148.

Eyenubo A. S. (2013). The impact of bigger board size on financial performance for firms: the Nigerian experience, *Journal of Research in International Business and Management, 3* (3), 85-90.

Fama, E., & Jensen, M. (1983). Separation of ownership and control. *The Journal of Law and Economics, 26,* 301-325.

Fich, E. & Shivdasani, A. (2006). Are Busy Boards Effective Monitors? *Journal of Finance 61*(2), 689-724.

Finkelstein, S & D'Aveni, R. A (1994). CEO duality as a double-edged sword: How board of directors balance entrenchment avoidance and unity of command, *Academy of Management Journal, 37* (5), 107-108.

Freeman, E. (1984). Strategic management: Astakeholder approach. Boston, MA:Pitman.

Ibadin, P. O., & Dabor, E. L. (2015). Corporate governance and accounting quality: Empirical investigations from Nigeria. *Journal of Policy and Development Studies, 9*(2), 64 — 82.

Ibadin, L, A. & Afensimi, E. (2015). Audit committee attributes and earnings management: evidence from Nigeria. *International Journal of Business and Social Research, 5*(4), 14-23,

Ilaboya, O. J. & lyafekhe, C. (2014), Corporate governance and audit report Jag in Nigeria, *International Journal of Humanities and Social Science, 4*(13), 172 -180.

James, O. & Okafor, C.O. (2011), Corporate Governance Mechanism and Firm's Financial Performance in Nigeria. *Journal of Accounting Research, 1*(1).

Jan, S., & Sangmi, M. D. (2016). The role of board of directors in corporate governance. *Imperial Journal of Interdisciplinary Research, 2*(5), 707 — 715.

Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *American Economic Review, 76*(2), 323-329.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance, 48*(3), 831 — 880.

Jensen, M. C., & Meckling, H. W. (1976). Theory of the Firm: Managerial Behaviour, Agency Costs and University Structure. Journal of Financial Economics, 3, 305-360.

Kajola, S. O. (2008). Corporate governance and firm performance: The case of Nigerian listed firms. *European Journal of Economics, Finance and Administrative Sciences* 14

Kakanda, M. M., Salim, B., & Chandren, S. (2017). Corporate governance, risk management disclosure, and firm performance: A theoretical and empirical review perspective. *Asian Economic and Financial Review, 7*(9), 836 — 845.

Kothari, S. P (2001). Capital market research in accounting, paper presented to JAR Rochester Conference April 2000.

Madawaki & Amran, A. (2013). Audit committees: how they affect financial reporting in Nigerian companies, *Journal of Modern Accounting and Auditing, 9*(8), 1070 — 1080.

Mak, Y. T. & Li, Y. (2001), Determinants of corporate ownership and board structure: Evidence from Singapore. Journal of Corporate Finance 7, 235-256.

Moses, T. (2016). The impact of audit committee size on the quality of financial reporting in quoted Nigerian Banks. *International Journal of Advanced Academic Research, 2*(5), 62 — 74.

Obukohwo, E. O., Olele, E. H. & Buzugbe, P. N. (2018). Assessing efficiency in the pharmaceutical sector of Nigeria. *CBN Journal of Applied Statistics, 9*(2), 131 — 148.

Onuorah, A. C., & Imene, O. F. (2016). Corporate governance and financial reporting quality in selected companies in Nigeria. *International Journal of Management Sciences and Business Administration, 2*(3), 7-16.

Osarumwense, E. S. & Aderemi, A. K. (2016). The impact of financial literacy and frequency of meetings of members of audit committee on financial reporting quality in Nigerian quoted companies. *Journal of Accounting, Finance and Auditing Studies 2*(2), 1 -22.

Ponduri, S. B., Sailaja, V., & Begum, S. A. (2014). Corporate governance Emerging economies fraud and fraud prevention. *Journal of Business and Management, 16*(3), 1-7.

Qureshi, M. A (2007). System dynamics modelling of firm value, *Journal of Modelling in Management, 2* (1), 24-39.

Rehman, A. & Shah, S. Z. A. (2013). Board independence, ownership structure and firm performance: evidence from Pakistan. *Interdisciplinary Journal of Contemporary Research in Business, 5*(3), 832 — 845.

Salleh & Haat (2014). Audit committee and earnings management: pre and post Malaysian code of corporate governance (MCCG). *International Review of Management and Business Research, 3*(1), 307 — 318.

Sanda, A. U, Mukaila, A. S & Garba, T. (2005): Corporate governance mechanisms and firm financial performance in Nigeria. AERC Research Paper, No 149.

Sharinah, P., Mohd, F. M. S. & Azlina, A. (2014). Audit committee and timeliness of financial reporting: Malaysian public listed companies. *Middle-East Journal of Scientific Research, 22*(2), 162 - 175.

Ugbam, O. C. & Okoro, E. A. (2017). A strategic study of the Nigerian pharmaceutical sector: organizational leadership, market-share, and competitive performance. *International Journal of Business, Humanities and Technology, 7*(1), 1 — 10.

Weir, C., & Laing, D. (1999). Governance structures, size and financial performance in UK firms. *Management Decision, 37* (5), 457-64.

Williamson, O. E. (1975). Markets and hierarchies: Analysis and antitrust implications. *New York, NY: Free Press.*

Yermack, D. (1996). Higher market valuation of companies with small board of directors. *Journal of Financial Economics*. 40, 185 - 211.