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Corporate governance mechanisms and performance of quoted non-financial firms in Nigeria

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Abstract

In this study, we investigate the impact which some corporate governance attributes have on the financial performance of selected manufacturing firms in Nigeria. The period which the study covers is from 2005 to 2020 of 76 sampled firms from a population of 106 firms in the NXG. The endogeneity test results reveal that three of the variables are endogenous and this necessitates the use of a dynamic model like the generalized method of moments (GMM). The results reveal that board size, board meetings, foreign ownership, institutional ownership and firm size are positively and statistically significant; board gender diversity, board independence, firm age, leverage and loss are negatively and statistically significant while managerial ownership is insignificant. It implies from the results above that sound corporate governance adherence leads to economic prosperities and avoid the risk of liquidation.

Keywords: Corporate Governance, Performance, Quoted Non-Financial Firms, Endogeneity, GMM.

1. Introduction

Every business organisation, whether a sole proprietorship; a partnership or a company, is set up purely for profit motive. But while a sole proprietor or a partner is also involved in the day to day affairs of the business, it is not the same with a company where there is usually a separation of ownership from control. Since ownership is with the shareholders but control is with managers, agency and information asymmetry problems are created whereby managers act for their selfish interests. The owners therefore designed some control measures or mechanisms to mitigate the excesses of managers so as to align their interests with those of the owners. One of such mechanisms is the use of corporate governance which is a set of rules, principles, laws that guide how a company should be governed for the overall prosperity of all stakeholders. Accordingly, Egbadju (2022) noted that this separation of ownership from control gave rise to agency problem, and this resulted in the adoption of corporate governance mechanisms by the owners in the form of broad-based rules and principles to regulate the behaviour of managers and other stakeholders. In order to achieve the objectives of the firm, the dos and donts relating to the management of the firm must be well spelt out so as to ensure that the rights of all stakeholders are protected, and that transparency and accountability are maintained and sustained. Just as managers would like to maximize shareholders' wealth, others groups such as managers, employees, and creditors also desire that their interest be maximized and so the governance system serves as the vehicle to accommodate the interests of different stakeholders (Abdullah & Tursoy, 2023).

Corporate governance, according to Okoye and Ofoegbu (2006), depicts the relationship that exists among the

stakeholder of a firm regarding the rules and laws which governs the firm by making sure that the directors act in the overall interest of the firm and to be held accountable to capital providers for use of assets in achieving the goals of the firm. It spelt out how a firm can be directed and governed through institutional, regulatory, ethical and legal framework for the overall good of the society (Sunarto et al.,2021). The turn of the 21st century which witnessed unprecedented corporate fraud and corruption defined by the ethical wrongdoing of Enron (2001); WorldCom (2002); Tyco (2002); HealthSouth (2003); Freddie Mac (2003); Parmalat (2003); American International Group (AIG) (2005); Lehman Brothers (2008); Bernie Madoff (2008); Satyam (2009); Olympus (2011); Tesco (2014), to mention but a few (Egbadju & Kunemoemi, 2019) have strengthened the calls for more scrutiny on corporate ethics. Interest in corporate governance has been triggered by global financial crises and especially by the collapses of high-profile firms much of which offences consisted of bookkeeping fraud (Senbet et al., 2022). For, in this era of globalization, how well we come through with ethical issues depend on how well we respond ethically to the idea that we live in one world (Singer, 2002). Nigeria has had her own share of corporate failures which led to the establishment of various corporate governance codes to address such specific issues apart from that already outlined in the Companies and Allied Matters Act CAP. C20 LFN, 2004 (CAMA). The first was the Securities and Exchange Commission in 2003 (which was reviewed in 2011 and 2019); the Central Bank of Nigeria Code of Corporate Governance for Nigeria Banks (2006); the National Pension Commission Code (2008); the National Insurance Commission (2009), etc. The reason for these codes is rooted in the proof from the extant literatures that sound corporate governance adherence leads to economic prosperities for all stakeholders. We, therefore, hypothesize that the various corporate governance variables considered in this study are statistically significant with the financial performance of the sampled firms for the period under study. Following this introductory section is section two which covers the review of related literature; section three which covers the methodology; section four which covers results discussion, test of hypotheses as well as diagnostics test; and section five which concludes the study with recommendations.

2. Review of Related Literature

2.1 Theoretical Underpinning

Stewardship Theory

The theory offers an opposing view to that of the agency theory where managers must be monitored to ensure that they align their self-serving interests with those of the owners so that the objectives of the company can be achieved. Contrariwise, the stewardship theory defines and explains the situations where managers (agents) are not motivated by individualistic opportunistic behaviour but align their motives with those of the shareholders or principals (Davis et al. 1997). As a part of corporate governance, the stewardship theory noted that managers will always act as responsible stewards who are motivated by intrinsic rewards. They are aware that individualistic, opportunistic, and self-serving goals will be achieved if work is done for the greater good of the organization (Dewiyanti, 2023). And so, they willingly make efforts to achieved set goals without unnecessarily allowing the owners or any other parties to spend extra costs of monitoring their activities.

2.2 Empirical Literature

Abdullah and Tursoy (2023) empirically tested the impact of corporate governance

on financial performance of firms in Germany. The study made use of sampled 364 listed non-financial firms for 17 years staring from 2002 to 2018 financial years making a total of 4,197 firm-year observations. The results of the ordinary least squares (OLS) showed that while international financial reporting standards (IFRS) positively and significantly influenced return on assets (ROA), audit committee (AC), audit committee independence (ACI), board size(BS), board meetings (NBM), CEO duality (CEOD) and leverage(LDR) negatively and significantly impacted ROA.

Adegboyegun et al. (2022) attempted an empirical study of how corporate governance enhanced the performance of deposit money banks (DMBs) in Nigeria. The study used secondary panel data over the period from 2014 to 2018 obtained from 10 banks from a population of 22 banks. The OLS regression results indicated that neither board size, directors' shareholding, number of independent directors nor audit committee had any effect on ROA except leverage which had a negative effect on ROA.

Sarwar et al. (2022) empirically tested whether corporate governance has affected corporate performance of firms in Saudi Arabia. The study used secondary panel data over the period from 2010 to 2020 obtained from 14 companies from a population of 206. The OLS regression results indicated that board size was positively significant with ROE; board meeting was negatively significant while audit committee size and ownership concentration of major shareholders were insignificant.

Ploypailin et al. (2022) undertook a research to determine if there is any relationship between corporate governance and firm performance in both developed and emerging economies. The samples consist of 2,568 firms publicly listed firms operating in 13 developed economies and 4 emerging economies for 14 years period between 2002 and 2017. The GMM results revealed that board independence, CEO duality, board size, women directorship, financial leverage, sales growth and firm size were all negatively significant with ROA.

Nizam et al.(2022) studied whether there is any relationship between corporate governance and the performance of firms in Pakistan. The researchers used annually sourced panel data collected over the period from 2014 to 2019 on 50 non-financial firms quoted on the floor of the Pakistan Stock Exchange (PSX). The results of the OLS regression revealed that executive board
membership, cross ownership, women's board membership, publicly held ownership, firm age, corporate governance index, board size, ownership concentration and foreign ownership had a positive effect on Tobin'sQ; family board membership, leverage and size had a negative effect on Tobin'sQ while independent board membership and group affiliation were insignificant.

Benvolio and Ironkwe (2022) carried out a research on the extent to which board composition impacted banks' performance in Nigeria. Annual secondary panel data which covered the period 2011 to 2021 collected from the financial reports of 14 Deposit Money Banks (DMBs) was used. The regression results of the Autoregressive Distributive Lag (ARDL) indicated that board size(BOS) and board independence(BOI) negatively and statistically impacted market value but firm size was positively significant with it.

Aigbovorhiuwa et al. (2022) researched on ascertain the extent to which board characteristics have affected the performance of quoted insurance companies in Nigeria. Secondary data collected from annual reports of 22

insurance companies quoted on the floor of the Nigerian Exchange Group (NGX) from 2012 to2020was used. The OLS regression results showed that board independence, board size and gender diversity positively and significantly influenced Tobin's Q while nationality diversity did not significantly impact it.

Eni-Egwu, et al. (2022) carried out a research to determine the effect of corporate governance variables on the financial performance of DMBs in Nigeria. The study used annual secondary panel data obtained from some quoted deposit money banks covering the period 2010 to 2019. The OLS regression model results indicated that while audit committee independence negatively and statistically impacted return on equity (ROE), board composition (board independence), board size and gender diversity impacts were insignificant.

Egiyi (2022) embarked on this research to investigate the effect of corporate governance on firm performance in Nigeria. The study used of secondarily sourced audited reports of 20 manufacturing firms quoted on the Nigerian Exchange Group (NXG) over the period 2010 to 2020. The results of the System generalized method of moments (GMM) revealed that board size, audit quality and audit committee size were positively significant with ROA while board independence, firm size and leverage were insignificant.

Okolie and Uwejeyan (2022), in this research, investigated the effect which certain corporate board attributes has had on the operations of conglomerates in Nigeria. Secondarily sourced panel data over the period from 2011 to 2020 obtained on 5 conglomerates quoted on the NXG was used. The results of the OLS showed that board shareholding and, board committees positively and statistically impacted ROA; board meetings was negatively significant while board independence and board size were insignificant.

Fernando (2022) attempted an empirical examination of how corporate governance attributes had affected the performance of firms in Sri Lanka. Secondarily sourced panel data over certain period obtained on 96 quoted on the Colombo Stock Exchange was used. The results of the OLS showed that disclosure of sustainability reporting, institutional investors and other investors, accountability and audit, shareholders, directors' remuneration and disclosure, board balance and appraisal of performance, chairman and CEO and board and directors negatively and statistically impacted ROE; age positively and significantly impacted ROE but sales growth and assets growth were insignificant.

Kanayo (2022) attempted an empirical examination of how corporate governance influenced the productivity of agricultural companies in Nigeria. The study used secondary panel data over the period from 2011 and 2020 obtained from 6 agricultural firms audited annual accounts. The OLS regression results indicated that director's remuneration and board size positively and statistically impacted sales growth while board gender and board duality were insignificant with it.

Amjad et al. (2022) embarked on an empirical study to ascertain if corporate governance in Pakistan has had any impact on firm performance. The study used secondary panel data over the period from 2010 to 2019 obtained from 75 firms quoted on the Pakistan Stock Exchange. The OLS regression results showed that average education of board member positively and significantly impacted ROA while board independence, board size and CEO duality were all insignificant.

Nguyen and Dang (2022), in this research, investigated the influence which corporate

governance and ownership have had on firms' performance in Vietnam. Annual secondary panel data obtained from 506 quoted companies on the Vietnamese Stock Exchange from 2008 to 2020. The generalized least squares (GLS) regression results indicated that board size, foreign ownership, state ownership and firm size positively and statistically impacted ROA while board ownership or managerial ownership, CEO duality, board independence and leverage had negative significance.

Alabdullah et al. (2022) examined how corporate governance system enhanced firm financial performance in Iraq. The researchers made use of secondary panel annual data over the period from 2010 and 2019 obtained on 10 non-financial firms. The OLS regression results showed that all the variables (board size, board independence and CEO duality) were insignificant with ROA.

Farwis et al. (2021) carried out a research to investigate the nexus, if any, that exist between corporate governance and the performance of firms in Sri Lanka. Secondarily sourced panel data over the period from 2009 to 2020 obtained on 27 firms was used. The OLS results showed that while director's qualification and board size were positively significant with ROA, board independence, board meeting, gender diversity, audit committee meeting and audit committee size were negatively significant.

Saygili et al. (2021) empirically examined the impact of corporate governance practices on the performance of firms in Turkey. The study used secondary panel data over the period from 2007 to 2019 obtained from the financial reports of both financial and non-financial firms quoted on Borsa Istanbul XKURY. The OLS results showed that board of directors score, firm size and stakeholders score were positively significant with ROA while Shareholders score, Public disclosure and transparency score, Age and Leverage were negatively significant.

Alexiea (2021) carried out a study to analyze the effect of corporate governance on the performance of quoted firms in America. Secondarily sourced annual data obtained on 65 firms covering the period 2015 to 2019 was used. The results of the OLS regression revealed that board meeting was positively significant with ROA but board size, board independence and CEO duality were insignificant.

Research Gap

This work differs from others in that it uses data for 76 firms for sixteen (16) years from 2005 to 2020 which to the best of our knowledge no one has ever used in Nigeria although Abdullah and Tursoy (2023) used data for 17 years from 2002 to 2018 for German companies. None in Nigeria also used institutional ownership except Fernando (2022) in Sri Lanka and foreign ownership except Nguyen and Dang (2022) in Vietnam. Also, none of the above authors used LOSS as a variable.

3. Methodology

3.1 Research Design

The study uses the ex-post facto research design, otherwise called the descriptive or correlational research design, to investigate the relationship, if any, between the corporate governance mechanisms and performance of 76 non-financial firms out of a population of 106 firms quoted on the floor of the Nigerian Exchange Group (NXG). This study uses secondarily sourced data obtained from their annual reports over the period 2005 to 2020, making a total number of 1,216 firm-year observations.

3.2 Measurement and Definitions of Variables

The measurements of the study variables are presented on Table 1 below.

Table 1: Measurement and Definitions of Variables

S/N	Variables Names	Definitions	Variable Types	Measurements	Authorities
1	ROA	Return on Assets	Dependent	Net Income /Total Assets	Abdullah and Tursoy (2023)
2	ROA(-1)	One year lag of Return on Assets	Independent	Preceding or Last year ROA	Ploypailin et al. (2022)
3	BODS	Board size	Independent	Total number of directors on the board	Nizam et al. (2022);
4	BODIV	Board gender diversity	Independent	A board that has at least one female on it	Nizam et al. (2022);
5	BMET	Board meetings	Independent	Number of times the board meets in any given year	Sarwar et al. (2022)
6	BODI	Board independence	Independent	Percentage (%) of independent or non-executive directors on the board	Nizam et al. (2022)
7	MOWN	Managerial ownership	Independent	Proportion (%) of shares own by managers	Adegboyegun et al. (2022)
8	FOWN	Foreign ownership	Independent	Proportion (%) of shares own by foreigners	Nguyen and Dang (2022).
9	IOWN	Institutional ownership	Independent	Proportion (%) of shares own by institutions	Fernando (2022)
10	FAGE	Firm age	Control	Number of years since incorporated	Fernando (2022)
11	LEV	Leverage	Control	Total liabilities/Total Assets	Abdullah and Tursoy (2023)
12	FSIZE	Firm size	Control	Log of total assets	Nizam et al.(2022)
13	LOSS	Net profit or loss reported each year	Control	Dummy variable which equals “1” in year a firm makes a net loss, “0” otherwise	None

Source: Researcher’s Compilation from Literature.

3.2 Model Specification

This study uses the Generalized Method of Moments (GMM) regression estimation technique. GMM is a dynamic panel or longitudinal data estimator that can effectively handle the dynamism in corporate finance in a globalized economic environment with firms and countries individual or specific effects.

The functional equation of tax avoidance represented by the effective tax rate (ETR) to test the eight (8) hypotheses specified is stated as:

ROA = f [ROA(-1), BODS, BODIV, BMET, BODI, MOWN, FOWN, IOWN, FAGE, LEV, FSIZE, LOSS]

(1)

The functional testable model will be derived as:

$$ROA = \beta o + \beta_1 ROA(-1) + \beta_2 BODS + \beta_3 BODIV + \beta_4 BMET + \beta_5 BODI + \beta_6 MOWN + \beta_7 FOWN + \beta_8 IOWN + \beta_9 FAGE + \beta_{10} LEV + \beta_{11} FSIZE + \beta_{12} LOSS + \varepsilon_1 \quad (2).$$

Since we are using panel data, the model will be specified in the appropriate form as:

$$ROA_{it} = \beta o + \beta_1 ROA(-1)_{it} + \beta_2 BODS_{it} + \beta_3 BODIV_{it} + \beta_4 BMET_{it} + \beta_5 BOWN_{it} + \beta_6 MOWN_{it} + \beta_7 FOWN_{it} + \beta_8 IOWN_{it} + \beta_9 FAGEE_{it} + \beta_{10} LEV_{it} \beta_{11} FSIZE_{it} \beta_{12} LOSS_{it} + \varepsilon_{1i} \quad (3)$$

Where the definitions are as stated in Table1 above.

β1, β2, β3, β4, β5, β6, β7, β8, β9, β9, β10, β11 and β12 are the beta coefficients of the independent variables. From this study, we expect β1 to β12 to be greater than zero.

ε_1 = Error term

4. Results and Discussion

Table 2: Endogeneity Test Results

4.1 Dynamic Data Analysis using Generalized Method of Moments (GMM)

Generalized Method of Moments (GMM) regression estimation technique is a generic method for the estimation of statistical model parameters. The essence of using GMM for a dynamic panel data is to practically solve the problem of endogeneity bias which simultaneously tackles unobserved heterogeneity (Chung et al.,2018). GMM is designed to handle the problems of multicollinearity, heteroscedasticity and autocorrelation but especially second order correlation. Many studies in corporate finance which tries to explain causal-effect relationships often encounter difficulties in dealing with endogeneity and this can lead to inconsistent and biased parameter estimates (Wintoki et al., 2012) or we may not even get the right coefficient sign-positive or negative (Ketokivi & McIntosh, 2017), thereby resulting in misleading inferences, conclusions and interpretations (Li et al., 2021). Li et al. (2021) observed that out of about twelve (12) papers where endogeneity bias was ever mentioned, only three of them used the dynamic model approach while only one applied the rigorous way by reporting the results of the test. To identify endogeneity in our model, we run a fixed effect regression model for only the independent variables with each independent variable being a dependent variable in turn and then extract its residual. This residual variable is used to replace the main dependent variable in the original regression equation and then, rerun and observe the p-value. If the p-value of the residual variable is less than or equal to 5%, then there is an endogeneity in our model. The endogeneity test results in Table 4.2 below showed that RES_FOWN, RES_FSIZE and RES_LOSS have endogeneity problem since their P-values are at least 5%.

S/N	Estimated Residuals of Variables	P-Values	S/N	Estimated Residuals of Variables	P-Values
1	RES_BODS	0.9568	7	RES_MOWN	0.2938
2	RES_BODIV	0.2944	8	RES_FAGE	0.3227
3	RES_BMET	0.3569	9	RES_FSIZE	0.0580
4	RES_BODI	0.9326	10	RES_LEV	0.1125
5	RES_FOWN	0.0488	11	RES_LOSS	0.0000
6	RES_IOWN	0.5595			

Sources: Authors' Computations using EViews.

To remove this problem, only dynamic regression methods like GMM can be used.

Regression Models Estimation Results and Hypotheses Testing

Table 3: Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA(-1)	-0.236844	0.005541	-42.74456	0.0000
BODS	0.030935	0.008963	3.451386	0.0006
BODIV	-0.086982	0.007377	-11.79153	0.0000
BMET	0.166471	0.002632	63.25259	0.0000
BODI	-0.024694	0.007922	-3.117095	0.0019
MOWN	-0.000856	0.000577	-1.483766	0.1382
FAGE	-0.016561	0.001093	-15.15397	0.0000
FOWN	0.460295	0.098471	4.674440	0.0000
IOWN	0.000215	0.000105	2.043013	0.0413
LEV	-0.000374	1.42E-05	-26.38332	0.0000
FSIZE	0.091472	0.012833	7.127901	0.0000
LOSS	-1.067277	0.010251	-104.1142	0.0000
Effects Specification				
Cross-section fixed (first differences)				
Mean dependent var	0.010551	S.D. dependent var		0.388112
S.E. of regression	0.491904	Sum squared resid		233.0163
J-statistic	67.50910	Instrument rank		75
Prob(J-statistic)	0.325782			

Source: Researcher's Computations (2023) Using EViews10 Software.

Table 3 above shows the regression estimation results of the relationship between corporate governance attributes (BODS, BODIV, BMET, BODI, MOWN, FOWN, IOWN) as well as some control variables (FAGE, LEV, FSIZE, LOSS) and financial performance (ROA) of the 76 sampled firms.

A look at the coefficient (-0.236844) of ROA(-1) shows that it is negatively significant (p= 0.0000) at the 1% levels of significance. This result is not in line with

the extant literature that the dependent variable and its lag move in the same direction and must be significant. This means that the current year performance can be directly affected by previous period performance in the light of new information we were not aware of. Again, since the p-value of Sargon statistic or J-Statistic (0.325782) is higher than the threshold of 5% and 10% or even the 25% or more suggested by Roodman (2009), our model is free from the problem of instruments proliferation.

BODS relationship with ROA is positively significant with a coefficient of 0.030935, a t-Statistic of 3.45 and a p-value of 0.0006. This suggests that an increase in BODS will increase ROA. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between BODS and ROA. This result is in line with those of Sarwar et al. (2022); Nizam et al. (2022); Aigbovorhiuwa et al. (2022) and Kanayo (2022) but contradicts those of Abdullah and Tursoy (2023); Ploypailin et al. (2022) and Benvolio and Ironkwe (2022) which had a negatively significant relationship.

BODIV relationship with ROA is negatively significant with a coefficient of -0.086982, a t-Statistic of -11.79 and a p-value of 0.0000. This suggests that an increase in BODIV will impact negatively on ROA. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between BODIV and ROA. This result is in line with those of Fernando (2022) and Farwis et al. (2021) but contradicts those of Nizam et al.(2022) and Aigbovorhiuwa et al. (2022) which had a positively significant relationship.

BMET relationship with ROA is positively significant with a coefficient of 0.166471, a t-Statistic of 63.25 and a p-value of 0.0000. This suggests that an increase in BMET will increase ROA. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between BMET and ROA. This result is in line with that of Alexiea (2021) but contradicts those of Abdullah and Tursoy (2023); Okolie and Uwejeyan (2022) and Sarwar et al. (2022) which had a negatively significant relationship.

BODI relationship with ROA is negatively significant with a coefficient of -0.024694, a t-Statistic of -3.11 and a p-value of 0.0019. This suggests that an increase in BODI will impact negatively on ROA. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between BODI and ROA. This result is in line with those of Ploypailin et al. (2022); Benvolio and Ironkwe (2022) and Nguyen and Dang (2022) but contradicts those of Nizam et al.(2022); Adegboyegun et al. (2022) and Alexiea (2021) which had insignificant relationship or Aigbovorhiuwa et al. (2022) which had a positively significant relationship.

FOWN relationship with ROA is positively significant with a coefficient of 0.460295, a t-Statistic of 4.67 and a p-value of 0.0000. This suggests that an increase in FOWN will increase ROA. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative

hypothesis that there is a significant relationship between FOWN and ROA. This result is in line with that of Nguyen and Dang (2022).

IOWN relationship with ROA is positively significant with a coefficient of 0.000215, a t-Statistic of 2.04 and a p-value of 0.0413. This suggests that an increase in IOWN will increase ROA. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between IOWN and ROA. This result contradicts those of Fernando (2022)

MOWN relationship with ROA is negatively insignificant with a coefficient of -0.000856, a t-Statistic of -1.48 and a p-value of 0.1382. For the control variables, while FAGE, LEV and LOSS are negatively significant with ROA, FSIZE is positively significant with it.

4.2 Additional Tests of Diagnostics or Robustness Checks

4.2.1 Arellano and Bond Serial Correlation Diagnostic Tests of AR (1) and AR (2).
When an estimator uses lags as instruments with the assumption that the disturbance or error term is white noise, such an estimator would produce inconsistent results if the disturbance terms are indeed serially correlated (Arellano & Bond, 1991). Thus, it is very necessary to be sure of no autocorrelation by carrying out test statistics of no serial correlation by validating the instrumental variables through a second-order residual serial correlation test (Arellano & Bond, 1991). The AR (1) may be or may not be significant but AR (2) must never be insignificant at all. AR (2) is more important in evaluating our results as it shows whether there is second-order serial correlation. If AR (2) is significant, it indicates that some of the lagged dependent variables which might be used as instrumental variables are bad instrument and thus endogenous. Since the p-values of AR (1) = 0.9183 and AR (2) = 0.9747 in Table 4 below are greater than 0.05, we then accept the null hypothesis that there is no serial correlation.

Table 4: Arellano-Bond Serial Correlation Test

Test order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-0.102598	-68.433568	667.006491	0.9183
AR(2)	-0.031689	-26.157398	825.437438	0.9747

Source: Researcher's Computations (2023) Using EViews10 Software.

5. Conclusion and Recommendations

This study investigates the relationship between corporate governance attributes and the financial performance of selected non-financial firms in Nigeria. Using secondary data over the period from 2005 to 2020 of 76 firms, the results of the generalized methods of moments reveal that board size, board meetings, foreign ownership, institutional ownership and firm size are positively and statistically significant; board gender diversity, board independence, firm age leverage and loss are negatively and statistically significant while managerial ownership is insignificant.

Based on the results above, the study recommends that:

1. More women should be added to the board since BODIV is negatively related to profitability.
2. More outside directors should be added to the board since BODI is negatively related to profitability.
3. Management should maintain current board size, board meetings, foreign ownership and institutional ownership levels they are positively related to profitability.
4. The level of losses and debts usage should be investigated since they are negatively related to profitability.

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