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IMPACT OF CORPORATE GOVERNANCE MECHANISMS ON ENVIRONMENTAL PERFORMANCE OF LISTED OIL AND GAS FIRMS IN NIGERIA

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Abstract: The shift in paradigm and interest of investors towards environmentally friendly firms has caught the attention of scholars and has since led to several researches to be conducted in the area to determine how well firms contribute to their environment. This paper examined how mechanisms of corporate governance improve the environmental disclosure of listed oil and gas firms in Nigeria. The study adopts correlation as research design and extracted data from the annual reports of seven oil and gas firms selected to represent the population for the period of ten (10) years from 2015-2024. OLS regression was used to examine the relationship. Findings of the study indicated that board gender and institutional ownership impacts environmental disclosure significantly. It is recommended that more women should be given the opportunity to contribute to key decision making on the board of listed oil and gas firms in Nigeria because board composed of female directors was found to improve environmental disclosure. Also institutional ownership should be encouraged as it was evidenced that a proportional increase in this variable enhances environmental disclosure.

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1. INTRODUCTION

In an attempt to create and maximize value for stakeholders like, shareholders, investors, customers and employees, firms due to rapid industrial and technological advancements have pushed Earth's ecosystems beyond their natural thresholds (Enciso-Alfaro & García-Sánchez, 2023). This has caused significant environmental challenges, including increased air and water pollution, land degradation, and a decrease in renewable energy sources. These necessitated and encouraged businesses to tackle key environmental issues to reduce their negative impact (Enciso-Alfaro & García-Sánchez, 2023). Consequently, businesses around the globe are actively exploring strategies to reduce or prevent environmental harm, aiming to harmonize ecological preservation with economic advancement (Tao *et al.*, 2022).

Faced with the growing demands from government authorities, shareholders and the public, businesses are becoming more aware of the environmental consequences of their operations (Bosun-Fakunle *et al.*, 2023). More and more stakeholders are expressing concern about the environmental damage caused by business activities. There is a strong expectation that businesses will take greater responsibility and start addressing environmental and sustainability challenges (Bosun-Fakunle *et al.*, 2023). Companies then publicly share their commitment to environment through appropriate platforms, including annual reports, sustainability reports, triple bottom line reports, and distinct environmental reports (Ivungu *et al.*, 2021). Importance of environmental reporting given the aforementioned cannot be overstated. Environmental reporting is the methodical process of informing different stakeholders on how a firm's economic operations deter the environment (Saleh *et al.*, 2022).

Further to becoming among the important businesses in the world, oil and gas sector now significantly boosts national economies all over the world. However, the worldwide environmental crisis has led to an increase in environmental concerns, and among the main causes of this is the potential environmental impact of oil and gas corporations' operations (Bosun-Fakunle *et al.*, 2023). Hence, research into how firm governance affects environmental performance is necessary.

Sustainability reports have become key tools for meeting the important needs of stakeholders. They give a well-rounded idea of a corporate performance, covering financial, social, and environmental aspects. This shift not only gives

companies a competitive advantage, but it's also vital for their long-term success, helping to bridge information gaps, reduce unnecessary costs, and protect their reputation (Omolehin & Obaje, 2023). Despite government's focus on environmental protection and emission reduction. Concerns about environmental damage from the operations of oil and gas companies remain largely unaddressed (Zhang *et al.*, 2021). These environmental problems are also seen as major threats to businesses and the global economy (Khatib & Al Amosh, 2024).

In today's world, it's mainly up to management to decide how and when environmental issues are shared in reports, as well as what details are included and how they are presented to important stakeholders. Companies are also required by law, through corporate governance codes, to set up systems that guide and oversee their operations, ensuring everything is in line with these regulations (Ivungu *et al.*, 2021). In Nigeria, code of corporate governance was put forth to provide guidelines for laid down rules that regulate and guide the corporate board's policies, procedures and structure in implementing their monitoring roles to affirm that the interest of firm managers align with those of the firm's stakeholders (Onmonya *et al.*, 2024). Corporate governance helps guide companies to make sure all stakeholders are fairly rewarded. In Nigeria, governance codes have been updated since 2003, with the latest update in 2018, each update improving financial reporting. These codes set rules for transparency, and important attributes like, board independence, director expertise, board size, and audit committees play a big role in how companies are managed (Saleh *et al.*, 2023).

Stakeholders are growing more concerned about the environmental damage businesses are causing, especially firms in the oil and gas sector, due to fossil fuel use and its impact on global warming and health risks. In countries like Nigeria, where oil and gas drive much of the economy, these firms attract significant attention from shareholders, investors, and other stakeholders (Omolehin & Obaje, 2023). Given their high capital requirements, these companies face higher risks, making it crucial to assess their performance from financial, social, and environmental perspectives. However, there still exist a gap in comprehensive and up-to-date research on how attributes of firm governance affects environmental, social and governance performances (Omolehin & Obaje, 2023).

It was observed that there is scantiness of literature studying corporate governance and environmental performance with the most studies conducted in foreign countries (Enciso-Alfaro & García-Sánchez, 2023; Abedin *et al.*, 2023; Wahidahwati & Ardini, 2021; Ali *et al.*, 2021; Cong & Freedman, 2011; Tao *et al.*, 2022). Some of the studies conducted in Nigeria include Iredele (2020), Ivungu *et al.* (2021), and Herbert *et al.* (2020). However, existing studies have produced varied and inconsistent results, highlighting the need for further research focused on oil and gas sector of Nigeria, due to its significant contribution to Nigeria's economy and the adverse environmental concerns posed by their operations. Further, this study distinct itself by using data up to 2024 to explore how firm governance influences corporate environmental performance.

In view of the foregoing, this study explores how mechanisms of corporate governance can impact environmental disclosure of listed oil and gas firms in Nigeria. Accordingly, the following hypotheses are proposed for testing;

H01: Board independence has no significant impact on environmental disclosure of listed oil and gas firms in Nigeria

H02: Board gender has no significant impact on environmental disclosure of listed oil and gas firms in Nigeria

H03: Board ownership has no significant impact environmental disclosure of listed oil and gas firms in Nigeria

H04: Institutional ownership has no significant impact environmental disclosure of listed oil and gas firms in Nigeria

The rest of this work is structured thus: review of literature and theory adopted comes next; study methodology comes next; findings and discussions follows; and lastly conclusion with key insights and recommendations.

2. LITERATURE REVIEW

Firm governance mechanisms encompass frameworks, procedures, and systems implemented to guide and regulate a corporation's operations. Their primary aim is to promote accountability, fairness, and openness in how the company communicates and engages with different stakeholders, including owners, leadership, customers, investors, regulators, and the broader community (Tricker, 2019). According to Bosun-Fakunle *et al.*, (2023), the

OECD described corporate governance as structure by which companies are directed and overseen. It outlines the decision-making processes that impact all stakeholders and the broader environment, while clearly outlining everyone's roles and responsibilities within the organization.

Corporate environmental performance serves as a key indicator of how effectively an organization manages its interactions with the natural environment. It provides valuable insight into the strategies and actions taken to minimize negative environmental impacts, such as reducing emissions, conserving energy and water, and managing waste responsibly (Abedin *et al.*, 2023). High environmental performance indicates a firm's proactive approach to sustainability, including its efforts to foster a safe, clean, and environmentally conscious workplace. Furthermore, it underscores the organization's commitment to corporate social responsibility (CSR), where environmental considerations are not merely regulatory obligations but integral components of long-term strategic planning and ethical governance. By embedding environmental stewardship into its operational framework, the company demonstrates accountability to both present and future stakeholders (Bosun-Fakunle *et al.*, 2023).

Saleh *et al.*, (2023) investigated how auditor size moderates between firm governance and financial reporting quality adopting expo-facto as design of the study and extracted data from nine industrial product companies were opted for as representatives of the population for periods from 2012-2021. Based on the study findings, when a company is largely owned by knowledgeable institutional investors and its financial statements are audited by one of the Big Four firms, the quality of its financial reporting improves. Further, they discovered that where board independence and size are moderated by one of the Big four audit firms, the quality of their reported earnings will improve not insignificantly. They further recommended close attention to size of audit firm when appointing auditors as it was found to enhance the impact ownership structure of industrial goods firms have on quality of financial reports. However, the study focused on financial reporting quality. This study fills this gap by studying the impact of corporate governance tools on environmental performance.

Cancela *et al.*, (2020) explored how corporate governance impacts corporate sustainability by looking at three key areas: economic, environmental, and

social performance. They studied 99 non-financial companies located in the Iberian Peninsula over the period from 2013 to 2017, using the GMM for their analysis. Their findings showed that corporate governance affects each dimension of sustainability differently. Economic sustainability was influenced by factors like size and diversity of board, public debt and presence of an audit committee. Environmental sustainability was linked to board size and the existence of both audit and CSR committees. Meanwhile, social sustainability was shaped by board size, the audit committee, and the company's capital structure. However, their study findings are limited to activities between 2013 to 2017.This study fills this gap by expanding the period to 2024.

Saleh *et al.*, (2022) explored how disclosure of environmental sustainability information affects the market value of publicly listed oil and gas companies in Nigeria. Covering five years' period 2016 to 2020, the research focused on a sample of 10 firms. The authors employed a combined framework based on the Global Reporting Initiative (GRI) and Carroll's index, organizing disclosure items into three categories: philanthropic, legal/ethical, and economic activities. Their findings indicate that firms with more extensive legal and economic sustainability disclosures experience a significantly improved market value. This proposes that transparent and well-structured sustainability reporting, particularly in legal and economic dimensions, can enhance investor confidence and contribute to improved firm valuation. They also recommended that the government, through the NNPC and accounting standard bodies, establish clear standards for measuring and reporting sustainability. It also urges enforcement of ethical and economic activity disclosures by oil and gas firms, given their impact on market value. Additionally, it suggests offering incentives like tax waivers to firms that provide adequate disclosures.Despite the use of GRI to measure environmental sustainability disclosures. It however failed to employ GRI indices that are specific to oil and gas firms considering their peculiarity in both income generations and their negative contributions to the environment. The current study employed GRI 11 to fill this gap.

Okegbe *et al.*, (2019) explored how environmental management disclosure impacts corporate performance in Nigeria's publicly listed agricultural firms. Drawing on data from 21 firms over the period 2012 to 2018, the researchers developed a structured framework comprising 20 content items distributed across four key dimensions of environmental disclosure. This framework

served as the basis for evaluating the extent and quality of environmental reporting. To assess corporate performance, they considered firm size, profitability, and return on assets. The study offers valuable insights on how practice of transparent environmental management may contribute to stronger operational and financial outcomes within the agricultural sector. Finding from this study revealed a weak influence of environmental management disclosure on profitability and ROA. It however, found a positive significant association with firm size. They recommended an online disclosure method for adoption by Nigerian firms because it enhances accessibility and informs stakeholders of the firms' contributions towards environmental sustainability. Their study is also limited in coverage as its only examined the relationship by using data to 2018. This study used data between 2015-2024 to cover the period gap established.

Walls *et al*., (2012) studied the role that a company's key decision-makers (its owners, managers, and board members) play in shaping its environmental performance. Their study aimed to understand how leadership and governance structures impact a firm's approach to environmental responsibility. They examined the relation using S & P's 500 firms sampling 313 firms across 29 industries covering periods from 1997-2005 constituting an unbalanced panel dataset. The study found that shareholder activism and ownership concentration significantly affect environmental performance. Additionally, firms with large, independent, but less diverse boards tend to exhibit weaker environmental outcomes. Their study focused on large firms in the USA ignoring other small firms that are numerous and inclusion of which may provide a broader perspective to their findings. Despite the contribution of this study, it also suffers from data recency as such their study finding may not accurate to use in current days. Also, it was conducted outside Nigeria. Hence, findings may not cover activities in Nigeria. This study used recent data to 2024 and study is conducted in Nigeria on oil and gas firms listed in Nigeria.

Bosun-Fakunle *et al*., (2023) examined how aspects of corporate governance affect environmental performance in Zimbabwean firms. They used the GRI framework to measure environmental performance and adopted age of firm as a control factor. The study exploited data from 27 listed manufacturing firms in Zimbabwe. They discovered environmental performance to be influenced by board size, gender diversity and managerial ownership. Whereas

independence and institutional ownership exerts no significant influence. Their findings are limited to only listed manufacturing firms in Zimbabwe. Their study contributed eminently to body of knowledge considering the variables adopted. However, similar to other studies, it suffers from period and and methodological gaps. Our study adopted a more specific environmental disclosure index that focused on oil and gas firms and used data from oil and gas firm's between 2015 to 2024.

Adewale *et al.*, (2021) explored how corporate governance influences the environmental policy component of sustainability reporting, focusing specifically on companies within Nigeria's oil and gas sector. Expost factor design was adopted, extracting data from 8 sampled firms for periods from 2006 to 2020. Global Reporting Initiatives (GRI) environmental disclosure checklist was used to proxy environmental policy index of sustainability reporting while corporate governance was represented by, institutional holding, frequency of board meeting, women on board, board independent, and board size. Firm size and leverage served as moderating variables. The study evidenced that corporate governance plays a significant role in shaping environmental sustainability reporting. Additionally, firm size and leverage were shown to positively and significantly strengthen how a company's governance structure influences the extent and quality of its environmental reporting. Their study is also flawed due to the period coverage considering alert of macroeconomic activities that could influence firm decision.

Nnadi & Yahaya (2024) investigated the key factors influencing ESG performance among Nigerian firms. Period covered is from 2014 to 2023 extracting data from 153 firms in Nigeria. They used multiple regression as a technique of analysis. They adopted factors such as firm size, board size, profitability, board diversity, audit quality, board independence and foreign ownership as key determinants, while ESG performance was assessed using the ESG score. Their findings reveal that all adopted determinants impacts ESG performances positively and significantly. It was on that premise the study concluded that, audit quality, board gender diversity, board independence, board size, institutional ownership, and firm size highly drive ESG performance. While the study provides valuable insights into ESG performance in Nigeria, addressing its limitations and exploring suggested avenues for further research could enhance and enrich the understanding of corporate sustainability in the region.

Abedin *et al.*, (2023) investigated how corporate governance influences environmental performance by studying 428 firms listed on the Tokyo Stock Exchange. They assessed environmental performance using corporate carbon emissions as a key indicator. The study focused on several governance factors, including board size, independence, diversity, CEO duality, and whether the firm had an environmental management committee. The findings revealed that board independence, board diversity, and having a management committee on environmental matters were positively linked to better environmental outcomes. In contrast, larger board sizes were associated with weaker environmental performance, and CEO duality had no meaningful impact

Herbert *et al.*, (2020) analyzed sustainability reporting by listed upstream petroleum companies in Nigeria using GRI standards and found that disclosures are inadequate, especially regarding climate-related financial risks. The firms show little commitment to environmental protection or indigenous rights, partly due to weak law enforcement. There's limited adoption of the Triple Bottom Line approach, reflecting a narrow focus on performance. Overall, the study reveals a lack of genuine sustainability efforts and calls for stronger institutional frameworks to enhance transparency and long-term value creation.

Stakeholder Theory

Companies used to focus mainly on keeping their shareholders happy by maximizing profits. But over time, the idea has shifted. Stakeholder theory suggests that businesses should care about everyone they impact not just shareholders, but also employees, customers, communities, and the environment. This thinking ties in with environmental performance, which looks at how well companies live up to their responsibilities to people and the planet (Nnadi & Yahaya, 2024). Stakeholder concerns have become increasingly urgent as companies are now being publicly criticized not just for prioritizing profits, but for their blatant disregard for environmental well-being in the process (Herbert *et al.*, 2020). This is true especially for oil companies operating in mid economy countries, where there is growing skepticism about their ethical behavior. As a result, both the public and media are casting a critical eye on these companies, raising concerns about their ethics, governance, social responsibility, and environmental impact, particularly those whose operations harm ecosystems and contribute to environmental depletion (Herbert *et al.*, 2020).

3. METHODOLOGY

This study adopted expo-facto approach to explore how corporate governance relates to environmental disclosure among listed oil and gas firms in Nigeria. It analyzed data from the annual reports of all eight oil and gas firms listed in the Nigerian Exchange Group. Study period is between 2015 to 2024. Sample of seven (7) was opted for through purposive sampling method that excludes Aradel Holdings Plc. which was listed in October, 2024. Extracted data were analyzed using OLS regression with STATA as tool for analysis. Board independence, board gender, board ownership and institutional ownership represented corporate governance mechanism while GRI 11 is relied upon to measure environmental disclosure. GRI 11 contains 22 indices which were given dummy ranking of 1 were an index is disclosed and 0 if otherwise. Total of which was averaged to arrive at the score that was used to measure environmental disclosure.

The following model was applied to test hypotheses

$$EP_{it} = \beta_0 + \beta_1 BI_{it} + \beta_2 BG_{it} + \beta_3 BO_{it} + \beta_4 IO_{it} + \varepsilon$$

Where: EP is Environmental disclosure

BI is Board Independence

BG is Board Gender

BO is Board Ownership

IO is institutional Ownership

e= error term

β_1 - β_3= coefficient

i= firm

t= time/year

Table 1: Measurement of Variables

Variables	*Acronym*	*Measurement*	*Sources*
Environmental Disclosure	EP	GRI 11 score	(GRI, 2021)
Board Independence	BI	Proportion of non-executive directors to the total number of members on the board	(Saleh *et al.*, 2023) (Cancela *et al.*, 2020) (Abedin *et al.*, 2023)
Board Gender	BG	Proportion of female directors to the total number of members on the board	(Cancela *et al.*, 2020) (Abedin *et al.*, 2023) (Bosun-Fakunle *et al.*, 2023)

Variables	*Acronym*	*Measurement*	*Sources*
Board Ownership	BO	Proportion of direct and indirect shares owned by board members to total number of shares	(Bosun-Fakunle *et al.*, 2023)(Walls, Berrone, & Phan, 2012)
Institutional Ownership	IO	Ratio of shares owned by institutions to the total number of shares	(Bosun-Fakunle *et al.*, 2023)(Adegbie *et al.*, 2021)

Source: Author's Compilation (2025).

4. PRESENTATION OF RESULTS AND DISCUSSIONS

Descriptive Statistics

This summary is presented and discussed as below:

Table 2: Descriptive Statistics

Variables	*Obs*	*Min*	*Max*	*Mean*	*Std. dev.*
EP	70	0.5000	0.8636	0.7052	0.1096
BI	70	0.3333	0.9000	0.6930	0.1167
BG	70	0.0000	0.5450	0.2169	0.1336
BO	70	0.0090	0.6550	0.2599	0.2266
IO	70	0.0563	0.8760	0.6038	0.2345

Source: STATA output, 2025

From the above table environmental performance recorded an average of 0.7052 and standard deviation value of 0.1096 with least and highest observed values of 0.5000 and 0.8636 respectively. The standard deviation value shows a lower deviation of the variables from the mean. Board independence has least and highest observed values of 0.3333, and 0.9000 respectively. It also recorded a mean and standard deviation values of 0.6930 and 0.1167. These values imply that on average, about 70% of board composition of listed oil and gas firms in Nigeria are non-executive director. Standard deviation value also indicates low deviation of data from the mean.

It can also be observed that the least and highest observed values for board gender are 0.000 and 0.5450 which implies that some of the sampled firms in Nigeria have no female representation on their board and the highest recorded is 54.5%. The standard deviation value which is lower than the mean indicates a low deviation of the data from the mean. Board ownership has a mean of 0.2599, a lowest value of 0.0090 and highest value of 0.6550. This means that,

averagely 25.99% of the sampled firms' shares are held by members of the board of directors. Further, the average percentage of shares held by institutions is over 60% with minimum of about 6% and maximum of about 88%. The standard deviation value of 23.45% is considerably below the mean value of the sampled data which also indicated low deviation of data.

Correlation Matrix and Normality

Table 3: Correlation Result

	EP	*BI*	*BG*	*BO*	*IO*	*Prob. of normality*
EP	1.0000					0.60688
BI	0.3218	1.0000				0.11770
BG	0.4843	0.6439	1.0000			0.00032
BO	0.0201	-0.0083	-0.0937	1.0000		0.00000
IO	0.6532	0.2606	0.2582	0.2324	1.0000	0.00000

Source: STATA output, 2025

The correlation between the adopted variables is presented on the above table. It can be observed that there is no much high correlation among all the variables of the study. This is because, most the correlation values are significantly below 0.8 which is an indication of the absence of auto-correlation in the variables. However, this is not enough to finalize that multicolinearity is not a problem until further test is conducted. From the table, environmental performance correlates positively and significantly with board independence, board gender and institutional ownership to the tune of 0.3218, 0.4843 and 0.6732 respectively but insignificantly with board ownership to the tune of 0.0201. Board independence correlates positively and significantly with board gender and institutional ownership but negatively and insignificantly with board ownership. Further the result above shows the presence of a positive association between board gender and institutional ownership but negative insignificant correlation with board ownership. Board ownership and institutional ownership related positively.

The test for normality was conducted using Shapiro wilk and can be seen from the probability values which are all significant except for environmental performance and board independence and this depicts that data employed are not all distributed normally.

Table 4: Multicollinearity Test Result

	VIF	1/VIF
BG	1.77	0.563586
BI	1.74	0.575170
IO	1.17	0.855679
BO	1.09	0.919509
Mean VIF	1.44	

Source: STATA output, 2025.

This table displays the VIF and tolerance values for the study variables to assess the potential for multicollinearity. All variables show VIFs below 6 and tolerance values below 1 across the panels, indicating no evidence of multicollinearity, as the values fall within acceptable thresholds.

4. PRESENTATION AND INTERPRETATION OF REGRESSION RESULT

Table 5 provides a consolidated overview of the OLS regression outcomes, complemented by diagnostic checks run to reinforce the credibility of the results.

Table 5: Regression Result

	Coefficient	*t-value*	*Probability*
BI	-0.0673278	-0.65	0.519
BG	0.3024386	3.30	0.002
BO	-0.040904	-0.97	0.337
IO	0.2788439	6.58	0.000
Constant	0.5285085	8.40	0.000
R^2 F-stat.			0.5433 19.33
F-sig			0.0000
Hettest			0.02 (0.8773)

Source: STATA output, 2025.

From Table 5 above, R^2 value of 0.5433 entails over 54% change in environmental performance of the study firms is caused by the combined effect of the selected exogenous variables. F-statistics significant at 1% indicates the strength of the fit of the model used and the adequacy of the selected variables. Also from the table, it can be observed that heteroscedasticity is not a problem

and there is constant variance in the distribution. Hence the distribution is homoscedastic and OLS regression is sufficient for the study.

Board independence was found to have a coefficient of -0.0673278 and t-value of -0.65 with probability of 0.519. The results indicate that having more independent, non-executive directors on the boards of listed oil and gas firms in Nigeria tends to nudge environmental performance in a negative direction, but not by a margin that's statistically significant. In essence, while the presence of these directors might contribute to greener practices, their influence alone doesn't appear strong enough to drive substantial change. Finding corroborates with those of Walls, *et al.*, (2012), Bosun-Fakunle *et al.*, (2023), and Omolehin & Obaje (2023) that found a not too strong negative link between board independence and environmental performance, suggesting that more independent boards don't necessarily lead to better environmental performance. However, this contrasts with the findings of Ivungu *et al.*, (2021), Adewale *et al.*, (2021), and Adegbie *et al.*, (2021), who all reported a strong positive connection. This provided premise for failure to reject the study's first hypothesis.

It is also revealed that board gender has 0.3024386, t-value of 3.30 and a probability value of 0.002. This connotes that an increase in female membership on the board of listed oil and gas firms in one person will lead to an improved environmental performance for these firms. This finding agrees with the findings of Bashiru & Hashim (2022), Bosun-Fakunle *et al.*, (2023), Cancela *et al.*, (2020) and Abedin *et al.*, (2023) who found significant positive relationship between the variables. This result is contrary to the finding of Omolehin & Obaje (2023), Adegbie *et al.*, (2021), and Walls, *et al.*, (2012) who found a varied outcome from the current investigation. On this vein, the second hypothesis is rejected.

The analysis revealed a negative relationship between board ownership and environmental performance, with a coefficient of -0.040904, a t-value of -0.97, and a p-value of 0.337. This suggests that, in Nigeria's oil and gas sector, higher board ownership is linked to lower environmental performance, and the association is statistically insignificant, though negative. This implies that an increase in the number of shares held by board members will reduce the firms' contribution towards environmental performance by 4.09%. Backup to the above finding is the studies of, Ali *et al.*, (2021), and Wahidahwati &

Ardini (2021) found no significant association. On the contrary, the studies of Nnadi & Yahaya, (2024), Bosun-Fakunle *et al.*, (2023) and Ivungu *et al.*, (2021) that established a significant relationship between board ownership and environmental performance. Given the above, the study failed to reject hypothesis three of the study.

As shown in Table 5, institutional ownership has a coefficient of 0.2788439, a t-value of 6.58, and a p-value of 0.000, indicating a statistically significant relationship at the 1% level. This suggests a meaningful and positive link between institutional ownership and the environmental performance of listed oil and gas companies in Nigeria. In practical terms, a 1% rise in institutional shareholding is associated with an 27.88% improvement in environmental performance. This finding is in tandem with the findings of Adewale *et al.*, (2021), Nnadi & Yahaya (2024), and Adewale *et al.*, (2021) while Bosun-Fakunle *et al.*, (2023), Ali *et al.*, (2021) and (Adegbie *et al.*, 2021) are against our finding. We therefore reject the fourth hypothesis of the study.

5. CONCLUSIONS AND RECOMMENDATIONS

The study investigated how corporate governance mechanisms impacts environmental performance of listed oil and gas firm in Nigeria covering periods from 2015-2024 employing a sample of 7 firms in the industry. The study found board gender and institutional ownership to significantly influence environmental performance while board independence and board ownership were found not to influence environmental performance significantly. From the above findings, it is therefore concluded that, corporate governance mechanisms such as board gender, board ownership and institutional ownership are key influencers of environmental performance.

Following the study findings, it is recommended that more women of capacity and professional prowess should be given the opportunity to contribute to key decision making on the board of listed oil and gas firms in Nigeria. This is to enhance inclusiveness and gender balance across board of companies as this was found to impact gravely and positively on environmental performance of these firm which in the long run portrays a positive image for a company and improve performance and profitability. Also, it is recommended that institutional ownership should be encouraged as it was evidenced that a proportional increase in this variable enhances environmental performance.

Further, akin interest should be given to individuals and institutions with good knowledge of environmental policies and strategies to enhance performance on environmental concerns.

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