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SUSTAINABILITY DISCLOSURE AND SHARE PRICE: A LONGITUDINAL ANALYSIS OF THE NIGERIAN OIL AND GAS SECTOR

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Abstract
This study examines the effect of Environmental, Social and Governance (ESG) disclosure on the share price of listed oil and gas companies in Nigeria over the period 2015–2025. Using a longitudinal panel design, ESG disclosure indices were constructed through Principal Component Analysis (PCA), while annual closing share price was used as a proxy for the share price. The study employed Panel-Corrected Standard Errors (PCSE) to address heteroskedasticity and serial correlation in the data. The empirical results show that environmental, social and governance disclosures exert heterogeneous effects on share price. Environmental disclosure has a significant negative effect on share price, while social disclosure has a positive and statistically significant effect. Governance disclosure is positive but statistically insignificant. However, the composite ESG index reveals a positive and significant relationship with share price, indicating that investors place greater value on integrated sustainability performance than on individual ESG components. The study concludes that ESG information is value-relevant in the Nigerian oil and gas sector, although market reactions differ across ESG dimensions. The findings support stakeholder, legitimacy, and signaling theories and highlight the need for firms to enhance the financial relevance of environmental disclosures while strengthening social sustainability reporting and integrated ESG communication.

Keywords: Sustainability Disclosure; ESG Disclosure; Share Price, Oil and Gas Industry

1.1 Introduction

Industrialization has significantly reshaped global economies by driving economic expansion, technological progress, and improved living standards. However, these benefits have also been accompanied by substantial environmental and social costs, including climate change, environmental degradation, pollution, gas flaring, depletion of natural resources and the displacement of host communities. These adverse outcomes have heightened public awareness and intensified stakeholder pressure on corporations to account for the broader consequences of their activities. Consequently, firms are increasingly expected not only to deliver financial performance but also to demonstrate responsibility toward environmental protection, social welfare, and ethical governance practices. This growing expectation has increased demand for greater corporate transparency regarding environmental, social, and governance (ESG) issues, prompting organizations to disclose how such matters are managed within their operations. Traditional financial reporting has been criticized for its inability to capture non-financial factors that influence long-term corporate value and sustainability, leading investors and other

stakeholders to demand more comprehensive reporting that integrates both financial and non-financial information and provides a fuller representation of corporate value creation and risk exposure (Bassey, 2020).

The increasing emphasis on corporate accountability has accelerated the evolution of sustainability reporting as an important corporate communication mechanism. Sustainability reporting enables firms to disclose their environmental, social, and governance practices, thereby enhancing transparency and reducing information asymmetry. This development has been reinforced through international reporting frameworks, particularly the Global Reporting Initiative (GRI), which has guided structured ESG disclosure practices since 1997 and improved consistency and comparability across industries and countries while encouraging regulators to incorporate ESG considerations into corporate reporting requirements (Akuboere, 2024; Solomon, 2024). Sustainability broadly integrates environmental protection, social equity, and economic development into corporate strategies to promote long-term value creation while minimizing adverse societal and environmental impacts (Shad et al., 2019). Within this framework, environmental disclosure reflects resource utilization and emissions management, social disclosure addresses relationships with employees and host communities, while governance disclosure focuses on leadership structures, accountability mechanisms, and ethical conduct. These dimensions may be examined individually as disaggregated ESG components or collectively through a composite ESG measure that reflects an organization's overall sustainability commitment. Beyond regulatory compliance, sustainability reporting has been associated with improved stakeholder relationships, enhanced corporate reputation, reduced political and social risks, improved access to capital, and stronger long-term operational performance, which may ultimately strengthen investor confidence and market valuation (Endiana & Suryandari, 2021).

The relevance of sustainability reporting is particularly pronounced in Nigeria's oil and gas industry, which remains a major contributor to national revenue and foreign exchange earnings but is simultaneously associated with significant environmental and social challenges, including oil spills, gas flaring, ecosystem degradation, and community conflicts. These challenges have intensified regulatory scrutiny and stakeholder demands for improved transparency and corporate accountability. Consequently, sustainability reporting has become increasingly important for evaluating corporate legitimacy and market performance within the sector. Share price, as a market-based measure of firm value, reflects investors' expectations regarding current performance and future growth prospects by incorporating forward-looking information relating to profitability, governance quality, risk exposure, and sustainability performance. Sustainability disclosures therefore have the potential to reduce information asymmetry by signaling transparency, accountability, and long-term strategic orientation, thereby influencing investor confidence and valuation decisions (Ng & Rezaee, 2020; Sukesti et al., 2021).

Despite the growing importance of sustainability reporting, empirical evidence regarding its influence on share price remains inconsistent. Some studies report that ESG disclosures positively affect market valuation, suggesting that investors reward firms exhibiting greater transparency and sustainability performance (Ali & Jadoon, 2022; Peters & Zukbee, 2023). Conversely, other studies report weak or insignificant relationships, implying that sustainability information may not always be reflected in investment decisions (Halimah et al., 2021; Echobu et al., 2022). Similar inconsistencies exist in Nigeria, where some studies conclude that sustainability reporting enhances firm value (Akinleye & Owoniya, 2024; Akuboere, 2024), while others argue that ESG disclosures remain inadequate and exert

limited influence on market outcomes, particularly within the oil and gas sector. Furthermore, existing studies largely emphasize either individual ESG dimensions or aggregate ESG indices without providing comparative evidence on whether disaggregated ESG disclosures or composite sustainability measures better explain share price behaviour. Given these inconsistencies and the unique characteristics of Nigeria's oil and gas industry, it remains uncertain whether sustainability disclosures, both at the individual ESG dimension level and the composite level, significantly influence share price performance, thereby necessitating further empirical investigation.

Hypotheses Development

Based on the foregoing discussion, the study formulates the following hypotheses:

H_{01}: Environmental disclosure has no significant effect on the share price of listed oil and gas companies in N igeria.

H_{02}: Social disclosure has no significant effect on the share price of listed oil and gas companies in Nigeria.

H_{03}: Governance disclosure has no significant effect on the share price of listed oil and gas companies in Nigeria.

H_{04}: Composite ESG disclosure has no significant effect on the share price of listed oil and gas companies in Nigeria.

1.2 Statement of the Problem

Sustainability reporting has become increasingly important as stakeholders demand greater transparency on firms' environmental, social and governance (ESG) practices beyond traditional financial information (Abuaja & Ukpong, 2022). Although such disclosures are expected to reduce information asymmetry and enhance investment decision-making, there remains uncertainty about whether they are actually reflected in capital market valuation, particularly in emerging economies like Nigeria. This issue is more critical in sectors with significant environmental and social externalities, such as the oil and gas industry, where sustainability performance is expected to strongly influence investor perception. In Nigeria, the oil and gas sector plays a strategic economic role but is also characterized by environmental degradation, community conflicts, and governance challenges, making credible sustainability reporting essential for stakeholder decision-making (Uduji et al., 2021; Vitolla et al., 2023). However, empirical evidence on whether such disclosures influence share price in this sector remains inconclusive.

Prior studies report mixed findings, with evidence of positive, negative, and insignificant relationships between sustainability disclosure and share price across different contexts (Halimah et al., 2020; Michael & Taiye, 2019; Echobu et al., 2022; Peters & Zukbee, 2023). The absence of consensus raises questions about the true value relevance of sustainability reporting in Nigeria's capital market. In addition, most Nigerian studies focus on banking and manufacturing sectors (Uwuigbe et al., 2018; Jane-frances, 2019), despite the oil and gas sector presenting more severe sustainability risks and information needs.

Furthermore, existing studies predominantly rely on raw ESG scores or unweighted disclosure indices (Rahman et al., 2020; Abuaja & Ukpong, 2022), which may limit robustness due to the multidimensional and interrelated nature of ESG variables. To address these limitations, this study proposes the use of Principal Component Analysis (PCA) to construct a more robust composite sustainability disclosure measure that reduces dimensionality and improves measurement efficiency (Shlens, 2014; Hussain et al., 2024). Against this backdrop, there remains insufficient sector-specific and methodologically robust evidence on whether sustainability disclosure influences share price in Nigeria's oil

and gas industry, and whether composite PCA-based measures provide stronger valuation effects than conventional ESG indices.

1.3 Literature Review

1.3.1 Concept of Share Price

Share price represents the market value of a company's equity as determined by the interaction of demand and supply in the capital market and serves as an important indicator of investors' assessment of corporate value and future prospects (Peters & Zukbee, 2023). As providers of corporate capital, investors rely on share price as a key signal of firm performance, making it one of the most widely used market-based indicators of organizational success. Higher share prices generally reflect positive market expectations and stronger investor confidence, thereby influencing both current shareholders and prospective investors in their decision-making processes (Peters & Zukbee, 2023).

From a valuation perspective, share price reflects the market's perception of firm value and shareholder wealth. Sukesti et al. (2021) argue that increases in share price are associated with higher corporate value, while Okechukwu and Jimba (2023) similarly maintain that market value is fundamentally embedded in the price of a company's shares. Consequently, share price fluctuations provide an observable mechanism through which investors evaluate both current performance and future earning potential.

Under the Efficient Market Hypothesis, share prices are assumed to fully reflect all available information in the market, including both financial and non-financial disclosures (Ng & Rezaee, 2020; Sukesti et al., 2021). While financial indicators such as earnings remain important determinants of valuation, investors increasingly incorporate broader informational signals when forming expectations about firm value. In this regard, weak financial performance is often associated with declining investor interest and reduced market valuation (Sukesti et al., 2021). However, investor sentiment and expectations are also shaped by the release of both accounting and non-financial information, which may positively or negatively influence share prices.

The increasing emphasis on sustainability has further expanded the information set relevant to investors. Non-financial disclosures relating to environmental, social, and governance (ESG) practices now complement traditional financial information in equity valuation. De Vincentiis (2024) notes that sustainability has become an important determinant of corporate valuation, while Ng and Rezaee (2020) provide empirical evidence that share prices reflect ESG performance. Accordingly, firms with strong ESG profiles tend to attract investor interest, whereas weak sustainability performance may discourage investment and negatively affect market valuation.

1.3.2 Concept of Sustainability Disclosure

Sustainability disclosure has emerged as a response to increasing environmental pressures, stakeholder demands, and regulatory expectations, extending corporate reporting beyond traditional financial statements to include environmental, social, and governance (ESG) information. It serves as a structured mechanism through which firms communicate how they manage sustainability-related risks and opportunities, thereby enhancing transparency, accountability, and stakeholder engagement. Conceptually, it reflects the integration of economic, environmental, and social considerations into corporate decision-making for long-term value creation and reduced negative externalities (Michael & Taiye, 2019; Shad et al., 2019). In this sense, sustainability disclosure operationalizes broader sustainability principles by translating them into measurable and communicable corporate practices.

In the literature, sustainability disclosure is consistently defined as the integration and communication of ESG-related activities within corporate operations (Abuaja & Ukpong, 2022; 2019; Dian Pratiwi et al., 2021). Frameworks such as the Global Reporting Initiative (GRI) and perspectives from professional bodies like the ACCA further emphasize its role in measuring and reporting organizational performance across environmental, economic, and social dimensions (Halimah et al., 2020; Chang et al., 2019; Michael & Taiye, 2019). Beyond regulatory compliance, sustainability disclosure provides stakeholders with information on how organizations manage environmental and social impacts while integrating sustainability considerations into corporate strategy, particularly in environmentally sensitive industries such as oil and gas, where non-financial impacts may not be reflected in conventional financial statements (Herbert et al., 2020; Sebrina et al., 2022; Dian Pratiwi et al., 2021). While sustainability disclosure presents an integrated picture of how firms manage sustainability-related opportunities and risks, each dimension captures a distinct aspect of organizational responsibility.

Environmental disclosure refers to information relating to a firm's interaction with natural resources and ecosystems and reflects its commitment to environmental stewardship (Okonewa, 2023). It includes disclosures on greenhouse gas emissions, energy consumption, waste management, water usage, biodiversity protection, and climate-related initiatives. Environmental disclosure also encompasses information on renewable energy adoption, emission reduction programmes, resource efficiency, and circular economy practices, providing stakeholders with insight into a firm's environmental management and sustainability performance (Setyahuni & Handayani, 2020; Okonewa, 2023).

Social sustainability disclosure focuses on a firm's relationships with employees, host communities, customers, and society at large. It includes information on labour practices, human rights, employee welfare, occupational health and safety, diversity, equity, inclusion, and community development initiatives. The disclosure of these social activities demonstrates an organization's commitment to responsible business conduct and sustainable stakeholder engagement while highlighting its contribution to social well-being and human capital development (Setyahuni & Handayani, 2020).

Governance disclosure relates to corporate structures and processes that guide decision-making and control mechanisms. It includes board composition, executive remuneration, risk management systems, ethical standards, internal controls, compliance structures, and transparency mechanisms. Governance disclosure therefore provides information on how firms are directed and monitored, emphasizing accountability, oversight, ethical conduct, and the effectiveness of organizational control systems in achieving corporate objectives (Abuaja & Ukpong, 2022; Okonewa, 2023).

1.3.3 Theoretical Review

Instrumental Stakeholder Theory

Instrumental Stakeholder Theory, as developed by Donaldson and Preston (1995), positions stakeholder management as a strategic mechanism through which firms convert relationships into value-creating outcomes. The theory emphasizes that stakeholders such as investors, regulators, employees, and host communities constitute critical resources whose support influences firm performance and survival (Jones et al., 2018). In this sense, sustainability disclosure becomes an instrument for managing these relationships by communicating how firms address stakeholder concerns, particularly in environmentally sensitive sectors like oil and gas. Transparent ESG reporting reduces stakeholder conflict, improves trust, and strengthens perceived corporate responsibility. These outcomes

enhance organizational stability and reduce operational risks, which are ultimately reflected in improved investor confidence and share price performance. Empirical studies support this pathway, showing that effective stakeholder engagement enhances firm reputation and financial outcomes (Arian et al., 2024), while responsible sustainability practices reduce regulatory and community-related risks that affect market valuation (del Río et al., 2023).

Legitimacy Theory

Legitimacy Theory, grounded in Dowling and Pfeffer (1975) and refined by Suchman (1995), views corporate behaviour as an ongoing effort to align organizational activities with societal norms and expectations. Firms depend on societal approval to operate, and any perceived deviation from accepted environmental or social standards creates a legitimacy gap that can threaten survival (Olateju et al., 2021). Sustainability disclosure functions as a key mechanism for maintaining this legitimacy by publicly demonstrating responsiveness to environmental and social concerns. In high-impact industries such as oil and gas, where operations often generate pollution and community tensions, ESG reporting helps preserve a "social license to operate" (Dutt et al., 2025). From a market perspective, legitimacy signals embedded in sustainability disclosures influence investor perceptions, as firms seen as socially responsible attract greater trust and valuation premiums, while legitimacy deficits may trigger reputational damage and adverse share price reactions (Bashatweh, 2018).

Signaling Theory

Signaling Theory, originally proposed by Spence (1973), addresses the challenge of information asymmetry between corporate managers and external investors. Managers possess superior knowledge about firm performance and future prospects, which they communicate through observable signals to reduce uncertainty (Solomon, 2024). Sustainability disclosure serves as one such signal, conveying information about environmental performance, social responsibility, and governance quality. High-quality ESG reporting signals transparency, lower risk exposure, and strong long-term strategic positioning, which investors interpret as indicators of future stability and value creation. Firms with stronger performance are also more likely to disclose extensive sustainability information to distinguish themselves from weaker competitors and avoid undervaluation (Okonewa, 2023). In the oil and gas sector, where environmental risks and information gaps are pronounced, these signals become particularly influential in shaping investor expectations and guiding share price formation through reduced uncertainty and improved perceived firm quality.

Collectively, these theories provide complementary explanations of how sustainability reporting influences share price. However, instrumental stakeholder theory is adopted as the primary framework because it most directly links stakeholder-oriented sustainability practices to economic outcomes, particularly firm value and market valuation. In the Nigerian oil and gas context, where stakeholder pressure and environmental scrutiny are intense, this perspective best explains how sustainability disclosure translates into improved investor confidence and share price outcomes

1.3.4 Empirical Review

Sustainability Disclosure and Share Price

Empirical evidence on the relationship between overall sustainability disclosure and share price remains extensive but inconclusive across both developed and developing economies (Abuaja & Ukpong, 2022; Agubata, 2019; Alexandra et al., 2023; Echobu et al., 2022; Jane-

frances, 2019; Josiah Oyekale et al., 2022; Khaghaany et al., 2019; Michael & Taiye, 2019; Nwobu et al., 2021; Okonewa, 2023; Oshiole et al., 2020; Peters & Zukbee, 2023; Uwuigbe et al., 2018). While several studies report a positive relationship, suggesting that sustainability disclosure enhances investor confidence and firm valuation (Peters & Zukbee, 2023; Okechukwu & Jimba, 2023; Sutopo et al., 2018; Endiana & Suryandari, 2021), others find negative or insignificant effects, indicating that sustainability reporting may sometimes be perceived as a cost burden rather than value-enhancing information (Uwuigbe et al., 2018). Overall, the literature suggests that the valuation effect of sustainability disclosure is context-dependent, varying across sectors, measurement approaches, and institutional environments.

Environmental Sustainability Disclosure and Share Price

Empirical findings on environmental disclosure and share price are mixed. Some studies report a positive relationship, suggesting that environmental responsibility enhances investor confidence and firm value, particularly in environmentally sensitive industries. For example, Niyi Oladipo (2022), Setyahuni and Handayani (2020), and Miralles-Quirós et al. (2018) document positive market responses to environmental disclosure. Conversely, other studies find negative or insignificant effects, implying that environmental initiatives may be interpreted as costly or eroding short-term profitability. Sumritsakun (2022), Echobu et al. (2022), and Okonewa (2023) report weak or adverse relationships, suggesting that investors may discount environmental disclosures due to perceived compliance costs or uncertainty about financial returns.

Social Sustainability Disclosure and Share Price

Evidence on social sustainability disclosure also remains mixed. Several studies report that social disclosure improves market valuation by strengthening transparency and reducing information asymmetry. Miralles-Quirós et al. (2018) and Dai et al. (2019) find that social responsibility disclosures are positively associated with firm value and reduced stock price crash risk. However, the relationship is not always linear. Thuy et al. (2021) report an inverted U-shaped relationship, suggesting that moderate disclosure may initially increase perceived risk, while higher-quality disclosure eventually reduces stock price volatility and enhances investor confidence. This implies that the market response depends not only on the presence of social disclosure but also on its depth, credibility, and consistency.

Governance Sustainability Disclosure and Share Price

Governance disclosure is generally associated with more consistent positive effects on share price. Studies such as Miralles-Quiros et al. (2017), Schiehll and Kolahgar (2021), Abuaja and Ukpong (2022), Oladipo (2022), and Peters and Zukbee (2023) find that governance-related disclosures enhance transparency, reduce information asymmetry, and improve market valuation. These effects are attributed to stronger investor confidence in firms with effective board structures, risk management systems, and ethical compliance. However, contrasting evidence exists. Nguyen (2020) reports a negative relationship in Germany, suggesting that governance disclosure may sometimes signal inefficiencies or agency problems, consistent with slack resource theory. Overall, governance disclosure appears to have a more stable valuation effect compared to environmental and social dimensions.

Despite the extensive literature on sustainability disclosure and share price, several gaps remain evident. First, most empirical studies are based on developed and other emerging economies (Halimah et al., 2020; Rahman et al., 2020; Alharbi et al., 2021; Miralles-Quirós et al., 2021; Ali & Jadoon, 2022; Sumritsakun, 2022), limiting their relevance to Nigeria's

institutional context. Second, Nigerian studies remain inconclusive, reporting mixed positive, negative, and insignificant relationships (Michael & Taiye, 2019; Echobu et al., 2022; Okonewa, 2023; Peters & Zukbee, 2023). Third, there is a sectoral gap, as existing studies largely focus on banking and manufacturing, despite the oil and gas sector being more exposed to environmental and social risks. Finally, methodological limitations persist due to the widespread use of simple ESG aggregation methods that ignore dimensionality and multicollinearity issues. This study addresses these gaps by applying PCA-based ESG measurement and focusing specifically on Nigeria's oil and gas sector to provide more robust and context-sensitive evidence.

1.4 Methodology

This study adopts a positivist research philosophy, which emphasizes the use of objective, quantifiable data to test theoretical postulates through a deductive approach. A longitudinal research design is employed, allowing for the observation of changes in ESG disclosure practices and market valuation among the sampled firms over an eleven-year period from 2015 to 2025. The study population comprises all oil and gas companies listed on the Nigerian Exchange Group (NGX). Using purposive sampling based on continuous listing status and the availability of complete annual and sustainability reports, seven companies were selected. Secondary data were extracted from audited annual reports and stand-alone sustainability reports. The dependent variable, share price, was measured using the annual closing share price, while the independent variables comprise environmental sustainability disclosure, social sustainability disclosure, governance sustainability disclosure, and a composite ESG sustainability disclosure index, measured using PCA-based disclosure indices. Firm size, earnings per share and leverage were included as control variables. The data were analysed using panel regression techniques. Following diagnostic tests that indicated the presence of heteroskedasticity and serial correlation, the Panel-Corrected Standard Errors (PCSE) estimator was employed to obtain robust and efficient parameter estimates.

Model Specification

To examine the individual effects of environmental, social, and governance disclosure on share price, the disaggregated model is specified as:

$$SP_{it} = \beta_0 + \beta_1 E_{it} + \beta_2 S_{it} + \beta_3 G_{it} + \beta_4 SIZE_{it} + \beta_5 EPS_{it} + \beta_6 LEV_{it} + \mathcal{E}_{it} \quad \textit{(i)}$$

To examine the combined effect of composite ESG disclosure on share price, the model is specified as:

$$SP_{it} = \beta_0 + \beta_1 ESG_{it} + \beta_4 SIZE_{it} + \beta_5 EPS_{it} + \beta_6 LEV_{it} + \mathcal{E}_{it} \quad \textit{(ii)}$$

where:

SP = Share Price
E = Environmental Sustainability Disclosure
S = Social Sustainability Disclosure
G = Governance Sustainability Disclosure
ESG = Composite Sustainability Reporting Index
SIZE = Firm size
EPS =Earning per share
LEV = Leverage
β_0 = Constant term
$\beta_1 - \beta_3$ = Regression coefficients
ε = Error term
i = Firm
t = Time

1.5 Findings

This section presents the empirical results on the effect of sustainability disclosure on the share price of listed oil and gas companies in Nigeria. Prior to the regression analysis, descriptive statistics and diagnostic tests were conducted to examine the distribution of the study variables and the suitability of the estimation technique.

Descriptive Statistics

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Share_Price	77	305.28	947.75	0.20	5720.00
E_Index	77	0.390	0.425	0.00	1.00
S_Index	77	0.573	0.372	0.00	1.00
G_Index	77	0.610	0.276	0.00	1.00
ESG_Index	77	0.525	0.347	0.03	1.00

Source: Author's computation using Stata

The descriptive statistics above reveal considerable variation in share prices among the sampled firms, with a mean value of ₦305.28 and a standard deviation of ₦947.75, indicating substantial heterogeneity across firms and years. Sustainability disclosure also varies across the ESG dimensions, with governance disclosure recording the highest average disclosure level (0.610), followed by social disclosure (0.573), while environmental disclosure records the lowest mean score (0.390). The composite ESG index has an average value of 0.525, suggesting a moderate level of sustainability reporting within the Nigerian oil and gas sector.

Diagnostic and Model Selection Tests

To ensure robustness of the regression estimates, diagnostic tests for multicollinearity, heteroskedasticity, serial correlation, and model specification were conducted, alongside Hausman specification tests for appropriate estimator selection.

Table 4.2 Summary of Diagnostic and Model Selection Tests

Diagnostic Test	**Model 1**	**Model 2**
Multicollinearity (VIF)	Mean VIF = 7.26	Mean VIF = 1.00
Heteroskedasticity	p-value = 0.0000	Not applicable (RE)
Serial Correlation	p = 0.6531	p = 0.7052
Hausman Test	p-value = 0.0039 (FE)	p-value = 0.2225 (RE)
Corrective Strategy	PCSE (pairwise)	PCSE (pairwise)

Source: Author's computation using Stata 13

Results of the diagnostic tests shown in table 4.2 above indicate that the data satisfy the requirements for panel regression estimation. Although Model 1 exhibits moderate multicollinearity (Mean VIF = 7.26), the value remains within acceptable limits, while Model 2 shows no multicollinearity concerns (Mean VIF = 1.00). The heteroskedasticity test is significant for Model 1, whereas serial correlation is not detected in either model. The Hausman specification test supports the Fixed Effects estimator for Model 1 and the Random Effects estimator for Model 2. Consequently, both models were estimated using Panel-Corrected Standard Errors (PCSE) to obtain robust parameter estimates.

Table 4.3: Summary of Regression Results

Variables	Model 1	P-value	Model 2	P-value
Constant	-9.0650	0.001	-9.3638	0.002
Environmental Disclosure	-0.6107	0.002***	—	—
Social Disclosure	0.5847	0.000***	—	—
Governance Disclosure	0.2969	0.207	—	—
Composite ESG Disclosure	—	—	0.2083	0.024**
Firm Size	0.6476	0.000***	0.6636	0.000***
Earnings Per Share	0.0088	0.001***	0.0089	0.002***
Leverage	1.4800	0.002***	1.5200	0.002***
R^2	0.5348		0.4713	
Wald χ^2 (p-value)	144.39 (0.0000)		102.59 (0.0000)	

Source: Author's Computation using Stata.

The regression results presented in table 4.3 indicate that the individual ESG dimensions exert heterogeneous effects on share price. Environmental sustainability disclosure has a negative and statistically significant effect on share price ($\beta = -0.6107$, $p = 0.002$), implying that increased environmental disclosure is associated with lower market valuation. Conversely, social sustainability disclosure exerts a positive and highly significant influence on share price ($\beta = 0.5847$, $p < 0.001$), suggesting that investors reward firms that demonstrate stronger social responsibility through disclosure. Governance disclosure is positive but statistically insignificant ($\beta = 0.2969$, $p = 0.207$), indicating that governance reporting does not independently influence share price during the study period.

When sustainability disclosure is measured as a composite ESG construct, the ESG index exhibits a positive and statistically significant effect on share price ($\beta = 0.2083$, $p = 0.024$). This suggests that investors place greater value on integrated sustainability reporting than on isolated disclosure dimensions. The explanatory power of the models is substantial, with Model 1 accounting for 53.48% of the variation in share price and Model 2 explaining 47.13%. Firm size, earnings per share, and leverage are positive and statistically significant across both models, indicating that larger, more profitable, and more leveraged firms generally command higher market valuation. Accordingly, the null hypotheses relating to environmental disclosure, social disclosure, and composite ESG disclosure are rejected, while the null hypothesis relating to governance disclosure is not rejected.

1.6 Discussion of Findings

The findings demonstrate that sustainability disclosure influences the share price of listed oil and gas companies in Nigeria, although the effects differ across the individual ESG dimensions. The positive and significant effect of social sustainability disclosure suggests that investors value disclosures relating to employee welfare, community engagement, and broader stakeholder relations. In the Nigerian oil and gas industry, where community conflicts and social risks frequently disrupt operations, firms that provide greater social transparency are likely perceived as better positioned to sustain operations and create long-term value. This finding is consistent with the studies of Miralles-Quirós et al. (2018) and Dai et al. (2019), which report that stronger social responsibility disclosure enhances firm value and reduces investment risk.

In contrast, environmental sustainability disclosure exhibits a negative and statistically significant relationship with share price, implying that investors may associate extensive environmental disclosure with higher remediation costs, regulatory obligations, or environmental liabilities. Rather than viewing environmental transparency as a value-enhancing signal, market participants may perceive it as an indication of future financial commitments that could reduce profitability. This finding agrees with the results of Sumritsakun (2022), Echobu et al. (2022), and Okonewa (2023), who reported negative or insignificant market responses to environmental disclosure, but contrasts with the positive findings of Niyi Oladipo (2022), Setyahuni and Handayani (2020), and Miralles-Quirós et al. (2018), which suggest that environmental responsibility enhances investor confidence and market valuation.

The positive but statistically insignificant effect of governance disclosure indicates that governance reporting alone does not significantly influence investors' pricing decisions within the Nigerian oil and gas sector. This finding suggests that governance practices may have become relatively standardized due to regulatory requirements, thereby limiting their ability to differentiate firms in the capital market. The result differs from the findings of Abuaja and Ukpong (2022), Oladipo (2022), Peters and Zukbee (2023), and Schiehll and Kolahgar (2021), who documented significant positive effects of governance disclosure on market valuation, but is broadly consistent with Nguyen (2020), who found that governance disclosure may not always translate into higher firm value.

Finally, the positive and significant effect of the composite ESG index indicates that investors respond more favourably to integrated sustainability reporting than to isolated disclosure dimensions. This finding supports the view that overall sustainability performance provides a more comprehensive signal of corporate quality, transparency, and long-term resilience than individual ESG components considered separately. The result is consistent with Quintiliani (2022), Bashir et al. (2023), Xu et al. (2020), and Engelhardt et al. (2021), who found that firms with stronger overall ESG performance enjoy superior market valuation and greater resilience during periods of uncertainty. Overall, the findings suggest that integrated sustainability disclosure is becoming an increasingly important determinant of investor behaviour and share price formation in the Nigerian oil and gas sector.

1.7 Conclusion

The study concludes that sustainability disclosure has become an increasingly important determinant of market valuation in the Nigerian oil and gas sector, reflecting the growing integration of non-financial information into investment decision-making. The evidence suggests that investors place greater value on sustainability reporting when it presents a coherent and balanced representation of corporate responsibility rather than isolated disclosures of individual ESG dimensions. This implies that the effectiveness of sustainability reporting lies not merely in the volume of information disclosed but, in its ability, to communicate an integrated commitment to long-term value creation, stakeholder accountability, and corporate resilience. Consequently, sustainability reporting should be viewed as a strategic governance and value-enhancing mechanism capable of strengthening market confidence and supporting sustainable corporate growth in emerging capital markets.

1.8 Recommendations

Based on the findings and conclusions of the study, listed oil and gas companies in Nigeria should strengthen the quality and strategic orientation of their sustainability reporting by

emphasizing integrated ESG reporting framework that clearly demonstrates how sustainability practices contribute to long-term value creation and risk management. Greater emphasis should be placed on credible social sustainability initiatives and their transparent disclosure, given their potential to enhance investor confidence and market valuation. Environmental disclosures should be linked more explicitly to operational efficiency and long-term financial benefits to mitigate adverse investor perceptions, while governance reporting should move beyond compliance-oriented narratives to provide substantive information on board oversight and risk management. Collectively, these measures would improve the decision-usefulness of sustainability information and enhance its relevance to capital market valuation.

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