Environmental, Social and Governance (ESG) disclosure and firm value of manufacturing firms: The moderating role of profitability

Olufemi Yeye¹, Chinedu F. Egbunike^{2*}
National Universities Commission, Nigeria¹
Nnamdi Azikiwe University, Nigeria²
oyeye@nuc.edu.ng1, cf.egbunike@unizik.edu.ng²



Article History

Received on 20 March 2023 1st Revision on 24 March 2023 2nd Revision on 6 May 2023 3rd Revision on 14 May 2023 4th Revision on 17 May 2023 5th Revision on 11 August 2023 6th Revision on 5 October 2023 Accepted on 13 October 2023

Abstract

Purpose: This study examines the impact of environmental, social, and governance disclosure on firm value. This study empirically examines the impact of profitability on the relationship between ESG and firm value.

Research methodology: This study uses a panel dataset of 12 industrial goods manufacturing firms listed during the 2014-2020 period. The direct effects were tested using an FEM and the Two-Stage Least Squares was used to account for the endogeneity problem.

Results: This study finds a positive effect of ESG disclosures on firm value. The coefficients of ESG in the FEM and 2SLS results were not significant. The interaction between ROA and ESG also showed higher coefficients that were not statistically significant. The empirical analysis was robust to the use of two-stage least squares regression.

Limitations: This study presents evidence from a single sector based on a prior literature review, which may affect the generalizability of the findings to other sectors.

Contribution: This work adds to the broad ESG literature and methodologically extends past results by exploring the moderating influence of profitability.

Practical implications: This study has implications for managers and firms that are increasingly desirous of improving their firm performance by presenting a positive image to their stakeholders and how this is linked to their profitability over time.

Novelty: This study adds new aspects to the broad discussion on ESG and firm value in a developing-country context, which is consistent with the view that profitable firms mainly address ESG issues in such economies.

Keywords: ESG Disclosure, Tobin's O, ROA

How to Cite: Yeye, O., & Egbunike, C. F. (2023). Environmental, Social and Governance (ESG) disclosure and firm value of manufacturing firms: The moderating role of profitability. *International Journal of Financial, Accounting, and Management*, 5(3), 311-322.

1. Introduction

Various natural disasters, societal catastrophes, and severe economic catastrophes have been brought on by climate change, global warming, or environmental harm and degradation (Samosir, Murwaningsari, Augustine, & Mayangsari, 2020). The debate on the effect of environmental, social and governance disclosure on firm value has remained unresolved (Jadiyappa, Iyer, & Jyothi, 2021; Noor, Saeed, Baloch, & Awais, 2020). This follows the growing pressure on firms to respond to social and environmental issues and report on them (Oluwagbemiga 2014). Stakeholders are becoming knowledgeable, driven by the wider availability of information and governance codes granting greater

visibility to corporate business practices (Hamzah et al., 2013; Hamzah, Gozali, Annisa, & Pratiwi, 2022). Every stakeholder must stay current on the major advancements and trends as social responsibility spreads and has an impact around the world (Tukur, Shehu, Mammadi, & Sulaiman, 2019). Thus, proponents argue that managers should not only focus on the bottom line (profit) objective but should also assume more responsibilities to society and the environment (Ogbodo, 2015; Seneviratne & Kalpani, 2020). Thus, ESG disclosure is seen as an information dissemination strategy that affects corporate performance and the bottom line (Jeroh & Okoro, 2016). Lee, Pati, & Roh, 2011; Okoye & Asika, 2013; Udeh & Ezejiofor, 2018). Such disclosures are believed to make a firm more responsive (Cortez and Cudia, 2011). Other benefits include enhancing a firm's reputation (Servaes & Tamayo, 2013) and reducing idiosyncratic risk (D. D. Lee & Faff, 2009). It signals management efficiency (Renneboog, Ter Horst, & Zhang, 2008a, 2008b) and the capital market to improve credit ratings (Jiraporn et al., 2014).

In response to the growing global call for corporate environmental responsiveness, the Nigerian Exchange Group (NGX) has demonstrated efforts to integrate sustainability into existing business models, resulting in the creation of Sustainability Disclosure Guidelines (SDG), which address environmental, social, and governance (ESG) issues. In Nigeria, corporate social responsibility is now a burning issue, as companies face tremendous pressure to take responsibility for their activities in the natural environment. These include gas flaring, environmental degradation, indiscriminate land and hill clearing, and toxic waste dumping. Therefore, reporting on ESG issues has remained one of the strategic tools used by organizations to engage with wider stakeholders (Vallesi et al., 2012). Sustainability has become a strategic concern for businesses as part of their entire business strategy due to the risks and opportunities involved with environmental and social issues as well as the potential link with bottom-line economic performance (Faris et al., 2013).

The literature documents mixed findings on the effect of ESG on firm performance, both globally and locally. Broadly speaking, studies in Nigeria can be divided into two types: studies that examine the determinants of Nigerian firms' disclosure practices (Ebimobowei, 2011; Innocent, Okafor, & Egolum, 2014). However, there is consensus that the disclosure level is still ad hoc, with little or no quantifiable data. According to Jeroh and Okoro (2016), this is further compounded by the absence of adequate green accounting models or techniques with practical applicability in Nigeria. The second stream is devoted to studying the effect of sustainability-related practices on corporate performance. These include studies by Asuquo, Dada, and Onyeogaziri (2018) on sustainability reporting, Egbunike and Okoro (2018) on green accounting practices, and Nnamani et al.(2017) on sustainability accounting and reporting. These studies have focused extensively on manufacturing firms (either consumers or industrial goods).

Other studies, such as Onyekwelu and Ekwe (2014) on the banking sector and Ijeoma (2015) used primary data, while Udeh and Ezejiofor (2018) focused on telecommunication firms. Thus, empirical literature has focused broadly on the direct relationship between CED or CSRD and firm value (D'Amato & Falivena, 2020).

To address these gaps, this study proposes two research questions: (1) What is the impact of ESG disclosure on the value (of industrial goods firms)? (2) To what extent does profitability affect the relationship between ESG and firm value? The current study takes a different viewpoint by examining the implication of profitability as a firm-level moderator in contributing to the understanding of the relationship between ESG and firm value. Second, this study explores this perspective using a dataset of Nigerian Industrial Goods firms. This sector remains underexplored in recent corporate social responsibility studies. For instance, Ekwe, Odogu, and Mebrim (2017) studied two companies, Conoil and Forte; Ajayi and Ovharhe (2016) undertook an exploratory study on LNG; Nze, Okoh, and Ojeogwu (2016) restricted their study to two firms in the Oil and Gas sector, while Ifurueze, Lydon, and Bingilar (2013) used a sample of 12 oil companies based on field survey methodology in the Niger Delta region. This study uses a moderation analysis of panel data to examine whether profitability impacts the nexus of environmental, social, and governance disclosure and firm value.

2. Literature review

2.1. Environmental, Social and Governance Disclosure (ESG) and Firm Value

As suggested by Yu, Guo, and Luu (2018), improved CED would reduce the information symmetry and agency costs which are the mechanisms which it potentially impacts firm value. It is based on the synergetic view that a firm's financial and competitive success is intertwined with its social legitimacy (Perrini and Tencati, 2006; Zulaecha & Murtanto, 2019). ESG is defined as the discovery, assessment, and allocation of environmental and social costs in addition to governance principles, their implementation in business decisions, and the subsequent communication of this information to a company's stakeholders. ESG is a subset of broad financial accounting but focuses on activities that have a direct impact on the environment of an organization and the disclosure of such information to external parties such as capital holders, creditors, and other authorities to enable organizations to become more sustainable (Alnafea, 2014; Rizk, Dixon, & Woodhead, 2008). Broadening the accountability of organizations, particularly companies, therefore requires going beyond the conventional responsibility of providing capital owners, particularly shareholders, with a financial statement (Rizk et al., 2008).

ESG developed along two different accounting lines of thought. A philosophical discussion of the applicability and value of ESG for sustainable development is presented in the first instance. The second is the management perspective, linked to various sustainability terminology and techniques (Schaltegger & Burritt, 2010). A corporate environmental report is an instrument for managing and controlling business operations and facilitating communication with stakeholders, particularly those with an interest in environmental issues (Azzone, Brophy, Noci, Welford, & Young, 1997). ESG provides information on the positive and negative impacts of the corporation's activities on society and the environment, which leads to the provision of holistic information to stakeholders (Vallesi et al., 2012).

The provision of such information would provide the firm with an enhanced opportunity to lower its current and future expenses in an effort to boost profitability, competitiveness, and market placement (Little, 2003). The link between ESG and firm value has been documented in several studies. This evidence seems to support a positive effect in certain instances and a negative link in others. Using a sample of 600 listed firms in Brazil, Russia, India, and China (BRIC) from 2010 to 2018, Noor et al. (2020) found evidence consistent with the positive effect of CSR disclosure permanency on firm value. Yu et al. (2018) also found evidence supporting the positive impact of environmental disclosure permanency on firm value using a sample of 1996 firm-year observations from 47 emerging economies. Jo and Harjoto (2012) found evidence supporting the beneficial effect of CSR participation on corporate performance.

Using our setting, Nigerian context studies have documented mixed findings on the effect of ESG-related disclosure on firm performance. Using a sample of telecommunication firms, Udeh and Ezejiofor (2018) found a significant effect of sustainability cost accounting on ROA and ROE, while Asuquo et al. (2018) used a sample of three brewery firms and data spanning from 2012 to 2016 found evidence that environmental performance disclosure had no significant effect on return on assets. Egbunike and Okoro (2018) empirically use a sample of 10 firms on the Nigerian Stock Exchange from 2012 to 2016, and data analyzed using canonical correlations find no significant relationship between green accounting and profitability. Nnamani et al. (2017) using a sample of 3 firms from the brewery sector from 2010 to 2014 found that sustainability accounting from a personnel perspective has a significant effect on ROA. Based on these assertions, this study proposes the following hypotheses.

 H_1 : For industrial disclosure permanency has a positive impact of ESG disclosure permanency firm value for industrial goods firms .

2.2. Moderating Effect of Profitability on ESG and Firm Value

Sen and Bhattacharya (2001) suggest that the ESG and firm performance nexus are affected by boundary factors. This is also supported in the study by Guo, Hou, and Li (2020). The argument from a stakeholder perspective is that CSR is a business strategy that can lead to improved firm value (R.

Freeman, 1984). Arguably, this is linked to the potential of CSR activities to reduce conflicts of interest between managers and other stakeholders (Peloza and Shang, 2011). Therefore, this study examines the moderating effect of profitability. Firm profitability is critical to the long-term survival of a firm in the dynamic operational environment of a business. For instance, Jeroh and Okoro (2016), using a sample of oil and gas firms from 2008 to 2015, find that environmental and dismantling costs positively influence a firm's performance. This study adopts a single-theoretical perspective to assess the effect of ESG disclosure on firm value. Although studies have been conducted globally on ESG disclosure and firm performance, prior studies have utilized primary data, such as Ekwe et al. (2017) on two companies, Conoil and Forte; Ajayi and Ovharhe (2016), who undertook an exploratory study on LNG; and Nze et al. (2016) restricted to two firms in the Oil and Gas sector. In addition, an extensive study was conducted by Ifurueze et al. (2013) on a sample of 12 oil companies based on a field survey methodology in the Niger Delta region. Hence, the aim is to fill the gap in the ESG disclosure and firm value nexus, focusing on the NGX industrial goods sector using secondary data.

H₂: Profitability moderates the relationship between ESG permanency and firm value.

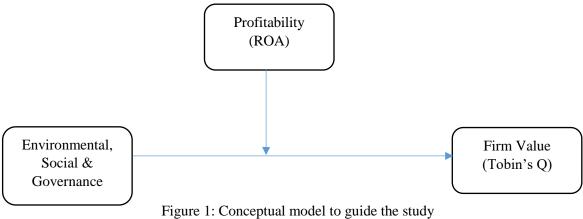


Figure 1: Conceptual model to guide the study Source: Authors' conceptualization (2023)

2.3. Theoretical Framework

The study is anchored on 'stakeholder theory,' which advocates the role of the firm in meeting the interests of several stakeholders. The stakeholder theory was propounded by R. Freeman (1984). The theory draws from the strategic management literature, systems theory, and corporate social responsibility to challenge the long-standing assumption "that the sole objective of firms is to maximize shareholders' wealth" (Laplume, Sonpar, & Litz, 2008). Stakeholders refer to individuals or groups who are affected by, or whose actions can directly or indirectly affect, the firm's operation (Harrison & Freeman, 1999; Hillman & Keim, 2001; Orlitzky, Louche, Gond, & Chapple, 2017). The stakeholder theory posits that a firm's long-term value is based on its relationships with critical stakeholders (Post, Preston, & Sachs, 2002). The theory suggests that the company has a binding fiduciary duty to different stakeholders, which ultimately determines the value of the company based on how well it fulfils the contracts with its stakeholders (Ong & Djajadikerta, 2017). Stakeholder theory addresses three problems: (1) the problem of value creation and trade, (2) the problem of the ethics of capitalism, and (3) the problem of a managerial mindset (R. E. Freeman, Harrison, Wicks, Parmar, & De Colle, 2010). Thus, stakeholder theory supports the association between the disclosure of ESG factors and financial performance (Qureshi et al., 2020). Employing ESG data demonstrates that firms are actively pursuing "ecological and social responsibility," enhancing their standing with customers and investors, gaining access to financing more cheaply, and strengthening their competitive edge (Bofinger et al., 2022).

2.4. Empirical Review

Li, Gong, Zhang, and Koh (2018) investigated the association between ESG disclosure and firm value. This study employed secondary data from the annual reports of 350 sampled FTSE firms. However, CEO power was used as a moderating variable in this study. The empirical results showed that ESG

had a positive effect on Tobin's Q using OLS and 2SLS. The moderating effect of CEO power was positive and significant using OLS and 2SLS.

Buallay (2019) examined the relationship between ESG and financial performance. The sample comprised 2,350 observations collected over 10 years (i.e., 2007-2016), from 235 banks. The performance indicators were ROA, ROE, and Tobin's Q. The results showed that ESG positively associated with ROA, ROE and Tobin's Q.

Using a sample of 1,244 firms from Asian countries, Alsayegh et al. (2020) analyze the ESG disclosure effect on the economic, environmental, and social dimensions of performance. The study period was 2005–2017. Using a battery of tests (i.e., FEM, REM, and pooled OLS), the empirical analysis revealed that the firm's ESG dimension was positively and significantly associated with the economic, environmental, and social dimensions of sustainability.

The study by Albitar, Hussainey, Kolade, and Gerged (2020) studied the moderating influence of various CG dimensions on the ESG and firm performance nexus. The sample comprised FTSE 350 firms, from 2009 to 2018. The results show a positive association between ESG and firm performance.

Qureshi et al. (2020) studied ESG disclosure and BD effect on price valuation. The sample comprises of 812 firms distributed across Europe. The dependent variable was the firm's market value using Ohlson's price model. Secondary data were analyzed using multiple linear regression. The results show a positive correlation between ESG disclosures and European companies'stock prices.

Mohammad and Wasiuzzaman (2021) investigated the moderating influence of competitive advantage on the ESG disclosure and firm performance nexus of firms listed on Bursa Malaysia. We use a sample of 661 firms from 2012 to 2017 and a clustering approach for regression robustness. The results of this study show that ESG enhances Tobin's Q and that this relationship is moderated by competitive advantage.

Chen and Xie (2022) investigated the moderating influence of ESG investors on the nexus of ESG disclosure and Tobin's Q. They employed secondary data from annual reports from 2000 to 2020. The results confirmed a positive association between ESG disclosure and Tobin's Q.

From a different sector, Abdi, Li, and Càmara-Turull (2022) analysed the effect of ESG on firm value and Tobin's Q. the sample comprised of 38 ESG firms in the airline industry. The panel results show that the environmental and social dimensions of ESG had a positive impact on Tobin's Q.

3. Research methodology

This study adopts a quantitative perspective utilizing an ex-post facto research design. The final sample comprised 12 industrial goods firms quoted from 2014 to 2020 in the Nigerian Exchange Group (NGX). This study used secondary data sources. Data were retrieved from the annual financial statements of the sampled companies. The data were retrieved from the annual reports of the selected companies, as contained in the MachameRatios® database, which has been widely used in academic research.

3.1. Method of Data Analysis

This study employed two-stage least squares techniques to analyze the data. The benefit of this technique is that it enables both the explanation and prediction of independent variables on the dependent variable. Two-stage least squares were used to capitalize on their strength to control for endogeneity, omitted/unobservable variables that threaten causal inference in observational studies, and simultaneity (Halaby, 2004; M.-j. Lee, 2002).

```
3.1.1. Model Specification: TobQ_{it} = \alpha + \beta_1 ESG_{it} + \beta_2 FS_{it} + \beta_3 LEV_{it} + \beta_4 AGE_{it} + \beta_5 BS_{it} + \beta_6 AQ_{it} + \beta_7 ROA + \beta_8 ESG*ROA_{it} + \mu_1......(1)
```

Where

TobQ - Tobin's Q value

ESG - Environmental, Social & Governance Disclosure

Firm size - Natural logarithm of total assets

Firm leverage - Total debt / Total assets

Firm age - No of years from the date of incorporation Board size - Number of directors as of financial year-end

Audit quality - dummy variable equal to 1 if audited by the big 4 and 0 if otherwise

ROA - Return on Assets

 β_1 - β_7 Coefficients of the explanatory variables

3.1.2. Variable Description and Measurement

Similar to the method used in other studies, content analysis was performed to assess ESG disclosure. Environmental, corporate governance, and social disclosures collectively constitute ESG. ESG scores were obtained from the MachameRatios database. The index assigns a "1" if an item appears in the annual report and a "0" otherwise. Studies on the CSR of businesses in emerging nations support this approach (Haji 2013). Thus, ESGji is the ESG disclosure index for firm j at time i. The following variables were employed as control variables: Firm Size (FS), Firm Leverage (LEV), Firm Age (AGE), Board Size (BS), Audit Quality (AQ), and Return on Assets (ROA). Literature documents that firm size plays a significant role in corporate social responsibility. Firm size, i.e., natural logarithm of total assets, and firm leverage, i.e., ratio of debt to assets were also taken into account in earlier research by Alsayegh et al. (2020) and Mohammad and Wasiuzzaman (2021). Mohammad and Wasiuzzaman (2021) controlled for profitability as a firm-specific factor. Yu et al. (2018) find evidence that firms with large assets have improved CED disclosure. Similarly, Guo et al. (2020) find that large firms are better at managing risk. Leverage, measured as the ratio of debt to total assets, is a significant determinant of firm performance, as substantiated by previous studies. Bhatia and Tuli (2017) finds that leverage is negatively associated with sustainability disclosure.

Firm age is measured as the number of years since the date of incorporation, while board size is the total number of directors at the end of the year. The variable of audit quality, i.e., big 4 measured as "1" otherwise "0" have also been shown to be closely associated with a firms ESG disclosure practice. Prior studies have also shown a link between ROA and firm performance, as improved profitability attracts more investors and, consequently, improves firm value (Husna & Satria, 2020; Husna & Satria, 2019). Kim and Lee (2020) predict that businesses with increasing profitability will have more opportunities to fund ESG efforts. Bhatia and Tuli (2017) find that profitability is negatively related to the level of ESG disclosure in a sample of Indian firms. ROA variables of ROA was measured using the ratio of net income to total assets of the sampled firms.

4. Result and discussion

Table 1. Descriptive statistics of the model variables

Table 1. Descriptive statistics of the model variables								
	TOBQ	ESG	FS	LEV	AGE	BS	AQ	ROA
Mean	1.869302	1.054226	15.93527	0.642447	28.28302	9.509434	0.679245	0.002113
Median	1.116093	0.981639	14.71672	0.539986	32.00000	9.000000	1.000000	0.065264
Maximum	6.544135	1.756667	21.27855	2.229656	46.00000	19.00000	1.000000	0.231527
Minimum	0.789082	0.346666	12.06417	0.306221	4.000000	4.000000	0.000000	-1.799173
Std. Dev.	1.597855	0.358281	2.841293	0.373920	12.78126	3.866138	0.471233	0.282945
Skewness	1.830849	0.036045	0.694897	2.184706	-0.711210	0.903803	-0.768029	-5.130715
Kurtosis	5.004821	2.470873	2.152323	8.427264	2.185481	2.828787	1.589869	32.53778
Jarque-Bera	38.48538	0.629755	5.852267	107.2078	5.933170	7.280326	9.601714	2159.258
Probability	0.000000	0.729878	0.053604	0.000000	0.051479	0.026248	0.008223	0.000000
Sum	99.07300	55.87395	844.5694	34.04967	1499.000	504.0000	36.00000	0.111979

Sum Sq.

Dev. 132.7633 6.674997 419.7931 7.270458 8494.755 777.2453 11.54717 4.163022

Observations 53 53 53 53 53 53 53

Source: E-views 10

The means and standard deviations of the study variables are displayed in the table above. The mean of the variable TobQ was 1.87, the mean ESG score was 1.05, the mean FS score was 15.94, the mean LEV was 0.64, the average of 28.28, the average BS was 9.51, the average AQ was 0.68, and the mean ROA was 0.002. The Table also shows two metrics for determining whether data are normally distributed: skewness, which assesses the symmetry of values around the mean, and kurtosis, which shows whether distributions have larger tails of outlier observations than typically anticipated. TobQ, ESG, FS, LEV, and BS are positively skewed, while AGE, AQ, and ROA are negatively skewed. The ESG, FS, and AGE variables had probability values of the Jarque-Bera statistic greater than .05 which suggests that they were approximately normally distributed.

Table 2. Correlation matrix of the model variables

	TOBQ	ESG	FS	LEV	AGE	BS	AQ	ROA
TOBQ	1							
ESG	-0.08149	1						
FS	-0.24806	0.32283	1					
LEV	0.684298	-0.35783	-0.45289	1				
AGE	-0.3672	-0.20033	-0.23123	0.062209	1			
BS	-0.02921	0.102791	0.770382	-0.19656	0.004031	1		
AQ	-0.3653	0.311456	0.502783	-0.4425	-0.0485	0.291972	1	
ROA	-0.35935	0.182204	0.380803	-0.74616	-0.1566	0.253005	0.006595	1

Source: E-views 10

The correlation matrices for these variables are presented in Table 2. Using the widely recommended cutoff value of 10, the VIF revealed that all results were far below that number. Our VIF scores range from 1.39 to 4.61, proving that multicollinearity was not a significant problem in this study. The correlation between ESG and Tobin's q is -0.081 and 0.133 (p < 0.05), respectively, while ESG is negatively correlated with two control variables: LEV(-0.358) and AGE(-0.200).

4.1. Test of Hypotheses

Table 3. Empirical results for Tobin's Q model

	Two-Stage Least Squares Result			Fixed Effects Model Result		
Variable	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
C	19.67794	4.684074	0.0000	19.67794	4.684074	0.0000
ESG	0.102675	0.520270	0.6061	0.102675	0.520270	0.6061
FS	-1.152472	-	0.0003		-	
		3.967417		-1.152472	3.967416	0.0003
LEV	1.068207	3.463296	0.0014	1.068207	3.463296	0.0014
AGE	0.005023	0.157637	0.8756	0.005023	0.157636	0.8756
BS	-0.056092	-	0.0925		-	
		1.728431		-0.056092	1.728431	0.0925
AQ	0.178769	0.535700	0.5955	0.178769	0.535700	0.5955
ROA	-1.510881	-	0.2394		-	
		1.196382		-1.510881	1.196382	0.2394
ESG*ROA	-1.715319	-	0.1884		-	
		1.340843		-1.715319	1.340843	0.1884
Effects Specification						

R-squared	0.979243	0.979243
Adjusted R-	0.970017	
squared		0.970017
S.E. of regression	0.276677	0.276677
F-statistic	106.1459	106.1459
Prob(F-statistic)	0.000000	0.000000
Instrument rank	17	
Durbin-Watson	1.399333	1.399333
stat		
Second-Stage SSR	2.755801	

Source: E-views 10

As shown in Table 3, the results indicate that the ESG dimension is not statistically significant at the 5 percent level in either model, thereby refuting hypothesis H₁. To further test the robustness of the empirical results, the fixed-effects model specification was used by incorporating the moderating variable and control variables into the same equation. The table above summarises the results for brevity, showing that the models had an Adjusted R-squared value of .979, indicating that the models explained approximately 97.9% of the variation in the dependent variable. The statistical significance of the model was assessed using the F statistic, which displayed a value of 106.15 and a p-value of .05. Consequently, the idea that all regression coefficients are zero is disproved. The study also employed the 2SLS approach; the study by Albitar et al. (2020) employed such a two-stage least squares approach. The first hypothesis reveals that our interest-related variable's t-statistic representing H₁ (ESG) is 0.52 with a prob. value = 0.6061 (p > .05), confirming that ESG has a positive but not statistically significant relationship with Tobin's Q; thus, the alternate hypothesis is rejected and null accepted. The results are discussed below. First, Nigeria, as an emerging economy, lags behind standardized reporting on ESG. The results are somewhat consistent with the study by Wong, Batten, Mohamed-Arshad, Nordin, and Adzis (2021) on a sample of Malaysian firms that finds evidence to support the positive relationship between ESG disclosure and Tobin's Q. Gerged, Beddewela, and Cowton (2021) found evidence to support the positive relationship between ESG and firm value proxied using Tobin's O. In Nigeria studies by Jeroh and Okoro (2016) analyzed how environmental and dismantling costs affect firm performance in Nigeria, and discovered that these costs have a favorable impact. Using a sample of the Oil and Gas sector over ten years, Nze et al. (2016) revealed a positive significant effect of CSR on earnings. Bassey et al. (2013) find that environmental costs significantly affect a firm's profitability. In H2, profitability is a negative moderator of the ESG disclosure permanency and firm value nexus. Although NGX has adopted various policies to promote companies' ESG disclosure, disclosure is still comparatively low compared to other developed countries. Guo et al. (2020) found a negative relationship between CSRD and firm value. Using data from China, Ruan and Liu (2021) find that corporate ESG activities have a significantly negative impact on firm value. Ekwe et al. (2017) using a case study of 2 firms in the Oil and Gas sector find that triple bottom line accounting has a negative but non-significant effect on EPS; and, a significant negative effect on ROA. In Iran, Alikhani and Maranjory (2013) find no significant relationship between the level of CSED and profitability (ROA, ROE, NPM, and EBITDA).

5. Conclusion

This study examined the relationship between ESG disclosure permanency and firm value of quoted industrial goods firms in Nigeria. ESG disclosure entails a description of corporate activities, especially as it impacts society and the environment. Although many companies are yet to comply with such disclosures and the literature on the subject is still scarce, this becomes the core point of the present study. The empirical results confirm the positive effect of ESG disclosure permanency on firm value, while profitability has a negative moderating effect on Tobin's Q. Therefore, this study makes the following policy suggestions for managers and shareholders.

1. Firms should inculcate ESG disclosure in their annual report for its long-run impact on firm value and embed it as one of the strategic long-term initiatives of the company to achieve sustainable

- growth. This supports the notion that in weakly regulated environments characteristic of developing nations, improved transparency and accountability from such disclosure would enhance stakeholder trust
- 2. Regulators and shareholders should ensure that corporate management adopts a culture of sustainability consciousness and disclosures. Regulators should provide incentives in line with signalling theory that can motivate firms to engage in green disclosures and practices, as it secures the environment for an unforeseen tomorrow.

References

- Abdi, Y., Li, X., & Càmara-Turull, X. (2022). Exploring the impact of sustainability (ESG) disclosure on firm value and financial performance (FP) in airline industry: the moderating role of size and age. *Environment, Development and Sustainability*, 24(4), 5052-5079.
- Ajayi, S., & Ovharhe, L. (2016). The effect of corporate social responsibility on the performance and growth of the oil & gas industry in Nigeria a case study of Nigeria LNG limited. *Available at SSRN 2745079*.
- Albitar, K., Hussainey, K., Kolade, N., & Gerged, A. M. (2020). ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms. *International Journal of Accounting & Information Management*.
- Alikhani, R., & Maranjory, M. (2013). An investigation on the relationship between social and environmental information disclosure level and firms performance in Iran. *International Research Journal of Applied and Basic Sciences*, 5(1), 125-128.
- Alnafea, F. S. (2014). Developing the Conceptual Framework of Sustainability Accounting Reporting: Field Study in Saudi Commercial Banking Sector. *Global Journal of Management And Business Research*, 14(D4), 9-39.
- Alsayegh, M. F., Abdul Rahman, R., & Homayoun, S. (2020). Corporate economic, environmental, and social sustainability performance transformation through ESG disclosure. *Sustainability*, 12(9), 3910.
- Asuquo, A. I., Dada, E., & Onyeogaziri, U. (2018). The effect of sustainability reporting on corporate performance of selected quoted brewery firms in Nigeria. *International Journal of Business & Law Research*, 6(3), 1-10.
- Azzone, G., Brophy, M., Noci, G., Welford, R., & Young, W. (1997). A stakeholders' view of environmental reporting. *Long range planning*, 30(5), 699-709.
- Bassey, B. E., Effiok, S. O., & Eton, O. E. (2013). The impact of environmental accounting and reporting on organizational performance of selected oil and gas companies in Niger Delta Region of Nigeria. *Research Journal of finance and accounting*, 4(3), 57-73.
- Bhatia, A., & Tuli, S. (2017). Corporate attributes affecting sustainability reporting: an Indian perspective. *International Journal of Law and Management*, 59(3), 322-340.
- Bofinger, Y., Heyden, K. J., & Rock, B. (2022). Corporate social responsibility and market efficiency: Evidence from ESG and misvaluation measures. *Journal of banking & finance*, 134, 106322.
- Buallay, A. (2019). Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector. *Management of Environmental Quality: An International Journal*, 30(1), 98-115.
- Chen, Z., & Xie, G. (2022). ESG disclosure and financial performance: Moderating role of ESG investors. *International Review of Financial Analysis*, 83, 102291.
- Cortez, M. A. A., & Cudia, C. P. (2011). Sustainability and firm performance: a case study of Japanese electronics companies. *Ritsumeikan international affairs*= *Ritsumeikan international affairs*, 10, 321-339.
- D'Amato, A., & Falivena, C. (2020). Corporate social responsibility and firm value: Do firm size and age matter? Empirical evidence from European listed companies. *Corporate Social Responsibility and Environmental Management*, 27(2), 909-924.
- Ebimobowei, A. (2011). A study of social accounting disclosures in the annual reports of Nigerian companies. *Asian Journal of Business Management*, 3(3), 145-151.
- Egbunike, A. P., & Okoro, G. E. (2018). Does green accounting matter to the profitability of firms? A canonical assessment. *Ekonomski horizonti*, 20(1), 17-26.

- Ekwe, M., Odogu, L., & Mebrim, A. (2017). Triple bottom line accounting pattern and profitability of firms (An empirical study of oil and gas companies in Nigeria). *International Journal for Research in Business, Management and Accounting*, 3(9), 44-56.
- Faris, C., Gilbert, B., LeBlanc, B., Ballou, B., & Heitger, D. L. (2013). Integrating the triple bottom line into an enterprise risk management program. Retrieved from https://www.sechistorical.org/collection/papers/2010/2013_0501_COSODemystifying.pdf
- Freeman, R. (1984). Strategic management: A stakeholder approach.
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & De Colle, S. (2010). Stakeholder theory: The state of the art.
- Gerged, A. M., Beddewela, E., & Cowton, C. J. (2021). Is corporate environmental disclosure associated with firm value? A multicountry study of Gulf Cooperation Council firms. *Business Strategy and the Environment*, 30(1), 185-203.
- Guo, Z., Hou, S., & Li, Q. (2020). Corporate social responsibility and firm value: the moderating effects of financial flexibility and R&D investment. *Sustainability*, 12(20), 8452.
- Haji, A. A. (2013). Corporate social responsibility disclosures over time: evidence from Malaysia. *Managerial auditing journal*, 28(7), 647-676.
- Halaby, C. N. (2004). Panel models in sociological research: Theory into practice. *Annu. Rev. Sociol.*, 30, 507-544.
- Hamzah, R. S., Gozali, E. O. D., Annisa, M. L., & Pratiwi, C. N. (2022). The Role of Corporate Social Responsibility on the Performance of Indonesian Banking Corporation. *International Journal of Financial, Accounting, and Management*, 4(3), 365-377.
- Harrison, J. S., & Freeman, R. E. (1999). Stakeholders, social responsibility, and performance: Empirical evidence and theoretical perspectives. *Academy of Management Journal*, 42(5), 479-485.
- Hillman, A. J., & Keim, G. D. (2001). Shareholder value, stakeholder management, and social issues: what's the bottom line? *Strategic management journal*, 22(2), 125-139.
- Husna, A., & Satria, I. (2019). Effects of return on asset, debt to asset ratio, current ratio, firm size, and dividend payout ratio on firm value. *International Journal of Economics and Financial Issues*, 9(5), 50-54.
- Ifurueze, M., Lydon, M., & Bingilar, P. (2013). The impact of environmental cost on corporate performance: A study of oil companies in Niger Delta States of Nigeria. *Journal of Business and Management*, 2(2), 1-10.
- Ijeoma, N. B. (2015). Evaluation of companies environmental practices in Nigeria. *Social and Basic Sciences Research Review*, 3(7), 349-364.
- Innocent, O. C., Okafor, T., & Egolum, P. (2014). An assessment of environmental information disclosure practices of selected Nigerian manufacturing companies. *International Journal of Finance and Accounting*, 3(6), 349-355.
- Jadiyappa, N., Iyer, S. R., & Jyothi, P. (2021). Does social responsibility improve firm value? Evidence from mandatory corporate social responsibility regulations in India. *International Review of Finance*, 21(2), 653-660.
- Jeroh, E., & Okoro, G. (2016). Effect of environmental and dismantling costs on firm performance among selected oil and gas companies in Nigeria. *Sahel Analyst: Journal of Management Sciences*, 14(5), 14-26.
- Jiraporn, P., Jiraporn, N., Boeprasert, A., & Chang, K. (2014). Does corporate social responsibility (CSR) improve credit ratings? Evidence from geographic identification. *Financial Management*, 43(3), 505-531.
- Jo, H., & Harjoto, M. A. (2012). The causal effect of corporate governance on corporate social responsibility. *Journal of Business Ethics*, 106, 53-72.
- Kim, B., & Lee, S. (2020). The impact of material and immaterial sustainability on firm performance: The moderating role of franchising strategy. *Tourism management*, 77, 103999.
- Laplume, A. O., Sonpar, K., & Litz, R. A. (2008). Stakeholder theory: Reviewing a theory that moves us. *Journal of management*, 34(6), 1152-1189.
- Lee, D. D., & Faff, R. W. (2009). Corporate sustainability performance and idiosyncratic risk: A global perspective. *Financial review*, 44(2), 213-237.

- Lee, J., Pati, N., & Roh, J. J. (2011). Relationship between corporate sustainability performance and tangible business performance: evidence from oil and gas industry. *International Journal of Business Insights and Transformation*, 3(3), 72-82.
- Lee, M.-j. (2002). Panel data econometrics: methods-of-moments and limited dependent variables. (*No Title*).
- Li, Y., Gong, M., Zhang, X.-Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *The British accounting review*, 50(1), 60-75.
- Little, A. D. (2003). The business case for Corporate Responsibility. Business in the Community.
- Mohammad, W. M. W., & Wasiuzzaman, S. (2021). Environmental, Social and Governance (ESG) disclosure, competitive advantage and performance of firms in Malaysia. *Cleaner Environmental Systems*, 2, 100015.
- Nnamani, J., Onyekwelu, U., & Ugwu, O. (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector. *European Journal of Business and Innovation Research*, 5(1), 1-15.
- Noor, S., Saeed, A., Baloch, M. S., & Awais, M. (2020). CSR permanency, family ownership, and firm value: Evidence from emerging economies. *Corporate Social Responsibility and Environmental Management*, 27(5), 2135-2149.
- Nze, D. O., Okoh, J., & Ojeogwu, I. C. (2016). Effect of Corporate Social Responsibility on earnings of quoted firms in Nigeria. *ESUT Journal of Accountancy*, 1, 260-267.
- Ogbodo, O. C. (2015). The Imperatives of Sustainability Management Accounting System (SMAS) For Developing Country: The case of Nigeria. 2(7B), 779-785.
- Okoye, P., & Asika, E. R. (2013). An appraisal of sustainability environmental accounting in enhancing corporate productivity and economic performance. *International Journal of Advanced Research*, 1(8), 685-693.
- Oluwagbemiga, E. O. (2014). The use of voluntary disclosure in determining the quality of financial statements: evidence from the Nigeria listed companies. *Serbian Journal of Management*, 9(2), 263-280.
- Ong, T., & Djajadikerta, H. G. (2017). *Impact of corporate governance on sustainability reporting: Empirical study in the Australian resources industry*. Paper presented at the 8th Conference on Financial Markets and Corporate Governance (FMCG).
- Onyekwelu, U., & Ekwe, M. (2014). Does corporate social responsibility predicate good financial performance. *ESUT Journal of Management Sciences*, 8(1), 1-10.
- Orlitzky, M., Louche, C., Gond, J.-P., & Chapple, W. (2017). Unpacking the drivers of corporate social performance: A multilevel, multistakeholder, and multimethod analysis. *Journal of Business Ethics*, 144, 21-40.
- Peloza, J., & Shang, J. (2011). How can corporate social responsibility activities create value for stakeholders? A systematic review. *Journal of the Academy of Marketing Science*, 39, 117-135.
- Perrini, F., & Tencati, A. (2006). Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment*, 15(5), 296-308.
- Post, J. E., Preston, L. E., & Sachs, S. (2002). Managing the extended enterprise: The new stakeholder view. *California management review*, 45(1), 6-28.
- Qureshi, M. A., Kirkerud, S., Theresa, K., & Ahsan, T. (2020). The impact of sustainability (environmental, social, and governance) disclosure and board diversity on firm value: The moderating role of industry sensitivity. *Business Strategy and the Environment*, 29(3), 1199-1214.
- Renneboog, L., Ter Horst, J., & Zhang, C. (2008a). The price of ethics and stakeholder governance: The performance of socially responsible mutual funds. *Journal of Corporate Finance*, 14(3), 302-322.
- Renneboog, L., Ter Horst, J., & Zhang, C. (2008b). Socially responsible investments: Institutional aspects, performance, and investor behavior. *Journal of banking & finance*, 32(9), 1723-1742.
- Rizk, R., Dixon, R., & Woodhead, A. (2008). Corporate social and environmental reporting: a survey of disclosure practices in Egypt. *Social responsibility journal*, 4(3), 306-323.

- Ruan, L., & Liu, H. (2021). Environmental, social, governance activities and firm performance: Evidence from China. *Sustainability*, 13(2), 767.
- Samosir, D. K. B. M., Murwaningsari, E., Augustine, Y., & Mayangsari, S. (2020). The benefit of green building for cost efficiency. *International Journal of Financial, Accounting, and Management*, 1(4), 209-219.
- Schaltegger, S., & Burritt, R. L. (2010). Sustainability accounting for companies: Catchphrase or decision support for business leaders? *Journal of World Business*, 45(4), 375-384.
- Seneviratne, S. C., & Kalpani, G. (2020). Environmental management accounting and waste management practices: A case of a manufacturing company. *Annals of Management and Organization Research (AMOR)*, 2(2), 97-112.
- Servaes, H., & Tamayo, A. (2013). The impact of corporate social responsibility on firm value: The role of customer awareness. *Management science*, 59(5), 1045-1061.
- Tukur, S., Shehu, J., Mammadi, A., & Sulaiman, U. A. (2019). An assessment of corporate social responsibility of property developers in Bauchi Metropolis, Nigeria. *International Journal of Financial, Accounting, and Management*, 1(2), 119-129.
- Udeh, F., & Ezejiofor, R. (2018). Effect of sustainability cost accounting on financial performance of telecommunication firms. *Journal for Studies in Management and Planning Nigeria*, 4(6), 223-250
- Vallesi, M., D'Andrea, A., & Eswarlal, V. K. (2012). Evaluation of sustainable accounting practices in the Italian bioenergy sector. Retrieved from
- Wong, W. C., Batten, J. A., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value? *Finance Research Letters*, 39, 101593.
- Yu, E. P. y., Guo, C. Q., & Luu, B. V. (2018). Environmental, social and governance transparency and firm value. *Business Strategy and the Environment*, 27(7), 987-1004.
- Zulaecha, H. E., & Murtanto, M. (2019). Foreign ownership and sustainability performance in Indonesia. *International Journal of Financial, Accounting, and Management*, 1(1), 1-15.