

## ASSESSING FINANCIAL DETERMINANTS OF ENVIRONMENTAL REPORTING IN REGIONAL INDUSTRIAL GOODS FIRMS

*Amaka Joy Okoro and Ememobong Samuel Effiong*

Department of Accounting, University of Africa, Toru-Orfa (UAT), Bayelsa State, Nigeria

### **Abstract:**

*The increasing concerns regarding the negative impacts of corporate activities and the demand for thorough environmental disclosure have led to heightened environmental awareness and responsiveness among firms to meet stakeholder expectations. This study investigates the influence of firm size, liquidity, and earnings on the environmental disclosures of listed industrial goods firms in the Nigeria Exchange Group. The study employed a quasi-experimental research design, initially examining all 14 listed firms via a census sampling technique, but ultimately concentrated on 11 firms that provided complete data throughout the observed period. The Ordinary Least Squares (OLS) method was utilised for data analysis. The findings demonstrate that firm size positively and significantly affects environmental disclosure, whereas firm liquidity and earnings do not exhibit a positive or significant effect. The research indicates that the size of a firm significantly influences the level of environmental disclosure. It is advisable for firms with significant net worth to maintain transparency regarding their environmental performance, both in their reports and through concrete actions, to preserve their legitimacy among stakeholders. Larger firms are urged to sustain their favourable environmental performance by implementing innovative and sustainable practices across their production and value chain processes.*

**Keywords:** Firm Size, firm liquidity, firm earnings, environmental disclosure

### **1. Introduction**

In today's world, environmental issues have become increasingly prominent, driving public and institutional pressures on corporations to be more transparent and accountable for their environmental impacts. One key aspect of this transparency is corporate environmental disclosure (CED), where companies voluntarily or regulatorily report on their environmental performance, strategies, and risks. Understanding the factors influencing the extent and quality of CED is crucial in promoting sustainable practices as humans and environment are inextricably linked. Ignoring the environment is like ignoring the air we breathe. It is essential to our very survival. While modern technology offers solutions for environmental monitoring and sustainable practices, its continued expansion also raises concerns about resource depletion and waste generation, demanding a holistic approach to mitigate

its impact. Effective environmental mitigation can only be achieved through the active collaboration and co-operation of three key stakeholders: consumers, government and investors (Ullah et al, 2014).

In this context, consumers are becoming more environmentally conscious and are increasingly demanding products and services from companies that demonstrate responsible environmental practices. In many countries, there are now regulations that require companies to report on their environmental performance as the Government

worldwide are implementing strict environmental regulations often mandating CED for specific industries or all publicly traded companies. In the same vein, investors are becoming more aware of the risks associated with climate change and other environmental issues.

Some renowned global environmental disaster can be traced to Exxon Valdez disaster (1989), Union Carbide India Limited (UCIL) pesticide plant gas leak (1984), and Deepwater Horizon oil spill (2010) which are only a few instances of environmental tragedies (Okpala, 2019). According to Egbunike and Tarilaye (2017), the adverse effect that firms' activities have on their environment has spurred stakeholders' demands for corporate entities to be environmentally and socially inclined. This has also led to the establishment of several international organizations such as the Global Sustainability Standards Board (GSSB) responsible for developing Global Reporting Initiative (GRI) standards, and the International Integrated Reporting Council (IIRC) in 2010, both aimed at promoting environmental sustainability. Currently, we have the International Sustainability Standard Board (ISSB) who had issued its first two IFRS Sustainability Disclosure Standards in June 2023: IFRS S1 and S2, in a bid to advance the general requirements for disclosure of sustainability-related financial information and climate-related disclosures.

While existing research has identified various factors influencing disclosure practices, the combined influence of three key financial indicators: firm size, liquidity, and earnings on CED has not been comprehensively explored. Understanding how these financial features interact and affect disclosure decisions is essential for a more nuanced picture of corporate environmental transparency.

Several studies have investigated the impact of firm attributes on CED. Studies including Omoye and Wilson-Oshilim (2018), Baalouch et al. (2019), Ekpulu and Iyoha (2023), and Orajekwe and Ogbodo (2023) have revealed mixed results regarding the impact of firm size, liquidity, and earnings on CED. These studies employed various methodologies, including Ordinary Least Squares and Hurdle regression. While there is considerable research on the relationship between corporate environmental disclosure (CED) and various firm attributes, few studies have specifically examined the connection or influence of these attributes on environmental disclosure within Nigeria's industrial goods sector. The majority of the studies examined concentrated on the oil and gas sector as well as industrial goods, specifically targeting environmentally sensitive industries. Some concentrated on industries that are not sensitive to environmental factors, while others adopted a combination of both approaches.

This researcher aims to explore these complexities and shed light on the specific impact or influence of firm size, liquidity, and earnings on the quality of CED within the context of selected Nigerian listed firms in the industrial goods sector.

## **2.1 Conceptual Review**

### **2.1.0 Corporate Environmental Disclosure**

When firms engage in environmental disclosure, they strive to justify their activities through transparency, enabling interested parties to evaluate the company's value, future prospects, opportunities, and risks, among other factors. Companies may show investors, for instance, that their operations and environmental procedures do not negatively impact the environment through disclosure (Lu & Abeysekera, 2017).

The Global Reporting Initiative (GRI, 2013) has put forward a well-known conceptual clarification of environmental disclosure, as the provision of information by an organisation about its environmental impacts, its dependence on the environment, and its environmental management activities. Similar to an environmental reporting, is sustainability reporting which is released by a firm or organisation with the intent of disclosing the economic, environmental, and social implications or effects of their routine or everyday activity (GRI, 2011).

### **2.1.1 Firm Financial Factors**

Firm financial factors which are synonymous to firm attributes, simply refer to measurable characteristics of the company that might affect its environmental reporting practices. In other words, firm attributes are those peculiar characteristics that firms possess that give them some advantages over their competitors. Some of these attributes are major determinants of the firm's success in business and its financial performance. Notably, how effective these attributes are in influencing more excellent disclosure practices in Nigeria poses the need for further examination. These attributes include but not limited to those explained below;

#### **Firm Size**

Firm size is quantified through market capitalisation, total assets, or the number of employees. Larger firms typically experience heightened scrutiny from stakeholders, resulting in increased pressure to disclose environmental information. Additionally, they often allocate more resources to environmental initiatives and reporting. To maintain a “responsible corporate citizen,” protect their reputation, and legitimise their operations, firms may choose to disclose their environmental performance. By publishing their environmental performance, more large firms may demonstrate their commitment to environmental sensitivity. Due to concerns regarding reputation loss and associated costs, larger firms tend to prioritise their corporate environmental reputation more significantly.

#### **Firm Liquidity**

The capacity of a company to meet its short-term obligations is referred to as liquidity. Another meaning is a person's or a company's capacity to meet commitments or debts that must be paid quickly with current assets. (Ruhana & Hidayah, 2019; Menike, 2020). A company with sufficient liquidity will be able to cover its liabilities on time, allowing it to retain solid relationships with loyal customers and vendors, as well as grow sales, resulting in better short and long-term business performance. (Menike, 2020). Liquidity is measured by current ratio, quick ratio, or cash-to-assets ratio. Firms with higher liquidity might be more likely to invest in environmental initiatives and disclose related information to demonstrate responsible resource allocation.

#### **Firm Earnings**

Firm earnings refer to the profitability of the company, measured as the net income remaining after all the expenses and taxes are deducted from its revenue over a specific period, typically a quarter or a year (Brigham & Ehrhardt, 2020). In simpler terms, it can be seen as the financial surplus the company has generated during that period. The performance of firms illustrates the extent to which their stated objectives can produce desired outcomes from daily operations. Customer satisfaction, staff happiness, revenue creation, productivity, and gross profit indices are examples of typical measures employed by businesses (Ogoun & Ekpulu, 2020). Firm profitability is assessed using metrics such as return on assets (ROA), return on equity (ROE), and net income, among others. Profitable firms might have greater financial flexibility to implement environmental programs and disclose information to maintain a positive public image and attract environmentally conscious investors.

## **2.2 Theoretical Review**

The legitimate and stakeholder theories were used as the theoretical framework for this study to investigate the influence of specific firm attributes on environmental disclosure practices of sensitive industries in Nigeria.

### **Legitimacy and Stakeholder Theory**

Organisational legitimacy is the foundation of legitimacy theory. It permits an organisation to conduct its activities in accordance with societal interests. As a result, firms endeavour to align with the norms and objectives of their respective communities. The company's reputation is jeopardised when a disparity exists between two value

systems. The legitimacy theory posits that firms can only thrive by adhering to society norms and ideals. Greiling and Grüb (2014) assert that organisations must assume accountability for their actions.

The stakeholder theory is seen as a coherent framework for corporate environmental accounting (Depoers et al., 2016). It involves recognising and discerning the connection between the company's activities and their impact on its stakeholders. The stakeholder theory approach considers the firm's environment, which includes consumers, suppliers, employees, and other social groups. Due to this relationship, the corporation requires the support of its stakeholders in order to thrive. If the corporation views the stakeholders as vital, the relationship must be handled. Disseminating information via voluntary social and environmental disclosures to secure the endorsement and approval of stakeholders is one approach to maintaining this relationship. This theory states that a corporate entity would continue to exist because stakeholders' support is not jettisoned (Gray et al., 1995).

### **2.3 Empirical Review**

#### **Firm Size and Corporate Environmental Disclosure**

Researchers have studied the influence of corporate size on environmental disclosure for decades. There exists a significant correlation between corporate size and the extent of environmental disclosure in both developing and developed countries (Hossain et al., 2006). The association between firm size and corporate environmental disclosure (CED) has been extensively examined in the fields of accounting and sustainability research. This review seeks to analyse empirical evidence related to this association, highlighting key findings and identifying areas for further investigation.

Welbeck et al. (2017) examined the factors influencing environmental disclosures among firms in Ghana. This study conducted a content analysis of the corporate annual reports of 17 firms listed on the Ghana Stock Exchange (GSE) over a 10-year period (2003–2012), utilising the Global Reporting Initiative (GRI) index as a benchmark to assess the overall environmental disclosure scores of the selected firms. A regression analysis was conducted to identify the factors influencing firms' environmental disclosure practices. The study's findings indicate that listed firms in Ghana disclose certain environmentally-related information as recommended by GRI. The level of disclosure remains insufficient. Consistent with other studies, environmentally sensitive firms exhibited a higher degree of disclosure compared to less sensitive firms. The research indicated that firm size is a significant predictor of firms' environmental disclosure practices. The study by Adriana and Dewi (2018), Shuaibu (2020), Onyali and Okafor (2018), Egbunike and Tarilaye (2017) shows that firm size influence environmental disclosure practices. Also, study by Godspower and Paymaster (2023) and Ekpulu and Iyoha (2023) using a hurdle regression technique further confirms firm size as good determinant of environmental disclosure practices.

However, contrary finding was observed in the study of Nurudeen et al. (2021) whose study examines how business size affects environmental reporting of publicly listed Nigerian firms from 2012 to 2016. All Nigeria Exchange-listed companies were investigated. Cross-sectional research was employed in this study. The study focused on 82 of the 176 Nigeria Exchange-listed businesses. The 2012–2016 research included five years. From the Binary Logistic Regression study, firms sizes have a negative coefficient of -0.059173 and a p-value of 0.0574. Despite the 5% statistical significance, these data imply a negative link between ENVD and SIZE. This analysis supports rejecting the null hypothesis that publicly listed firms' environmental openness is unrelated to their size. The finding implies that company size affects environmental data transmission. In Nigeria, firm size increases its tendency to give environmental information. These results suggest smaller enterprises are less likely to disclose environmental information.



**Firm Liquidity and Corporate Environmental Disclosure**

Companies with a high degree of liquidity are thought to manage their operations, resulting in a low-risk level. A corporation with a high liquidity level, exemplifies its ability to meet its current obligations on time. This demonstrates a trustworthy company's ability to project a favourable and solid image. This good image encourages stakeholders to be on the side of the firm constantly or to support it. Though some studies have revealed a connection between company liquidity and sustainability reporting, others have found the opposite. According to Menike (2020), some academics have found favourable correlations between company liquidity and its profitability (Kihamba, 2017; Muhammad et al., 2015).

Ruhana and Hidayah (2019) examine the effect of liquidity, amongst other variables toward sustainability report disclosures. Findings reveals that firm liquidity, board of directors, firm size, and audit committee affect sustainability report disclosure in their empirical analysis of ISRA Award Participants from 2012 to 2017. This study includes 2012–2017 Indonesia Sustainability Reporting Award participant companies. This research found that company liquidity aids sustainability report disclosure. This illustrates that public sustainability information increases with a company's liquidity.

On the contrary, Kiswanto et al. (2020) examines at what the board of commissioners does to keep the effect of profitability, liquidity, and debt on sustainability report disclosure of non-financial companies listed on the Indonesia Stock Exchange (IDX). The results of this study show that liquidity doesn't seem to have any effect on the disclosure of sustainability reports. Similar finding was identified in the study of Orajekwe and Ogbodo (2023) who examined how firm-specific variables affect environmental disclosure policies in sub-Saharan African energy corporations using secondary data from Nigerian, South African, and Kenyan energy business annual reports. The study findings shows that firm liquidity did not substantially influence EDI.

**Firm Earnings and Corporate Environmental Disclosure**

The legitimacy theory, according to Deegan (2002), assumes corporations are bound by an unwritten social compact in the society in which they operate. If they don't follow the rules of legitimacy, their performances and survival will be jeopardised. Consequently, profitable firms can be expected to reveal more voluntary social and environmental information than those that are less profitable. Furthermore, entity performance is likely to be a key factor of environmental disclosure. Interestingly, environmental reporting and actual environmental performance continue to be inconsistent, leaving the issues opened for further research. Others found a link between environmental reporting and actual outcomes that was positive (Nazari et al., 2017). In the wake of this, more research has been done into environmental transparency and how it affects a company's operational efficiency. It is believed that businesses would be able to improve their performance by attracting more competent workers, gaining more genuine community acceptability, expanding their client base, and attracting more investors if they openly disclose information about environmental sustainability. (Ogoun & Ekpulu, 2020).

Egolum et al. (2019) examine the influence of corporate characteristics on the environmental performance of firms within the industrial goods sector of Nigerian listed companies, spanning the years 2008 to 2017. The hypothesis was examined through the application of the Pearson correlation coefficient and multiple regression analysis as inferential statistical methods. The research results indicated that business profitability, alongside other variables such as firm size and age, exerts a significant positive influence on environmental performance, as assessed through waste management costs, at a 5% level of significance. Innocent and Gloria (2018) observed a comparable outcome in their research regarding the influence of corporate firm characteristics on the environmental performance of Nigerian listed industrial products manufacturers.

Also, the research conducted by Ekpulu and Iyoha (2023) investigated the relationship between corporate qualities and environmental reporting disclosures. The research uses an ex post facto survey design. In 2020, the Nigerian Exchange Group (NGX) has a total of 110 non-financial firms listed on its company. There was a division between ESI and non-ESI firms. Oil and gas, as well as industrial goods businesses, are classified as ESI firms, whilst non-ESI firms refer to other nonfinancial corporations that were listed on the NGX between 2011 and 2020. The research purposefully selects a sample of 23 ESI and 23 non-ESI companies. From the hurdle regression employed, the results of the research shows that profitability/earnings of a firm have a major role in determining both the choice to disclose and the extent of such disclosure. Similar findings were observed in Moshud (2020); Ogoun and Ekpulu (2020); Orajekwe and Ogbodo (2023).

Conversely, Umoren et al. (2016) examined the determinants of corporate social responsibility (CSR) disclosure procedures across businesses listed on the NGX. A checklist of 20 criteria was developed to collect social and environmental data from 45 enterprises across eight industries listed on the Nigerian Exchange Group during a two-year period (2013 to 2014), use their annual reports. The choice to provide information was impacted by the company's size, profitability, and the auditor's function. The findings suggest that, although other variable could influence CSR but profitability could not. Similar findings were also observed in the study of Yousra (2017), Akbaş (2014).

### 3. Methodology

This quasi-experimental research examined how firm factors influence environmental disclosure. This study purposely covers all industrial goods companies since their operations are environmentally sensitive. The study's population includes fourteen industrial goods businesses listed on the Nigerian Exchange Group (NXG) from 2011 to 2022.

The final sample consisted of eleven firms with current data for the relevant time using census sampling. The researcher obtained 132 balanced distribution observations ( $i=11$ ;  $t=12$ ) using this approach. Previous studies have used secondary quantitative data to measure corporate environmental disclosure. This data came from 2011–2022 published annual accounts and reports of selected companies. EViews version 10 was used for descriptive and inferential statistics, including ordinary least square (OLS) regression analysis.

The econometric form of the study model is as follows:

$EVD = \alpha + \beta_1 FIS_{it} + \beta_2 FLIQ_{it} + \beta_3 FIE_{it} + E_{it}$  Where; EVD = Environmental Disclosure, FIS = Firm Size, FLIQ = Firm Liquidity, FIE = Firm Earnings, E = Error Term,  $\alpha$  = Intercept (Constant),  $\beta_1 - \beta_3$  = Coefficients of the independent Variables,  $i$  = Firm (1-11),  $t$  = time (1-12 years). Corporate Environmental Disclosure is represented by an index score (either in ratio or integer form) derived from the GRI benchmark. Firm size is quantified as the natural logarithm of total assets. Firm liquidity is assessed by the ratio of current assets to current liabilities. Firm earnings are quantified as the ratio of profit after tax to total assets. Managerial ownership, as a control variable, refers to the quantity of shares held by management inside the firm.

### 4. Results and Discussion

#### Descriptive Statistics

Table 1

	<b>EVD</b>	<b>FIS</b>	<b>FLIQ</b>	<b>FIE</b>	<b>MANOWN</b>
Mean	0.194851	16.17783	0.983238	0.083701	26.64478
Median	0.117647	15.14148	1.565265	0.080537	18.11125
Maximum	0.882353	21.68478	18.72993	1.088969	98.24004

Minimum	0.000000	12.01893	-116.8573	-1.799173	0.026169
Std. Dev.	0.262769	2.530768	10.69197	0.225774	27.72954
Jarque-Bera	65.27256	14.62296	69568.61	8305.169	16.56589
Probability	0.000000	0.000668	0.000000	0.000000	0.000253
Observations	132	132	132	132	132

Source: Researcher's compilation (2024) from EViews 10.0

The descriptive statistics for the variables as presented in the above shows that the Mean for environmental disclosure (EVD) is 0.194851 with a standard deviation of 0.262769. This indicates that on average, looking at both the maximum (0.882353) and minimum (0.000000) scores, firms in the industrial goods sector shows poor adoption of the GRI environmental indices. The Mean for firm size of the sampled firms as seen FIS (16.17783) with a standard deviation of 2.2530768 depicts that on average, firms in the industrial goods sector have a firm size of 16.17783 with a maximum and minimum of 21.68478; 12.01893 respectively. Firm liquidity (FIL) shows a mean value of 0.496339 with a standard deviation of 0.321150. The maximum and minimum values are 2.229656 and 0.031533 respectively. This shows that on average, firms in the industrial goods sector are not that liquid to meets its short term environmental and other obligations. For firm earnings (FIE), the Mean and standard deviation value are 0.083701; 0.225774, with both maximum and minimum values of 1.088969; -1.799173. For the control variable, Managerial ownership (MANOWN), the Mean value and standard deviation are 26.64478 and 27.72954. while the maximum and minimum values are 98.24004 and 0.026169 respectively.

When looking at economic models, it is well known that departures from normalcy can lead to claims that are very far off. Because of this, every regression study needs a normality test based on (visible) regression residuals. Therefore, for the normality test, the Probability value of the Jarque-Bera results ( $P < 0.05$ ) shows that there is no normal distribution of the residuals of a balanced panel with 132 observations.

### Regression Results and Post-estimation Test

Tabel 2

VARIABLES				
EVD (Dep. Var.)				
Independent Var.	FIS	FLIQ	FIE	MANOWN
Coeff.	0.057657	-0.002833	0.111082	-0.000790
Prob.	0.0000	0.1140	0.2168	0.2715
Std. Error	0.007810	0.001780	0.089498	0.000715
t-Stat.	7.382277	-1.591248	1.241161	-1.104504
R-squared	0.334058			
F-statistic	15.92684			
Prob(F-statistic)	0.000000			
	<b>Post-estimation Test</b>			
	<b>VIF</b>			
Multicollinearity	1.06	1.15	1.11	1.07

	Mean VIF	1.10
	<b>Likelihood ratio P. Value</b>	
Heteroscedasticity (Panel <b>Period</b> LR Test)	0.9803	

Source: Researcher's compilation (2024) from EViews 10.0

The results above are a test for the significant influence of the specific attributes of industrial goods firm on environmental disclosure in Nigeria. The result shows that firm size (FIS) has a positive coefficient with a significant probability value (0.057657,  $p = 0.0000$ ). However, firm liquidity (FLIQ) shows a negative coefficient with an insignificant P-value (-0.002833,  $p = 0.1140$ ). Firm earnings (FIE) display a positive and insignificant P-value (0.111082,  $p = 0.2168$ ). Displaying a different result is the managerial ownership (MANOWN) which is employed as a control variable. MANOWN shows a negative coefficient with an insignificant P-value ( - 0.000790, 0.2715).

In order to determine the total influence of the explanatory variables on the explained variable, we found that the explanatory variable can explain only a small percentage of its variation or deviation. The coefficient of determination, R-squared, demonstrates that the independent variables explain only 0.331629 (33%) of the dependent variable's variation. The descriptive statistics demonstrate that the Mean of the dependent variable averages 0.19 (19%) from 0.88 (88%), predicting this. This implies that the Stochastic error term contains additional unobserved factors that must be studied. However, the model is significant since Prob(F-statistic) is below 5% ( $P = 0.000000$ ).

We performed post-estimation residual diagnostic tests to meet OLS regression criteria. The Jarque-Bera result in descriptive statistics indicates the Normality test is the first step. These results show a normal residual distribution. The Variance Inflation Factor (VIF) was used to analyse independent variable multicollinearity. Correlation between explanatory factors may invalidate multivariate regression findings. An important variable seems insignificant due to multicollinearity. According to the decision rule, if the VIF of any explanatory variable is below ten, there is no association with any other independent variable. A variable with a  $VIF > 10$  suggests a relationship with another independent variable and should be removed. Concerns arise with VIFs beyond 10. Since the VIF and Mean VIF are below ten, the explanatory variables are not associated.

Heteroscedasticity was determined using the Panel Period LR Test. The decision criteria requires heteroskedasticity to be absent when the LR probability reaches 5%. Heteroskedasticity arises when the variance of the unobserved error varies with the independent variable, reducing OLS BLUE efficiency and consistency. The null hypothesis rejects heteroskedasticity. The Likelihood Ratio (LR) likelihood of 0.9803, above 5%, strongly suggests homoscedasticity.

## Discussion of Results

### Firm Size and Environmental Disclosure

From the result presented above, it is obvious that firm size shows a positive and significant influence on firm's environmental disclosure practice in Nigeria. Knowing fully well that big firms are more exposed to public scrutiny, visible to the government and external stakeholders, the probability of maintaining legitimacy and reputation protection will be very high. Also, the drive of being a responsible corporate citizen shows that big firms in the industrial goods sector would always want to be environmentally sensitive and responsible by disclosing the extent of their environmental performances.



The empirical result is a testament that by publishing their environmental performance, more large firms may demonstrate their commitment to environmental sensitivity. Given the fear of loss of reputation coupled with the associated cost, more prominent firms are more likely to pay more excellent concern towards their corporate environmental reputation. The result being positive and significant entails that a unit increase in firm size will lead to about 0.05 (5%) increase in environmental disclosure practices. The finding from this study is in tandem with the study of Welbeck et al. (2017), Adriana and Dewi (2018), Shuaibu (2020), Onyali and Okafor (2018), Egbunike and Tarilaye (2017), Ekpulu and Iyoha (2023), and Godspower and Paymaster (2023). However, this study finding contradicts that of Nurudeen et al. (2021) who studied the entire firms listed on the NGX but with a sample size of 82 firms. Based on our findings, we reject the null hypothesis that **H01**: Firm size does not influence corporate environmental disclosure of listed Industrial Goods firm in Nigeria.

### **Firm Liquidity and Environmental Disclosure**

Firm liquidity shows a negative coefficient with an insignificant P-value, indicating a negative and insignificant influence between firm liquidity and corporate environmental disclosure of Industrial

Goods firm in Nigeria. The result reveals that as firm liquidity increases, there will be an insignificant decrease in environmental disclosure by Industrial Goods firm. This contradicts the views that a significant degree of liquidity signifies the strength of a company's financial wellbeing and the presence of enough cash to provide sustainability report data. Also, the claim that companies with sound financial position will want to inform investors about any environmental concerns they have, cannot be substantiated for firms within the Industrial goods sector in Nigeria as a result of the above empirical evidence.

It is evident that the amount of cash, cash equivalent and readily convertible assets to cash to meet short term obligation, either environmental or operational obligations cannot influence the extent of environmental disclosure. This could mean that firms in the industrial goods sector have less liquid assets meet environmental obligations as they arise or deemed necessary. This could be why liquidity could not influence environmental disclosure. Our findings aligned with that of Orajekwe and Ogbodo (2023), Kiswanto et al. (2020) but contradict that of Ruhana and Hidayah (2019). Based on our findings, we accept the null hypothesis that **H02**: Firm liquidity does not influence corporate environmental disclosure of listed Industrial Goods firm in Nigeria.

### **Firm Earnings and Environmental Disclosure**

Similar to firm liquidity, firm earnings display a positive but insignificant outcome. It indicates that as firm profits or earnings increase, there is an insignificant disclosure of environmental issues by industrial goods firm. From the legitimacy theory standpoint, according to Deegan (2002), it is assumed that corporations are bound by an unwritten social compact in the society in which they operate. If they don't follow the rules of legitimacy, their performances and survival will be jeopardised. Consequently, profitable firms can be expected to reveal more voluntary social and environmental information than those that are less profitable. Our data and consequently the empirical outcome, shows that there is poor return on assets of industrial goods firm which might have affected the extent of the disclosure of their environmental engagements. This corroborates the claim that profitable businesses reveal more information than companies with lesser profits.

From the investors or shareholders perspective, firms strive to make sure that investors and shareholders have confidence in their operations and financials, as a result, they engage in less expenditure or cost approach so as to report better earnings. This possibly may have affected their environmental cost and less disclosure practice, hence the insignificant influence observed from our study outcome as regards the industrial goods sector.

In consonance with our findings are the study by Yousra (2017), Akbaş (2014), Umoren et al. (2016). Nevertheless, our findings contradict that of Orajekwe and Ogbodo (2023), Egolum et al. (2019), Innocent and

Copyright: © 2025 Continental Publication

Gloria (2018), Moshud (2020). Evident from our findings, we accept the null hypothesis that **H03**: Firm earnings does not influence corporate environmental disclosure of listed Industrial Goods firm in Nigeria.

### **Managerial Ownership and Environmental Disclosure**

Managerial ownership, being a control variable employed in this study shows a negative coefficient with an insignificant P-value. This means that as managerial ownership increases, environmental disclosure decreases and as such there is no significant influence to drive environmental sustainability. This could be that, because of the divergent or unaligned interest that could still exist between the managers and the shareholders, managers may not be willing to incur some environmental sustainability cost that they think will have effects on the firm financial performance despite possessing some units of interest in the overall shareholdings of the firm.

## **5. Conclusion and Recommendations**

### **Conclusion**

From the study findings, on the aspect of firm size, this study concludes that firm size is a good determinant in influencing the extent of firms' environmental disclosure. As the total assets of the firm increases periodically, the firms in the industrial goods sector participate and disclose their environmental information so as to maintain their legitimacy and protect their reputation. For firm liquidity, the study concludes that firm liquidity is not a good determinant in influencing corporate environmental disclosure of industrial goods firm in Nigeria which could be as a result of poor liquidity to meet up short term environmental obligations. In a similar vein, and according to the findings, the study concludes that the earnings of firms in the industrial goods sector is not a good predictor of a firm's extent of environmental disclosure. The outcome of the result could possibly be that part of firms' earnings are not geared towards environmental sustainability. Finally, the study concludes that the equity owned by management does not influence better environmental policy drive. The findings reveal that managerial ownership could not significantly influence the depth of environmental disclosure. This could be that managers are up to the game of safeguarding their funds at the expense of safeguarding the environment.

### **Recommendations**

Based on the findings, the study recommends that industrial goods firm with sound financial performance and attractive net worth should maintain its transparency in their environmental performance not only in the books but also in verifiable evidence to maintain their legitimacy in the eyes of the concerned stakeholders. Obviously, its unarguable that firm size is a good predictor of environmental disclosure, to this effect, big firms in the industrial goods sector in Nigeria should sustain their good environmental performance by engaging in more innovative and environmentally friendly ways of production and through their value chain process.

Furthermore, the study recommends that, in order for firms to meet up their environmental obligations, industrial goods firm should roll out policies that maintains reasonable level or amount of liquidity that would salvage any projected or unexpected environmental cost so as to enhance stakeholders' confidence about their environmental sustainability and operations. Finally, the study recommends that firms should adopt innovative and sustainable ways of operations mostly in their production process so as to attract investors who advocates more on environmental sustainability performance. The earnings of the firm should not only be seen as a means to satisfy shareholders fundamental interest but to also cover other stakeholders' interest that clamours for environment sustainability.

## References

- Adriana, J. & Dewi, N. H. U. (2018). The effect of environmental performance, firm size, and profitability on environmental disclosure. *The Indonesian Accounting Review*, 8(1), 1-11. Akbaş, H. E. & Canikli, S. (2014). Corporate environmental disclosures in a developing country: An investigation on Turkish listed companies. *International Journal of Economics and Finance*, 6(2), 50-61.
- Baalouch, F., Ayadi, S. D., & Hussainey, K. (2019). A study of the determinants of environmental disclosure quality: Evidence from French listed companies. *Journal of Management and Governance*, 23, 939-971. <https://doi.org/10.1007/s10997-019-09474-0>
- Deegan, C. (2002). Introduction: the legitimizing effect of social and environmental disclosures – a theoretical foundation. *Accounting, auditing and Accountability Journal*, 15(3), 282-311. Depoers, F., Jeanjean, T. & Jérôme, T. (2016). Voluntary disclosure of greenhouse gas emissions: Contrasting the carbon disclosure project and corporate reports. *Journal of Business Ethics*, 134(3), 445–461.
- Egbunike, A. P. & Tarilaye, N. (2017). Firm's specific attributes and voluntary environmental disclosure in Nigeria: Evidence from listed manufacturing companies. *Academy of Accounting and Financial Studies Journal*, 21(3), 1-9.
- Egolum, P. U., Amahalu, N. N., & Obi, J. C. (2019). Effect of firm characteristics on environmental performance of quoted industrial goods firms in Nigeria. *International Journal of Research in Business, Economics and Management*, 3(6), 1-13.
- Ekpulu, G. A., & Iyoha, A. I. (2023). Firm attributes and environmental disclosures: A double hurdle regression approach. *International Journal of Innovative Research in Accounting and Sustainability*, 8 (2), 23-33.
- Godspower, A. E., & Paymaster, F. B. (2023). Environmentally sensitive industries attributes and environmental disclosure in Nigeria: Modelling the double hurdle technique. *Journal of Accounting and Financial Management*, 9(1), 1-15. DOI: 10.56201/jafm.v9.no1.2023.pg1.15
- Gray, R. H., Kouhy, R. & Lavers, S. (1995). Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK Disclosure. *Accounting, Auditing and Accountability Journal*, 8(2), 47-77.
- Greiling, D. & Grüb, B. (2014). Sustainability reporting in Austrian and German local public enterprises. *Journal of Economic Policy Reform*, 17(3), 209–223.
- Hossain M., Islan K. & Andrew J. (2006). Corporate social and environmental disclosure in developing countries: evidence from Bangladesh. *Proceeding of the Asian Pacific conference on international accounting issues Hawaii* October.

Kihamba, R. I. (2017). The relationship between environmental accounting and reporting practices and profitability of manufacturing firms listed on the Nairobi securities exchange (Unpublished MBA thesis). School of Business, University of Nairobi.

Kiswanto, K., Agus, W., Woro, S. H. T. P., & Gusti, K. A. U. (2020). Effect of financial performance on sustainable report disclosure with the board of commissioners as the moderating variable. *International Journal of Innovation, Creativity and Change*, 13(4), 39-52.

Lu, Y., & Abeysekera, I. (2014). Stakeholders' power, corporate characteristics, and social and environmental disclosure: Evidence from China. *Journal of Cleaner Production*, 64, 426– 436. doi:10.1016/j.jclepro.2013.10.005

Menike, L. M. C. S. (2020). Impact of environmental disclosure on firm performance: An empirical analysis of food, beverage and tobacco sector companies listed in Colombo stock exchange, Sri Lanka. *International Journal of Academic Research in Business and Social Sciences*, 10(10), 518-536. DOI:10.6007/IJARBS/v10-i10/7977

Moshud, N. M. (2020). The Impact of Profitability on Environmental Disclosure of Quoted Firms in Nigeria. *The Eurasia Proceedings of Educational & Social Sciences*, 17, 39-49

Muhammad, N., Scrimgeour, F., Reddy, K., & Abidin, S. (2015). The relationship between environmental performance and financial performance in periods of growth and contraction: Evidence from Australian publicly listed companies. *Journal of Cleaner Production*, 102, 324–332. <https://doi.org/10.1016/j.jclepro.2015.04.039>

Nazari, N., Hrazdil, R., & Mahmoudian, H. R. (2017). Does reporting effectiveness translate into environmental performance? *Sustainability*, 9(2), 270.

Nurudeen, M. M., Abdulrahman, B. S., & Oladele, J. O. (2021). Firm size and environmental disclosure of quoted firms in Nigeria. *International Journal of Innovative Research & Development*, 10(3), 26-31. DOI: 10.24940/ijird/2021/v10/i3/ MAR21009

Ogoun, S., & Ekpulu, G. A. (2020). Environmental reporting and operational performance: A study of listed manufacturing. *International Journal of Intellectual Discourse*, 3(1), 381396.

Okpala, O. P. (2019). An exploratory study of the level of social and environmental disclosures by listed firms in Nigeria. *ACTA Universitatis Danubius*, 5(2), 160-172.

Omoye, A. S. & Wilson-Oshilim, U. D. (2018). Antecedents of environmental disclosure in Nigeria. *Accounting & Taxation Review*, 2(2), 101-116

Onyali, C. I. & Okafor, T. G. (2018). Firm attributes and corporate environmental performance:

Evidence from quoted industrial firms on Nigerian Exchange Group. *Scholars Journal of Economics, Business and Management*, 5(9), 854-863

Copyright: © 2025 Continental Publication

- Orajekwe, J. C., & Ogbodo, O. C. (2023). Firm-specific characteristics and environmental disclosure of energy firms in Sub-Saharan Africa. *International Journal of Financial, Accounting, and Management*, 5(2), 251–264. <https://doi.org/10.35912/ijfam.v5i2.1601>
- Ruhana, A., & Hidayah, N. (2019). The effect of liquidity, firm size, and corporate governance toward sustainability report disclosures. *Advances in Economics, Business and Management Research*, 120, 279-284.
- Shuaibu, K. (2020). Firm characteristics and environmental disclosure quality of listed cement companies in Nigeria. *African Scholar Journal of Mgt. Science and Entrepreneurship*, 18(7), 105-118.
- Ullah, M. H., Hossain, M. M., & Yakub, K. M. (2014). Environmental disclosure practices in annual report of the listed textile industries in Bangladesh. *Global Journal of Management and Business Research*, 12, 110-132.
- Welbeck, E. E., Owusu, G. M. Y., Bekoe, R. A. & Kusi, J. A. (2017). Determinants of environmental disclosures of listed firms in Ghana. *International Journal of Corporate Social Responsibility*, 2(1), 1-12.
- Yousra, N. E. (2017). The impact of corporate characteristics on environmental information disclosure: an empirical study on the listed firms in Egypt. *The Business and Management Review*, 8(5), 181-191.