

## **Firms Attributes and Sustainability Disclosures a Study of Less Sensitive Environmental Sector in Nigeria**

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**ABSTRACT:** *This research delves into how firm attributes influence sustainability disclosure, focusing on a comparative analysis within the less environmentally sensitive sector in Nigeria. The specific aims include determining the variance in the impact of Leverage on sustainability disclosure and exploring the distinction in the effect of profitability on sustainability disclosure within this sector. Employing a longitudinal and ex-post facto research design, the study targets a population of 150 listed firms in Nigeria, selecting a sample of 20 firms from both financial and non-financial sectors through judgmental sampling. Data spanning from 2012 to 2021 were gathered from the annual reports and accounts of the chosen firms, along with information from the Nigeria Exchange Group (NGX) fact book. Hypotheses were tested using panel regression and t-test techniques. The primary findings reveal a significant difference in the influence of firm size on sustainability disclosure in more environmentally sensitive industries ( $P= 0.0002$ ). In summary, the adoption of sustainable development strategies by companies reflects management's acknowledgment of stakeholder perceptions. The study suggests that regulators prioritize environmental and social concerns to encourage sustainable practices, including enhanced disclosure on environmental, social, and governance fronts.*

**KEYWORDS:** firms size, sustainability disclosures, less sensitive environmental profitability, leverage.

### **INTRODUCTION**

The International Financial Reporting Standards (IFRS) stipulate that environmental considerations falling within specific accounting principles must be addressed accordingly. For instance, the International Accounting Standard (IAS), "Presentation of Financial Statements (Revised)," mandates the disclosure of substantial evidence to ensure the proper understanding of financial statements. Similarly, IAS 37, "Provisions, Contingent Liabilities, and Contingent Assets," requires financial statements to incorporate provisions for environmental damages and benefits. An often-utilized approach to assess a firm's environmental impact is through examining its engagement in environmental disclosure. Criteria for such disclosures, as

outlined by Jeroh (2020), include information regarding community involvement, environmental protection, waste management, product safety, employee welfare and safety, among others. Presently, the evolving corporate reporting standards necessitate companies to integrate and communicate their environmental responsibility within their profitability reporting.

Corporate attributes such as business size, firm age, leverage, liquidity, and profitability are paramount in representing a firm within the market. This study focuses on firm size, profitability, and leverage. Numerous research papers since 1978 have explored environmentally sensitive sectors, often termed as controversial industries, characterized by environmental concerns and moral debates. Sharifa and Baktiar (2011) suggest that highly environmentally conscious companies are typically engaged in operations and processing of goods with potentially harmful manufacturing processes. These include mineral mining, oil and gas, electricity, forestry, chemicals, industrial materials, and steel. In contrast, less environmentally sensitive industries do not necessitate special environmental considerations.

Despite the absence of robust environmental regulations and consumer consciousness in emerging economies like Nigeria, there is increasing global attention on environmental issues, prompting companies in these regions to become more aware of their environmental impact. Hence, this study aims to examine corporate firm attributes and environmental disclosure practices, comparing industries with varying environmental sensitivities.

The drive for economic growth and industrialization has resulted in environmental challenges such as pollution and deforestation, alongside a growing awareness of social responsibilities. This has led to the inclusion of sustainability reporting alongside financial reports, although some firms lag due to poor characteristics. Environmental accounting disclosures in Nigeria remain ambiguous, with many companies failing to comply with global frameworks. Despite the extensive theoretical work on corporate firm attributes and environmental disclosure practices, there is a lack of comparative research between industries with differing environmental sensitivities in Nigeria. The main objective of this study is to examine the effect of firm attributes on sustainability disclosure: study of less sensitive environmental in Nigeria Sector. The specific objectives are to ascertain the difference between the effect of Leverage on sustainability disclosure in less environmentally sensitive industry in Nigeria and find out the difference between the effect of profitability on sustainability disclosure in less environmentally sensitive industry in Nigeria.

## **LITERATURE REVIEW**

### **Conceptual Framework**

#### **Sustainability Disclosure**

Environmental accounting gained prominence following the United Nations Conference on Environment and Development (UNCED) in June 1992, held in Rio de Janeiro. Environmental disclosure entails the provision of targets, explanations, and numerical data, such as emissions

and resource usage, detailing specialized environmental impacts by companies (Adams & Busola, 2017). Nola (2002) argues that companies must disclose environmental accounting information to cultivate a positive environmental image. Beer and Friend (2006) assert that active disclosure of environmental accounting information is necessary to meet stakeholders' investment decisions and potentially gain competitive advantages in the market. From an economic standpoint, environmental information may reflect the company's assessment of the prospective costs and benefits associated with environmental activities (Cormiera & Gordon 2007). Environmental disclosure practices thus aim to confirm, qualify, and report on all the social and environmental aspects involved in the company's day-to-day operations.

### **Measurement of Sustainability Disclosure**

The valuation of environmental information, often difficult to measure and quantify, remains a contentious topic in accounting research (Adams & Busola, 2017). While the quality of disclosures may not be universally agreed upon, several academic literatures have attempted to measure environmental disclosures based on the study's objectives. Methods for measuring environmental information disclosure include quantitative and qualitative approaches.

### **Qualitative Environmental Measurement Approach**

This approach involves measuring environmental disclosure using the environmental disclosure index. Saddique (2015) defines egalitarian environmental information as quality characteristics outlined in commonly used frameworks and guidelines on environmental and accounting regulations. This approach is often referred to as scoring measurement, as researchers analyze specific items using a scoring system to quantify the environmental data provided (Elshabasy, 2017). Ibrahim (2014) explains that in qualitative measurement, identified items are measured by tallying the total number of items disclosed by each company, using the disclosure score for each company studied and dividing the total items in the study by the disclosure. Previous research utilizing the environmental measurement approach includes Eljayash (2015), Uwuigbe (2012), Galani, Gravas, and Stravropoulos (2011).

### **Less Environmentally Sensitive Industries**

Industries classified as less environmentally sensitive are typified by companies whose operations do not result in significant environmental damage. However, in economies like Nigeria, certain enterprises categorized as non-environmentally sensitive may still inadvertently cause environmental harm, with potential long-term consequences. For instance, Information Technology and Communication (ICT) firms have been known to impact the environment through activities such as electromagnetic radiation, albeit often overlooked. Conglomerates, commodities, ICT, services, and financial services are all examples of industries considered insensitive or less environmentally sensitive.

### **Corporate Firm Attributes**

In examining environmental disclosure practices, Roberts (1992) underscored the significance of corporate firm attributes. These attributes refer to characteristics specific to a company, which play pivotal roles in shaping its financial decisions and operational guidelines. Therefore, a company's attributes can influence its decision to disclose non-financial information, including environmental disclosures. Many scholars contend that stakeholders should assess the extent to which corporate attributes impact a company's choice of disclosure policy and identify such influential characteristics. Thus, this study aims to integrate firm size, firm leverage, and firm profitability as proxies of corporate firm attributes.

### **Firm Size**

Several empirical studies have demonstrated a positive association between company size and the level of environmental disclosure (Brammer & Pavelin, 2006; Zeng, Hu, Yin & Tam, 2012). These studies suggest that larger companies, due to their visibility and resources, are more likely to disclose environmental information. Larger firms often exhibit assertiveness in projecting their image and are willing to invest more in voluntary sustainability reporting to outshine competitors and enhance their value (Hasan & Hosain, 2015). Additionally, larger companies tend to be more transparent in their sustainability reporting to satisfy their diverse stakeholders and attract external capital. Some prior studies (Lu & Abeysekera, 2014; Zeng, Xu, Dong, & Tam, 2010) have found a positive association between firm size and sustainability disclosure. Other authors (Adhikari & Tondkar, 1992; Galani, Gravas & Stavropoulos, 2012) have demonstrated that firm size significantly influences environmental ratings and report that market magnitude significantly explains variations in the association between selected environmental issues and stock disclosure requirements across different stock markets.

### **Leverage**

Leverage, defined as the proportion of a company's assets funded by debt and an indicator of debt holders' protection in insolvency scenarios (Idekwulim, 2014), has been recognized to significantly influence environmental disclosure practices. Some prior studies (Brammer & Pavelin, 2006) found a negative correlation between leverage and environmental disclosure. However, other scholars (Dibia & Onwuchekwa, 2015; Lu & Abeysekera, 2014) have suggested a positive influence of leverage on sustainability disclosure. Furthermore, some studies (Alarussi, Hanefah; Salamat, 2016; Ohidoa, 2019) found no significant association between leverage and sustainability disclosure. Others argued that companies with higher debt levels are more likely to disclose environmental information (Mejida & Hakaim, 2013; Salaimana, Abdullah & Fatimaa, 2014).

### **Profitability**

Profitability, reflecting a company's financial performance over time, has yielded mixed findings regarding its association with sustainability disclosure practices. When profitability increases and a firm achieves its peak, management is incentivized to report more sustainability

issues to demonstrate a good reputation to consumers, shareholders, investors, and other stakeholders (Ullmann, 1985). Previous research on the association of profitability with sustainability disclosure practices has yielded mixed results due to the use of different proxies to measure profitability, such as Net Profit (NP), Return On Capital Employed (ROCE), Dividend Per Share (DPS), Earnings Per Share (EPS), Return on Asset (ROA), and Return on Equity (ROE).

### **Theoretical Framework**

Several theoretical perspectives have been employed to explain the impact of firm attributes on organizational performance. Among these, agency theory, stakeholder theory, and resource dependency theory stand out, with agency theory adopted as the framework for this study.

#### **Agency Theory**

Agency theory, rooted in economic principles, was initially proposed by Alchian and Demsetz (1972) and further developed by Jensen and Meckling (1976). According to Jensen and Meckling (1976), agency relationships involve a contract whereby the principal entrusts another individual to manage the firm on its behalf, delegating decision-making powers to the agent. However, if both parties to the relationship do not act in each other's best interests, there is a risk that managers will not always work in the owners' interests. To mitigate such conflicts, owners can provide suitable incentives for managers and invest in monitoring mechanisms to curb the agent's opportunistic behaviors (Fama & Jensen, 1983). From an agency theory perspective, corporate governance enhances corporate performance by addressing agency problems through oversight of management actions, restraining management's self-interested behaviors, and monitoring the financial reporting process (Habbash, 2010). Thus, improved corporate governance mechanisms are expected to result in better financial performance. Drawing on agency theory, this study identifies components of corporate firm attributes to investigate their associations with sustainability disclosure.

#### **Stakeholder Theory**

Stakeholder theory, first proposed by R. Edward Freeman in 1984, suggests that businesses should consider the interests of all stakeholders, not just shareholders, in their decision-making processes. This theory expands on the agency theory, which focuses solely on shareholder interests and expects the board of directors to protect those interests. In contrast, stakeholder theory broadens the narrow focus of the agency theory by considering the concerns of various groups and individuals, including social, environmental, and ethical interest groups (Freeman et al., 2004). Stakeholder theory posits that the purpose of a corporate entity is to serve and align the interests of its diverse stakeholders, such as shareholders, employees, creditors, customers, suppliers, government, and the local community.

#### **Resource Dependency Theory**

While stakeholder theory emphasizes relationships with various individuals for mutual benefit, resource dependency theory focuses on the role of boards of directors in utilizing available resources. This theory suggests that the primary role of the board of directors is to provide

funds to the company. Directors are seen as significant resources for the organization and also as providers of funds. Various dimensions of director diversity become crucial, including gender, experience, and qualifications. According to Abdullah and Valentine (2017), directors provide resources such as information, expertise, and business know-how to the company. Boards of directors also facilitate potential connections with the environment for firms (Ayuso & Argandona, 2007). While agency theory focuses on the monitoring and supervisory function of the board of directors, resource dependency theory concentrates on the consultative and advisory role of management. However, whether boards fulfill these roles effectively remains a contentious issue (Ferreira, 2010).

### **Adoption of Theory**

Among the various theories discussed, this study adopts agency theory as its framework because it provides a relevant lens for understanding the relationship between firm attributes and sustainability disclosure practices. Agency theory suggests that firm size, leverage, and profitability act as critical determinants shaping organizations' disclosure practices. Larger firms may exhibit higher levels of sustainability disclosure due to their enhanced resources and visibility, aiming to mitigate potential information asymmetry and agency conflicts between management and shareholders.

### **METHODOLOGY**

This study utilized a longitudinal and ex-post facto research design. The longitudinal approach was employed to analyze the evolving trend in environmental disclosure practices within the selected less environmentally sensitive industries. Ex-post facto research design, a quasi-experimental method, was utilized to retrospectively examine independent variables for their potential impact on the dependent variable.

As per the Nigerian Exchange Group factbook of December 23, 2022, there are a total of one hundred and fifty (150) listed firms in Nigeria, categorized into nine (9) industries: Construction/Real Estate (7), Consumer Goods (19), Financial Services (49), Healthcare (7), Information Communication and Technology (ICT) (8), Industrial Goods (13), Natural Resources (4), Oil and Gas (10), and Services (24). The study population comprised all these 150 listed firms, further segmented into specific industries.

The sample size for the study was determined based on the environmental sensitivity of the industries. Employing a purposive sampling approach, ten firms were selected exclusively from the less environmentally sensitive industry, specifically from the oil and gas sector. This selection strategy ensured a balanced representation of different environmental sensitivities across various industries.

Data for the study were sourced from secondary sources, including the annual reports and accounts of the chosen 20 firms, along with the fact book of the Nigeria Exchange Group

(NGX), covering the period from 2012 to 2021. This comprehensive data collection approach aimed to enhance the accuracy and validity of the study's findings.

For data analysis, panel data technique and T-test were employed. The panel data technique facilitated the identification of the impact of corporate firm attributes on the extent of environmental disclosure practices within the selected less environmentally sensitive industry in Nigeria. Meanwhile, the T-test was utilized to compare the level of environmental disclosure among less environmentally sensitive industries, as it is a suitable method for testing differences between two groups.

## ANALYSIS

Table 1: Summary statistics of dependent, independent and control variables

|              | EDI      | Firm Size | Leverage | ROA       | OWS      |
|--------------|----------|-----------|----------|-----------|----------|
| Mean         | 0.285759 | 67430488  | 0.685198 | 0.014429  | 18.79858 |
| Median       | 0.352941 | 8697539.  | 0.634927 | 0.020203  | 0.000000 |
| Maximum      | 0.970588 | 1.48E+09  | 2.478465 | 1.762669  | 70.43000 |
| Minimum      | 0.000000 | 47150.00  | 0.022934 | -0.713574 | 0.000000 |
| Std. Dev.    | 0.233033 | 1.91E+08  | 0.356104 | 0.174029  | 28.21788 |
| Skewness     | 0.586434 | 5.154917  | 1.701566 | 5.084408  | 0.847150 |
| Kurtosis     | 3.772028 | 31.91946  | 7.861063 | 57.43489  | 1.751825 |
| Jarque-Bera  | 15.60886 | 7462.470  | 278.7556 | 24276.95  | 35.05967 |
| Probability  | 0.000408 | 0.000000  | 0.000000 | 0.000000  | 0.000000 |
| Sum          | 54.29412 | 1.28E+10  | 130.1876 | 2.741439  | 3571.730 |
| Sum Sq. Dev. | 10.26354 | 6.87E+18  | 23.96705 | 5.724103  | 150491.1 |
| Observations | 190      | 190       | 190      | 190       | 190      |

Source: E-Views 10

Key: EDI- GRI Environmental Disclosures; ROA-Return on Assets; OWS-Foreign Institutional Ownership

The mean of the dependent variable, which proxies the Environmental Disclosure Index (EDI) of the sampled companies, was 0.286, with a median value of 0.353. The maximum value observed for the EDI was 0.971, while the minimum was 0.000. Companies with a value equal to or higher than 0.286 were categorized as high EDI firms, whereas those with a value below 0.286 were classified as low EDI firms.

Regarding Firm Size, the mean value among the sampled companies was 67,430,488, with a median value of 8,697,539. The maximum Firm Size observed was one billion four hundred eighty million, and the minimum was forty-seven thousand one hundred fifty. Companies with a value equal to or greater than sixty-seven million four hundred thirty thousand four hundred

eighty-eight were considered higher in terms of firm size, while those below this threshold were classified as low-sized firms.

The mean of Leverage, which proxies the variable X2, was 0.685, with a median value of 0.635. The maximum Leverage observed was 2.478, while the minimum was 0.023. This indicates that, on average, approximately 68% of the sampled companies' financing came from debt, with the remaining 32% from equity financing.

Regarding Return on Assets (ROA), which proxies the variable X3, the mean value among the sampled companies was 0.014, with a median value of 0.020. The maximum ROA observed was 1.763, while the minimum was -0.714. Companies with a value equal to or greater than 0.014 were considered higher in terms of profitability, while those below this threshold were classified as low profitability firms.

The mean of Ownership Structure (OWS), which proxies the variable X4, was 18.799, with a median value of 0.000. The maximum OWS observed was 70.43, while the minimum was 0.000. On average, companies had approximately 18% representation on the board of directors from foreign institutional ownership.

The null hypothesis of the Jarque-Bera test assumes that both skewness and excess kurtosis are zero. A p-value greater than 0.05 indicates that the data are consistent with this assumption. However, for the variables EDI, Firm Size, Leverage, ROA, and OWS, the Jarque-Bera statistic was less than 0.05, suggesting non-normal distribution of the variables.

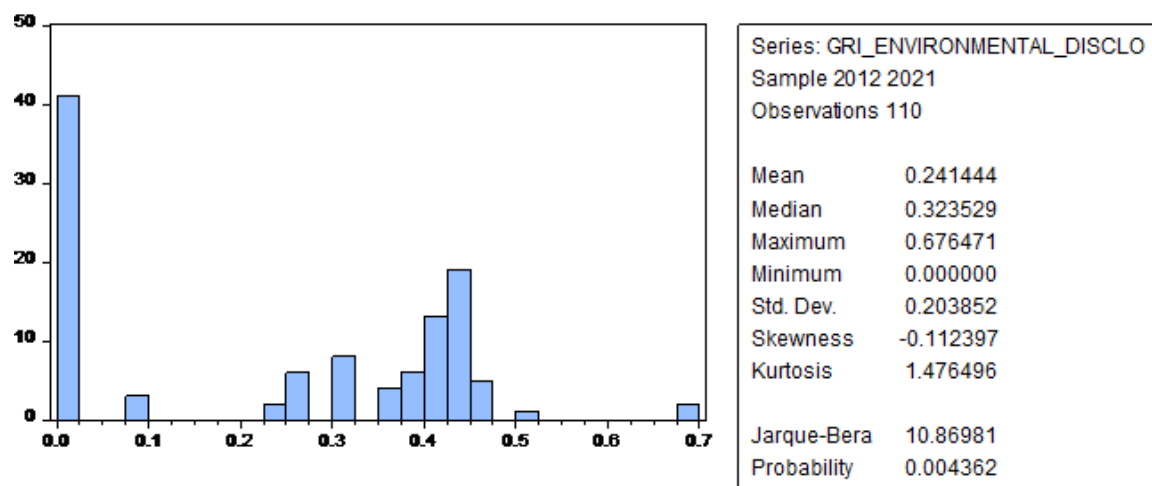


Figure 1: Histogram and descriptive statistics of EDI for less environmentally sensitive industry

The Jarque-Bera statistic shows that the EDI disclosure of the less environmentally sensitive and more environmentally sensitive industries was less than .05; thus, we conclude on the non-normality distribution of the variables.



**Correlation Matrix**

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in the table below.

Table 2: Correlation analysis of dependent, independent and control variables

|           | EDI      | Firm Size | Leverage | ROA      | OWS |
|-----------|----------|-----------|----------|----------|-----|
| EDI       | 1        |           |          |          |     |
| Firm Size | 0.518383 | 1         |          |          |     |
| Leverage  | 0.048197 | -0.12288  | 1        |          |     |
| ROA       | 0.033772 | 0.05118   | -0.25658 | 1        |     |
| OWS       | 0.188219 | 0.407493  | -0.30459 | 0.253412 | 1   |

Source: E-Views 10

Key: EDI- GRI Environmental Disclosures; ROA-Return on Assets; OWS-Foreign Institutional Ownership

Table 2 presents the Pearson correlation coefficient matrix of the variables. Sustainability reporting disclosure (EDI) shows a positive correlation with firm size, firm leverage, Return on Assets (ROA), and Ownership Structure (OWS). Firm size exhibits a negative correlation with firm leverage but demonstrates positive correlations with ROA and OWS. Leverage is negatively correlated with ROA and OWS. Additionally, ROA shows a positive correlation with the percentage of foreign shareholders' holdings (OWS).

To assess collinearity among the independent variables, the correlation results indicate no strong association between any two independent variables, as all correlation coefficients are less than 0.60. Regression analysis was conducted to test the hypotheses since the correlation test does not capture a cause-effect relationship.

Table 3: Independent samples t-test for mean differences

|     |                                      | Levene's Test<br>for Equality of<br>Variances |       | t-test for Equality of Means |             |                     |                    |                          |  |          |
|-----|--------------------------------------|---|-------|------------------------------|-------------|---------------------|--------------------|--------------------------|--|----------|
|     |                                      | F   | Sig.  | t                            | df          | Sig. (2-<br>tailed) | Mean<br>Difference | Std. Error<br>Difference | 95% Confidence Interval<br>of the Difference |          |
|     |                                      |   |       |                              |             |                     |                    | Lower                    |  | Upper    |
| EDI | Equal<br>variances<br>assumed        | 0.443   | 0.506 | -3.14                        | 188         | 0.002               | -0.10525           | 0.033463                 | -0.17126                                     | -0.03924 |
|     | Equal<br>variances<br>not<br>assumed |   |       | -3.03                        | 145.<br>693 | 0.003               | -0.10525           | 0.034697                 | -0.17382                                     | -0.03667 |

Source: SPSS Ver. 25

Key: EDI- GRI Environmental Disclosures; ROA-Return on Assets; OWS-Foreign Institutional Ownership

In SPSS, Levene's Test of Equality of Variances is employed to evaluate whether the statistical assumption of homogeneity of variance is met in between-subjects designs. In conclusion, the results indicate a statistically significant difference between "Less Sensitive-Group 1" (Mean: 0.241, SD: 0.204) and "More Sensitive-Group 2" (Mean: 0.347, SD: 0.257), with  $p \leq .01$ .

Table 4: Coefficients output for the pooled sample

| Variable  | Coefficient | Std. Error | t-Statistic | Prob.  |
|-----------|-------------|------------|-------------|--------|
| C         | -1.136563   | 0.356885   | -3.184675   | 0.0017 |
| FIRM SIZE | 0.077434    | 0.021938   | 3.529760    | 0.0005 |
| LEVERAGE  | 0.058825    | 0.041861   | 1.405250    | 0.1618 |
| ROA       | 0.034500    | 0.059744   | 0.577468    | 0.5644 |
| OWS       | 0.006361    | 0.001930   | 3.295303    | 0.0012 |

Source: E-Views 10

Furthermore, upon examining the pooled sample (i.e., the scores for GRI disclosure among less sensitive firms), Table 8 delves into disclosure as the dependent variable. The analysis reveals that, akin to firm size, the impact on environmental disclosure is significantly positive at the 1% level. This confirms that firm size plays a role in promoting environmental disclosure among the sampled firms throughout the study period. However, the effect of leverage yields statistically insignificant findings. Moreover, the variable of profitability, represented by ROA, exhibits a positive coefficient, yet the results are moderately non-significant. The control variable in this study, namely foreign institutional ownership, demonstrates a positive and highly significant association with a p-value  $< .05$ . Finally, to evaluate the hypotheses, the results from Table 5, which present the panel estimation output for less environmentally sensitive firms compared to more environmentally sensitive firms from 2012 to 2021, are utilized.

Table 5: Regression output for less environmentally sensitive sub-samples

| <b>Sensitive</b><br>Variable          | Coefficient | Std. Error            | t-Statistic | Prob.     |
|---------------------------------------|-------------|-----------------------|-------------|-----------|
| FIRM SIZE                             | 0.114882    | 0.026685              | 4.305087    | 0.0000    |
| LEVERAGE                              | 0.136515    | 0.052905              | 2.580355    | 0.0114    |
| ROA                                   | 0.243492    | 0.1335                | 1.823908    | 0.0713    |
| OWS                                   | 0.00103     | 0.001756              | 0.586396    | 0.559     |
| C                                     | -1.632318   | 0.421217              | -3.875241   | 0.0002    |
| Effects Specification                 |             |                       |             |           |
| Cross-section fixed (dummy variables) |             |                       |             |           |
| R-squared                             | 0.792703    | Mean dependent var    |             | 0.241444  |
| Adjusted R-squared                    | 0.762154    | S.D. dependent var    |             | 0.203852  |
| S.E. of regression                    | 0.099418    | Akaike info criterion |             | -1.652849 |
| Sum squared resid                     | 0.938969    | Schwarz criterion     |             | -1.284602 |
| Log-likelihood                        | 105.9067    | Hannan-Quinn criter.  |             | -1.503486 |
| F-statistic                           | 25.94851    | Durbin-Watson stat    |             | 0.994285  |
| Prob(F-statistic)                     | 0           |                       |             |           |

Source: E-Views 10

The empirical findings from the fixed effects least-squares regression analysis revealed that the adjusted R-squared value of the initial research model stood at approximately 0.762. Additionally, the F-test yielded a statistically significant result ( $p < 0.01$ ), indicating that the first research model effectively describes the relationship between firm characteristics and the disclosure of sustainability reporting.

$$t = \frac{\beta_1 + \beta_2}{(SE\beta_1)^2 + (SE\beta_2)^2}$$

Where:  $SE\beta$  is the standard error of  $\beta$

## FINDINGS

No notable difference emerges regarding the impact of leverage on sustainability disclosure within less environmentally sensitive industries. For instance, Barako (2007) underscores leverage as a determinant of sustainability disclosures in Kenyan firms' annual reports. Similarly, Egbunike and Tarilaye (2017) observe a positive influence of firm leverage on sustainability disclosure among Nigerian manufacturing firms. Nguyen, Tran, Nguyen, and Le (2017) corroborate these findings, revealing a direct correlation between corporate leverage and sustainability reporting in Vietnamese listed firms. In the Nigerian context, Aluwong and Fodio (2019) analyze annual audited financial reports of oil and gas firms from 2011 to 2017, concluding that financial leverage positively impacts sustainability disclosure. Kabiru (2020) further supports this notion, highlighting the significant impact of firm leverage on sustainability disclosure using data from the Global Reporting Initiative (GRI). Wang (2017) extends this analysis to Taiwanese companies, noting a positive but statistically non-significant influence of leverage on sustainability reporting through least squares analysis.

Likewise, there is no significant discrepancy in the effect of profitability on sustainability disclosure within less environmentally sensitive industries. Aluwong and Fodio (2019) delve into sustainability reporting among Nigerian oil and gas firms, identifying a proportional relationship between profitability and sustainability practices.

## CONCLUSION

Nonetheless, no notable distinction is observed in the impact of leverage on sustainability disclosure within less environmentally sensitive industries. Similarly, there is no significant variation in the effect of profitability on sustainability disclosure within the same industry context. These findings contribute to the existing body of knowledge regarding the relationship between corporate characteristics and sustainability reporting disclosure. Such insights can aid managers in formulating effective sustainability strategies, thereby directly benefiting both researchers and practitioners in the field.

## Recommendations

Based on the empirical analysis discussed previously, the study offers the following recommendations for stakeholders:

- i. **Regulators and Financial Analysts:** It is crucial for regulators and financial analysts to carefully consider the relationship between business size and corporate sustainability performance. While a significant positive association exists for the less environmentally sensitive industry, this link was non-significant for the environmentally sensitive industry. This suggests that large firms in sectors like oil and gas may not be disclosing sufficient information and could face increased scrutiny. Therefore, regulators at both the national and corporate levels should prioritize environmental and social issues, promoting sustainable practices through enhanced disclosure of environmental, social, and governance (ESG) factors.
- ii. **Oil and Gas Businesses:** Oil and gas companies should focus on understanding the role of ethical environmental disclosures and practices in reducing debt costs and improving financial performance. While leverage was positively associated with Environmental Disclosure Index (EDI) in less environmentally sensitive industries, this association was not significant for industries more sensitive to environmental concerns. Green investors and capital market regulators may need to provide additional incentives to oil and gas firms to encourage disclosure of ESG issues.
- iii. **Managers:** Managers should recognize the positive correlation between profitability and sustainability-related disclosures. This connection benefits financial analysts and managers by strengthening their strategic relationship. Enhanced disclosure of financial and sustainability-related information by firms attracts more investors, emphasizing the importance of including sustainability factors in organizational strategies and decision-making processes. This, in turn, assists investors in integrating ESG considerations into their investment strategies over the long term.

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