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Company's characteristics and corporate sustainability reporting practice of listed manufacturing companies in Nigeria

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Abstract

The research looks at how company variables, such as size, leverage, and profitability, affect sustainability reporting in Nigeria. The study used an ex-post design and the sample included 15 publicly traded manufacturing enterprises in Nigeria. These companies were chosen because they have the potential to be environmentally conscious. The study covers a period of five years, from 2016 to 2020. Thus, because econometric modelling of bounded dependent variables reveals the limitations of linear estimation, the researchers employed the generalized least-squares approach to estimate the panel data first, followed by fractional regression. To correct for potential non-uniform variation in the estimation, the white-adjusted standard error was utilized, resulting in an estimation result with no non-uniform variance. In terms of panel duration and cross-section, the estimations were found to be free of non-uniform variance. To confirm the probability of continuous error correlation, the research utilized the Peselan interdependence test. As shown in the results, the residuals are cross-section independent. According to the coefficient values, the only variable that has a positive and significant impact on sustainability reporting is firm size. The report advises relevant government agencies to introduce sustainability tax incentives as it may enhance sustainability reporting practices in the country.

Keywords: firm size, leverage, profitability, sustainability reporting

1. Introduction

Since the creation of the United Nations Charter on the Environment, initiatives to assure sustainability have gained global prominence as a means of simultaneously addressing global concerns for the benefit of present and future generations. Firms are increasingly expected to demonstrate their concern for a sustainable world by 2030. Organizational concerns and environmental efforts are what many advocates call "corporate sustainability reporting" (CSR), also known as "the triple bottom line" (TBL), which combines environmental, social, and economic bottom lines. Corporate sustainability reporting has gained dramatically in popularity during the last ten years, particularly in industrialized countries. Most underdeveloped countries, on the other hand, are scarcely able to provide complete CSR data, let alone build a broader framework and initiatives. for sustainability reporting. The TBL idea is likely the most well-known paradigm for measuring business sustainability. The modern practice of sustainability reporting arose from the Triple Bottom Line concept.

The spread and practice of CSR have not been uniformed across sectors on a worldwide scale. Those that first adopted the approach tended to have a disproportionate representation of industries that are normally believed to have the greatest impact on society and the environment. As the practice grew in popularity, sectors that had previously avoided publishing sustainability reports began to do so. Firms have a lot of discretion in selecting whether and how to account for the costs and benefits associated with their business operations because CSR is voluntary and controllable. From an accounting aspect, CSR is a tool for reporting and interacting with stakeholders, and it is frequently included in annual reports and other publications. Despite the benefits associated with CSR, corporate entities in Nigeria are still left behind, though there are studies on the subject matter. The few available studies on CSR in the Nigerian context are largely focused on the disclosure level. This study, therefore, investigated the possible factors and company characteristics that account for the level of sustainability reporting in Nigeria. To achieve this broad objective, the researchers hypothesized that:

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H_{01}: Firm size has no significant influence on CSR in Nigeria.

H_{02}: Leverage has no significant influence on CSR in Nigeria.

H_{03}: Profitability has no significant influence on CSR in Nigeria.

2. Conceptual Clarification
This section defined relevant and related concepts on corporate characteristics and corporate sustainability reporting.

2.1 Sustainability Reporting (SR)
Sustainability reporting (SR), unlike financial reporting, is a relatively new idea. Sustainability reporting is a systematic tool for compiling and presenting non-financial data for use in the management process and stakeholders' decisions (Abdulrahaman *et al*., 2022). Abdullahi and Babangida (2021) [1, 2] define SR, or "triple-bottom-line reporting," as a mechanism for evaluating and disclosing a firm's performance to meet "social, economic, and environmental" parameters. However, in a broader sense, SR encompasses all of the values, issues, and procedures that organizations are required to address and reduce the negative impacts linked with their activities and thus provide better service. According to Abdulsalam and Babangida (2020) [3, 4], corporate sustainability reporting practices (CSRP) entail pursuing organizational objectives of multifarious stakeholders while ensuring that they will be able to meet those demands in the future. This type of reporting is called "sustainability reporting," and it looks at how a company is doing "economic, social, and environmental performance," as well as how it is doing financially (GRI, 2018) [28].

CSRP is defined by the Global Reporting Initiative (GRI), a well-known organization on the subject of sustainability, as participation in assessing, disclosing, and being accountable to multifarious stakeholders for the business's overall health and general performance. CSRP assesses, describes, and discloses the economic, environmental, and social performance of an organization (ACCA, 2005). Other terms for CSRP are Corporate Social Responsibility (CSR) and Triple Bottom Line (TBL) (Christensen, *et al*., 2007), in which the value created by a company or other organization is divided into several parts, a form that includes the creation of social, economic, and environmental value (Elkington, 2006) [22].

2.2. Company Characteristics and Sustainability Reporting
This section discussed different company characteristics and their relationship with CSRP.

2.2.1. Company Size and Sustainability Reporting
Large companies are generally perceived to have higher social responsibilities. Companies are subject to more public oversight and are believed to face more legitimate challenges than small and medium-sized companies (Abdulsalam *et al*., 2020) [3, 4]. As big companies do more, they have a greater impact on society, attracting more people's attention and putting more pressure on them to solve sustainability challenges (Patten, 1991). This shows that large companies face significant risks of public oversight and may result in a greater impact on the environmental policies of the overall business environment.

Andreas, Desmiyawati, and Warda (2016) [6] sampled 53 Indonesian firms to investigate how the size of a company affects SR behaviour. The results show that a firm's size exerts a significant impact on CSRP. Obeitoh, *et al*., (2017) [44] investigated the determinants and levels of CSRP in Malaysian businesses. The survey included 253 Malaysian companies over the last six years, from 2010 to 2015. A two-step system of GMM was used for the analysis. This suggests that the size of the company is a factor in how long it will last.

Ong, *et al*., (2016) [46] also carried out a study to investigate the relationship between environmental disclosure and a firm's performance in Malaysia. According to the findings, large corporations provide more environmental information and higher-quality disclosures. Li, *et al*., (2011) [40] investigated the existing sustainability disclosure methods and determinants in the global forest business. When developing sustainability reporting methods in the forest industry, the results of regression analysis show that the corporate size has a significant bearing on disclosure. Kuzey & Uyar (2016) investigated the factors that influence the CSRP of listed Turkish companies. The findings show that firm size is a significant driver of CSRP. Large corporations are thought to have greater social responsibility. Small and medium-sized businesses are subject to more public scrutiny and are thought to suffer from more legitimate issues. They have a bigger impact on society because they do more, which means they get more attention and put more pressure on them to do more to be more environmentally friendly.

2.2.2. Leverage and Sustainability Reporting
To reassure stakeholders, a high-leverage firm prefers to divulge more information to demonstrate its capacity to meet its obligations (Ho & Taylor, 2013) [30]. When a firm has a lot of debt, leverage, or gearing, it's hard for it to absorb the expenses of SR and the negative effects of potentially inaccurate information being reported (Stanny & Ely, 2008). Similarly, prior research indicated a positive relationship between leverage and the level of voluntary disclosure. For example, Kilic and Kuzey (2017) [33] look into the CSRP of Turkish non-financial enterprises from 2004–2015. It was discovered that having a sustainability committee, the Corporate Governance Index (CGI), and leverage have little bearing on CSRP.

In the same vein, Akbas (2014) [5] uses 62 non-financial enterprises to investigate the link between corporate characteristics and environmental sustainability in Turkish businesses. listed on the BIST-100 index at the end of 2011. There is no statistically significant link between transparency and leverage. In Ghana's Ashanti area, Agyei-Mensah (2012) studies the impact of firm-specific variables such as debt-equity ratio on rural banks' voluntary disclosure levels. The findings show that the debt-equity ratio has no bearing on the degree of disclosure.

2.2.3. Corporate Profitability and Sustainability
Sustainability reporting may be used to evaluate a company's success since prosperous companies may disclose sustainability data to support their operations. (Legendre & Coderre, 2013). Profitability (measured by ROA) is typically assumed in studies to increase a company's competence and flexibility in bearing SR costs and dealing with the final result of possibly unfavourable

information sharing (Kent & Monem, 2008) [32]. Reiner (2008) used GRI criteria to develop and execute a scoring methodology to evaluate the quality of German sustainability reports. An investigation was conducted. On the DAX30 and MDAX, there are twenty-six reports from companies. The findings demonstrated a weak positive link between financial performance and CSRP. Dilling (2010) [17] examines the size, financial performance, capital structure, and corporate governance variations between firms that issue a G3 SR and those that do not. The quantitative and qualitative variables of 124 G3 and non-G3 reporting companies from 25 countries were investigated. According to the data, for enterprises with bigger profit margins, sustainability reports will be of better quality. The effect of business characteristics on the extent to which corporate social responsibility is disclosed in annual reports of Colombo Stock Exchange-listed banking firms was explored by Ganewatta and Priyadarshanie (2016) [26]. Data were collected for four years from 11 banks listed on the CSE from 2011 to 2014. Profitability has just a minimal impact on the level of social disclosure.

2.3 Review of Empirical Studies

Olusola, Olayinka, and Ayodele (2021) [45] looked into how firm profitability and liquidity affect environmental reporting. The study used an Ex-post Facto and secondary data was sourced from reports and accounts of the sampled enterprises. From a total of 67 manufacturing businesses as of 2018, the Proportional Sampling Technique was used to choose 23 enterprises. To test the hypothesis, the data was examined using a regression model. Profit after tax, as a proxy for profitability, has a significant impact on firms' SRP, whereas EPS has a positive but minor impact. The result shows that the liquidity ratio shows that CSRP and the ratio have a negative and insignificant association. As a result, measures like profit after tax are relevant when examining the impact of financial performance drivers on environmental reporting standards. Companies can nevertheless promote themselves as environmentally conscious despite their liquidity and profitability issues. Manufacturing firms should be more concerned about environmental sustainability.

Syeda, Ahmad, and Jalila (2020) investigated the relationship between the attributes of the board and the level of sustainability performance in the energy sector. Our study integrates existing knowledge to improve the effectiveness of the board in implementing sustainable initiatives that reduce the environmental impact of energy companies' businesses. Determine the most important factors. Important qualities stem from the board of directors, which is actively associated with the company's commitment to minimizing carbon dioxide emissions in the environment. Based on extensive literature reviews, it presents a conceptual framework that quantifies the impact of board qualities on corporate environmental and social sustainability performance. The proposed framework serves as the first step for top management and regulatory agencies to better understand the balanced board structure that is essential for a company to achieve social and environmental sustainability. This study also adds to the growing body of knowledge about how the Board can play an important role in overseeing social and environmental concerns.

Muhammad (2020) examined the impact of firm-specific attributes on the sustainability reporting practices of industrial goods firms listed on the floor of the Nigerian Stock Exchange (NSE) Market. A correlational study design was used in a sample of 11 companies over 9 years (2010–2018). The study identified a strong positive relationship between sustainability reporting and business characteristics in the listed industrial firms in Nigeria using secondary data and the panel regression data analysis technique. The findings show that during the study period, firm size and financial performance have a substantial statistical negative impact on sustainability reporting, but leverage and growth have a large statistical positive impact on sustainability reporting. According to the findings, major companies with strong financial success are linked to sustainability performance and practices. To improve sustainable development practices, the study advised that the boards of directors and management of listed industrial products enterprises in Nigeria maintain appropriate profitability and a strong financial position. The study also suggests that regulators and policymakers in Nigeria should push businesses to use sustainable business practices.

The impact of company attributes (firm size, leverage, and profitability) on CSRP in Nigeria was investigated by Onyinye, Amakor, and Ifeoma (2019) [49]. The study used an ex-post design and sampled 35 manufacturing firms. These businesses were chosen because they have the potential to be eco-friendly. The study relied on secondary data from corporate reports of the sampled businesses from 2011 to 2017. Because linear estimating approaches are limited in econometric modelling of bounded dependent variables, the data was first estimated using the Generalized Least Squares and then fractional regression. To account for potential heteroskedasticity in the estimate, the white-adjusted standard error was employed, resulting in heteroskedasticity-free estimation results. Panel period and cross-sectional heteroskedasticity were found to be absent from the estimates. To rule out the potential for serial correlation in the errors, the Pesaran cross-dependence test was employed, and the statistic demonstrates that the residuals are not cross-section dependent. Firm size is the only variable that exerts a significant impact on CSRP. Companies in Nigeria should improve their sustainability disclosures.

Onyali and Tochukwu (2018) investigated the impact of firm characteristics on the environmental performance of Nigerian listed industrial companies. The impact of company size, profitability, and age on the cost of waste management of the sampled firms was investigated. An ex-post-facto design was used, and 11 businesses formed the sample of the study. Secondary data was acquired from annual reports and accounts from 2008–2017. The data were analyzed using the Pearson correlation coefficient and multivariate regression analysis. At a 5% significance level, the study's findings showed that company factors (firm size, profitability, and age) have a significant and beneficial impact on environmental performance (management costs). Following this, it was suggested that businesses that make industrial products should deal with environmental management concerns in a more environmentally friendly way to gain an advantage over the competition and improve the value of their businesses.

2.4 Theoretical Framework

Several major theories were considered in forming the theoretical framework for this study. These theories include

institutional theory, legitimacy theory, and stakeholder theory. The goal is to understand how these basic theories were used by early scholars to explain the characteristics of manufacturing firms and the disclosure of sustainability reports. As a result, this paper will provide a better theoretical understanding of these theories and will help and encourage further research on manufacturing company characteristics and sustainability reporting. This section analyzes each theory and the relationships between them. We conclude that the theory of legitimacy is the main theory used in examining the link between a manufacturing firm's characteristics and sustainability reporting.

2.4.1 The Resource-Based View (RBV)

Owing to the broad acceptance of the resource-based approach in the 1990s, strategy scholars' attention switched away from sectors and toward firm-specific characteristics as sources of "sustainable competitive advantage." In the mid-1980s, Wernerfelt (1984), Rumelt (1984), and Barney (1986) proposed the resource-based view (RBV), which has since become a significant approach in interpreting "sustained competitive advantage." In the early 1990s, the RBV was initially employed in strategic management studies. As a result, the study claims that a firm's resources, such as leverage, size, financial performance, liquidity, and other resources and assets, can influence whether a company adopts SR as part of its stewardship strategy or even its competitive strategy, which is particularly relevant given the recent emphasis on sustainability investing and the growing number of investors interested in it. Based on the RBV, Branco and Rodrigues (2006) explain why businesses participate in sustainability reporting programs by outlining the internal and external benefits they gain. This study is hinged on the RBV theory. The theory claims that the degree of SR disclosures level is determined by several internal and external factors, including the firm's features and structure.

3. Methodology

This study utilized an ex-post causal research design. The sample includes 15 publicly traded manufacturing enterprises in Nigeria. These companies were picked for their potential to be environmentally mindful. The study analyzed secondary data from corporate reports of the sampled enterprises from 2016 to 2020. Because linear estimating approaches are limited in econometric modelling of bounded dependent variables, the data was first estimated using the Generalized Least Squares methodology and fractional regression. Bounded response variables (variables having values between 0 and 1) have unique distributional properties and are rarely amenable to linear regression models. The fractional response model (FRM) was introduced by Papke and Wooldridge (2008) as a robustness technique to address potential concerns faced by constrained dependent variables. In this investigation, both approaches are used. Before the panel regression, the normality test, multicollinearity test, serial correlation test, heteroskedasticity test, and Ramsey reset test were run.

3.1 Model Specification

The model for the study was adopted from the works of Obeitoh, *et al*., (2017) [44] and Ong, *et al*., (2016) [46], with the choice of company attributes. As a result, the study's model is shown below:

$$SR_{it} = (\text{Company Characteristics}) \qquad (1)$$
$$SR_{it} = f(SIZE, LEV, ROA) \qquad (2)$$
$$SR_{it} = (\beta 1 FSIZE_{it}, + \beta 2 LEV_{it}, + \beta 3 ROA_{it} + U_{it},) \qquad (3)$$

Where:
SR = Sustainability Reporting (dichotomous data was used, which includes the codification of "1" representing environmental information disclosed and "0" for non-disclosure).
FSIZE = Firm Size (Log of Total Assets).
LEV = (log of total debt/total assets)
ROA = (Log Profit After Tax/Total Asset)

4. Results and Discussion

Statistical tests have been performed on the data, and the results and explanation of those tests are presented in this section.

Table 1: Descriptive Statistics

Variables	Mean	Max.	Min.	Std. Dev	Skewness	Kurtosis	Jaque bera	Prob.
FSIZE	7.039	9.020	5.090	0.747	0.157	2.699	4.576	0.101
LEV	0.255	0.820	0.000	0.162	-0.699	4.031	72.185	0.000
ROA	0.147	0.844	0.190	0.207	1.394	3.837	206.225	0.000
SR	0.597	2.010	0.000	0.218	1.007	7.010	489.129	0.000

Source: STATA Output, (2022).

The mean value of 0.2555 for LEV is reflected in Table 1, with the highest and lowest percentages being 0.82 and 0%, as evidenced by the descriptive statistics. The std dev. value was 0.1616, which indicates the degree to which a distribution deviates from the mean, and the Jacque Bera statistics p-value (0.000) confirms the series' normalcy and the absence of outlier data. ROA has a mean of 0.147, a max of 0.844, and a low of -0.1900, respectively. The std dev. value was 0.206, suggesting the degree to which a distribution deviates from the mean, and the p-value (0.000) in the Jacque Bera statistics confirms the series' normality and lack of outlier values. The mean of the SR index is 0.597, which is close to average, indicating that companies in the sample are performing moderately in terms of SR. However, tremendous progress may be made along the path, particularly in terms of disclosure quality, which is especially important in the environmental context. The series' normalcy and lack of outlier values are supported by the standard deviation of 0.218 and the p-value of Jacque Bera statistics (0.000). The FSIZE indicates that the series has a mean value of 7.03. The Jacque Bera statistics p-value (0.000) suggests that outlier values are unlikely to exist.

Table 2: Correlation Matrix of Variables

	LEV	ROA	FSIZE	SR
LEV	1.0000			
ROA	0.18206	1.0000		
FSIZE	-0.1453	-0.101	1.0000	
SR	-0.0118	-0.1348	0.0301	1.0000

Source: STATA Output, (2022).

Table 2 depicts the Pearson correlations for the variables, with the correlations between SR and the other variables of special importance. Based on the findings, SR has a positive correlation (r = 0.030) with FSIZE and an inverse relationship with ROA (r = -0.135) and LEV (r = -0.0118). On the other hand, correlations alone are insufficient to infer functional causality between variables.

Table 3: Variance Inflation Factor Test for Independent Variables

Variables	VIF
LEV	1.708008
ROA	3.133199
FSIZE	2.207941

Source: STATA Output, (2022).

The VIF describes the variance of a coefficient estimate for a regressor that has been inflated as a result of collinearity with other regressors. Essentially, VIFs of more than 10 is considered to be a cause for concern. However, none of the variables had VIF values greater than 10, indicating that none of them showed signs of multicollinearity.

Table 4: Regression Results

Variables	FE	RE	Fractional Reg. Model
C	0.4727*	0.4981*	1.0028*
	(0.077)	(0.1151)	(0.1202)
	{0.000}	{0.000}	{0.000}
LEV	-0.0039	-0.0032	-0.0007
	(0.0023)	(0.004)	(0.005)
	{0.0998}	{0.4461}	{0.1979}
ROA	-0.0594*	-0.1573*	-0.2750*
	(0.0309)	(0.0550)	(0.064)
	{0.0454}	{0.0045}	{0.000}
FSIZE	-0.0136*	-0.0415	-0.0865
	(0.0287)	(0.0550)	(0.0639)
	{0.6352}	{0.4107}	{0.1762}

R2 0.7602 0.0433
Adjusted R2 0.7219 0.0288
Pseudo R2 0.310
F-statistic 19.860 3.156 0.7483
Prob (F-stat) 0.000 0.00 0.0031

Model Diagnostics
Hausman 0.0392
Ramsey Reset test 0.410
Period Hetero.Test 0.81
Cross-section
Hetero.Test 0.431
Pesaran CD for serial
Correlation 0.787
Hosmer-Lemeshow 0.840
Likelihood ratio 36.40
Prob 0.000

Source: STATA Output, (2022).
Table 4 shows the regression results for the impact of corporate characteristics on SR. The Housman test favoured FE over RE models because it detects correlations between the variables, which is a key assumption in the panel model (Housman, 1998). Thus, the FE statistics are presented. Therefore, the white-corrected standard errors were utilized to compensate for the estimate's probable heteroscedasticity, and the panel period and cross-sectional heteroscedasticity were found to be absent from the estimates. To rule out the potential for serial correlation in the errors, the Pesaran cross-dependence test was employed, and the statistic demonstrates that the residuals are not cross-section dependent. The R2 is 0.7602, indicating that the model accounts for approximately 76.02 percent of the systematic changes in the dependent variable. The F-stat is 19.860 (p-value = 0.00), showing that it is not possible to rule out the

notion of a substantial linear connection between the variables under study. According to the coef. values, LEV has a negative (-0.0039, p=0.0455) and positive effect on SR at 10%. FS has a beneficial influence on SR (0.0594, p=0.0455). ROA also exerted a positive non-beneficial effect (0.0136, p = 0.6352).

The fractional regression models indicated that the pseudo R2 value is 0.310, which is frequently lower than that of linear regression models (Norusis 2005). The F-stat is 0.7483 (p-value = 0.00), which indicates a significant linear relationship between the variables. Deducing from the statistics, LEV has a negative (-0.0007) impact on SR, while albeit is not significant at 5% (p = 0.1979). Furthermore, FSIZE exerts a positive (=0.2750) and significant (p = 0.000) influence on the CSRP of the sampled companies, supporting the findings of the FE. ROA has a negative coef. value of (=-0.0865) and a non-significant effect (p = 0.1762). The likelihood ratio has a p-value of 0.05, indicating that the independent variables model was more effective than the null model. The Hosmer–Lemes how the test has a p-value of 0.679, indicating a strong fit to the data, and the Hosmer–Lemes how the test has a p-value of 0.679, indicating a strong fit to the data. Only the size of the company is considered to have a positive and significant impact on the overall CSRP of the sampled companies during the period under investigation. Large organizations are usually regarded as having a greater sense of social responsibility and inclination. Large firms are perceived to be subjected to more public scrutiny and hence face more genuine issues than smaller corporations. These findings confirm the findings of Andreas, Desmiyawati, and Warda (2016) [6], Obeitoh, Ridzwana, and Zaidi (2017) [44], Ong, *et al.*, (2016), Li, *et al.*, (2011) [40], and Kuzey & Uyar (2016).

5. Conclusion and Recommendation
The study concluded that companies have hastened their sustainability reporting for a variety of reasons, including public relations strategy, stakeholder demand, risk reduction, ethical considerations, and financial possibilities. Despite this, scholarly research on the phenomenon has yielded a multitude of hypotheses for the practice's widespread adoption. On the other hand, this gradual transition toward sustainability reporting has resulted in a greater diversity of content and quality in CSRP. Because the practice is voluntary, companies have a lot of discretion in selecting if and how they wish to account for the economic, social, and environmental costs and benefits of their activities. Owing to the above, the researchers recommended businesses broaden their reporting beyond core financial indicators to include other aspects of economic viability. According to the study, regulatory authorities might introduce incentives to increase sustainability reporting. Businesses of a given criterion, for instance, may be required to enhance their green reporting, and borrowing capacity within a certain amount may be required to be complemented by improved information disclosure, among other things.

6. References
1. Abdullahi A, Auwal BM. The Implication of NESREA Act and Financial Performance on Environmental Disclosure in Nigeria Asian Journal of Economics, Business and Accounting. 2021;21(10):106-121, 2021; Article no. AJEBA.71418 ISSN: 2456-639X DOI:

10.9734/AJEBA/2021/v21i10304364

2. Abdulrahaman BS, Babangida MA, Ibrahim M. Sustainability Reporting and Financial Performance of Multinational Oil and Gas Firms in Nigeria: The Paradox of Environmental Cost. International Journal of Innovative Research in Accounting and Sustainability, 2021. ISSN. 2021;6(1):2736-1500.

3. Abdulsalam NK, Babangida MA. Effect of sales and firm size on sustainability reporting practice of oil and gas companies in Nigeria. Quest Journals Journal of Research in Business and Management. 2020;8(1):01-08.

4. Abdulsalam NK, Abdulrahaman BS, Garba IT, Mohammed AB, Abubakar SY. The implication of corporate social cost on the profitability of oil marketing companies in Nigeria. IOSR Journal of Business and Management. 2020;22(1):01-08. Doi: 10.9790/487X-2201025156.

5. Akbas HE. Company characteristics and environmental disclosure: An empirical investigation on companies listed on Borsa Istanbul 100 index. The Journal of Accounting and Finance. 2014;1(1):145-164.

6. Andreas T, Desiniyawati B, Warda L. Determinants of corporate social responsibility disclosure and investor reaction. International Journal of Economics and Financial Issues. 2016;6(4):11-17.

7. Aras G, Crowther D. Corporate sustainability reporting: A study in disingenuity? Journal of Business Ethics. 2009;87(1):279-288.

8. Asaolu TO, Agboola AA, Ayoola TJ, Salawu MK. Sustainability reporting in the Nigerian oil and gas sector. Proceedings of the environmental management conference, Federal University of Agriculture, Abeokuta, Nigeria, 2011.

9. Babangida MA. Sustainability Reporting and Financial Performance of Oil and Gas Companies in Nigeria. Proceedings of First Faculty of Arts, Social and Management Sciences Annual Conference, Federal University Birnin Kebbi on Sustainable Development Goals in Africa: The Journey so Far, 2019, 1(1).

10. Boiral O. The quality of sustainability reports and impression management: a stakeholder perspective. Accounting, Auditing & Accountability Journal. 2017;30(3):643-667.

11. Cho CH, Michelon G, Patten DM. Impression Management in Sustainability Reports: An Empirical Investigation of the Use of Graphs. Account. Public Interest. 2012;9(2):12:16-37.

12. Choudhuri A, Chakraborty J. An insight into sustainability reporting. ICFAI Journal of Management Research. 2009;8(4):46-53.

13. Christensen LJ, Peirce E, Hartman L, Hoffman W, Carrier J. Ethics, csr, and sustainability education in the financial times top 50 global business schools: Baseline data and future research directions. Journal of Business Ethics. 2007;73(2):347368.

14. Daub C. Assessing the Quality of Sustainability Reporting: An Alternative Methodological Approach. Journal of Cleaner Production. 2007;15(2):75-85.

15. Davis G, Searcy C. A review of Canadian corporate sustainable development reports. Journal of Global Responsibility. 2010;1(2):316-329.

16. Deegan C. An analysis of the incentives of Australian firms to provide environmental information within their annual report. Accounting Group Seminar in Church land campus, New South Wales, 2014.

17. Dilling PFA. Sustainability reporting in a global context: What are the characteristics of corporations that provide high-quality sustainability reports: An empirical analysis. International Business and Economics Research Journal. 2010;9(1):19-30.

18. Djuminah O, Wuruyani M, Kurniawati SB, Satyanovi VA. Firms characteristics and environmental disclosure: A comparative study of the hospitality industry of Indonesia, Malaysia and Thailand. Review of Integrative Business and Economics Research. 2017;6(4):364-376.

19. Dyllick T, Hockerts K. Beyond the business case for corporate sustainability. Business Strategy and the Environment. 2002;3(1):130-141.

20. Egbunike AP, Tarilaye N. Firm-specific attributes and voluntary environmental disclosure in Nigeria: Evidence from listed manufacturing companies. Academy of Accounting and Financial Studies Journal. 2017;21(3):1-9.

21. Elkington J. Cannibals with forks: The triple bottom line of 21st-century business. Oxford, Capstone Publishing, 1997.

22. Elkington J. Governance for sustainability. Corporate Governance: An International Review. 2006;14(6):522-529.

23. Endress L, Roumasset J, Zhou T. Sustainable growth with environmental spillovers. Journal of Economic Behaviour and Organization. 2005;58(4):527-547.

24. E.rlandsson M, Olinder M. Environmental sustainability reporting: Development in Sweden 1998-2008. Unpublished thesis submitted to the University of Gothenburg, School of Business, Economics and Law, 2009.

25. Fifka Ma, Drabble M. Focus and Standardization of Sustainability Reporting – A Comparative Study of the United Kingdom and Finland. Business Strategy and the Environment. 2012;21(2):17-30.

26. Ganewatta L, Priyadarshanie W. The effect of firm characteristics on corporate social responsibility disclosure in Sri Lankan banking sector, 2016. Retrieved from www.ssrn.com.

27. Goel P. Triple bottom line reporting: An analytical approach for corporate sustainability. Journal of Finance, Accounting, and Management. 2010;1(1):2742.

28. GRI, Global Reporting Initiatives. Sustainability reporting guidelines version, 2018, G-4.1.

29. Hinson R, Gyabea A, Ibrahim M. Sustainability reporting among Ghanaian universities. Communicato: South African Journal for Communication Theory and Research. 2015;41(1):22-42.

30. Ho PH, Taylor G. Corporate governance and different types of voluntary disclosure. Pacific Accounting Review. 2013;25(1):4-29.

31. Kansal M, Joshi M, Batra GS. Determinants of corporate social responsibility disclosures: Evidence from India. Advances in Accounting, incorporating Advances in International Accounting. 2014;30(1):217-229.

32. Kent P, Monem R. What drives tbl reporting: Good governance or threat to legitimacy? Australian Accounting Review. 2008;18:297-309.

33. Kilic M, Kuzey C. Factors influencing sustainability reporting: Evidence from Turkey, 2017. Retrieved from https://ssrn.com/abstract=3098812.
34. Kolk A, Perego P. Determinants of the adoption of sustainability assurance statements: An international investigation. Business Strategy and the Environment. 2010;19(3):182-198.
35. KPMG Global Sustainability Services & Accountability, Assurance Standards Briefing - AA1000 Assurance Standard & ISAE3000, Amsterdam, 2005.
36. Kuzey C, Uyar A. Determinants of sustainability reporting and its impact on firm value: evidence from the emerging market of Turkey. Journal of Cleaner Production. 2017;143(1):27-39.
37. Lang M, Lundholm R. Cross-sectional determinants of analyst ratings of corporate disclosures. Journal of Accounting Research. 1993;31:246-271.
38. Larrinaga-Gonzalez S. Insights from neo-institutional theory. In J. Unermann, J. Bebbington & B. O. Dwyer (Eds.), Sustainability Accounting and Accountability. London, Routledge, 2011.
39. Legendre S, Coderre F. Determinants of GRI G3 application levels: the case of the Fortune Global 500. Corporate Social Responsibility and Environmental Management. 2013;20(3):182-192.
40. Li N, Toppinen A, Tuppura A, Puumalainen K, Hujala M. Determinants of sustainability disclosure in the global forest industry. Electronic Journal of Business, Ethics and Organization Studies. 2011;16(1):33-40.
41. Muhammad AC. Impact of Firm Characteristics on Sustainability Reporting of Listed Industrial Goods Firms in Nigeria. Kebbi Journal of Accounting Research, 2020, 1(1).
42. Nwobu O. The relationship between corporate sustainability reporting and profitability and shareholders fund in Nigerian banks. Journal of Accounting and Management. 2015, 5(3).
43. Nwobu OA. Determinants of corporate sustainability reporting in selected companies in Nigeria. Unpublished thesis submitted to the Department of Accounting, College of Business and Social Science, Covenant University, Ota, Ogun State, Nigeria, 2017.
44. Obeitoh O, Ridzwana BMS, Zaidi BMD. Determinants and level of corporate sustainability disclosure on employees in Malaysia. International Journal of Economics, Commerce and Management. 2017;5(12):218-235.
45. Olusola EI, Olanyinka IO, Ayodele GO. Financial Performance and Environmental Sustainability Reporting Practices of Listed Manufacturing Firms in Nigeria 7(1), Global Journal of Accounting. 2021;7(1):15-24.
46. Ong TS, Tho HS, Goh HH, Thai SB, Teh BH. The relationship between environmental disclosures and financial performance of public listed companies in Malaysia. International Business Management. 2016;10(4):461-467.
47. Onyali CI, Okafor TG, Onodi B. Effectiveness of triple bottom line disclosure practice in Nigeria: Stakeholders perspective. European Journal of Accounting Auditing and Finance Research. 2015;3(3):45-61.
48. Onyali CI, Tochukwu GO. Firm Attributes and Corporate Environmental Performance: Evidence from Quoted Industrial Firms on Nigerian Stock Exchange. Scholars Journal of Economics, Business and Management (SJEBM). 2018;5(9):854-863.
49. Onyinye Amakor E, Ifeoma Chinelo. Firm Attributes and Sustainability Reporting In Nigeria. International Journal of Academic Accounting, Finance & Management Research (IJAAFMR). 2019;3(6):36-44.
50. Oyewo BM, Badejo SO. Sustainable development in reporting practices by Nigerian banks. Mediterranean Journal of Social Sciences. 2014;5(23):2535-2544.
51. Saji BS. Corporate social responsibility and sustainability reporting trends in the United Arab Emirates. The Clute Institute, International Academic Conference, San Antonio, Texas, USA, 2014.
52. Shamil M, Shaikh J, Ho PL, Krishnan A. The influence of board characteristics on sustainability reporting: Empirical evidence from Sri Lankan firms. Asian Review of Accounting. 2014;22(2):78-97.