

FIRM ATTRIBUTES AND SUSTAINABILITY DISCLOSURE OF LISTED NON-FINANCIAL SERVICES COMPANIES IN NIGERIA

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Abstract

In spite of the strategic importance of corporate sustainability disclosure, Nigerian firms lag due to voluntary frameworks, weak regulation, and low stakeholder pressure. This study examines the relationship between firm attributes and sustainability disclosures among 70 listed non-financial services companies in Nigeria from 2012 to 2023. Firm attributes were proxied as firm size, leverage and profitability. While sustainability disclosure was proxied as environmental, social and governance disclosure. The hypotheses were tested using fixed effect panel regression and findings revealed that firm size positively influences sustainability disclosure, while leverage and profitability have insignificant effects on non-financial service firms in Nigeria. The study recommends that policymakers and regulatory bodies in Nigeria, such as the Securities and Exchange Commission and Financial Reporting Council, should advocate for the introduction of incentives and recognition awards to encourage smaller firms to enhance sustainability disclosure. In particular, a tiered regulatory framework is essential, allowing smaller firms to start with simplified reporting that evolves as they grow. Establishing benchmarks that consider firm size will further support efforts towards enhancing sustainability disclosure.

Keywords: Firm Attribute, Firm Size, Leverage, Profitability, Sustainability disclosure, ESG Disclosure.

1. INTRODUCTION

Sustainability has gained global attention due to increasing concerns over environmental degradation, social inequalities, and economic instability. Sustainability reporting has evolved as a strategic tool encompassing corporate governance, social responsibility, and environmental stewardship (Hasan et al., 2022). Various frameworks, such as the Global Reporting Initiative (GRI) and the International Integrated Reporting Council (IIRC), have been introduced to enhance corporate transparency and accountability (Adeyemi & Bakare, 2019; Adekanmi, 2022). This movement has been driven by global crises, including climate change, resource scarcity, and financial instability, compelling firms to disclose non-financial information to stakeholders (Mutalib et al., 2020).

In Nigeria, sustainability reporting is gradually being recognized, but its adoption remains low. Studies indicate that Nigerian firms are lagging in environmental, social, and governance (ESG) disclosures compared to global standards (Jasman et al., 2023), while reporting practices remain inconsistent, limiting comparability (Lambe et al., 2023). Nwobu (2015) found that only 2% of Nigerian businesses disclose substantial sustainability information. Despite regulatory efforts, sustainability reporting remains largely voluntary, with inconsistencies in disclosure standards exacerbating transparency issues (Uzoka et al., 2020). Sustainability disclosure is considered a strategic tool that can provide companies with a competitive advantage, yet many Nigerian firms fail to integrate sustainability disclosures into their annual reports (Modozie & Amahalu, 2022). This is linked to the absence of a structured reporting

framework, coupled with voluntary compliance, leading to inconsistent and inadequate sustainability disclosures (Onyinye & Ifeoma, 2019). However, investors continued to demand transparent and comparable ESG data to assess long-term risks and opportunities (Lambe et al., 2023).

Firm attributes, including size, leverage, and profitability, significantly influence the extent of sustainability disclosure. As the result of their visibility, larger firms are subject to greater scrutiny from stakeholders and regulators (Owolabi & Iyoha, 2012), leading to extensive sustainability reporting to enhance legitimacy. Leverage, or the extent to which a firm relies on debt financing, presents a nuanced relationship with sustainability disclosures. Some highly leveraged firms may prioritize financial stability over sustainability commitments, while others integrate ESG disclosures to meet creditor expectations (Olowokere et al., 2016). Profitability plays a crucial role in sustainability disclosure, as financially stable firms allocate resources to CSR initiatives and enhanced reporting (Guthrie & Parker, 1990; Egbunike & Okerekeoti, 2018). The interconnection between these attributes highlights the role of financial capacity and stakeholder expectations in sustainability reporting.

Studies link sustainability disclosures to firm attributes, such as profitability, leverage, and size (Kajola et al., 2023; Pinheiro et al., 2023). Larger firms tend to engage in more comprehensive sustainability reporting to maintain legitimacy and enhance corporate reputation (Branco & Rodrigues, 2008). The role of leverage in sustainability disclosures is mixed, with some studies suggesting that highly leveraged firms may prioritize financial performance over sustainability (Ntim et al., 2013), while others highlight creditors' growing demand for sustainability reporting (Peters & Romi, 2015). Profitability is also a key determinant, as profitable firms have greater financial capacity to engage in sustainability initiatives (Egbunike & Okerekeoti, 2018).

A critical gap exists in understanding the relationship between firm attributes and sustainability disclosures. Specifically, existing studies on sustainability disclosures in Nigeria have been limited in scope and methodology. Prior studies have largely focused on financial institutions and consumer goods sectors, neglecting a comprehensive analysis of the manufacturing sector (Asaolu et al., 2011; Oyewo & Badejo, 2014; Nwobu, 2015). Research by Asaolu et al. (2011) assessed sustainability reporting in the Nigerian oil and gas sector, while Oyewo and Badejo (2014) focused on Nigerian banks. In addition, previous studies have relied on limited datasets and short timeframes (5–7 years), resulting in fragmented conclusions and mixed findings, regarding the relationship between firm attributes and sustainability disclosure (Mbonu & Amahalu, 2021). Empirical inconsistencies highlight the need for comprehensive studies with extended timeframes.

In addition to non-existence of a holistic analysis of the determinants of sustainability disclosure across the non-financial sector in Nigeria, this study addresses these gaps by examining firm attributes such as firm size, leverage, and profitability, employing 18 ESG disclosure scores, from a robust secondary sources, to provide a more in-depth analysis of the factors influencing corporate sustainability disclosures in Nigeria. The choice of the firm attributes is based on their established influence on corporate reporting practices.

The main objective of the study is to examine firm attributes (firm size, leverage, and profitability) and sustainability disclosure of listed non-financial services companies in Nigeria. This is with the view to determining to what extent does sustainability disclosure affect corporate accountability and stakeholder trust in Nigerian listed non-financial services companies? The study period spans 2012 to 2023, chosen to capture long-term trends post-global financial crisis. The non-financial sector is prioritized due to its critical role in Nigeria's economic development and its significant environmental and social impact.

The findings offer valuable insights on how firm attributes influence transparency as well as management & shareholders' investment decisions. It is also expected to provide insight to regulatory bodies, such as the Nigerian Exchange Group (NGX) and Securities and Exchange Commission (SEC), in developing policies that promotes standardization of sustainability reporting. Finally, government policymakers can use the study to formulate policies that enhance corporate transparency and sustainability practices in Nigeria.

The underlining hypotheses that guide this study is stated as follows:

- H₀₁: Firm Size has no significant effect on Sustainability disclosure of listed non-financial services companies in Nigeria.
- H₀₂: Leverage has no significant effect on Sustainability disclosure of listed non-financial services companies in Nigeria.
- H₀₃: Profitability has no significant effect on Sustainability disclosure of listed non-financial services companies in Nigeria.

2. LITERATURE REVIEW

This study anchored on stakeholder theory simply because, according to the perspective of stakeholder theory, the company in carrying out all its business activities is responsible for meeting and protecting the interests of stakeholders. The availability of non-financial information is one of the things needed by stakeholders. Through the disclosure of sustainability reports or sustainability, reports can increase transparency, accountability, and increase stakeholder confidence, which will have an impact on improving the firm value (Li et al. 2018). Moreover, a company can attain long-term support from its stakeholders when it adopts social responsibility practices, which can positively influence a firm's long-term value. Based on stakeholder corporate sustainability reporting is a means of gaining stakeholder's support. Therefore, it is expected that corporate sustainability reporting lead higher firm attribute.

Environmental, Social and Governance (ESG)

Environmental, social and governance (ESG) is a framework used to assess an organization's business policies and performance on several sustainability and ethical grounds. It also supplies a method to measure business risks and prospects in such domains. In capital markets, some investors utilize ESG criteria to evaluate organizations and formulate their investment strategies, a process known as ESG investing. While sustainability, ethics and corporate

governance are generally considered to be non-financial performance indicators, the role of an ESG program is to ensure accountability and the implementation of systems and processes to manage a company's impact, such as its carbon footprint and how it treats employees, suppliers and other stakeholders (Benjamin et al., 2017).

ESG initiatives also contribute to broader business sustainability efforts that try to position firms for long-term success based on ethical corporate management and business strategies. Environmental, Social, and Governance (ESG) is a collection of principles that measure a company's influence on the environment, society, and its transparency and accountability. It's also known as sustainability ESG is a technique to analyze a company's non-financial risks and potential. It's used by investors to analyze a company's sustainability initiatives and decide whether to invest in it. ESG may help firms prosper while simultaneously improving the society and environment (Tarus, 2020). ESG has three primary issue areas, or pillars, that firms report on:

- 1) *Environmental*: How a corporation influences the natural environment, including resource consumption, pollution, climate change, waste management, and biodiversity
- 2) *Social*: How a corporation impacts people and society, including labor practices, employee relations, diversity, equity, and inclusion, community participation, customer satisfaction, and human rights
- 3) *Governance*: The systems and structures that guide a company's operations and decision-making processes, including board business model resiliency, business ethics, and risk management. Many organizations produce ESG reports to display transparency and disclose the aspects that contribute to their overall risks and possibilities.
- 4) *Sustainability disclosure*: Sustainability disclosure is a tale disseminated by a company about the environmental, economic and societal impacts of its daily activities (Uwuigbe et al. 2018). Sustainability disclosures relate to the statements made by businesses in their financial reports describing the policies of the organization, the commitment and the implementation of sustainability activities. The disclosure of sustainability practices can be seen as a tool for achieving sustainable development but also as a result of society pressures for greater accountability and corporate transparency (Minguel 2017). The Global Reporting Initiative (GRI), the leading organisation of sustainability reporting guidance and standards, has described sustainability reporting as "a report published by a company on the economic, environmental and social impacts of its day-to-day operations." Stakeholders are keen to know how the firm's strategy and performances are sustainable in different dimensions, including economic, environmental, and social elements, as well as the potential to produce corporate value, via the sustainability reports. Environmental, social, and economic performance disclosure in annual reports or supplemental reports should represent the company's degree of accountability, responsibility, and openness to various stakeholder (Indriawati et al. 2021).

Firm Attribute

Firm attributes can be defined as the wide varieties of information disclosed in the financial statement of business entities that serve as the predictors of the firms' quality of accounting information and performance. Firm attributes can also be defined as the behavioral patterns of company's operation which can enable them to achieve their objectives throughout the period of their operations (Amahalu & Ezechukwu, 2017). Firm attributes refer to the various accounting information reported by firms in their financial statements for a particular accounting period which can send a message to various stakeholders of firms about their performance. Company's attributes vary from one business entity to another.

The company's characteristics can be determined based on the relevant information disclosed on its financial statements for a particular accounting period (Bunea & Dinu, 2020). When analyzing environmental disclosure practices, Roberts (1992) emphasized the importance of corporate firm characteristics. These attributes pertain to distinctive features of a company that have crucial influence on its financial decisions and operational parameters. Therefore, a company's qualities can influence its decision to publish non-financial information, including environmental disclosures.

Many experts think that stakeholders should analyze the extent to which corporate features affect a company's choice of disclosure strategy and identify such influential factors. Thus, this study tries to incorporate firm size, firm leverage, and company profitability as proxies of corporate firm features.

Firm size is the strength, power, prowess or wherewithal of an organization. Firm size is measured by either its asset base, its net worth, the capital spent, labor employed, raw material used or volume and value of production. According to Mangroove (2021), the size of a business is very essential because it considerably impacts the production and profitability of the firm. An organization with a significant asset base is therefore perceived to be financially strong. Organizations vary in sizes, they are either modest, medium or gigantic. Evidence from past studies (Faudah et al, 2019; Nguyen, 2020) have indicated company size proxied by log of assets of the organization to be positively associated with sustainability reporting. Several criteria have been established for the association of firm size and sustainability reporting by earlier literatures.

According to Frost (2007), larger firms are thought to possess stronger capabilities and resources to engage in a greater and quality information disclosure, more so, they are usually under greater publicity and greater scrutiny which compels them to deliver quality reports. Ebiringa, et al (2013) think that huge enterprises are more likely to share information so as to decrease political costs, litigation cost and government interference. Whereas, Kansal, et al (2014) argue that because larger firms receive more public attention, they need to offer more information by establishing their social and environmental responsibility activities for the betterment of their corporate image. Complimenting their premise, Faudah et al (2019) noted that large enterprises are more visible than smaller organizations thus, they gain more attention from the stakeholders and the general public.

Leverage refers to the utilization of loan capital, rather than equity capital, to finance corporate investments or asset acquisitions, with the objective of enhancing profitability and augmenting shareholder value (Hayes & James, 2021). An organization is deemed highly leveraged when its debt exceeds its equity. Ashmarina et al. (2016) stated that enterprises utilizing borrowed money incur greater risk than those operating without such debt.

Lucia and Panggabean (2018) argued that excessive leverage or financial debt exposes the organization to considerable financial risks, pushing it to undertake and report extra sustainability initiatives to alleviate the concerns of creditors and other stakeholders. The assertion expressed by Lucia and Panggabean (2018) was contested by Sonia and Khafid (2020), who noted that leveraged firms strive to cut expenses, including the costs associated with sustainability disclosures.

Leverage quantifies a company's proportion of loan capital or debt relative to the value of its common stock or equity. Leverage gives a realistic portrayal of an organization's financial structure, analyzing the underlying risk of that structure over the long run (Watson et al., 2002). Leverage is the use of loan capital (instead of equity capital) to fund the project or assets of a firm in order to make more profit and improve their shareholders' value (Hayes & James, 2021). Salawu et al. (2021) defined leverage as the application of loans to buy assets for the firm.

Profitability refers to a business's capacity to generate profit. A profit is the remainder of a business's revenue after all expenses directly associated with revenue generation, such as production costs, and other operational expenses have been deducted (Horton, 2019).

Profitability is the capacity of a corporation to utilize its resources to produce revenues that surpass its expenses. In other words, this is a company's capability of creating profits from its operations (Shawn, 2020). It is the metric used to determine the breadth of a company's profit in relation to the size of the firm. Profitability is a measurement of efficiency –and ultimately its success or failure. Profitability is a business's ability to provide a return on an investment based on its resources in contrast with an alternative investment (Melissa, 2019). Profitability is the measurement of extra revenue over expenses incurred. It is the ultimate production of a corporation.

It is defined as an indicator of the firms' performance in managing its assets. Profitability derives from the word 'profit' which several scholars have proved to be ambiguous. Profitability ratios are calculated to determine the operating efficiency of a corporation. Not only management is concerned in the profitability of a corporation, but also stockholders. Companies with excellent news are more likely to engage in sustainability activities. Thus, it would be expected that managers of profitable organizations would be encouraged to share more information in order to separate themselves from the less profitable firms.

Profitability could be judged in relation to sales or investment. It is mainly quantified using ratios like the net profit margin, gross profit margin, operating margin and return on capital employed (ROCE) and so on. For the purpose of this study, profitability will be determined using ROCE.

Hypothesis Development

Dewa Made, *et al.*, (2020) studied the effect of company size, leverage, and environmental performance on the area of sustainability reporting. This research was conducted at companies listed in the LQ45 index. The number of samples taken were 8 companies, using all the company's annual reports and sustainability reports for the 2015-2018 period. The analysis technique used is multiple linear regression analysis. Based on the results of the analysis it was found that company size and environmental performance had a positive and significant effect on the area of sustainability reporting. This shows that the larger the company, the company will report more items on its sustainability reporting and the better the company's environmental performance, the number of items disclosed in the sustainability report will be more. While the leverage variable does not directly influence the sustainability reporting. This research confirms stakeholder theory and legitimacy.

Maryana and Yenni (2021) investigated the impact of firm size, leverage, firm age, media visibility, and industry affiliation on sustainability reporting disclosure as measured by the score of the GRI indicator. This study uses multiple linear regressions with E-views software. This study also utilizes pollution from firms that are admitted to the LQ 45 index listed on the BEI from 2014 to 2018. The research sample used was 18 purposive sampling method selected firms. The results of this study that have been processed simultaneously are that firm size, leverage, firm age, media visibility and profitability have a significant impact on SR disclosure. Partially, Firm Size and Media Visibility do not have a significant impact on SR disclosure. Leverage and Firm Age have a negative and significant impact on SR disclosure, while profitability has a positive and significant impact on SR disclosure.

Okoba and Chukwu (2023) investigated the effect of corporate attributes (especially firm size, firm age and leverage) on social sustainability performance disclosures in Nigeria. A checklist based on the global reporting index was used in analyzing social sustainability performance disclosures (SSPD) in the sustainability reports of thirty manufacturing firms. The firms were drawn from the consumer goods, industrial goods, agriculture and health care sectors of the Nigerian economy, and the data used covered the period 2010 to 2020. The study was anchored on the legitimacy theory perspective. Information on firm attributes was extracted from the annual reports of the selected firms for the same period. Regression technique with Newey West robust standard errors was used to analyse the data collected. Findings showed that firm size, firm age and leverage, each had a positive effect on social sustainability performance disclosures in manufacturing firms in Nigeria, leading to the conclusion that firm characteristics have significant effect on sustainability disclosures. The implication of these findings is that social interactions between a firm and its societal environment increases over time, and this helps to enhance the legitimacy of the firm in its community.

Fani, *et al.*, (2022) analyze the effect of firm size and firm age on sustainability reporting and its impact on earnings management. The antecedent variable used in this study is firm size measured by Ln asset total and firm age measured by the result of research year data minus the year the company was founded. The independent variable used in this study is sustainability reporting measured by Global Reporting Initiative (GRI). Variable dependent used in this study

is earnings management measured by discretionary accrual modified jones. The population of this research is mining companies listed on Indonesia Stock Exchange in 2015-2019. Based on the purposive sampling method, the sample chosen in this research is 14 companies with total sample of 70 data. This study used multiple linear regression analysis using SPSSv25 software. The result of this study showed that firm size has a positive impact on sustainability reporting, firm age has a positive impact on sustainability reporting, SR economic dimension has a positive impact on earnings management, SR environmental dimension has a negative impact on earnings management. However, SR social dimension doesn't affect earnings management

Abdulsalam, & Babangida. (2020) examined the significant effect of sales and firm size on sustainability reporting of oil and gas companies in Nigeria. The population of the paper consists of 24 oil and gas firms playing a major role in the upstream, midstream and downstream of the Nigerian oil and gas sector. Six of the companies were selected to form the sample size of the study for a period of fifteen years, from 2004 – 2018. Panel regression techniques were utilized to analyzed data obtained from annual accounts and stand-alone reports of the sample companies. The results show that firm characteristics proxied by sales growth and leverage exerts a negative significant effect, whereas, firm size exert a positive significant effect on sustainability reporting and profitability of oil and gas companies in Nigeria. The paper, therefore, recommended oil and gas firms to consider a mixture of common stock, preferred stock and retained earnings as a form of capital structure than given a preference to debt financing

Nurudeen, et *al.*, (2021) assessed the impact of firm size on environmental disclosure of quoted firms in Nigeria, for the year 2012-2016. The study was undertaken on all companies listed in the Nigeria Stock Exchange (NSE). The study adopted the cross-sectional research design. The study focused on a sample of 82 firms from the total population of 176 firms listed on the Nigeria Stock Exchange for a period of 5 years ranging from 2012 to 2016. The study method of data collection was secondary data in nature, which involved retrieving data from the annual financial statement of the sampled firm in Nigeria. The study employed the usage of Binary Regression techniques as the method of data analysis. From the results of the Binary Logistic Regression, it reveals that the size of quoted firms in Nigeria has a negative coefficient of -0.059173 and a p-value of 0.0574, which shows that a negative relationship exists between ENVD and SIZE even though the relation was significant at 5%. From the results therein, it provides a basis for the rejection of the null hypothesis which assumed that there is no relationship between the size of quoted firms and environmental disclosure. The implication of this is that the disclosure of environmental information is strongly based on the size of firms. It therefore means that the larger a firm is, the more the likelihood of disclosing environmental information in Nigeria. This reveals that smaller firm are unlikely to disclose such environmental information. The study recommends that government should compel companies aspiring to be listed on the Nigeria Stock Exchange to provide environmental risks disclosures as one of the pre-requisites for listing and should be enforced to continually provide such environmental disclosures while presenting their annual reports and accounts.

H₀₁: Firm Size has no significant effect on Sustainability disclosure of listed non-financial services companies in Nigeria.

Aimuyedo, *et al.*, (2022) examined the effect of leverage on sustainability reporting, with moderating effect of firm size in the Industrial goods sector in Nigeria. The period of study was 11 years (2009 – 2019). The population of study consisted of the 14 listed industrial firms in Nigeria of which 2 companies were filtered out due to lack of comprehensive data for the period of study indicating 12 listed companies as the sample size. The study adopted ex post facto research design and used panel data collected from the annual and sustainability reports of the sampled firms. One hundred and thirty-two (132) set of reports were analyzed using multiple regression analysis and content analysis of the Global reporting initiative, GRI G4 index. Results of data analysis revealed a significant positive effect of Leverage on sustainability reporting. A further analysis revealed that the direction of the effect of LEV on SR was increased or strengthened with firm size as the moderating variable. The policy implication of this study is that organizations should strengthen their policies geared towards more sustainability disclosures especially if they are levered and are big in size in order to induce trust among the stakeholders and especially, their creditors. This study recommended that stakeholder should continue to pressure organizations to be more socially and environmentally responsible and the government through the Nigerian Group Exchange (NGX) should ensure measures for more and better sustainability disclosures are put in place and ensure strict compliance

Susilawati, *et al.*, (2022) investigated the impact of leverage and good corporate governance on the disclosure of a company's sustainability report. This study employs quantitative methods. This study utilizes secondary data, specifically annual reports and sustainability reports or Sustainability Reports of banking businesses listed in BUKU 2, both of which were listed on the Indonesia Stock Exchange (IDX) during the period of 2020- 2021. This study employed descriptive statistical tests, classical assumption tests including normality tests, multicollinearity tests, heteroscedasticity tests, and autocorrelation tests, and hypothesis testing including coefficient of determination test, f test, and t-test. The analytical tool used in this study is the SPSS 2.6 application. The results of this study indicate that Leverage, the Number of Boards of Commissioners, and the Number of Audit Committees do not influence the disclosure of sustainability reports in the banking industry listed in BUKU 2. At the same time, the proportion of Independent Commissioners affects the disclosure of sustainability reports in the banking industry listed in BUKU 2. Furthermore, the results of simultaneous calculations show that the Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER), the Board of Commissioners, the Independent Board of Commissioners, the Audit Committee and Total Assets simultaneously (simultaneously) have a significant effect on the disclosure of the sustainability report as well as the regression equation used in this study is reliable.

Ezejiofor, *et al.*, (2022) examined the effect of Leverage on Social Sustainability Reporting of listed Oil and Gas firms in Nigeria. Based on the nature of the study, Ex-Post facto research design and content analysis method were adopted. Seven (7) listed Oil and Gas firms in Nigeria constituted the sample size of this study for the years 2010 and 2020. Secondary data were

extracted from the annual reports and accounts of the sampled firms and extracts from the annual reports were analyzed using descriptive statistics and inferential statistics such as Pearson Correlation, Panel Least Square (PLS) regression analysis and Hausman test through E-Views 10.0 statistical software. Findings from the empirical analysis showed that Leverage had significant effect on Social Sustainability Reporting in Nigeria. Given the significant relationships between leverage and sustainability reporting, firms should intensify efforts to understand the role of sound environmental practices and disclosures in reducing the cost of debt and enhancing financial performance.

H₀₂: Leverage has no significant effect on Sustainability disclosure of listed non-financial services companies in Nigeria.

Nwamaka, and Regina (2024) examined the effect of sustainability reporting on corporate profitability in listed oil and gas companies in Nigeria. The specific objective was to determine the effect of sustainability reporting on return on assets, earnings per share and return on equity of listed oil and gas firms in Nigeria. The ex post facto research design was employed using twelve companies in the oil and gas sector. Data employed were extracted from 2009 to 2022 reports of studied companies and diagnosed with appropriate statistical tests (multicollinearity and heteroskedasticity tests) for fitness of regression. The panel regression analysis was utilised to determine the effect of sustainability reporting on profitability and F statistic used to test the hypothesis. The study revealed that sustainability reporting and profitability are significantly related. Specifically, sustainability reporting had a positive and significant effect on return on assets and earnings per share. However, no effect was found on net profit margin and return on equity of quoted oil and gas firms. In conclusion, the benefits of sustainability reporting such as satisfaction of host communities outweigh the costs associated with it and reflects in the profitability of these firms. It was recommended that business organizations should not be deterred by the costs involved in sustainability reporting but commit resources to sustainable operations for long and short term benefits.

Ngozi & Charles (2019) examined the effect of sustainable reporting on the profitability indicators of Nigeria quoted firms between 2008-2017. Data was sourced from financial statement of the firms. Twenty firms were selected from the population of quoted firms in Nigeria. Return on equity, earnings per share and return on investment were proxy for profitability while sustainable reporting was proxied by economic, social, environmental and corporate governance disclosure. The panel data model was tested using the Hausman test. Model one and two validated the fixed effect while model three validated the random effect. The results found that economic disclosure and social disclosure have positive but insignificant effect on return on equity of the selected firms while environmental and corporate governance disclosure have negative and insignificant effect on return on equity, all the predictor variables have positive and insignificant effect on earnings per share of the firms and that economic, social and environmental disclosure have positive effect on return on investment while corporate governance disclosure have negative effect on return on investment of the selected firms in Nigeria. We recommend that operating environment of the firms should be well examined and policies should be advanced to manage factors such as economic, social,

environmental and corporate governance disclosures to leverage the environmental challenges and enhance profitability, companies should ensure strict compliance to all forms of sustainability reporting.

Onodi, *et al.*, (2023) examined the effect of pillars of sustainability disclosure on profitability (return on asset) of oil and gas firms in Nigeria. The specific objectives of the study were: to examine the effect of social, economic and environmental pillars of sustainability disclosures on return on assets of Oil and Gas firms in Nigeria. The population of the study was made up of all the manufacturing Oil & Gas firms listed in Nigerian Exchange Group, while Con-oil, Forte Oil, Capital Oil, Total Nigeria and MRS oil Nigeria were selected. The statistical tool used was multiple regression analysis, and the findings revealed that social, economic and environmental pillars of sustainability disclosures have no significant effect on Return on Assets (ROA) of Oil and Gas firms in Nigeria. The study recommended that Oil & Gas manufacturing firms should ensure that they report their social, economic and environmental activities in order to enhance their performance level and compete favorably in Oil sector. This will also enable all the stakeholders appreciate firms' annual report and put reliance on the published financial statements in their investment decisions. When a firm enjoys legitimacy, the performance of the organization will be improved significantly. The study also recommended that there should be standardized Sustainability Index for ranking firms' reportage in order for the firms to adhere strictly to voluntary and mandatory disclosures.

Anindyo, *et al.*, (2022) examine the effect of the sustainability report disclosure on economic, environmental, and social aspects of the financial performance of Return on Assets (ROA). The Global Reporting Initiative (GRI) G4 Standard is used as a guideline for disclosing the sustainability report. The population of this research is natural exploration companies (mining and plantation companies) which are listed on the Indonesia Stock Exchange from 2018-to 2019. A total of 15 companies from mining companies and plantation companies, become the research sample using the purposive sampling technique. It is descriptive quantitative research using the linear regression method as the data analysis. Significant results were obtained for each variable, namely the economic aspect of 41.5%, the social aspect of 39.5%, and the environmental aspect of 27.5%. At the same time, the R-square result was 58.4%. Referring to the analysis, it can be concluded that all aspects affect profitability, and the economic aspect is more influential than other aspects. Therefore, it is suggested that the company consider sustainability issues in improving its financial performance and, as information for users of the sustainability report, one of the investors' considerations in investing their capital.

Dararat and Theenida, (2020) investigate the relationship between environmental disclosure and financial performance of different firm sizes listed on the stock exchange of Thailand. This was achieved through the multiple indicator and multiple cases model (MIMIC) of 402 companies listed on the stock exchange of Thailand. The findings reveal that firm size influences the environmental disclosure (ENVD) of firms. Furthermore, environmental disclosure has a positive effect on firm performance, with a significance level of 0.01 and correlation coefficient of 0.51. The analysis of firm size in this study indicates that small-sized (SIZES) firms have low levels of environmental disclosure. The statistical result indicates that

the environmental disclosure mechanism of small-sized firms has an indirect, negative effect on financial performance, with a significance level of 0.01 and correlation coefficient of 2.36. In comparison, medium (SIZEM) and large-sized (SIZEL) firms are increasingly trending towards environmental disclosure. The statistical result indicates that the effect of size on environmental disclosure in medium and large companies has an indirect, positive effect on firms' financial performance, with a significance level of 0.01 and correlation coefficient of 1.00 and 2.35 respectively. The findings of this research are expected to increase opportunities for firms of various sizes (as listed on the Stock Exchange of Thailand) to improve financial performance through the use of environmental disclosure.

H₀₃: Profitability has no significant effect on Sustainability disclosure of listed non-financial services companies in Nigeria.

3. METHODOLOGY

This study adopted the ex post facto research design with longitudinal panel since the study is a secondary data research. Population of the study consists of all listed manufacturing companies on the Nigeria Exchange Group (NGX) as at 31st December 2023. The sample size comprises seventy (70) listed non-financial services companies who has consistently published their annual reports and purposive sampling techniques was adopted. Data required for this study were obtained from audited financial statements and annual reports of the listed non-financial services companies in Nigeria for a period of 12 years from 2012 to 2023 under consideration and from the Nigerian Exchange. The inferential analyses also involve the application of the appropriate statistical technique of Panel Regression Analysis; this is due to the nature of the data. The data was therefore analyzed using E-view 13 statistical software. The study adapts the model of Okolie and Uwejeyan (2022).

The Panel regression model

$$ESG = \beta_0 + \beta_1 FSZ_{it} + \beta_2 LEV_{it} + \beta_3 PROF_{it} + \epsilon_{it} \dots (i)$$

Where

β_0 = The autonomous parameter estimates (intercept or constant term)

$\beta_0 - \beta_3$ = Parameter coefficient of Firm Attributes.

ESG= Environmental Social and Governance Disclosure Index

FZS = Firm Size

LEV= Leverage

FPROF= Firm Profitability

ϵ_{it} = Stochastic Error term

The a priori expectation: Firms attribute has a positive and significant effect on sustainability disclosure of listed companies in Nigeria. i.e. $\beta_0 - \beta_3 > 0$

Table 1: Variable Measurement

S/N	Variable	Measurement	Source
Dependent Variable			
1.	ESG	Average Information on company's environmental, Social and Governance index	Gupta (2018)
Independent Variable			
2.	FZS	Natural Logarithm of the firms' Total asset	Sunday et al (2019)
3.	LEV	Debt to Equity Ratio	Muhamad, <i>et al.</i> , (2023)
4.	FPROF	Return on Capital Employed (ROCE): Net income / capital employed	Ajose (2024)

Source: Researcher Compilation (2025)

4. RESULTS AND DISCUSSION

Descriptive Statistics

In order to have glimpse of the data used in the study, a first pass at the data in form of descriptive statistics was carried out. This gives us a good idea of the patterns in the data used for the analysis. The summary statistics is presented in Table 2 below.

Table 2: Summary Statistics

	ESG	FSZ	LEV	PROF
Mean	48.30712	10.85801	66.53506	10.20239
Median	48.57143	10.60073	61.10400	9.787459
Maximum	83.01588	15.68037	395.4504	193.2550
Minimum	11.42857	6.030113	3.554753	-357.4739
Std. Dev.	8.067406	1.892048	38.43012	20.98988
Skewness	-0.511209	0.132941	3.361054	-4.944212
Kurtosis	5.841616	2.666181	21.71201	127.6720
Jarque-Bera	318.8243	6.366896	13819.94	546779.6
Probability	0.000000	0.041443	0.000000	0.000000
Sum	40529.67	9109.875	55822.92	8559.807
Sum Sq. Dev.	54539.58	2999.910	1237621.	369201.9
Observations	840	840	840	840

Source: E-View 13 Output (2025)

Table 2 revealed the summary of descriptive statistics of the variables included in the model. It shows the mean values of 48.30712, 10.85801, 66.53506 and 10.20239 for ESG, FSZ, LEV and PROF respectively. The standard deviation from the mean is 8.067406, 1.892048, 38.43012 and 20.98988 for ESG, FSZ, LEV and PROF respectively during the 2012 to 2023 study period. The analysis was also fortified by the value of the skewness and kurtosis of all the variables involved in the model. All the distributions are positively skewed. Variables with value of kurtosis less than three are called platykurtic (fat or short-tailed) and FSZ qualified for this during the study period. On the other hand, variables whose kurtosis value is greater than three are called leptokurtic (slim or long tailed) and all the remaining variables qualified for

this during the study period. Jarque-Bera test shows that the residuals are not normally distributed as none of the values is close to zero. The profitability figures of all the variables are statistically significant during the study period.

Correlation Analysis

Table 3 presents correlation values between dependent and independent variables and the correlation among the independent variables themselves. These values are generated from Pearson Correlation output. The Table contains correlation matrix showing the Pearson correlation coefficients between the dependent and independent variables and among the independent variables of the study. Generally, a high correlation is expected between dependent and independent variables, while a low correlation is expected among independent variables.

*Decision rule: correlation ranges from -1 to +1.

Table 3: Correlation Analysis Result

	ESG_D	FSIZE	LEVG	PROF
ESG_D	1.000000			

FSIZE	0.308204	1.000000		
	0.0000	-----		
LEVG_3	-0.64740	-0.078970	1.000000	
	0.0009	0.0016	-----	
PROF	0.58649	0.068879	-0.526723	1.000000
	0.0002	0.0000	0.0002	-----
VIF		1.0376	1.0245	1.0420

*Decision rule: Center VIF less than 10 indicate the absence of multi-collinearity, while VIF intermediate over 10 is a sign of multi-collinearity.

Source: E-View 13 Output (2025)

Table 3 shows the correlation between the dependent variable, ESG and the independent variables of FSZ, LEV and PROF and also among the independent variables themselves on the other hand. According to Gujarati (2004), a correlation coefficient between two independent variables of 0.80 is considered excessive, and thus certain measures are required to correct that anomaly in the data. From the table, it can be seen that all the correlation coefficients among the independent variables are below 0.80. This point to the absence of possible multicollinearity among the independent variables and the correlation between the variables shows that there is a mix of both positive and negative correlation among the dependent and independent variables. There exist positive significant and 34.1% correlation between ESG and FSZ respectively indicating that the higher the ESG the higher the FSZ. Furthermore, it is notable from the analysis that all the association between and within the variables of studies are weak, thus, signifies absence of possible multicollinearity.

To ensure the rigidity of the measurements, multicollinearity tests were performed, using the Variance Inflation Factor (VIF) as the rigidity test. Multicollinearity occurs when one or more

independent variants have a stronger influence on others and this condition is a violation of the linear regression model, that so it may affect the validity of the outcome in any analysis. Multicollinearity tests are performed to test whether there is a strong correlation between independent variables that may result in misleading results.

Breusch-Pagan Lagranger Multiplier Test

In panel data analysis, the Lagranger multiplier test is used to select between pooled and random effects models. Because the dataset was a panel, both pooled and random effects regression analyses were done. The optimum model among the pooled-effects and random-effects regression models was then determined using a Breusch-Pagan Lagrangian multiplier test. At a 5% significance level, the decision rule for the Breusch-Pagan Lagrangian multiplier test is provide:

H_0 : Pooled OLS Model is more appropriate for the Panel Regression analysis

H_1 : Random effect Model is more appropriate for the Panel Regression analysis

Decision Rule: if the p-value is less than 0.05 the decision rule is to reject H_0 . Otherwise do not reject H_0 .

Based on the probability value of the Breusch-Pagan Langranger Multiplier Test at probability value of 0.0000, the null hypothesis is rejected, thus random effect is more appropriate when compared to pooled effect.

Likelihood Ratio Test

The Fixed Effect Likelihood Ratio test is a test for model specification in panel data analysis and this test is employed to choose between pooled effect model and the fixed effects model. Due to the panel nature of the data set, both pooled effect and fixed effect regressions were run. Fixed effect likelihood ratio specification test was then conducted to choose the preferred model between the pooled effect and the fixed effect regression models. The test basically checked if the error terms were correlated with the regressors. Thus, the decision rule for the fixed effect likelihood ratio specification is stated thus:

H_0 : Pooled effect is more appropriate for the Panel Regression analysis

H_1 : Fixed effect is not appropriate for the Panel Regression analysis

Decision Rule: if the p-value is less than 0.05 the decision rule is to reject the null hypothesis which states that pooled effect is more appropriate for the Panel Regression analysis (meaning that the preferred model is fixed effects). If otherwise accept H_0 .

The Result of fixed effect likelihood ratio test shows that chi-square statistics value is 432.468137 while the probability values of is 0.0000. This implies that there is enough evidence to reject the null hypothesis which states that pooled effect is most appropriate for the Panel Regression analysis. It thus stands that error component model (pooled effect) estimator is not appropriate because the pooled effects are probably correlated with one or more regressors. Thus, the most consistent and efficient estimation for the study, given the options

of a pooled effect analysis and a fixed effect analysis, is the fixed effect model of regression analysis. Consequently, the result suggests that the fixed effect regression model is most appropriate for the sampled data (given the two options as encapsulated above), because the likelihood ratio test statistics as represented by the corresponding probability value is less than 5%.

Hausman Test (Fixed and Random)

The Hausman test is a test for model specification in panel data analysis and this test is employed to choose between fixed effects model and the random effects model. Due to the panel nature of the data set utilized in this study, both fixed effect and random effect regressions analysis were run. Hausman specification test was then conducted to choose the preferred model between the fixed effect and the random effect regression models. The test basically checked if the error terms were correlated with the regressors. Thus, the hypothesis for the Hausman specification test is stated thus:

H₀: Random effect is more appropriate for the Panel Regression analysis

H₁: Fixed effect is more appropriate for the Panel Regression analysis

*Decision Rule: Reject H₀ if the cross-section random probability value is less than 5% level of Significance. Otherwise, do not reject H₀.

The Result of the above Hausman test shows that the cross-section chi-square statistics value is 11.769844 while the probability values of is 0.0082. This implies that there is enough evidence to reject the null hypothesis which states that random effect is more appropriate for the Panel Regression analysis. Similarly, based on the Chi-Square (Chi²) results Prob > Chi² is 0.0044, less than 0.05, thus, we reject the H₀ and conclude that Fixed Effect Model (Estimate) is the more appropriate model.

Post Panel Regression Diagnostic Test

Heteroskedasticity Test: To validate the robustness of the estimates, the Heteroskedasticity test was conducted as a diagnostic check. Heteroskedasticity happens when the standard errors of a variable, monitored over a specific amount of time, are non-constant. Heteroskedasticity is a violation of the assumptions for linear regression modelling, and so it can impact the validity of the result from any analysis while heteroskedasticity does not cause bias in the coefficient estimates, it does make them less precise; lower precision increases the likelihood that the coefficient estimates are further from the correct population value. The decision rule for the panel cross-section Heteroskedasticity test is stated thus:

*Decision Rule: At 5% level of Significance

H₀: No conditional Heteroskedasticity (Residuals are homoskedastic)

H₁: There is conditional Heteroskedasticity.

Table 4 shows the results of the panel cross-section Heteroskedasticity regression test. The null hypothesis of the test states that there is no Heteroskedasticity, while the alternate hypothesis

states that there is Heteroskedasticity. The null hypothesis is not to be rejected if the P value is greater than 5% level of significance. From the result in Table 8 above with a ratio value of 132.4703 and a corresponding probability value of 0.0781 which is greater than 5%, the study therefore accepts the null hypothesis, showing that there is no Heteroskedasticity problem. Consequently, based on the diagnostic probability 0.0641 the null hypothesis is not rejected, thus there is no conditional heteroskedasticity, indicating that residuals are homoskedastic and as such the samples give a true reflection of the population.

Test of Hypothesis

In panel regression analysis, the ultimate goal is estimation of the relationship between dependent and independent variables. This goal can be achieved through the estimation of the coefficients of each independent variable in the model. The sign of coefficients of independent variables indicates their relationship with dependent variables, while the magnitude of the coefficients implies the responses of dependent variables to independent variables.

Decision Rule: The decision rule for accepting or rejecting the null hypothesis for any of these tests will be based on the Probability Value (PV) and the Probability (F-statistic). If the PV is less than 5% or 0.05 (that is, if $PV < 0.05$), it implies that the regressor in question is statistically significant at 5% level; and if the PV is more than 5% or 0.05 (that is, if $PV > 0.05$), it is categorized as not significant at that level. This implies that the level of significance for the study is at 5% (for the two-tailed test). Thus, the decision rule for accepting or rejecting the null hypothesis is based on both the Probability Value (PV) and the Probability (F-statistic).

Table 4: Panel Regression Result (Fixed Effect)

Variable	Coefficient	t-statistics	prob
C	23.60993	4.085369	0.0000
FSIZE	2.181608	4.224791	0.0000
LEV	0.016299	1.620263	0.1056
PROF	-0.007370	-0.619829	0.5356
R ² = 66.6			
Adj R ² = 61.6			
F-statistics	9.2966		0.000
Lagrangian	692.2682		0.000
Likelihood	432.468137		0.000
Hettest	132.4703		0.0641
Hausman	11.769844		0.0082

Source: Authors compilation (2025)

Table 4 display and analyses the panel fixed regression results of the explained variable proxied by ESG as well as the explanatory variables FSZ, LEV and PROF. Between the R² and the adjusted R², there is a range of values 66.63% and 61.61% respectively. The variation in the dependent variable (ESG) as a result of change in the independent variables is explained by the R² of 66.63%. Therefore, it can be concluded that the independent variables have a combined predictive power of influencing the sustainability disclosure of listed non-financial services companies in Nigeria, with the remaining 33.37% been explained by other factors not included

in the model. Furthermore, the regression results as presented above reveals an intercept of 23.60993 which is positive. This simply implies that when other variable is held constants, the sustainability disclosure of listed non-financial services companies increases by 23.60993. The result of the constant is statistically significant, as indicated by a P-value of 0.0000.

Table 4 described that the coefficient of the variable FSZ was 2.181608 with a p-value of 0.0000 (<0.05). It can be deduced that firm size has a positive and significant effect on the sustainability disclosure of listed non-financial services companies in Nigeria, which provide support for the alternative hypothesis. Also, the second hypothesis revealed that the coefficient of the variable LEV was 0.016299 with a p-value of 0.1056 (>0.05). It can be deduced that leverage has a positive but insignificant effect on the sustainability disclosure of listed non-financial services companies in Nigeria, which provide support for the null hypothesis.

Furthermore, the third hypothesis shows that firm profitability (PROF) coefficient was - 0.007370 with a p-value of 0.5356 (>0.05). It can be deduced that firm profitability has a negative and insignificant effect on sustainability disclosure of listed non-financial services companies in Nigeria, which provide support for the null hypothesis.

H. Discussion of Findings

The result of the study as explained above indicate that firm size has positive and significant effect on sustainability disclosure of listed non-financial services companies in Nigeria. Firm size of a company has a critical influence on the performance and sustainability disclosure of corporate organization. This will greatly have a significant impact on the returns available to shareholders and other stakeholders. The study is in tandem with the findings of Okolie and Uwejean, (2022) and Uzoka et al (2020) while on the contrary opinion disagree with the findings of Hammad and Mill, (2023). Also, it is evident from the findings that leverage has positive but insignificant effect on sustainability disclosure of listed non-financial services companies in Nigeria. Firm leverage does not contribute greatly to effective and efficient functioning of manufacturing organizations in Nigeria in terms of sustainability disclosure. This study also congruent with the study of Aimuyedo, *et al.*, (2022) and Ezejiofor, *et al.*, (2022), but negates the study of Susilawati, *et al.*, (2022).

Likewise, the findings of the study shows that firm profitability has a negative and insignificant effect on the sustainability disclosure of listed non-financial services companies during the period under review. This furthered review that firm profitability within the period under review does not have a significant effect on sustainability disclosure. This finding agreed with the study of Onodi, *et al.*, (2023) and Anindyo, *et al.*, (2022), but however disagreed with the findings of Hassan (2014).

5. CONCLUSION AND RECOMMENDATIONS

This study investigates firms' attributes and sustainability disclosure of listed non-financial services companies in Nigeria. Based on the study findings reached through the study objectives guided by the study hypotheses, the following conclusion were made; the study affirmed that firm size have positive and significant effect on sustainability disclosure of listed

non-financial services companies in Nigeria. While on the other hand, the study concluded that leverage and firm profitability has positive but insignificant effect on sustainability disclosure of listed non-financial services companies in Nigeria. Businesses have a great deal of flexibility in deciding whether and how to account for the costs and benefits of their business activities that are related to the economy, society, and environment because sustainability reporting is voluntary and unregulated. These results add to the corpus of information already available about the connection between a firm attribute and sustainability disclosure. Researchers and industry practitioners alike stand to gain directly from these insights, which can help managers create sustainable strategies.

Based on the findings, the study, recommends as follows;

- I. That policymakers and regulatory bodies in Nigeria, such as the Securities and Exchange Commission and Financial Reporting Council, should advocate for the introduction of incentives and recognition awards to encourage smaller firms to enhance sustainability disclosure. In particular, a tiered regulatory framework is essential, allowing smaller firms to start with simplified reporting that evolves as they grow. Establishing benchmarks that consider firm size will further support efforts towards enhancing sustainability disclosure.
- II. That stakeholders should prioritize non-financial factors like governance practices, corporate culture, and stakeholder pressure, given that leverage alone is insufficient to drive sustainability disclosures. Hence, Financial institutions should also link credit access to strong sustainability performance, motivating highly leveraged listed non-financial services firms to enhance their disclosures and align with sustainability goals.
- III. That regulatory bodies should emphasize to the management of listed non-financial services companies in Nigeria that sustainability disclosure is a strategic and ethical obligation, rather than a function of profitability. Hence, clear guidelines and mandatory standards can ensure consistent reporting irrespective of financial performance. Smaller or less profitable firms should be provided access to external support, such as government grants, reducing the financial burden of disclosure.

Reference

- 1) Abdulsalam, N. K., & Babangida, M. A. (2020). Effect of Sales and Firm Size on Sustainability Reporting Practice of Oil and Gas Companies in Nigeria. *Journal of Research in Business and Management*, 8(1), 1–8.
- 2) Adekanmi, A. (2022). Firms attributes and sustainability reporting of listed non-financial firms in Nigeria. *interdisciplinary journal of humanities and social science*, 3(1), 346-366. DOI:10.59568/KIJHUS-2022-3-1-21.
- 3) Adeyemi, A. A. & Bakare T. O. (2019). Effects of sustainability reporting on corporate performance of selected manufacturing companies in Nigeria. *Lapai Journal of Economics* 3(1), 202-214. <https://doi.org/10.2022/lje.v3i1.39>.
- 4) Aimuyedo, K. A., Akinlo, O. O., & Salawu, R. O. (2022). Corporate Social Responsibility and Tax Aggressiveness: Evidence from Nigerian Listed Companies. *Journal of Accounting and Taxation*, 14(2), 45–57.

- 5) Amahalu K. & Ezechukwu, J.H (2017) Firm Performance and Mechanisms to Control Agency Problems between Managers and Shareholders. *Journal of Financial and Quantitative Analysis*, 31(3), 377-397.
- 6) Anindyo, T., Sari, R. N., & Nugroho, L. (2022). The Effect of Corporate Social Responsibility Disclosure on Firm Value with Profitability as a Moderating Variable. *Journal of Accounting and Business Education*, 6(1), 1–14.
- 7) Asaolu, T. O., Agboola, A. A., Ayoola, T. J., & Salawu, M. K. (2011). Sustainability Reporting in the Nigerian Oil and Gas Sector. Proceedings of the Environmental Management Conference, Federal University of Agriculture, Abeokuta, Nigeria.
- 8) Branco, M. C., & Rodrigues, L. L. (2008). Factors Influencing Social Responsibility Disclosure by Portuguese Companies. *Journal of Business Ethics*, 83(4), 685–701. <https://doi.org/10.1007/s10551-007-9658-z>.
- 9) Benjamin, U. D., Okpanachi, J., Nyor, T., & Muhammad, M. L. (2017). Effect of firm characteristics on environmental reporting practices of listed manufacturing firms in Nigeria. *Nigerian Journal of Management Sciences* 6 (1), 139-148.
- 10) Dararat, S., & Theenida, T. (2020). The Impact of Corporate Social Responsibility Disclosure on Firm Value: Evidence from Thailand. *Journal of Asian Finance, Economics and Business*, 7(3), 131–140.
- 11) Egbunike, C. F., & Okerekeoti, C. U. (2018). Macroeconomic factors, firm characteristics and financial performance: A study of selected quoted manufacturing firms in Nigeria. *Asian Journal of Accounting Research*, 3(2), 142–168. <https://doi.org/10.1108/AJAR-09-2018-0029>.
- 12) Ezejiofor, R. A., John-Akamelu, R. C., & Chigbo, E. E. (2022). Effect of Sustainability Reporting on Financial Performance of Quoted Industrial Goods Companies in Nigeria. *International Journal of Finance and Accounting*, 11(1), 1–10.
- 13) Fani, M., Sari, R. N., & Nugroho, L. (2022). The Effect of Corporate Social Responsibility Disclosure on Firm Value with Profitability as a Moderating Variable. *Journal of Accounting and Business Education*, 6(1), 1–14.
- 14) Freeman, R. E. (1998). A Stakeholder Theory of the Modern Corporation. In Pincus, L. B. (Ed.), *Perspectives in Business Ethics* (pp. 246–254). McGraw-Hill.
- 15) Guthrie, J., & Parker, L. D. (1990). Corporate social disclosure practice: A comparative international analysis. *Advances in Public Interest Accounting*, 3, 159–175.
- 16) Hasan, A., Hussainey, K., & Aly, D. (2022) Determinants of sustainability reporting decision: evidence from Pakistan. *Journal of Sustainable Finance & Investment*, 12 (1), 214-237. <https://doi.org/10.1080/20430795.2021.1964813>.
- 17) Hassan, A. (2014). Firm attributes and earnings quality of listed oil and gas companies in Nigeria for the period of 2007-2011. *Environmental Development*, 25, 320-327.
- 18) Indriawati, I. P., Hoang, T. H., & Phan, T. T. (2021) Drivers of sustainability accounting and reporting in emerging economies: evidence from Nigeria. *Sustainability* 14, 3780. <https://doi.org/10.3390/su14073780>.
- 19) Jasman, J., Inung, W. Rizal, M. & Omar, W. (2023). Effect of board size, board independence, board diversity and corporate social responsibility committee on sustainability reporting in Indonesia. *International Journal of Management Science*, 8(2), 117-127. <http://dx.doi.org/10.47191/ijfms/v6-i11-51>.
- 20) Kajola, S., Adelowotan, M., Adeyemi, A., & Oshadare, S. (2023). Board features and corporate social responsibility practices in Nigerian oil and gas companies. *Economic Insights – Trends and Challenges*, 12(1), 33- 46. <https://doi.org/10.51865/EITC.2023.01.04>.

- 21) Lambe, I. Arumona, O. J., & Okoli, T.(2023) Firm Performance Attributes And Social Sustainability Reporting: A Case Of Listed Non-Financial Companies In Nigeria. *International Journal of Business Management and Economic Review*, 6(02), 1-10. <http://doi.org/10.35409/IJBMER.2023.3469>.
- 22) Li, S., Gong, M., Zhang, Y., & Koh, L. (2018). The Impact of Environmental, Social, and Governance Disclosure on Firm Value: The Role of CEO Power. *British Accounting Review*, 50(1), 60–75.
- 23) Maryana, R., & Yenni, M. (2021). The Influence of Corporate Social Responsibility Disclosure on Firm Value with Managerial Ownership as a Moderating Variable. *Journal of Accounting and Strategic Finance*, 4(2), 123–135.
- 24) Mbonu, C. M., & Amahalu, N. N. (2021). Effect of sustainability reporting on financial performance of quoted industrial goods companies in Nigeria. *International Journal of Management Sciences and Business Research*, 10(3), 45–56.
- 25) Minguel, A,U (2017). Effect of board structure on sustainability reporting of listed industrial goods firms in Nigeria. *International Journal of Management Studies and Social Science Research* 4(1), 204-215.
- 26) Modozie, C. J., & Amahalu, N. N. (2022). Sustainability reporting and firm value of listed oil and gas companies in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 12(1), 89–103.
- 27) Mutalib, N. A., Jamil, N. N., & Wan Hussin, W. N. (2020). Corporate governance and sustainability reporting: Malaysian evidence. *International Journal of Business and Society*, 21(1), 1–18.
- 28) Ngozi, E. C., & Charles, A. A. (2019). Corporate Social Responsibility and Financial Performance of Banks in Nigeria. *European Journal of Business and Management*, 11(18), 159–168.
- 29) Nguyen, T. T. (2020). Corporate Social Responsibility Disclosure and Financial Performance: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 7(3), 131–140.
- 30) Ntim, C. G., & Soobaroyen, T. (2013). Corporate Governance and Performance in Socially Responsible Corporations: New Empirical Insights from a Neo-Institutional Framework. *Corporate Governance: An International Review*, 21(5), 468–494. <https://doi.org/10.1111/corg.12026>.
- 31) Nurudeen, A., Lawal, A. I., & Ahmad, N. (2021). Corporate Social Responsibility and Financial Performance of Listed Firms in Nigeria. *Cogent Business & Management*, 8(1), 1–20.
- 32) Nwamaka, O. G., & Regina, A. C. (2024). Corporate Social Responsibility Disclosure and Financial Performance of Listed Firms in Nigeria. *Journal of Accounting and Financial Management*, 10(1), 1–12.
- 33) Nwobu, O. (2015). An analysis of sustainability reporting in the Nigerian banking sector. *Journal of Accounting and Management*, 5(3), 1–14.
- 34) Okoba, P. O., & Chukwu, G. J. (2023). Corporate Social Responsibility Disclosures and Financial Performance of Listed Manufacturing Firms in Nigeria. *Journal of Accounting and Financial Management*, 9(1), 45–58.
- 35) Onodi, B. E., Okafor, M. C., & Onyali, C. I. (2023). Effect of Corporate Social Responsibility Disclosure on Financial Performance of Listed Manufacturing Firms in Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 13(1), 1–12.
- 36) Onyinye, E. C., & Ifeoma, N. N. (2019). Effect of board structure on sustainability reporting of listed industrial goods firms in Nigeria. *International Journal of Management Studies and Social Science Research* 4(1), 204-215.
- 37) Owolabi, A., & Iyoha, F. O. (2012). Adopting international financial reporting standards (IFRS) in Africa: Benefits, prospects and challenges. *African Journal of Accounting, Auditing and Finance*, 1(1), 77-86. <https://doi.org/10.1504/ajaaf.2012.046127>.

- 38) Oyewo, B., & Badejo, A. O. (2014). Sustainable development reporting practices by Nigerian banks. *International Journal of Accounting and Taxation*, 2(1), 39–58.
- 39) Peters, G. F., & Romi, A. M. (2015). The Association between Sustainability Governance Characteristics and the Assurance of Corporate Sustainability Reports. *Auditing: A Journal of Practice & Theory*, 34(1), 163–198. <https://doi.org/10.2308/ajpt-50849>.
- 40) Pinheiro, A. B., Oliveira, M. C., de Freitas, G. A., & García M. B. L. (2023). Board attributes and environmental disclosure: what is the nexus in liberal economies? *Revista de Administração de Empresas | FGV EAESP*, 63 (4) 1-23.
- 41) Susilawati, C., Handayani, S. R., & Putri, W. R. (2022). The Effect of Corporate Social Responsibility Disclosure on Tax Aggressiveness: Evidence from Indonesia. *Journal of Asian Finance, Economics and Business*, 9(2), 123–131.
- 42) Uwuigbe, A.O, Thomas, K.L & Daniel,L (2018)). Corporate governance and sustainability disclosure: analysis of European banks. *International Journal of Corporate Governance*, 8(2), 91-114.
- 43) Uzoka, J. O., Amedu, M. J. A., & Uagbale-E.O (2020). Effect of corporate attributes and performance: an interaction approach. Empirical examination of sustainability reporting, return on capital employed and gross profit margin. *European Journal of Sustainable Development Research*, 7(1), em0204. <https://doi.org/10.29333/ejosdr/12539>.