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# Sustainability Disclosure and Performance of Quoted Oil & Gas Companies in Nigeria

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**Abstract:**
Many environmentalists have argued that corporations are to be held accountable for environmental hazards that they unleash on the environment. This study seeks to ascertain the effect of sustainability disclosure on firm performance. This study focused on the Nigerian oil and gas sector. This sector has been in the turbulent waters in recent times. The spillover effect of climatic change and drastic environmental degradation has fueled the agitation for sustainability disclosure the world over. This study employed a judgmental sample technique to select ten firms for a period of ten years, 2014- 2023. The results showed that disclosure of economic activities has a positive effect on firm performance, while disclosure of social activities has a negative on firm performance. This study was performed to give cradle to prior studies and to reaffirm the results obtained by prior researchers on the subject. The result shows that disclosure of economic activities by firms in the industrial subsector in Nigeria positively influences the financial performance of firms within this biome. The result further reveals that disclosure of environmental activities by firms in the industrial goods sector in Nigeria has no significant effect on financial performance. Finally, the results reveal that disclosure of social activities by firms in the industrial goods subsector has a negative effect on the financial performance of firms in this biome.

**Keywords**: Performance, Social Reporting, Economic Reporting, Environmental Reporting

## INTRODUCTION

Sustainable disclosure by corporations has been steadily growing in small and large firms alike in the past few decades (Smith, 2003). Researchers in the last few years have attemptedfathom and explicate this uncommon field of financial accounting that is far beyond the conventional confinement of accounting reporting. The emergent limitation of modern-day companies is the ability to reconfigure their performance scorecard in a way that will incorporate societal and sustainability concerns as an integral part of their overall goals. Sustainability reporting offers a premeditated structure for the accomplishment of the all-inclusive re-appraisal of organizational profitability. Though it is not a strange concept to scholars and researchers, sustainability disclosure remains a fascinating area of accounting and an extremely contentious area for business managers and other stakeholders. It is associated with multifaceted issues like environmental protection, human resources management, health and safety at work, relations with local communities, and dealings with suppliers and consumers.

Surging demand for companies to report their doings in the environment has witnessed significant perceptual deviations, particularly within the framework of stakeholder-shareholder deliberation. The impression of shareholders is that the sole responsibility of the directors is to protect the concerns of stakeholders in a paramount and plausible way. On the contrary, "stakeholder view" some schools of thought argue that beyond shareholders, there are other clusters of individuals (like staff and operating community) that are in one way or another affected by a

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company's operational activities and should be put into consideration when directors are making decisions. Sustainability reporting is a mean by which firm meet the information needs of stakeholders and offers a rational for negotiation between the company and its stakeholders. As an acute means for stakeholder-management communication, sustainability reporting gives peripheral views of the firm to outsiders and assists the relevant concerned parties in concluding the firm-level corporate citizenship, which ultimately validates the firm's existence in perpetuity. Gelb and Strawser (2001) argue that a grander echelon of reporting in itself is socially responsible conduct. Branco and Rodrigues (2006) reported that environmental disclosure is currently referred to as a basis of competitive gain and not as an end in itself. Environmental disclosure sometimes serves as an indicator that the company is socially and environmentally accountable, which can generate reputational capital and, by extension, expansion in sales.

Sustainability disclosure is voluntary in most nations of the world. This means that firms can decide what to and what not to disclose. Extant literature (Sharfman & Fernando 2008; Schneider 2010; Roberts 1992) concentrated more on elements that determine sustainable disclosure choices of firms. Some inquiries (Jackson & Milne 1996; Adams & Hart, 1998) unveiled that firm size is a foremost factor that influences the sustainability disclosure of firms. Connors and Gao (2009), Sharfman and Fernando (2008), and Schneider (2010) disclose that leverage is the foremost element that influences the disclosure of environmental activities by firms. Dye and Sridha (1995). Hackston and Milne (1996) contend that industry type is a vivacious component that influences the disclosure of environmental activities of firms. However, this study is distinct from most indigenous works because it focuses on the impact of various components of sustainability accounting on firm performance. From the foregoing, the objective of this study is to ascertain the sustainability accounting on firm performance.

**Concept of Sustainability Disclosure.** Sustainability disclosure is an extensive term frequently employed to describe an establishment's reportage on its economic, environmental and social activities. Therefore, there is no lone or all-embracing definition of sustainability reporting. It can also be seen as triple-bottom-line reporting, corporate sustainability reporting and sustainable development reporting.

Parliament of Australia (2010) opines that sustainability disclosure comprises firms and organizations validating their corporate citizenship via measuring and disclosing their economic, social and environmental activities to the general public.

GRI (2011) defines sustainability disclosure as the practice of gaging, divulging and accountability to internal and external stakeholders for organizational doings towards the objectives of maintainable growth.

Aswani and Swami (2017) define sustainability disclosure as "a report prepared and made available by a firm which contains its momentous environmental, social and economic impacts caused by its doings. It assists firms in conveying the association between their stratagems and obligation to sustainable growth to the stakeholders.

GRI Sustainability Reporting Guidelines (G4) environmental accounting disclosure is seen as "a course that helps the firms in articulating organizational objectives, quantifying performance and handling change with regard to the sustainable, inclusive economy—one that conglomerates long-term cost-effectiveness with social responsibility and ecological maintenance. Sustainability reporting is the fundamental channel for communicating the firm's economic, ecological, social and governance performance.

Sustainability reporting is the amalgamation of the environmental, societal and economic features of a firm for reporting and communicating the level of its social responsiveness to

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stakeholder interested parties. The foremost reason for the commencement of such reporting is because of the pressure mounted by stakeholders on the firm. This report is generally employed as a channel for communicating to the varied stakeholders. Sustainability reporting is connected with corporate social responsibility reporting. It has a voluntary characteristic. Social responsibility reporting reflects the extent to which a firm influences employee welfare, the local community and the atmosphere. Information on company welfare may contain working situations, job security, equal chance and labor force multiplicity.

Sustainability reporting helps increase financiers' confidence and offers the firm opportunities to select their partners adroitly. It boosts employees' trust and loyalty and increases access to capital, which can lead to a reduction in waste. It is a vacuous cycle where one ecological action profits the next generation and keeps the wheel turning.

**Economic Reporting.** The economic feature of sustainability reporting concerns the firm's impact on the economic situations of its stakeholders and the economic situation at local, national and global levels. The economic pointers exhibit the flow of capital amid diverse stakeholders and key economic influences of the firms throughout society. The firm is supposed to disclose sustainability issues and their indirect impact on the economy (SRG, 2011).

**Social Reporting.** The social aspect of sustainability reporting concerns a firm's impacts on the social system within which its ecosystem operates. Pointers include labor practices, human rights, society and product responsibility (SRG, 2011).

**Environmental Reporting.** The environmental aspect of sustainability reporting is concerned with a firm's impacts on inanimate and animate entities in the natural environment, including ecosystems, land, air and water. Environmental reporting contains performance-associated inputs (like material, energy, and water) and outputs (like emissions, effluents, and waste). Additionally, they contain performance associated with biodiversity, environmental compliance and other pertinent information, such as environmental expense and their effects on products and services. Issues that affect the environmental aspect may include the impact of production processes, products and services on air, water, land, biodiversity, and human health.

**Firm Performance – Definition.** The concept of firm performance requires to be differentiated from the wider construct of firm efficacy. Venkatraman and Ramanujan (2016) suggested an informative figure of three superimposing concentric circles with the most prevalent firm value. Firm effectiveness comprises other features associated with the operation of the firms as the nonexistence of internal strain and mistakes, participation in genuine activities, resource procurement and accomplishment of definite goals (Cameron, 2018).

Some contend that firm performance is a subset of firm effectiveness that contains operational and financial outcomes. Though the conceptual proposal of Venkatraman and Ramanujan (2016) has been extensively accepted by strategic management scholars (Carton & Hofer, 2016; Richard et al., 2019), finance scholars have reservations about this proposal. Combs, Crook, and Shook (2005) report that out of 238 empirical work carried out in the UK manufacturing subsector between 2014 and 2015, 80% of these studies used profitability to measure performance. One major of major misperception with regard to performance is the use of antecedents of performance as performance indicators (Cameron, 2016). Combs et al. (2015) argue that the operational quantification proposed by Venkatraman and Ramanujan (2016) is seen as an antecedent of financial performance, mediating the effect of resources. However, this measurement is still vague in certain areas, like customer satisfaction and employee actualization. Cameron (2016) reports that though customer satisfaction may be an antecedent of financial performance, it is not a performance outcome in itself.

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Boyd, Gove, and Hitt (2005) contended that arduous construct measurement is vital for the advancement of science, predominantly when the variables of interest are multifaceted or not invisible. Paradoxically, strategic management has been condemned for not giving this subject much attention (Boyd, Gove, & Hitt, 2005). The lack of consensus measurement for the subject matter affects the outcome of empirical research on performance. In spite of its significance, empirical studies no performance is confronted with challenges such as lack of agreed measurement, selection of gauges based on convenience and little consideration of its dimensionality (Combs, Crook, & Shook, 2005; Crook, Ketchen, Combs, & Todd, 2008; Richard et al., 2009).

Hefferman and Flood (2000) opine that performance is confronted with both definitional and conceptual problems. The authors argue that there is no agreed-upon definition and measurement for performance. Javier (2002) opines that performance can be defined by the famous 3Fs—Economics, Efficiency and Effectiveness.

Daft (2000) defines performance as the aptitude of the firm to attain its goals and objectives. Richardo (2001) argues that performance quantification includes result–oriented behavior and relative measures, education and training, concepts and instruments, including management development. In the same vein, Ricardo and Wade (2001) report that performance has a wider forum, which includes effectiveness, efficiency, economy, quality, consistency, behavior, and normative measures.

Carton (2004) defines performance as a measure of the alteration of a firm's financial state or the financial outcomes that will lead to management decisions and the implementation of these decisions by directors. This quantitation could be the level of investment, commitment, profit and productivity.

Malik and Ghafoor (2011) define firm effectiveness and worker performance in terms of management efficiency, worker performance, core aptitudes, and number of positions served.

Defining performance as the satisfaction of stakeholders (Connolly, Conlon, & Deutsch, 2000; Hitt, 2008; Zammuto, 2015) differentiates antecedents from performance outcomes. In this case, customer satisfaction is clearly also an outcome (using the customer a stakeholder – perspective) and thus part of firm performance.

Two other features that were considered in attempting to define performance in extant literature are time frame and reference point. It is possible to differentiate between past and future performance; past superior performance does not guarantee that it will remain superior in the future (Carneiro, 2005). An alternative glitch connected with time is the duration of the interval (short, medium or long term) employed. Carneiro, Silva, Rocha, and Dib (2007) report that the reference against which performance is being quantified, for instance- the industry average, the outcome of foremost rivals, a set target, or past performance, is also vital. Comparing a set of targets with past performance infers efficiency and evolution of the firm. Nonetheless, it is not appropriate to compare firms from diverse industries with dissimilar sizes. Using the industry average or the main rivals as the baseline indicates firms' competitive situation and may be more useful for strategic evaluation. The definition of firm performance and its measurement linger as a major glitch that opposes scholars due to its complication.

Cheng (2004) reports five major performance parameters: leadership style and environment, organizational culture, job design, model and human resource policies.

**Legitimacy Theory.** The association between organization and society, the duties of the firm and heroically expectations of them are regularly being discovered, investigated, defined and revised. Legitimacy theory offers a view that the interrelationship between a firm and social anticipation is simply a fact of social life. According to this theory, the existence of a firm is

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established both by market forces and community expectations. Consequently, an understanding of the wider concerns of society expressed in communal expectations becomes an essential prerequisite for a firm's existence. The theory focuses on the supposition that a firm must retain its social role by reacting to societal needs and offering society what it needs. This supposition has been buttressed by some early works like those of Sethi (1974), Shocker and Sethi (1974), Guthrie and Parker (1989) and Suchman (1995).

Legitimacy theory offers a view that interrelating a firm with related social expectations is merely a fact of social life. According to this theory, the existence of a firm is grounded both by market forces and communal expectations, and henceforth, an understanding of the wider concerns of the society expressed in communal expectations becomes an essential prerequisite for a firm's existence. This theory concentrates on the supposition that a firm must retain its social role by reacting to societal wants and offering to the society it needs (Suchman 1995). Within the context of social and environmental accounting literature, legitimacy theory offers insights into defining and elucidation the varying levels of social and environmental reporting behaviors of organizations.

Deegan (2002) opines that corporate annual report disclosure is a device for upholding legitimacy and the greater the likelihood of adversative shifts in communal expectations. Legitimacy theory unswervingly depends on the conception of the "social contract." According to Culture and Parker (1989), legitimacy theory itself is grounded in a perception that an organization operates in society via a "social contract" such that it receives endorsement to perform numerous socially required activities in return for certification of its rewards and crucial existence, basically, the "social contract" is seen to be an implicit contract between a firm and the society, whereby the society authorizes a firm to perform business in line with societal expectations. It is a social assessment or evaluation of corporate conduct that is deliberated acceptable (Zimmerman & Zeitz, 2002). It is anticipated that firms will embrace acceptable behavior or at least be seen as such so that they are perceived to be "good" corporate citizens.

**Empirical Framework.** Bewley and Li (2000) investigate dynamics linked with environmental disclosures in Canada from a non-mandatory disclosure theory standpoint. The authors quantified environmental disclosures by 188 manufacturing companies in Canada in their yearly reports employing the Wiseman index. A company's greenhouse gas emission propensity (that is, environmental performance) is quantified by its industry affiliation and by whether it reports its activities to the Ministry of Environment under the National Pollution Release Inventory program. The research discovered that companies with greater news media reportage of their environmental activities have a greater pollution tendency. Firms with enormous political affiliations are more likely to disclose broad environmental information, which suggests that there is an adverse relationship between environmental disclosures and environmental performance.

DeVilliers and Barnard (2000) investigated the content of the annual reports of quoted mining establishments in South Africa for nine years to ascertain the extent to which firms disclose selected environmental activities. The research discovered that a large number of mining concerns when likened to other big establishments, reported environmental activation to an appreciable degree.

Abu-Baker and Naser (2000) also employed content analysis to investigate the annual reports of 143 quoted firms in Jordan. They investigated the content-category themes, techniques and setting of sustainability disclosures inside annual financial statements. The study reveals that the major themes for environmental disclosure amongst establishments in Jordan are human resources and community participation. Additionally, the magnitude of environmental disclosure is also very low. The outcomes of the study are in agreement with the outcomes of previous works done in emerging economies (Andrew et al., 1989; Savage, 1994; Teoh & Thong, 1984).

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Imam (2000) and Belal (2001) studied the environmental disclosure culture of firms in Bangladesh. The authors discovered that the magnitude of environmental disclosures was extremely abysmal and insufficient. The authors further investigated the annual financial statements of thirty quoted firms in in Bangladesh Stock Exchange. They found that, nonetheless, nine, ninety-five percent of firms did some form of environmental disclosure; the extent of disclosure was, however, inadequate. The disclosures were largely qualitative and stressed selected areas. Only a few situations were 'bad news' disclosure.

Hughes et al. (2001) investigated the sustainability disclosure done by fifty-one firms in the US for two. Once more, the authors employed a somewhat embellished Wiseman index to quantify environmental disclosures made within the President's letter, MD&A, and note section and then evaluate sustainability disclosures that are unswerving in line with environmental performance ratings. Though the study discovered that there is no variance in environmental disclosures of good and mixed clusters, companies that are categorized as poor environmental performers by statutory authority are likely to make considerable environmental disclosures. The Wiseman disclosure index is employed. The authors ascribed this outcome to increased scrutiny by the FASB and SEC within the period understudied.

Al-Tuwaijri et al. (2004) carried a research work to ascertain the associations of sustainability reporting, sustainability performance and economic performance using a simultaneous equations method. Al-Tuwaijri et al. (2004) employed TRI-grounded data to evaluate sustainability performance. Precisely, they evaluated sustainability performance as the proportion of the entire waste generated that is recycled. The authors quantified sustainability disclosure employing content analysis in four categories (potentially responsible parties' designation, toxic waste, oil and chemical spills, and environmental fines and penalties). These disclosures are principally non-discretionary, contrary to the discretionary disclosures which were investigated. The outcome of the study reveals that sustainability disclosure positively influences performance.

Elijido-Ten (2004) examined the association between sustainability disclosure and the financial performance of one hundred Australian firms. The study's outcomes suggest that sustainability disclosure positively influences Australian firms' financial performance.

Sarumpaet (2005) investigated the association between sustainability disclosure and the financial performance of selected Indonesian firms. The study's outcome showed that sustainability disclosure has no emblematic firm performance.

Milne, Owen and Tilt (2005) performed a comparative examination of the relevance of environmental reports to stakeholders in Australia and New Zealand. They surveyed pressure groups and found that they use annual reports as an important source in assessing environmental data on companies. They found that 82% of the community members use environmental disclosure in corporate reports.

Mitchell and Quinn (2005) in South Africa measured and compared the expectations of two different groups (environmental report preparers and users). The study considered the perceived importance of environmental reports, the areas reported on and the level of disclosure. The study found that users expect a higher level of reporting than preparers.

Mitchell and Quinn (2005) compared the level of corporate environmental disclosure across some countries to ascertain the difference between them. The study looked at the relationship between firm size, operating performance, and the level of corporate environmental disclosure. The study's conclusion indicated that firm size plays a significant role in the level of corporate environmental disclosure.

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Amaechi, Adi, Ogbechie and Amao (2006) researched to determine whether corporate social responsibility in Nigeria is a Western mimicry or an Indigenous practice. They examined the vital sectors of the Nigerian economy and concluded that firms are socially constructed. Their behavior must reflect the society in which they are embedded, and thus, they must be socially responsible for the environment in which they operate.

Kobboon (2008), in a study conducted in Canada, looked at the corporate social and environmental disclosure within the Canadian mining industry, using the global reporting initiative guideline as provided by CERES. The study, while concentrating on the world's largest gold mining companies, with a portfolio of over 20 operating mines across five continents, discovered that internally, the decision to adopt the GRI guidelines is driven by organizational identity and data availability. Externally, the decision is driven by the nature of the institutional context within which those decisions are made. The research further revealed that these determinants of voluntary social and environmental disclosure and GRI adoption suggest that disclosure decisions may not always conform to short-term economic rationale motives.

Furthermore, Ngwakwe (2009), in his study titled "Environmental Responsibility and Firms' Performance in Nigeria," investigated the relationship between firms' social responsibility practices and their performance. The study, while focusing only on the manufacturing industry, revealed in its conclusion that a positive relationship exists between firms' social responsibility practices and their performance.

Priyanka (2013) carried out a study on the impact of the sustainability performance of a company on its financial performance using twenty listed Indian companies. The study covering a period of two years from 2011-2012 used overall sustainability rating, community performance rating, employee performance rating, environmental performance rating and government performance rating as proxies for the sustainability performance of the company while return on asset, return on equity, return on capital employed, profit before tax and growth in total assets as proxies for financial performance. Applying multiple regression techniques, the study found that corporate sustainability as a whole has no significant influence on financial performance. The study also found that government and community dimensions have a positive influence, while employees and environment dimensions have a negative influence on financial performance.

Nnamani et al. (2017) studied the effect of sustainability accounting and reporting on the financial performance of listed manufacturing firms in Nigeria. Data was gathered through secondary sources. The period covered 2010 – 2014, they sampled 3 firms in the brewery sector. An ex post facto research design was used. ROA and ROE were used as dependent variables, while independent variables were total personal cost to total assets ratio and total equity to total assets ratio. Their finding showed that sustainability reporting has a positive and significant effect on the financial performance of the firms studied.

Utile et al. (2017) carried out a study on the effect of environmental reporting on the financial performance of listed manufacturing firms in Nigeria. The sample was drawn from ten manufacturing firms listed on the Nigeria stock exchange. Expost facto design was used and random effect regression was used for data analysis. Independent variables used are the erosion control reporting index, waste management reporting index and air pollution reporting index, while the dependent variable is earnings per share. The period covered is from 2011 – 2015 and a sample of 12 was drawn out of all 87 companies in Nigeria that are of manufacturing nature and listed in NSE. They found that erosion control and air pollution have significant effects on financial performance, while waste management reporting has a negative but significant effect on firms' financial

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performance. The result proves that environmental reporting has a significant effect on firm financial performance.

Nnamani, Onyekwelu and Ugwu (2017) carried out a study on the effect of sustainability accounting on the financial performance of listed manufacturing firms in Nigeria. Firms used for the study were chosen from the Nigerian brewery sector. Data were sourced from the financial statements of three sampled firms and analyzed using ordinary linear regression. The study reveals that sustainability reporting has a positive and significant effect on the financial performance of the firms studied.

Aggarwal (2013) studied the impact of sustainability reporting on the financial performance of listed Indian companies. Using secondary data and employing multiple regression and correlation for two years, the study finds no significant association between overall sustainability rating and financial performance. However, four components of sustainability, namely community, employee, environment and governance, have significant but varying impacts on financial performance.

Norhasimah, Norhabibi, Nor, Sheh, Qamarul, and Inaliah (2015) studied the effect of environmental disclosure on financial performance in Malaysia using Malaysian Public Limited Companies. Non probabilistic sampling (purposive sampling) was used to get the sample of 100 companies of market capitalization for the year 2011. Data were gathered from the annual reports of these companies. An environmental index was created, and 10% of the total sample was selected to conduct a pilot test of ten (10) companies. ROA, EPS and ROE were used to measure performance. Spearman's correlation and multiple regressions were used for data analysis. Findings showed that there is a significant relationship between total environmental disclosure and financial performance.

Agbiogwu, Ihendinihu and Okafor (2016) examined the impact of environmental and social costs on the financial performance of manufacturing firms in Nigeria. Their findings revealed that environmental and social costs significantly affect net profit margin, earnings per share, and return on capital employed by manufacturing firms.

## METHODS

**Sample size and Sampling Technique**. This research employed a sample size of ten firms covering a period of ten years, companies 2013-2023. The study employed a simple random sampling technique to create the sample in order to eschew biased selection by giving every person an equal opportunity to be selected.

Model Specification

1. Firm Performance-FP = *f* (Sustainability Reporting-SR). Decompose the endogenous and exogenous latent variables, that is, the Company's Performance and Sustainability Reporting.
2. CP. (ROA) = *f* (SRECODIS, ENVIDIS, SOCIDIS). Firm Performance is a function of Sustainability Reporting. Equations (i) to (ii) are called functional forms of the models.
3. ROAit = $\beta 0 + \beta_1$ECODISit+ $\beta_2$ENVIDISit+ $\beta_3$SOCIDIS it. Equation (iii) is called a deterministic or mathematical model. Introduce the error term or stochastic term to the models.
4. ROAit = $\beta$0+ $\beta$1ECODISit+ $\beta$2ENVIDISit+ $\beta$3SOCIDIS it+ $\mu$it. Equation (iv) is called an econometric or multiple linear regression model.

**Variables Definition and Measurements.** The dependent variable is financial performance, which is proxied to the Return on Assets. The independent variable is sustainability reporting, which is seen from three dimensions: economic, environmental, and social aspects. These dimensions make up the three independent variables for this study. $U_t$ = Stochastic term. The apriori signs are $B_{1}>$ 0,

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$B_2 > 0$, $B_3 > 0$, $B_4 > 0$. This used the checklist stated below to score items using the KDL model as a prototype.

**Table 1.** Checklist

| Items | Score |
|---|---|
| Items are not disclosed. | 0 |
| Items are disclosed in general terms | 2 |
| Items disclosed are quantitative but non-monetary. | 3 |
| Items disclosed are quantitative and monetary | 4 |

Source: Researcher's Computation (2022)

## RESULT AND DISCUSSION

**Table 2.** Regression Assumptions Test

| Multicollinearity Test | | |
|---|---|---|
| **Variable** | **Coefficient Variance** | **Centred VIF** |
| ROA | 12.338 | NA |
| ECODIS | .10.530 | 4.459 |
| ENVIDIS | 11.489 | 5.974 |
| SOCIDIS | 3.872 | 2.413 |
| **Heteroskedasticity Test: ARCH** | | |
| F-statistic = 57.336 | Prob. F(2.94) | 0.061 |
| **Breusch-Godfrey Serial Correlation LM Test:** | | |
| F-statistic = 4.702 | Prob. F(3,98) | 0.402 |
| **Ramsey Model Test** | | |
| F-statistic = 1.683 | Prob. F(1, 95) | 0.197 |

Source: Researcher's computation (2022)

The ARCH test for heteroskedasticity was carried out on the residuals as a safeguard. The outcomes revealed likelihood coefficient is greater than 0.05, which made us not accept the postulation that heteroskedasticity is present in the residuals. The Lagrange Multiplier (LM) test for greater order autocorrelation divulges that the hypothesis of zero autocorrelation in the residuals is not accepted. This is due to the fact that the likelihood coefficient (Prob. F, Prob. Chi-Square) is more than 0.05. The LM test fails to suggest serial correlation glitches for the model. The performance of the Ramsey RESET test reveals a great likelihood magnitude that is more than 0.05, connoting that there was no emblematic proof of miss-specification.

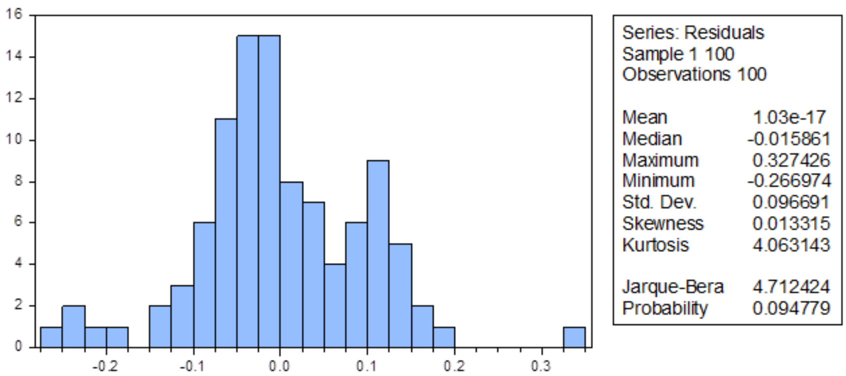


**Figure 1.** Normality Test Histogram

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The histogram of the normality test additionally supported the Jarque–Bera statistics displayed in Table 1. The outcome displayed in Figure 1 indicates a bell-shaped histogram with a bell–a shaped bell-shaped mean Jarque-Bera value of 4.712 and a related likelihood value of 0.09, which suggests normal dissemination of the regression variables.

**Table 3.** Regression Result

| Variables | Model 1 |
|---|---|
| C | (0.3021) {1.035} |
| AUCOSA | (1.0969) {0.274} |
| ACFINEXP | ( -3.5032) {0.001} |
| AUDREY | (3.9527) { 0.0012 } |
| $R^2$ | 0.52 |
| $R^2$ Adjusted | 0.408 |
| F-statistic | 4.6187 |
| (p-value) | 0.00 |
| DW-stat | 1.5 |

Source: Researcher's compilation (2021) * sig @ 5%, t value () p-value - [ ],C=ROA

**Analysis of Result.** A model was employed in this research work to investigate the association of the dependent with the independent. The outcome of the study revealed that ECODIS positively influences firm performance, as depicted by (p= 0.000, t= 12.331). This influence is statistically emblematic at 5% (p=0.05). The outcome of the study further revealed that environmental activities (ENVID) negatively influence firm performance, as depicted by (t= -0.98, p =0.922). This effect is not emblematic at 5% (p=0.00).

Lastly, the outcome of the study revealed that disclosure of social activities (SOCIDIS) negatively influences firm financial performance as depicted by (t= -9.0677, p=0.000). This influence is not emblematic at 5% (p=0.05). The model parameters are as follows: coefficient of determination (R2) = 0.692. These magnitudes suggest that the dependent elucidates about 69.2 % of systematic deviations in firm performance. The F-stat=71.99, p (f-stat) = 0.000 and D.W=1.925). The F-values affirm that the postulation of an emblematic linear association among the variables (dependent and independent) is accepted at a 5% level. At the same time, the D.W. statistic shows that the existence of serial correlation is improbable.

**Discussion of Findings.** The outcome is that disclosure of economic activities positively influences firm financial performance. This outcome is inconsistency existing negative gotten Priyanka (2013) e but aligns with a priori expectations that anticipate a positive association of ECODIS with firm performance. Subsequently, the postulation that ECODIV has no emblematic influence on firm performance is not retained.

Additionally, the outcome of the study reveals that the disclosure of environmental activities has no emblematic influence on firm financial performance. This outcome is in agreement with a priori expectation and also at variance with existing positive effect gotten by Ameer and Othman (2012). Lastly, the outcome of this study revealed that disclosure of social activities negatively influences the firm performance of firms industrial goods sector. This outcome is aligned with a priori expectation but disagrees with Venanzi (2012 ).

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## CONCLUSION

Environmental disclosure is still at its lowest recede in Nigeria. This is due to the fact that it is voluntary, and no law regulator is saddled with the responsibility of enforcing compliance. This study was performed to give cradle to prior studies and to reaffirm the results obtained by prior researchers on the subject. The result shows that disclosure of economic activities by firms in the industrial subsector in Nigeria positively influences the financial performance of firms within this biome. The result further reveals that disclosure of environmental activities by firms in the industrial goods sector in Nigeria has no significant effect on financial performance. Finally, the results reveal that disclosure of social activities by firms in the industrial goods subsector has a negative effect on the financial performance of firms in this biome.

**Policy Recommendations.** The recent global climatic drift has raised the concerns of stakeholders in many quarters and has put the subject matter under the radar of sustainability research spotlight in recent times. Many managers used substantiality disclosure as a reputational boosting device. However, the weakness in regulations within the Nigerian ecosystem has made firms to feel that they can destroy the natural business habitant without replenishing and go unpunished. Weaknesses in accounting regulations are most times not obvious until they have been exploited by management. Based on the foregoing, this study recommended that management should exert more effort in the disclosure of economic activities and less effort in the disclosure of social activities.

**Recommendations for Further Studies.** This study focused on the effect of sustainability disclosure from a segmented standpoint. It recommended that since the firm does not operate rate in space but within the business biome, future researchers should introduce factors within the business biomes (like firm size, firm complexity, etc.) into an existing model. These factors should act as moderating variables.

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