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**EFFECT OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE DISCLOSURE ON MARKET  
 VALUE OF MANUFACTURING FIRMS IN NIGERIA**

**Imong, Nelly Raphael**

Department of Accounting, Nasarawa State University, Keffi

**Abdulkarim Shaibu Alhassan**

Department of Accounting, Nasarawa State University, Keffi

**Doshiro Musa Umar, PhD**

Department of Accounting, Nasarawa State University, Keffi

### **Abstract**

This study investigates the impact of Environmental, Social, and Governance (ESG) reporting on the market value of manufacturing firms listed on the Nigerian Exchange Group (NGX) as of 2023. Adopting an ex-post facto research design, the study utilizes secondary data sourced from publicly available financial and sustainability reports of these firms. The analysis examines the relationship between each of the three ESG dimensions environmental, social, and governance reporting and the market value of these firms. The findings reveal that environmental reporting has a positive and significant effect on market value, with an increase in environmental disclosures leading to higher market value. Conversely, social reporting was found to have a negative and significant effect on market value, indicating that increased social reporting correlates with a decrease in market value. However, governance reporting has a notably positive and significant effect on market value, with higher governance disclosures associated with an increase in market value. These results show the critical role of governance reporting in enhancing firm valuation, while also highlighting the nuanced effects of environmental and social disclosures in the Nigerian. The study concludes that manufacturing firms in Nigeria should prioritize governance-related disclosures and strategically manage their environmental and social reporting to align with investor expectations. Recommendations include strengthening governance reporting, aligning social initiatives with business strategy, and enhancing the quality and transparency of environmental disclosures to improve investor confidence and market performance.

**Keywords:** Environmental Reporting, Social Reporting, Governance Reporting, Market Value, Tobins Q, Manufacturing Firms.

### **1. Introduction**

In recent years, Environmental, Social, and Governance (ESG) disclosure has become a core component of corporate transparency and accountability, with substantial influence on stakeholder perceptions and market valuation. Globally, institutional investors and regulatory bodies have increasingly emphasized ESG principles as critical to assessing long-term sustainability and value creation in firms. For instance, the European Union's Sustainable Finance Disclosure Regulation (SFDR) mandates stringent reporting requirements for companies, compelling them to detail their environmental and social impacts. Studies indicate that firms with high ESG ratings generally attract more investment and maintain stronger resilience in market

downturns, partly due to the increasing awareness among stakeholders of the risks associated with poor environmental practices, social controversies, and governance failures (Clarkson et al., 2022). The integration of ESG metrics in investment decisions is not limited to Europe; in the U.S., over 85% of S&P 500 companies now publish sustainability reports, signaling a shift toward transparency that investors reward through positive stock valuation (Eccles et al., 2023). Regionally, in Sub-Saharan Africa, ESG reporting remains less standardized yet is gaining traction, especially as foreign investors apply pressure for more robust disclosure. According to the African Development Bank (AfDB), several African countries, including South Africa, Kenya, and Nigeria, are

adopting policies to encourage ESG reporting, recognizing its potential to attract foreign direct investment and enhance competitive advantage. Notably, the Johannesburg Stock Exchange mandates integrated reporting, embedding ESG factors into corporate disclosure as a requirement. However, while South Africa leads in ESG disclosure, other African economies lag due to regulatory gaps and limited awareness. This disparity affects investor confidence, as companies with inadequate ESG disclosure are often perceived as high-risk investments (Mukumbuzi & Olawale, 2023).

Focusing on Nigeria, ESG practices in the manufacturing sector have become increasingly relevant. While regulatory frameworks for ESG disclosure are emerging, they remain less stringent than those in advanced economies, leading to inconsistent reporting practices among Nigerian manufacturing firms. A 2023 report by the Nigerian Stock Exchange revealed that only 40% of listed manufacturing firms provide any form of ESG disclosure, with environmental impact assessments and social responsibility initiatives being the least disclosed. The Nigerian government has started implementing policies to promote ESG disclosure; however, enforcement remains weak. The Central Bank of Nigeria's Sustainable Banking Principles is a notable initiative pushing for sustainability in corporate practices, yet its impact is limited without formal legislative backing (Adewale, 2023). This gap presents a challenge for investors seeking transparency and reliability in Nigerian firms, impacting market valuation due to perceived risk.

Despite the global surge in awareness around Environmental, Social, and Governance (ESG) disclosure, its practice and impact remain underexplored in many emerging economies, including Nigeria. Studies in developed economies have consistently shown a positive relationship between comprehensive ESG disclosures and firm value, as these disclosures enhance transparency, attract responsible investment, and reduce risk. However, Nigerian manufacturing firms have been slow to adopt standardized ESG disclosure practices, partly due to limited regulatory mandates and a lack of enforcement. Current statistics indicate that only a minority of

Nigerian firms consistently report ESG practices, creating a gap in the information available to investors and other stakeholders regarding these firms' sustainability commitments and risk profiles.

This inconsistency and lack of regulatory oversight create challenges for investors seeking reliable ESG information to inform investment decisions. As a result, many Nigerian manufacturing firms are perceived as high-risk investments, which may negatively impact their market value and restrict their access to both local and international capital. Given that the manufacturing sector plays a critical role in Nigeria's economic growth and job creation, understanding how ESG disclosure impacts firm value is crucial for policymakers, investors, and corporate stakeholders.

Additionally, a methodological gap exists in the literature on ESG disclosure and firm value, as most studies employ frameworks and disclosure indices developed for advanced economies with robust regulatory standards. These models may not adequately capture the unique regulatory and market conditions in Nigeria, where firms operate under different constraints and motivations. Limited empirical studies have employed methodologies tailored to the Nigerian context, resulting in findings that may lack applicability to emerging economies.

This study, therefore, seeks to address this gap by examining the effect of ESG disclosure on the market value of listed manufacturing firms in Nigeria, using a methodological framework that accounts for the specific regulatory and economic environment of the country. It aims to contribute empirical evidence on the relationship between ESG practices and firm performance in the Nigerian context, ultimately providing insights to guide policy reforms and encourage standardized ESG disclosure. In doing so, the study hopes to underscore the importance of ESG practices in enhancing the financial viability and sustainability of Nigeria's manufacturing sector.

## **2. Literature Review**

### **2.1 Conceptual Issues**

#### **Environmental Disclosure**

Corporate Environmental Reporting (CER) was introduced in the early 1990s and since then it has

rapidly gained acceptance as the means of communicating and demonstrating a company's commitment to improving corporate environmental performance to its stakeholders (ACCA, 2004). According to the KPMG and UNEP Report (2006), environmental accounting provides a common framework for organizations to identify and account for past, present and future environmental costs in order to support management decision-making, control and public disclosure. Environmental reporting issues are considered a vital component of reporting. This is in accordance with the new provision of code on corporate governance best practices.

Jerry et al. (2015) defined the concept of environmental accounting which is a branch of accounting that produces the information required for environmental reporting. According to Jerry et al. (2015), environmental accounting is an inclusive field of accounting which provides reports for internal use, generating environmental information to help make management decisions on pricing, controlling overhead and capital budgeting, and external use, disclosing environmental information to the public and to the financial community.

Nofianti et al. (2018) defined environmental disclosure as a general term describing the ways in which firms disclose information about their environmental activities to users of financial statements. They asserted that environmental disclosure is required because of the importance of the environment and the destructive impact of corporate activities on the environment which has led to the emergence of many global institutions that incorporate the norms that guide human interaction with the environment.

Atanda et al. (2021) cited GRI (2011) which asserted that environmental disclosure involves both non-financial and financial reporting. They further cited the American Petroleum Institute-API (2005), which defined non-financial reporting as reporting on a range of environmental health and safety (which includes carbon emission, waste management, biodiversity and energy, among others); social and economic issues and impacts that relate to the operations and services of a company. They opined that companies may choose to use a variety of other terms to refer to this concept, such

as corporate responsibility, corporate citizenship, or contributions to sustainable development.

The Chartered Institute of Management Accountants (2012) defined environmental reporting practices as the public disclosure of information concerning an entity's environmental performance information, similar to the publication of its financial performance. This makes organizations appear more accountable for the economic, environmental and social significance of their activities. They opined that the practice of environmental reporting is very important as it enhances the quality of decision making, requiring firms to establish a standard, set reduction targets, realise the importance of changing unsustainable consumption and production patterns alongside protecting and managing national resources. The information contained in environmental reports is necessary for accountability, comparability and probity, hence when not made available a company could be perceived as being biased, not transparent, fraudulent and liable to risk which in turn could discourage patronage from consumers, suppliers, investors and surrounding communities.

### **Social Disclosure**

Social disclosure is a process for creating sustainable successful places that promote wellbeing, by understanding what people need from the places they live and work. Social disclosure combines design of the physical realm with design of the social world – infrastructure to support social and cultural life, social amenities, systems for citizen engagement, and space for people and places to evolve (Australia, 2010). The ability of a community to develop processes and structures which not only meet the needs of its current members but also support the ability of future generations to maintain a healthy community.

Social sustainability occurs when the formal and informal processes; systems; structures; and relationships actively support the capacity of current and future generations to create healthy and livable communities. Socially sustainable communities are equitable, diverse, connected and democratic and provide a good quality of life (Australia, 2010). From a business perspective, social disclosure is about understanding the impacts of corporations on people

and society. In the Triple Bottom Line (TBL) model, social disclosure is the least quantifiable part of sustainability. The TBL is an accounting framework of three parts: social, environmental and financial. The TBL framework has been adopted by organizations to evaluate performance. The three aspects interrelate to determine a corporation's performance.

### **Governance Disclosure**

Governance deals with a company's leadership, executive pay, audits, internal controls, and shareholder rights. Investors may want to know that a company uses accurate and transparent accounting methods and that stockholders are allowed to vote on important issues. They may also want assurances that companies avoid conflicts of interest in their choice of board members (Bevir, 2011).

Good governance is not only crucial for corporations, it is important for society. Companies therefore need to be on the front foot around SR and ESG. Despite years of academic debate, governance remains a contested concept, with no universally agreed definition. Board governance is the framework that structures the board and how it operates. Corporate governance on the other hand is a structure that boards and senior managers rely on to help them manage the company responsibly and according to sound ethics and accountability. The principles of corporate governance are based on transparency, accountability, responsibility and fairness. The principles are also inherently related to the company's corporate social responsibility (Driessen *et al.*, 2012). The relationship between good corporate governance and social responsibility helps corporations keep things in good balance. It also supports the company's efforts to develop control mechanisms, increasing shareholder value and improving satisfaction among shareholders and stakeholders (Lulfs, 2013).

Governance indicators of sustainability reporting show the board of directors' approach to improving environmental, social and economic performance of organizations. The governance disclosures include structure, composition and competencies of the board of directors, highest governance body's role in strategy setting, tenure and conflicts of interest of board members, remuneration (fixed pay, bonuses, allowances), role of the board in management of

sustainability impacts, role of the board in risk management, whistle blowing mechanisms (Global Reporting Initiative, 2013a).

According to new governance approaches, governance involves a plurality of public and private stakeholders, hybrid practices (administrative systems and quasi-market strategies) and is considered to be multi-jurisdictional, i.e. spanning different institutions, sectors and levels of government (Bevir, 2011). Consequently, governance is understood as a multi-dimensional concept covering different actors, processes, structures and institutions involved in political decision-making and implementation (Driessen *et al.*, 2012).

### **Market Value**

Market value is the worth an asset would realize in the marketplace. It ordinarily refers to a market capitalisation of the openly traded company and is achieved by multiplying the number of its unpaid shares by the current share price. Market value is understood as an economic model presenting the firm value of the whole corporation. It is the sum of the concern of all stakeholders of a company, particularly shareholders and creditors. The profitability, market value and growth prospect of a company are controlled by the performance determinants of that organization.

Baye and Prince (2014) defined market value as the present value of the firm's current and future profits. The value of a firm is linked to profit maximization. A firm looking to maximize its profits is concerned with maximizing its value. It is therefore important for a firm to be able to determine its present value accurately. Wang and Sarkis (2017) defined market value as an economic concept which reflects the value of the business based on market capitalization. The market value is determined using the capital incentive, competitive power, total revenue, among other important parameters. The efficient market hypothesis generally suggests that a firm's firm value should reflect all available information reported to the public (Abdullah *et al.*, 2015).

Oktarina (2018) defined market value as a value which is closely related to stock prices, and which gives investors an insight into the risks and prospects of the

company in the future. Firm value is very important because high firm value results in high prosperity of shareholders. Thus, it can be concluded that, a good firm value will have a good impact on investors and dividend distribution, and this will attract investors to invest in a company. The study further asserted that firm value is one of the factors that can affect investors and the public. Investors tend to invest their capital in companies that have good firm value because if firm value is good, it will have a good impact on dividend distribution and shareholder welfare. While from the community point of view, the public will use a product or service of a company that has a good brand image because the public will have the view that the company has good quality and performance.

## 2.2 Empirical Review

### Environmental Report Disclosure and Market Value

Jonah and Aaron (2023) determined the relationship between environmental accounting disclosure (EAD) and market value of shares listed in food and beverages companies in Nigeria. It adopted an ex-post facto research design, while secondary data collected from 10 selected food and beverages companies listed on Nigeria Stock Exchange Annual Reports were used. Content analysis of environmental accounting disclosure was carried out. Mean, standard deviation, multiple regression and Pearson product-moment correlation were adopted in the analysis of the data. The findings showed that environmental accounting disclosure (EAD) had a significant relationship with market value of shares. Environmental pollution and control policy (EPC) and cost of compliance with environmental law (CEL) had a positive significant relationship with earnings per share. However, EPC and CEL did not have any influence on book value equity per share. The study concluded that there is a need for firms to disclose environmental accounting information, as it helps to improve the market value of firms.

Olagunju and Oyewole (2022) examined how environmental accounting disclosure influences the market value of listed non-financial firms in Nigeria between 2012 and 2020. The research design adopted is the longitudinal design. A total population of one hundred and twelve (112) listed non-financial firms was identified. A purposive sampling was used to generate a sample of seventy-two (72) listed non-financial firms

sourced from firms' annual reports. The dependent variable is the market value measured using earnings per share (EPS). The independent variable is environmental accounting measured by the index of environmental disclosure constructed using a content analysis; eight themes of the Global Reporting Initiatives (GRI). The study employed panel feasible generalized least square regression technique for data analyses. The outcomes revealed that environmental disclosure influence earning per share as well as share price positively and significantly. Hence, this study found robust proof which suggests that environmental disclosure significantly influence market value of listed nonfinancial firms in Nigeria. The implication is that non-financial firms in Nigeria are yet to show much concern about the physical environment in which they operate; in terms of adherence to the environmental laws and standards, process and product related issues including those related to recycling, packaging, waste, pollution emissions and effluent discharges as well as provision of disclosure and other environmental related information.

### Social Report Disclosure and Market Value

Abdul and Wasiu (2022) effect of sustainability reporting variables on corporation's value in the non-financial sectors of the Nigerian stock market utilizing a static model. Secondary data spanning between 2013 and 2020 were employed on annual reports of forty firms selected using stratified sample technique. Random effect model over pooled ordinary least square model (OLS) model and fixed effect model was used. The static regression estimator revealed that economic and social disclosure positively and significantly affects firm's value. This study concludes that net asset in the Nigerian non-financial services sector is driven by sustainability reporting except for environmental sustainability. This study proposed that management of quoted non-financial services firms in Nigeria should improve economic and social reporting through research and development, employee productivity, job creation, community development, and training because they contribute positively to their value.

Machali (2020) analyzes the effect of social disclosure (ESD) on firm value (FV) with financial performance (FP) as an intervening variable. The samples are companies that participated in the Indonesia



Sustainability Reporting Award (ISRA) during the period starting from 2013 to 2016. The sample of this research is 15 companies if the period used four years, then the final number of observations used for further analysis is 60. The result shows four essential findings. First, the direct effect of ESD on FV is not significant, the impact of ESD on FP is positive and significant, the effect of FP on FV is positive and significant, FP mediates the impact of social and economic performance on FV. The finding confirms the application of legitimacy and stakeholder theory in developing countries where stakeholders have no power to pressure corporate management into social and environmental activities. The results also benefit managers and standards setters. For managers, this finding emphasizes that ESD is a crucial factor in legitimizing the company's products in the eyes of stakeholders. For standard makers, the results are useful for them to develop social and environmental reporting guidelines.

Pratiwi et al (2019) examined and analyze the effect of corporate social responsibility disclosure on company value, with the moderation of family companies. This study used a purposive sampling technique to obtain 164 samples during 2010-2017 from companies across industries (except natural and financial resources companies) that were listed on the Indonesian stock exchange. The analysis technique is used the moderated regression analysis. The results of the study proved that corporate social responsibility disclosure can increase the company value. But, with the moderation of a company can weaken the effect corporate social responsibility disclosure on the company value.

### **Governance Disclosure and Market Value**

Aboud and Diab (2018) examined the impact of social, environmental and governance disclosures (ESG) on firm value in the Egyptian context during the period started from 2007 until 2016. Using Univariate and multivariate analysis, the study found that firms listed in the ESG index have higher firm value compared to unlisted firms. Furthermore, the results document that the quality of ESG, as measured by the relative rank of firms in the ESG index, is positively associated with firm value. These findings generally support the economic benefits associated with social environmental and governance disclosures. The findings contribute to

the growing literature on the economic consequences of ESG and provide important policy implications in relation to regulating sustainability and governance practices.

Li et al (2018) used a large cross-sectional dataset comprising of FTSE 350 listed firms, this study investigates whether superior environmental, social and corporate governance (ESG) disclosure affects firm value. The study found a positive association between ESG disclosure level and firm value, suggesting that improved transparency and accountability and enhanced stakeholder trust play a role in boosting firm value. The study also report that higher CEO power enhances the ESG disclosure effect on firm value, indicating that stakeholders associate ESG disclosure from firms with higher CEO power with greater commitment to ESG practice. This evidence is strong and consistent for three different measures of ESG-related disclosure: the ESG, environmental and social disclosure scores. The results are robust to the use of an instrumental variable approach, and the Heckman two-stage estimation procedure.

Nwaigwe et al. (2022) examined the effect of the extent and quality of sustainability disclosure on market value of firms. The study selected listed firms on the NGX that met the three sample selection criteria of the study being the company must be listed on NGX before 31 December 2009 to ensure that its first set of post-listing annual or sustainability report had been published as at 31 December 2010 which was the earliest year in the study period; a complete set of annual or sustainability reports of the company spanning the period 2010–2019 must be publicly available and obtainable from NGX or the company's website; the company must have made disclosures relating to their sustainability performance in their annual or sustainability reports. Thirty-nine firms from 9 different sectors met the criteria, hence, the sample size of 39 companies drawn from 9 sectors. 31 relevant sustainability performance indicator aspects were analyzed resulting in 390 firm-year observations and 12,090 data points were used to calculate unweighted sustainability extent and quality indices. The GRI 3 guidelines were used to measure sustainability reporting, applying a binary coding system where a dummy score of "1" was assigned if an indicator aspect was disclosed and "0" if otherwise.

This approach allowed the calculation of an un-weighted sustainability disclosure extent index. Findings from regression analysis suggested a positive non-significant association between extent of sustainability disclosure and firm market value. Quality of sustainability disclosure was found to be negatively related to market value. While the samples for the previous study were drawn from nine sectors of the economy, the current study focused on the financial services sector

Soufene (2020) examined how voluntary disclosures (VD) and corporate governance (CG) improve firm value through the moderating effect of a legal change in a continental context, namely France. Based on a sample of 1001 observations of French firms listed on the SBF 120 from 2006 to 2016. A generalized method of moments estimation was used to neutralize the endogeneity problem. Findings show that voluntary disclosure is positively associated with the firm's value. The empirical results also indicate that a change in the law, as a moderate variable, helps to widen the firm's benefit by the development and improvement in its sound governance system. Moreover, this outcome is reliable with the view that the nexus between VD and CG can add value for the firm in the presence of favourable jurisdictions. The research provides guidelines for investors, managers and policymakers to increase firm value by the application of the best practices of VD and CG in the presence of an advantageous law. To improve their reliability and performance, firms adopt a good mechanism of governance that is harmonious with the law and disclose more voluntary information to attract investors. These results offer new insights to the voluntary disclosure and firm value literature.

Tanjung and Wahyudi (2019) analyzed the effect of Sustainability Report disclosures, EVA (Economic Value Added), DER (Debt to Equity Ratio), and PER (Price to Earning Ratio) to firm value. The sampling technique used was purposive sampling. The study was conducted on companies that are consistently included in the LQ 45 Index on the Indonesia Stock Exchange with a research period of 3 (three) years (2016-2018). The estimation of the model used is multiple regression. The results of this study indicate that disclosure of Sustainability Report, DER (Debt to Equity Ratio), and

PER (Price to Earning Ratio) affect the value of the company, while EVA (Economic Value Added) does not affect the firm value. These results can prove stakeholder theory which says that a company is not an entity that only operates for its own sake but must provide benefits to its stakeholders.

## 2.3 Theoretical Framework

### Stakeholder theory:

The Stakeholder Theory was originally proposed by R. Edward Freeman in his book "Strategic Management: A Stakeholder Approach" published in 1984. Freeman's work laid the foundation for the concept of stakeholders being individuals or groups who have an interest in or are affected by a company's actions and decisions. He emphasized the importance of considering these various stakeholders in the decision-making processes of organizations. Stakeholder theory is a view of capitalism that stresses the interconnected relationships between a business and its customers, suppliers, employees, investors, communities and others who have a stake in the organization. The theory argues that a firm should create value for all stakeholders, not just shareholders. In 1984, Edward Freeman originally detailed the stakeholder theory of organizational management and business ethics that addresses morals and values in managing an organization.

Stakeholders refer to those individuals, groups, or organizations that are likely to influence, or be influenced by the operations and decisions of firm. According to Freeman (1984), the stakeholder theory upholds that firms have accountability towards a broad range of stakeholders. Apart from shareholders, that is, creditors, customers, suppliers, employees, government, community, environment, future generations, etc. King (2002) recognized the significance of integrated sustainability reporting in strengthening the relationship between firm and society in which it operates. Ignoring the stakeholder interests may taint firm's public image, which would unfavorably affect its financial performance. Stakeholder theory can also be considered from a social responsibility approach when Jones (2005) defines social responsibility as the notion that companies have an obligation to stakeholder groups other than the shareholders. Ingley et al. (2010) view the implication of corporate sustainability reporting as the proper social, environmental and economic actions

that a firm must incorporate to satisfy the concerns of stakeholders and the financial requirements of shareholders. It is expected that high investment in corporate sustainability reporting activities improves a firm's competitive advantage and consequently, financial performance in addressing interests of various constituents in a rational manner.

### 3. Methodology

The study adopt ex-post facto research design, and secondary data were sourced to examine the impact of and relationship between environmental, social and governance reporting with the market value of manufacturing companies listed on the Nigerian Exchange Group as at 2023. The population of this study comprised all 57 manufacturing companies listed on the Nigerian Exchange Group (NGX) as of December 31, 2023. The study excluded companies that were either not listed before the study's defined period or were no longer listed as of 2023. This filtering process yielded a final sample of 40 companies for analysis.

**Table 1: Variables and Variables Measurement**

| Variable                        | Variable Measurement                                                                                               | Source                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Market value                    | Tobin's Q= Market value of equity + book value of total debt/ book value of total assets+ book value of total debt | Dura et al. (2021), Jonah and Aaron (2023)          |
| INDEPENDENT VARIABLES           |                                                                                                                    |                                                     |
| Environmental report disclosure | GRI disclosure Index on environmental report                                                                       | Jonah and Aaron (2023), Olagunju and Oyewole (2022) |
| Social report disclosure        | GRI disclosure Index on social report                                                                              | Onoh et al (2023), Atanda et al. (2021),            |
| Governance report disclosure    | GRI disclosure Index on economic report                                                                            | Li et al (2018), Aboud and Diab (2018)              |

### 4. Result and Discussion

**Table 2: Descriptive Statistics**

| Variable | Obs | Mean     | Std. Dev. | Min    | Max     |
|----------|-----|----------|-----------|--------|---------|
| tq       | 400 | .3159399 | .4349432  | .00003 | 3.28062 |
| er       | 400 | .1084358 | .1727515  | 0      | 1.2302  |
| sr       | 400 | .3125    | .1665687  | .0625  | .8125   |
| gr       | 400 | .1525202 | .2615589  | 0      | 2.7326  |

**Source: Stata Output, 2024**

In this study, Tobin's Q is used as a measure of market value for listed manufacturing firms on the Nigerian Exchange Group. A higher Tobin's Q indicates that the

Additionally, the study will perform robustness tests to satisfy all the assumptions of Ordinary Least Squares (OLS). These include a multicollinearity test using the Variance Inflation Factor (VIF). The Hausman specification test was conducted to determine the choice between fixed-effect and random-effect regressions. Based on the postulated hypotheses, the model is formulated below:

$$TQ_{it} = \alpha + \beta_1 ER_{it} + \beta_2 SR_{it} + \beta_3 GR_{it} + \varepsilon_{it}$$

Where

ER = Environmental Reporting

SR = Social Reporting

GR = Governance Reporting

TQ = TobinsQ

$\alpha$  = Constant term

it = Market i at Time t

$\beta_1 \dots \beta_2 \dots \beta_3$  = coefficient of variables

$\varepsilon$  = Error term

market values the firm's assets above their replacement cost, which is typically interpreted as a sign of strong market performance and investor confidence in the



firm's future growth potential. Conversely, a lower Tobin's Q suggests that the market values the firm's assets at or below their replacement cost, signaling potentially weaker investor confidence or undervaluation. The results show that Tobin's Q for the sampled firms ranges from a minimum value of 0.00003 to a maximum value of 3.28062. The minimum value suggests that some manufacturing firms are trading significantly below their asset replacement cost, indicating possible challenges in market perception or issues with profitability and growth expectations. On the other hand, the maximum Tobin's Q of 3.28062 reflects that certain firms are highly valued in the market, with their market value substantially exceeding the cost of their assets. This variation in Tobin's Q highlights the diversity in performance and investor valuation across manufacturing firms within the Nigerian market. The average Tobin's Q for these firms is 0.3159399, indicating that, on average, manufacturing firms on the Nigerian Exchange Group are valued below their asset replacement cost. This lower average could imply that the sector, on the whole, is experiencing undervaluation, or it could reflect broader challenges in the Nigerian manufacturing industry, such as economic constraints, limited investor interest, or operational inefficiencies that affect firm valuation. These results provide critical insights into the market dynamics within the Nigerian manufacturing sector, emphasizing the need for strategic improvements in governance, environmental, and social practices to enhance market perceptions and attract investors.

The analysis of environmental reporting among listed manufacturing firms on the Nigerian Exchange Group reveals a range in disclosure levels from a minimum of 0 to a maximum of 1.2302. The minimum value of 0 indicates that some firms did not disclose any environmental information during the study period, highlighting a lack of engagement or transparency in environmental reporting practices within certain firms. This absence of reporting could be due to factors such as limited regulatory requirements, low prioritization of environmental issues, or resource constraints that prevent firms from developing and disclosing environmental data. On the other hand, the maximum value of 1.2302 indicates that some firms have made substantial efforts in their environmental disclosures,

potentially detailing information on areas such as emissions, waste management, energy efficiency, water use, and other environmental impacts. This higher level of disclosure reflects a proactive approach to environmental responsibility, which can enhance the firm's reputation, demonstrate accountability, and potentially improve its attractiveness to socially conscious investors. The average environmental disclosure level across the sample is 0.1084358, suggesting that environmental reporting remains limited among manufacturing firms in Nigeria. This low average indicates that, while some firms are actively engaging in environmental disclosures, the majority provide minimal information. The low average disclosure may reflect challenges such as a lack of mandatory reporting requirements, limited awareness of the importance of environmental reporting, or insufficient infrastructure for tracking and reporting environmental metrics. This range in environmental reporting demonstrates a clear variation in the commitment of manufacturing firms to transparency in environmental practices. For investors and stakeholders, it highlights the need for more consistent environmental disclosures, which can play a crucial role in assessing the sustainability practices of firms. For firms, enhancing environmental reporting could offer competitive advantages by aligning with global sustainability standards and appealing to environmentally focused investors.

The analysis of social reporting among listed manufacturing firms on the Nigerian Exchange Group reveals that disclosure levels range from a minimum of 0.0625 to a maximum of 0.8125. The minimum value of 0.0625 indicates that some firms have minimal engagement in social reporting, providing limited information about their social initiatives, such as community engagement, employee welfare, and contributions to social causes. This minimal level of disclosure suggests that certain firms may not yet fully prioritize or integrate social responsibility within their business operations or communication strategies. Firms with low social reporting may be missing out on the opportunity to showcase their social contributions, which can enhance their reputation and foster stronger relationships with both local communities and investors. The maximum social disclosure value of 0.8125 shows that some manufacturing firms are actively engaged in

providing extensive information on their social responsibility initiatives. These firms may be detailing their practices in areas such as workforce diversity, health and safety, community support programs, and training and development efforts. High levels of social reporting reflect a strong commitment to social responsibility and transparency, which can appeal to socially conscious investors and other stakeholders who prioritize corporate responsibility alongside financial performance. On average, the level of social reporting among the sampled firms is 0.3125. This average suggests a moderate degree of engagement in social reporting, with many firms providing some level of information on social activities but potentially lacking comprehensive disclosures. This moderate average might indicate that while some firms recognize the importance of social reporting, the majority may not yet be fully committed to detailed or robust social disclosures. Barriers such as a lack of clear reporting standards, limited resources for developing social programs, or low investor demand for social information could contribute to this moderate level of disclosure. The range and average of social reporting indicate significant variation in how Nigerian manufacturing firms communicate their social initiatives. This gap presents an opportunity for firms to enhance their social disclosures, which can differentiate them in a competitive market and potentially increase their appeal to investors who value responsible business practices. Improved and consistent social reporting could strengthen firms' reputations, enhance stakeholder trust, and help position them as leaders in corporate responsibility within Nigeria's manufacturing sector.

The assessment of governance reporting among listed manufacturing firms on the Nigerian Exchange Group shows a considerable range in disclosure practices, with values spanning from a minimum of 0 to a maximum of 2.7326. The minimum value of 0 suggests that some firms did not engage in governance reporting during the study period, reflecting a complete lack of disclosure in areas related to corporate governance practices. This lack of governance reporting could indicate that some firms may not fully recognize the importance of transparency in governance or may face challenges such

as resource limitations, regulatory pressures, or limited internal structures that support governance disclosures. Without governance reporting, these firms miss opportunities to communicate essential information on their corporate governance structures, which could negatively impact investor confidence and market value. On the other hand, the maximum governance disclosure level of 2.7326 shows that certain firms in the sample have adopted comprehensive governance reporting practices, disclosing significant information on governance-related aspects. Firms with high governance scores may report extensively on aspects such as board structure, board independence, executive remuneration, shareholder rights, and internal control mechanisms. These detailed disclosures reflect a strong commitment to transparency and accountability, likely enhancing the firm's credibility and aligning it with best practices in corporate governance. High governance disclosure is typically valued by investors, as it signals that the firm adheres to sound management practices, prioritizes shareholder interests, and is prepared to be held accountable in its operations. The average governance disclosure among the firms stands at 0.1525202, which indicates that, on average, manufacturing firms in Nigeria are providing limited information on governance practices. This low average suggests that governance reporting is not yet a strong focus for the majority of firms, possibly due to limited regulatory requirements, insufficient internal policies promoting disclosure, or a lack of investor pressure for detailed governance information. This low level of disclosure may imply that firms are either reluctant to disclose governance practices or may not yet have developed robust governance frameworks that warrant full disclosure. The wide range and low average of governance reporting in Nigeria's manufacturing sector underscore the need for enhanced corporate governance transparency. Increasing governance disclosures could significantly benefit firms by bolstering investor trust, reducing perceived risks, and aligning with global expectations for good governance. As global and local investors increasingly prioritize well-governed firms, Nigerian manufacturing firms stand to gain by prioritizing governance transparency, which could ultimately improve their market value and competitive positioning.

**Table 3: Diagnostics Result**

| Regression assumptions:               | Test:                         | We seek values |
|---------------------------------------|-------------------------------|----------------|
| 1) NO heterokedasticity problem       | Breusch-Pagan hettest         | > 0.05         |
|                                       | Chi2(1): 1.409                |                |
|                                       | p-value: 0.235                |                |
| 2) no multicollinearity problem       | Variance inflation factor     | < 5.00         |
|                                       | sr : 1.42                     |                |
|                                       | er : 1.39                     |                |
|                                       | gr : 1.03                     |                |
| 3) residuals are normally distributed | Shapiro-Wilk W normality test | > 0.01         |
|                                       | z: 0.735                      |                |
|                                       | p-value: 0.231                |                |

Source: Stata Output, 2024

Using the Breusch-Pagan-Godfrey estimation technique to test for heteroskedasticity, the result showed an Observed R-Squared of 1.409 with a probability value of 0.235. Since these values are greater than the 5% significance level, it indicates homoscedasticity of the residuals. This absence of heteroskedasticity suggests that the residuals are homoscedastic, as per the null hypothesis, which contrasts with the alternative hypothesis that posits heteroscedasticity.

A multicollinearity test was conducted to determine if the explanatory or independent variables were highly correlated. Variables are considered highly correlated if

their Variance Inflation Factor (VIF) is greater than 10. However, the respective VIFs were all less than 10, indicating the absence of multicollinearity.

The Shapiro-Wilk W test was used to assess the normal distribution of the variables. The null hypothesis posits that the residuals are normally distributed, while the alternative hypothesis suggests they are not. If the test p-value is less than the 5% significance level, the null hypothesis is rejected, indicating non-normal distribution of the residuals. However, with a p-value of 0.231 (23.1%), which is greater than 5%, the result indicates that the residuals are normally distributed.

**Table 4: Hausman Specification**

|    | (b)<br>fixed | (B)<br>random | (b-B)<br>Difference | sqrt(diag(V_b-V_B))<br>S.E. |
|----|--------------|---------------|---------------------|-----------------------------|
| er | .733433      | .8150515      | -.0816185           | .0200574                    |
| sr | -.2153343    | -.2507753     | .0354411            | .0263845                    |
| gr | 1.067565     | 1.053888      | .0136764            | .0110583                    |

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\chi^2(3) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 44.15$$

$$\text{Prob} > \chi^2 = 0.0000$$

Source: Stata Output, 2024

The Hausman Test results, as shown in Table 4, indicate that the probability value of the chi-square is less than 0.05 ( $0.0000 < 0.05$ ). Consequently, the study concludes that the fixed effect model (FE) is the preferred model, in accordance with the null hypothesis.

Since the Hausman Test specifies the fixed-effect model, there is no need to conduct the Lagrange test. Therefore, the hypotheses are tested using fixed effect regression.

**Table 5: Regression Result**

|                                   |                    |   |        |
|-----------------------------------|--------------------|---|--------|
| Fixed-effects (within) regression | Number of obs      | = | 400    |
| Group variable: id                | Number of groups   | = | 40     |
| R-sq: within = 0.8886             | Obs per group: min | = | 10     |
| between = 0.9109                  | avg                | = | 10.0   |
| overall = 0.8854                  | max                | = | 10     |
| F(3,357) = 949.59                 |                    |   |        |
| corr(u_i, Xb) = 0.2572            | Prob > F           | = | 0.0000 |

| tq    | Coef.     | Std. Err. | t     | P> t  | [95% Conf. Interval] |
|-------|-----------|-----------|-------|-------|----------------------|
| er    | .733433   | .0750146  | 9.78  | 0.000 | .5859069 .8809591    |
| sr    | -.2153343 | .0559308  | -3.85 | 0.000 | -.3253295 -.1053391  |
| gr    | 1.067565  | .0478442  | 22.31 | 0.000 | .973473 1.161657     |
| _cons | .1408791  | .0188158  | 7.49  | 0.000 | .1038753 .1778829    |

**Source: Stata Output, 2024**

The model explained 88% variation changes on market value measured by tobins Q while the remaining variation is explained by other exogenous factor that is not included in the model. The F-statistics is less than 5% which means that the model is fit.

The finding reveals that environmental reporting has a positive and statistically significant effect on the market value of Nigerian manufacturing firms. This outcome indicates that for each percentage increase in the disclosure of environmental activities, market value is projected to improve by a coefficient of 0.733. In practical terms, this suggests that firms engaging in transparent environmental reporting are likely to experience a substantial boost in their perceived value in the market. The positive coefficient of 0.733 implies that investors and other stakeholders place considerable value on a firm's commitment to environmental sustainability. Increased environmental disclosure signals to the market that the firm is proactive in managing environmental risks, adhering to sustainable

practices, and possibly reducing future liabilities or costs associated with environmental degradation. This heightened market value may stem from increased investor confidence, as comprehensive environmental reporting reduces information asymmetry and enhances transparency, making firms more attractive to environmentally-conscious investors.

Also, the finding reveals that social reporting has a negative and statistically significant effect on the market value of listed manufacturing firms in Nigeria. Specifically, the coefficient of -0.2153 indicates that an increase in the level of social reporting is associated with a decrease in market value by 0.2153 units. This suggests that for every additional unit of social disclosure, such as increased reporting on social contributions, community engagements, or employee welfare, the market value of these firms is expected to decrease. The negative coefficient implies that investors may perceive extensive social reporting as a signal of inefficiency or a diversion of resources from core

business operations. In some cases, firms that excessively focus on social reporting may be viewed as prioritizing non-financial concerns over financial performance, leading to concerns about the potential impact on profitability and long-term shareholder value. This could also indicate that investors are not yet fully receptive to the social aspects of ESG disclosures in the Nigerian context, or they may view such activities as less relevant to financial performance compared to environmental or governance issues. Furthermore, the negative relationship might reflect a lack of understanding or confidence in how social disclosures are implemented and their actual impact on firm performance. The Nigerian market, where social concerns may not yet hold the same weight as environmental or governance issues, could be less responsive to social information. As a result, investors may discount the value of firms with extensive social reports, potentially viewing such disclosures as a sign of overspending on social initiatives without clear, measurable benefits to financial performance.

Furthermore, the finding shows that governance reporting has a positive and statistically significant effect on the market value of listed manufacturing firms in Nigeria. Specifically, the coefficient of 1.067565 indicates that for every unit increase in governance reporting, the market value of the firm is expected to increase by 1.067565 units. This suggests that improved governance disclosures, such as enhanced reporting on board structure, shareholder rights, transparency in decision-making, and corporate ethics, are highly valued by investors in the Nigerian market. The positive relationship between governance reporting and market value reflects the growing importance of good corporate governance in the eyes of investors. As investors increasingly focus on firms that exhibit strong governance practices, they may perceive well-governed firms as lower risk, more transparent, and better equipped to deliver long-term value. This enhanced market value could be due to the confidence investors place in firms that provide detailed and clear governance disclosures, as they are more likely to ensure proper oversight, accountability, and strategic direction. The finding also shows that governance disclosures are considered one of the most critical components of ESG reporting in emerging markets like Nigeria. Investors tend to view firms with robust

governance frameworks as more capable of navigating regulatory challenges, mitigating potential risks, and aligning with global best practices. Consequently, this finding supports the argument that governance reporting not only meets regulatory requirements but also serves as a strategic tool for improving investor confidence and boosting market valuation.

## 5. Conclusion and Recommendations

The study concludes that environmental reporting has a significant positive impact on the market value of Nigerian manufacturing firms. The coefficient indicates that enhanced transparency in environmental disclosures substantially boosts firm market valuation, highlighting the importance of environmental stewardship in driving investor confidence and market performance. This finding affirms that firms actively engaging in responsible environmental reporting are more attractive to stakeholders, especially investors, who value sustainability as a critical component of firm longevity and risk management. In the context of Nigeria's emerging market, where ESG practices are gaining traction, environmental disclosure emerges as a key contributor to enhancing firm value, positioning firms favorably in the eyes of both local and international investors.

The study concludes that social reporting has a negative and statistically significant effect on the market value of listed manufacturing firms in Nigeria. This indicates that, in the Nigerian context, investors may not yet perceive social disclosures as valuable in enhancing firm performance or may view them as distractions from financial goals. The findings highlight the potential for social reporting to be seen negatively by investors, possibly due to concerns about the allocation of resources towards non-financial objectives that do not directly contribute to profitability. Therefore, while social reporting is an important component of ESG practices, its impact on market value appears to be more complex and requires careful strategic alignment with business objectives.

The study concludes that governance reporting has a significant positive effect on the market value of listed manufacturing firms in Nigeria. This finding suggests that investors place high value on strong governance



practices and transparent corporate reporting. By prioritizing governance disclosures such as board structure, shareholder rights, and ethical practices firms are able to enhance investor confidence and mitigate perceived risks, which ultimately contributes to higher market valuation. As governance is a critical factor in shaping investor perceptions, this result emphasizes the importance of clear and comprehensive governance reporting in driving firm value. The study recommends the following:

I. To maximize the impact of environmental reporting on market value, Nigerian manufacturing firms should prioritize transparent and comprehensive disclosure of their environmental practices. Given the finding that environmental reporting significantly enhances market value, firms in the manufacturing sector are encouraged to view environmental disclosure not merely as a regulatory requirement but as a strategic tool to attract investors and enhance competitive advantage. By openly communicating efforts in pollution control, waste management, and resource efficiency, manufacturing firms can boost investor confidence and appeal to socially conscious capital sources.

II. Based on these findings, it is recommended that Nigerian manufacturing firms take a more strategic and focused approach to social reporting. Firms should carefully assess the relevance of social initiatives and ensure they align with the company's core business

objectives. Social reporting should be framed in a way that clearly demonstrates the tangible benefits of social investments, such as improved employee productivity, stronger community relations, or enhanced brand reputation, and how these factors can ultimately contribute to the firm's financial performance. Additionally, firms should consider reducing excessive or unsubstantiated social reporting and focus on initiatives that are most likely to resonate with their stakeholders, including investors. The integration of social objectives into the broader business strategy, with a clear demonstration of their financial implications, will likely help improve investor confidence and mitigate the negative perception of social reporting.

III. It is recommended that Nigerian manufacturing firms adopt a more robust approach to governance reporting by ensuring that they provide detailed, transparent, and credible information about their governance structures and practices. Firms should prioritize areas such as board composition, independence, executive compensation, risk management, and shareholder rights, all of which are of high interest to investors. Strengthening governance disclosures will not only help enhance investor confidence but also align the firms with global best practices, ultimately improving their market value and positioning them as more attractive investment opportunities in both local and international markets.

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