

# International Journal of Foreign Trade and International Business



E-ISSN: 2663-3159  
P-ISSN: 2663-3140  
Impact Factor: RJIF 5.22  
[www.foreigntradejournal.com](http://www.foreigntradejournal.com)  
IJFTIB 2025; 7(1): 176-189  
Received: 20-03-2025  
Accepted: 24-04-2025

**Izuagie Anthony Michael**  
Dillard College of Business  
Administration, Midwestern  
State University, Texas,  
United States

## Impact of ESG practices and financial performance of some selected quoted manufacturing firms in Nigeria

**Izuagie Anthony Michael**

DOI: <https://doi.org/10.33545/26633140.2025.v7.i1b.158>

### Abstract

This study investigates the impact of environmental, social, and governance (ESG) practices on the financial performance of quoted manufacturing firms in Nigeria, focusing on earnings per share (EPS), return on assets (ROA), and return on equity (ROE). Utilizing data from 10 firm for a period of 9-year (2015-2023) observations, regression analyses were employed to assess the relationships between ESG dimensions and financial performance. The results reveal a significant positive influence of environmental practices on EPS and ROA, underscoring the financial benefits of adopting sustainable environmental initiatives. Social practices demonstrated a strong positive association with EPS and ROA, highlighting the importance of social responsibility in fostering stakeholder trust and enhancing performance. However, their effect on ROE was marginal, suggesting room for improvement in leveraging social initiatives for equity returns. Governance mechanisms significantly affected EPS and ROA positively, demonstrating the role of transparency and accountability in driving profitability. Nevertheless, governance exhibited a negative association with ROE, suggesting a potential imbalance in cost and return distribution among equity holders. The findings suggest that integrating ESG practices can boost financial performance, particularly through improved EPS and ROA, but emphasize the need for a strategic approach to governance mechanisms to optimize equity returns. The study recommends strengthening sector-specific ESG frameworks, promoting sustainable practices across industries, and implementing policies to align governance strategies with equity performance. These insights contribute to the growing body of knowledge on ESG's role in enhancing corporate performance in emerging economies.

**Keywords:** ESG practices, financial performance, manufacturing firms, Nigeria, earnings per share

### 1. Introduction

Environmental, Social, and Governance (ESG) principles are increasingly recognized as vital factors influencing corporate performance and sustainability. Globally, there is a growing shift towards integrating ESG frameworks to balance profitability with broader societal and environmental considerations (Fatemi *et al.*, 2018) <sup>[22]</sup>. Companies that adopt these frameworks are often seen as more resilient and better prepared for long-term success, as they can navigate market fluctuations and meet stakeholder expectations more effectively (Gillan *et al.*, 2021) <sup>[29]</sup>.

In Nigeria, the manufacturing sector faces unique challenges, including economic instability, environmental degradation, and social inequalities (Nwankwo & Mba, 2020) <sup>[56]</sup>. These issues make the integration of ESG practices crucial for improving the sector's sustainability and competitiveness (Akinlo, 2022) <sup>[4]</sup>. Quoted manufacturing firms in Nigeria operate within an environment that is heavily influenced by fluctuating economic conditions, regulatory challenges, and increasing demand for corporate responsibility (Oluwagbemiga *et al.*, 2023) <sup>[61]</sup>. Despite the global focus on sustainability, there is limited research on how ESG practices specifically affect financial performance in Nigeria's manufacturing sector (Ibrahim & Dauda, 2021) <sup>[36]</sup>. This study seeks to bridge this gap by exploring the relationship between ESG practices and key financial performance indicators, particularly focusing on Earnings Per Share (EPS), Return on Assets (ROA) and Return on Equity (ROE).

Despite the growing emphasis on sustainability globally, many Nigerian manufacturing firms still struggle to effectively integrate ESG principles into their operations. This struggle raises concerns about their long-term competitiveness and market positioning.

**Corresponding Author:**  
**Izuagie Anthony Michael**  
Dillard College of Business  
Administration, Midwestern  
State University, Texas,  
United States

The primary issue under investigation is the unclear relationship between ESG adoption and the financial performance of quoted manufacturing firms in Nigeria. While some firms view ESG practices as a cost burden, others see them as a strategic opportunity to enhance stakeholder trust and operational efficiency.

Specific challenges include the limited adoption of environmental practices due to regulatory inefficiencies and high implementation costs. Social responsibilities, such as employee welfare and corporate social responsibility (CSR), are often neglected, hindering firms from fostering stronger stakeholder relationships. Additionally, governance issues, such as corruption and a lack of transparency, negatively impact corporate reputation and investor confidence. These issues demand a systematic investigation to understand the tangible effects of ESG practices on financial performance.

The study's significance lies in its potential to influence policy formulation, encouraging Nigerian regulatory bodies to create a more conducive environment for ESG integration. Additionally, manufacturing firms can benefit from actionable insights that help them align their operations with sustainability goals, improve operational efficiency, and enhance their financial outcomes. Investors will gain a clearer understanding of the relationship between ESG performance and financial returns, aiding investment decisions. Policymakers can leverage these findings to promote sustainable industrial growth, while communities may benefit from improved corporate social responsibility initiatives.

This study will focus on quoted manufacturing firms listed on the Nigerian Stock Exchange (NSE) from 2015 to 2023. The justification for the selection is due to their significant contribution to Nigeria's economic growth and industrial development. The chosen period enables the assessment of trends and the impact of key policy changes on corporate performance. These firms provide reliable and accessible data, making them ideal for analyzing financial and operational metrics critical for informed decision-making and policy recommendations. It will examine how the three dimensions of ESG (environmental practices (waste management and energy efficiency), social practices (employee welfare and CSR), and governance mechanisms (transparency and accountability)) influence financial performance, specifically measured by (EPS, ROA and ROE). Non-quoted firms and firms from other sectors will not be included in this study. Secondary data will be sourced from financial reports and sustainability disclosures.

the study aims and objectives of the study are to;

- Assess the impact of environmental practices on the financial performance (ROA, ROE and EPS) of quoted manufacturing firms in Nigeria.
- Examine the influence of social practices, including employee welfare and CSR, on the financial performance (ROA, ROE and EPS) of quoted manufacturing firms in Nigeria.
- Evaluate the role of governance mechanisms, such as transparency and accountability on the financial performance (ROA, ROE and EPS) of quoted manufacturing firms in Nigeria.

## 2. Literature Review

### 2.1 Concept of Performance

Recent empirical studies have examined the relationship between Environmental, Social, and Governance (ESG) practices and the performance of firms, particularly in

emerging markets. A meta-analysis by Nuru *et al.* (2024)<sup>[54]</sup> synthesizes findings from 52 studies, encompassing 33,878 observations, and concludes that CSR positively impacts financial performance, especially when using accounting-based measures. In the context of emerging markets, research by Basuony *et al.* (2023)<sup>[13]</sup> investigates the influence of sustainability and board composition on firm performance. Analyzing data from 1,382 firms across 24 emerging countries, the study finds that ESG indices, including environmental scores and CO<sub>2</sub> emissions, affect both accounting-based (ROA) and market-based (Tobin's Q) performance metrics. Additionally, a study by Al-ahdal *et al.* (2023)<sup>[8]</sup> explores corporate governance practices in India and Gulf countries, revealing that while board structure negatively affects performance in these regions, factors like transparency and leverage have a positive impact. These studies collectively suggest that robust ESG practices can enhance firm performance in emerging markets. However, the effectiveness of specific ESG components may vary across different regions and industries. Therefore, firms should tailor their ESG strategies to align with their unique operational contexts to maximize performance benefits.

#### 2.1.1 Return on Equity

Return on Equity (ROE) is a critical financial metric that measures the profitability of a firm relative to shareholders' equity. It is widely used to assess how effectively management utilizes investments to generate earnings. Defined mathematically as net income divided by shareholders' equity, ROE serves as a key indicator of financial performance and shareholder value.

Empirical findings emphasize the importance of ROE as a performance metric in both developed and emerging markets. According to Lodh *et al.* (2023)<sup>[45]</sup>, firms with higher ROE tend to attract more investors due to their efficient utilization of capital, which signals robust managerial performance. This efficiency has been linked to the adoption of strategic policies such as cost control, capital reinvestment, and innovation.

A study by Basuony *et al.* (2023)<sup>[13]</sup> highlights the influence of governance structures on ROE, noting that firms with strong corporate governance practices achieve higher profitability and market valuation. Similarly, Shamil *et al.* (2022)<sup>[65]</sup> find that firms with sustainable environmental, social, and governance (ESG) practices often report enhanced ROE, driven by improved risk management and stakeholder trust.

Conversely, contextual factors can limit ROE. Ahmed *et al.* (2021)<sup>[11]</sup> identified that firms operating in volatile economic environments or those constrained by regulatory inefficiencies may exhibit lower ROE. Nigerian manufacturing firms face challenges such as inadequate infrastructure and inflation, which can suppress profitability and diminish the utility of ROE as a sole measure of success. While ROE is an essential tool for measuring profitability, its interpretation requires caution. High ROE may result from excessive leverage, which increases financial risk, or from declining equity levels due to share buybacks or asset revaluations. For a comprehensive assessment of firm performance, ROE should be analyzed alongside other metrics such as Return on Assets (ROA), Earnings Per Share (EPS), and debt-to-equity ratio to provide a balanced view.

### 2.1.2 Return on Asset

Return on Assets (ROA) is a critical financial performance metric used to evaluate the efficiency with which a company utilizes its assets to generate profits (Fatimah & John, 2021). In the context of Nigerian manufacturing firms, ROA serves as an indicator of how effectively these companies manage their resources, which is crucial in a sector facing frequent challenges such as fluctuating economic conditions and regulatory pressures (Akpan & Eneh, 2019)<sup>[61]</sup>.

The importance of ROA in assessing the operational performance of manufacturing firms cannot be overstated, particularly in an environment where efficient asset utilization is essential for maintaining profitability. Akinyele and Akintoye (2020)<sup>[7]</sup> argue that for manufacturing firms in Nigeria, achieving a higher ROA is often tied to effective management practices, including better inventory control, cost reduction strategies, and investment in modern technologies.

Furthermore, Nwachukwu and Olusegun (2018)<sup>[55]</sup> suggest that external factors such as inflation, exchange rate volatility, and the regulatory landscape significantly influence the ROA of Nigerian manufacturing firms. Their study indicates that while these firms may have access to substantial physical assets, external economic conditions can hinder their ability to effectively convert those assets into profits.

Ogunleye and Oladipo (2021)<sup>[60]</sup> further contend that ROA, when used in combination with other performance metrics such as Return on Equity (ROE), provides a clearer picture of financial health, especially in the competitive and resource-constrained environment of Nigerian manufacturing. Their research highlights that firms with strong asset utilization tend to perform better in the long term, as they manage to generate more profit from their asset base despite external economic challenges.

### 2.1.3 Earnings Per Share (EPS)

Earnings Per Share (EPS) is a widely used financial performance metric that represents the portion of a company's profit allocated to each outstanding share of common stock. According to Brigham and Houston (2018)<sup>[12]</sup>, EPS is a key indicator of a company's profitability and financial health, calculated as net income minus preferred dividends divided by the weighted average number of common shares outstanding. Ross *et al.* (2020)<sup>[63]</sup> describe EPS as a fundamental tool for investors to assess a firm's profitability on a per-share basis, influencing stock valuation and investment decisions.

The integration of Environmental, Social, and Governance (ESG) factors can significantly impact EPS, as sustainable practices improve operational efficiencies, reduce costs, and foster investor confidence. For instance, manufacturing firms that implement energy-saving measures or enhance employee welfare often experience increased productivity and cost savings, which positively influence net income and EPS. Furthermore, strong governance practices enhance transparency, reducing financial irregularities and fostering stability. As Nigerian manufacturing firms align with global ESG standards, they may experience enhanced financial performance, with ESG factors contributing directly to improved EPS by driving sustainable growth and long-term profitability.

### 2.1.4 Environmental Accounting Practices

Environmental accounting practices play a significant role

within the broader Environmental, Social, and Governance (ESG) framework, particularly in the manufacturing firms. These practices involve the identification, measurement, and reporting of environmental costs, such as resource usage, emissions, and waste management, enabling firms to assess their environmental performance (Jones, 2018)<sup>[40]</sup>. By integrating these practices, companies can evaluate their impact on natural resources and identify areas for improvement, which is increasingly important in a world that prioritizes sustainability (Schaltegger & Wagner, 2017)<sup>[64]</sup>.

Environmental accounting evaluates the financial implications of environmental practices, providing a framework for integrating environmental costs and benefits into business operations. Deegan (2013)<sup>[20]</sup> highlights that environmental accounting enhances transparency and supports sustainable decision-making, which can positively influence corporate performance metrics like Earnings Per Share (EPS). Gray *et al.* (2017)<sup>[31]</sup> corroborate this, noting a positive link between environmental reporting and financial outcomes, emphasizing that proactive environmental practices attract socially responsible investors and reduce operational risks.

Furthermore, Schaltegger and Burritt (2018)<sup>[66]</sup> argue that environmental accounting facilitates resource efficiency by identifying cost-saving opportunities through waste reduction and energy optimization. This efficiency often translates into enhanced profitability and higher EPS. In the Nigerian context, Olayinka and Temitope (2020)<sup>[58]</sup> found that companies adopting environmental accounting practices experience improved stakeholder trust, which drives market performance and investor confidence. These findings collectively suggest that robust environmental accounting not only enhances compliance and sustainability but also creates long-term financial value, making it a critical factor in improving EPS and overall corporate resilience in both developed and emerging markets.

### 2.1.5 Social Responsibility Practices

The social responsibility of firms, particularly in relation to employees, local communities, and the broader societal impact of corporate operations. Social indicators provide a measure of how well an organization is managing its relationships with employees, customers, communities, and stakeholders, ensuring that the organization's operations contribute positively to society and uphold human rights and labor standards.

Key indicators under the social dimension include employee-related factors such as benefits, injury and disease rates, and health and safety training. The provision of benefits to full-time employees ensures that workers are adequately compensated and receive benefits that improve their overall well-being (McWilliams & Siegel, 2001)<sup>[48]</sup>. The injury and occupational disease rates are vital in assessing the effectiveness of health and safety programs in the workplace. These rates indicate the extent to which employees are exposed to physical harm or health hazards in their jobs (Shannon *et al.*, 2017)<sup>[68]</sup>. Therefore, firms with low injury and disease rates are viewed as having more robust safety measures and a greater commitment to employee welfare.

Training on health and safety is an essential part of maintaining a safe work environment. Organizations that provide regular training sessions help equip employees with

the knowledge to prevent accidents and manage risks, contributing to lower injury rates and fostering a safer work culture (Abe *et al.*, 2017)<sup>[1]</sup>. These training programs are not only beneficial for compliance with safety regulations but also for the general health and productivity of employees. Another important social indicator is the representation of men and women in governance bodies. Gender equality in leadership positions not only promotes fairness but can also enhance decision-making, as diverse perspectives lead to better business strategies (Terjesen *et al.*, 2016)<sup>[71]</sup>. The equal remuneration of men and women for the same work is a critical aspect of gender equality. Organizations that adhere to this principle demonstrate a commitment to fairness and equality, ensuring that all employees are paid according to their skills and contributions, irrespective of gender (World Economic Forum, 2020).

Social indicators also include the avoidance of child labor, a critical human rights issue. Firms are expected to have policies in place that prevent the use of child labor in their operations and supply chains. Organizations that comply with international labor standards and actively work to eliminate child labor contribute to the welfare and education of children, as well as the overall development of communities (Harrison & Freeman, 2019)<sup>[33]</sup>.

Local community development programs reflect an organization's efforts to improve the conditions of the communities in which it operates. Companies involved in local development initiatives are seen as contributing to social capital, improving the lives of people in the area, and promoting sustainable development (Jamali *et al.*, 2008)<sup>[38]</sup>. Moreover, effective stakeholder engagement plans demonstrate an organization's commitment to listening to and addressing the concerns of its stakeholders, including local communities, customers, employees, and investors (Freeman, 1984)<sup>[26]</sup>.

Anti-corruption policies and procedures are another critical component of social responsibility, ensuring that companies operate with integrity and transparency. Companies that actively fight corruption and implement strict ethical standards foster trust with stakeholders and avoid legal and financial risks (Scherer & Palazzo, 2011)<sup>[67]</sup>. Political, financial, and other forms of contributions made by an organization can also reflect its social impact, especially if these contributions support ethical causes and contribute to the public good (Campbell, 2007)<sup>[17]</sup>.

organizations that assess their suppliers and clients for their impact on society are working to ensure that their entire supply chain aligns with their social responsibility goals. This includes evaluating the potential negative impacts on society, such as human rights violations, environmental damage, or unethical practices. By considering these factors, firms can reduce their exposure to social risks and contribute to positive societal outcomes (Vachon & Klassen, 2008)<sup>[75]</sup>.

### 2.1.6 Governance Indicators

Governance indicators within the ESG framework assess the effectiveness of corporate leadership and decision-making processes, focusing on aspects such as board structure,

compliance, and risk management. Board structure and composition ensures diverse, independent oversight, improving decision-making and reducing conflicts of interest. Strategic planning and oversight refer to the board's role in aligning organizational goals with available resources and external conditions, maintaining long-term sustainability (Fama & Jensen, 1983)<sup>[24]</sup>.

Compliance and regulatory requirements emphasize adherence to laws, regulations, and industry standards, protecting firms from legal risks and reputational damage (Barkemeyer, 2017)<sup>[16]</sup>. Risk management involves identifying and mitigating operational, financial, and reputational risks, ensuring organizational stability and sustainability (Mikes, 2009)<sup>[51]</sup>.

Financial oversight ensures accurate reporting and effective resource allocation, enhancing investor confidence (Habbash, 2016)<sup>[34]</sup>. Ethical standards and integrity are crucial for building trust, with firms expected to uphold fairness and transparency in their operations (Donaldson & Preston, 1995)<sup>[21]</sup>. Stakeholder engagement and communication highlight the importance of fostering strong relationships with stakeholders, promoting transparency and long-term trust (Freeman, 1984)<sup>[26]</sup>.

Performance evaluation is an ongoing process that measures governance effectiveness, promoting accountability and improvements in organizational efficiency. Finally, crisis management and continuity planning ensure preparedness for unexpected disruptions, minimizing operational impacts during crises (Heath & Bryant, 2000)<sup>[35]</sup>.

In summary, governance indicators are vital for ensuring transparency, accountability, and long-term organizational sustainability by focusing on leadership effectiveness, regulatory compliance, and risk management.

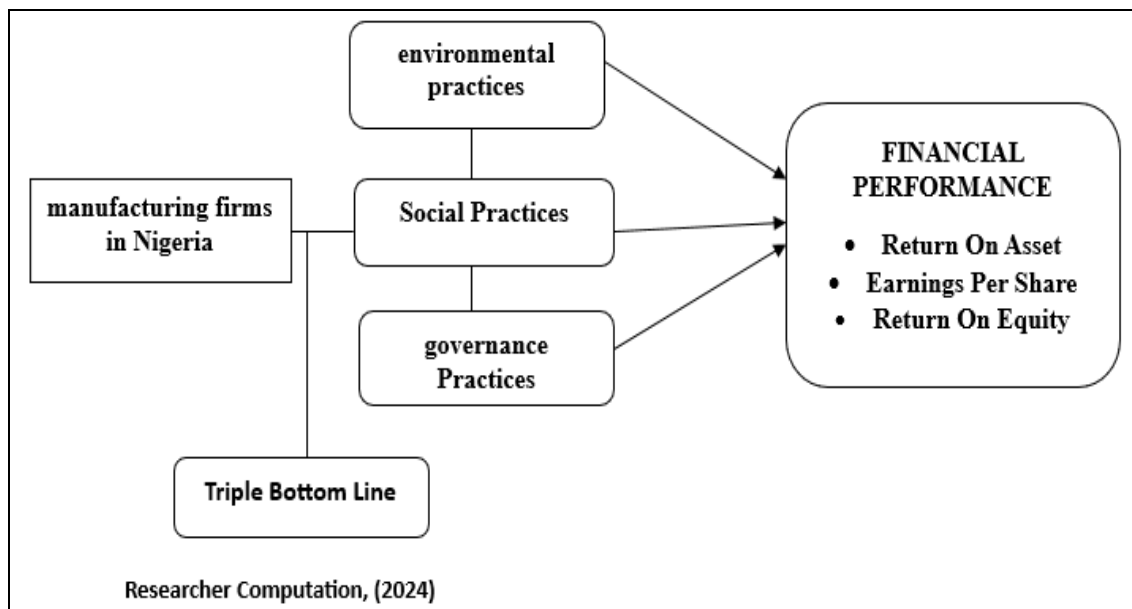
## 2.2 Theoretical Framework

### 2.2.1 Triple Bottom Line (TBL) Theory

The Triple Bottom Line (TBL) framework emphasizes the need for businesses to focus on three key areas: social, environmental, and economic performance. This theory aligns closely with ESG practices as it encourages firms to measure success not just by financial profitability but also by their impact on the environment and society. For manufacturing firms in Nigeria, adopting TBL principles can lead to improved social outcomes, reduced environmental impact, and sustainable financial performance (Elkington, 1997)<sup>[27]</sup>.

Base on the Triple Bottom Line theory above the following hypothesis were generated

- **H01:** environmental practices do not have significant influence on the financial performance (EPS, ROA and ROE) of quoted manufacturing firms in Nigeria.
- **H02:** social practices do not do not have significant influence on the financial performance (EPS, ROA and ROE) of quoted manufacturing firms in Nigeria.
- **H03:** the role of governance mechanisms such as transparency and accountability do not have significant influence on the financial performance (EPS, ROA and ROE) of quoted manufacturing firms in Nigeria.



### 2.3 Empirical Review

The influence of Environmental, Social, and Governance (ESG) practices on firm performance has been explored extensively across various countries providing a nuanced understanding of its impact on performance. Afolabi and Oyedele (2019)<sup>[3]</sup> studied Nigerian manufacturing firms, highlighting that while environmental and governance practices positively influenced profitability, social practices had minimal impact. Their findings align with Sharma and Gupta (2020), who, in a similar study on Indian firms, reported that governance practices, particularly transparency, were critical in enhancing market performance, thereby establishing governance as a pivotal component of ESG.

Iwedi and Igwe (2018)<sup>[37]</sup> focused exclusively on financial metrics like Return on Assets (ROA) and Return on Investment (ROI) in Nigerian firms, showing that operational efficiency and market dynamics were significant drivers. This focus on financial metrics resonates with Chen and Zhang (2022)<sup>[19]</sup>, who, using panel data from Chinese firms, demonstrated that consistent ESG adoption, particularly in governance and environmental practices, led to superior financial outcomes. Their longitudinal approach offered a broader perspective compared to the cross-sectional insights of Okeke and Adebayo (2021)<sup>[59]</sup>, who emphasized transparency and compliance as core to profitability in Nigerian firms.

While the emphasis on governance remains consistent across studies, Johnson *et al.* (2020)<sup>[39]</sup> highlighted its role in building stakeholder trust in South Africa, indirectly boosting profitability. Adeyemi and Bello (2017)<sup>[2]</sup> added to this discourse by linking ESG disclosures to enhanced financial transparency and market valuation, echoing the findings of Lee and Kim (2021)<sup>[44]</sup> in South Korea, where comprehensive disclosures were tied to long-term financial benefits and stakeholder engagement. Global studies, such as KPMG (2019)<sup>[42]</sup>, provide context for these localized findings, showing that emerging markets, including Nigeria, lag in ESG adoption but have significant potential for growth, particularly in governance practices. This global perspective is mirrored in the findings of Mohammed and Yusuf (2023)<sup>[50]</sup>, who observed that ESG adoption offered Nigerian firms a competitive edge in market share and long-

term performance.

Environmental practices specifically gained attention in the studies of Akinsanya and Lawal (2020)<sup>[5]</sup>, who found that energy conservation strategies reduced operational costs and increased profitability. This operational focus contrasts with Musa and Agbo (2022)<sup>[52]</sup>, who explored the indirect financial benefits of social practices, such as employee welfare and corporate social responsibility (CSR), demonstrating their role in enhancing firm reputation and productivity. Together, these studies underscore the multifaceted nature of ESG practices governance as a tool for improving financial performance.

### 2.4 Gap in Literature

The review of existing literature on the impact of environmental, social, and governance (ESG) practices on the financial performance of quoted manufacturing firms reveals notable gaps. While prior studies extensively explore the Triple Bottom Line (TBL) framework in developed economies, there is limited empirical evidence focusing on emerging markets like Nigeria. Specifically, the nuanced effects of ESG practices on financial metrics such as Earnings Per Share (EPS), Return on Assets (ROA), and Return on Equity (ROE) within the Nigerian manufacturing sector remain underexplored.

Research addressing environmental practices often centers on compliance and cost reduction without adequately linking these practices to long-term financial performance. Social practices, including employee welfare and community engagement, are frequently analyzed qualitatively, leaving a gap in quantitative evidence of their direct impact on EPS, ROA, and ROE. Similarly, governance mechanisms such as transparency and accountability are discussed broadly but lack sector-specific analysis to identify their influence on financial outcomes in manufacturing firms.

This study addresses these gaps by testing hypotheses grounded in the TBL theory to quantify the relationship between ESG practices and financial performance in Nigerian manufacturing firms. It contributes to the literature by providing localized insights and bridging the knowledge deficit in emerging economies.

### 3. Methodology

#### 3.1 Research design

This study adopts an ex-post facto research design to examine the impact of Environmental, Social, and Governance (ESG) practices on the financial performance of quoted manufacturing firms in Nigeria. The choice of this design is premised on its suitability for analyzing historical data and exploring causal relationships without manipulating the variables under investigation. The study relies on secondary data sourced from the annual reports and sustainability disclosures of the sampled firms, covering a

period from 2015 to 2023.

#### 3.2 Population and sample size

The population of the study comprises all 43 manufacturing firms listed on the Nigerian Stock Exchange (NSE) within the defined period. To ensure representativeness and manageability, ten (10) firms were purposively selected based on their consistent reporting of ESG indicators, industry prominence, and contribution to Nigeria's manufacturing sector. Limiting the sample size to ten firms ensures a focused analysis while maintaining data reliability and comparability.

| S/N | Company Name               | Industry             | Justification for Selection                                                |
|-----|----------------------------|----------------------|----------------------------------------------------------------------------|
| 1   | Dangote Cement Plc         | Cement Manufacturing | Market leader in cement production with significant industry influence.    |
| 2   | Flour Mills of Nigeria Plc | Food & Beverages     | Major player in food processing and essential goods production in Nigeria. |
| 3   | Nestlé Nigeria Plc         | Food & Beverages     | Renowned multinational with advanced manufacturing practices.              |
| 4   | Unilever Nigeria Plc       | Consumer Goods       | Diverse product portfolio and contribution to the FMCG sector.             |
| 5   | Nigerian Breweries Plc     | Beverages            | Leading brewery with strong operational and financial performance.         |
| 6   | Cadbury Nigeria Plc        | Confectionery        | Significant role in Nigeria's confectionery and beverage industry.         |
| 7   | Okomu Oil Palm Company Plc | Agriculture          | Key player in sustainable agricultural practices and palm oil production.  |
| 8   | PZ Cussons Nigeria Plc     | Consumer Goods       | Global presence and strong foothold in home and personal care products.    |
| 9   | Honeywell Flour Mills Plc  | Food & Beverages     | Important in local food processing and flour milling.                      |
| 10  | Guinness Nigeria Plc       | Beverages            | Pioneer in the beverage industry with a strong legacy.                     |

These firms were selected because they provide comprehensive ESG disclosures, making them suitable for the analysis of ESG impacts on financial performance. Additionally, they represent diverse subsectors within manufacturing, which enriches the study by capturing varying industry dynamics.

#### 3.3 Measurement of variables

The independent variable is ESG practices, operationalized

through three dimensions: environmental, social, and governance indicators. Environmental practices are measured using indicators such as energy consumption, waste management, and greenhouse gas emissions. Social practices are assessed through metrics like employee welfare, community development programs, and anti-corruption policies. Governance practices are evaluated based on board structure, transparency, and compliance with regulatory requirements.

| S/N | Governance Indicators                     |
|-----|-------------------------------------------|
| 1.  | Board Structure and Composition           |
| 2.  | Strategic Planning and Oversight          |
| 3.  | Compliance and Regulatory Requirements    |
| 4.  | Risk Management                           |
| 5.  | Financial Oversight                       |
| 6.  | Ethical Standards and Integrity           |
| 7.  | Stakeholder Engagement and Communication  |
| 8.  | Performance Evaluation                    |
| 9.  | Crisis Management and Continuity Planning |

| S/N | Environmental Indicators                                                       |
|-----|--------------------------------------------------------------------------------|
| 1.  | Renewable and non-renewable materials used                                     |
| 2.  | Recycled materials used to manufacture the organization's product and services |
| 3.  | Fuel/electricity/heating/cooling/steam consumption                             |
| 4.  | Electricity/heating/cooling/steam sold                                         |
| 5.  | Reduction in energy consumption due to conservation                            |
| 6.  | Water withdrawn for operations                                                 |
| 7.  | Water recycled and reused                                                      |
| 8.  | Gross direct greenhouse gas emissions                                          |
| 9.  | Organic pollutants                                                             |
| 10. | Water discharge and quality of water discharged                                |
| 11. | Waste and method of disposal                                                   |
| 12. | Number and volume of spills                                                    |
| 13. | Environmental protection expenditures                                          |
| 14. | Assessment of suppliers on the basis of environmental risks                    |
| 15. | Assessment of clients on the basis of environmental risks                      |

| S/N | Social Indicators                                    |
|-----|------------------------------------------------------|
| 1.  | Benefit to fulltime employees                        |
| 2.  | Injury/injury rate/occupational disease rate         |
| 3.  | Health and safety employee training                  |
| 4.  | Representation of men and women in governance bodies |
| 5.  | Equal remuneration of men and women                  |
| 6.  | Child labour                                         |
| 7.  | Local community development programs                 |

The dependent variable, financial performance, is measured using proxies such as Return on Assets (ROA) and Return on Equity (ROE). These metrics are selected for their ability to reflect operational efficiency and profitability, aligning with the study's objectives.

### 3.4 Model Specification

This study adapts econometric model with modifications which is in line with the work of Feng, (2022). Thus, the functional equation model can be specified as:

$$Y = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + E_{it}$$

This model was modified and specified as follows

$$ROA = f(\beta_0 + \beta_1 ECPD_{it} + \beta_2 SOPD_{it} + \beta_3 ENPD_{it} + E_{it}) \dots (1)$$

$$ROE = f(\beta_0 + \beta_1 ECPD_{it} + \beta_2 SOPD_{it} + \beta_3 ENPD_{it} + E_{it}) \dots (2)$$

$$EPS = f(\beta_0 + \beta_1 ECPD_{it} + \beta_2 SOPD_{it} + \beta_3 ENPD_{it} + E_{it}) \dots (3)$$

### 3.5 Method of Data Analysis

Data analysis is conducted using descriptive and inferential statistical techniques. Descriptive statistics provide an overview of the data distribution, while inferential techniques, including Ordinary Least Squares (OLS)

regression, are employed to determine the relationships between ESG practices and financial performance. Statistical software is used to ensure accuracy and reliability of results.

## 4. Result and Discussion

The Result and Discussion section presents the findings of the study, providing a detailed analysis of the data collected. It interprets the results in relation to the research objectives, compares them with existing literature, and highlights key insights. This section offers evidence-based explanations and discusses their implications for the study.

### 4.1 Descriptives Statistics

The Descriptive Statistics section summarizes key variables Earnings Per Share (EPS), Return on Assets (ROA), Return on Equity (ROE), Governance (GOVS), Economic Sustainability (ECOS), and Social Sustainability (SOCS). This analysis offers insights into the impact of ESG factors on the performance of quoted manufacturing firms in Nigeria.

| stats    | eps      | roa      | roe       | govs     | ecos     | socs     |
|----------|----------|----------|-----------|----------|----------|----------|
| mean     | .2080952 | 12.50762 | .5796825  | .0655026 | .2894709 | .1470899 |
| sd       | .0131105 | 8.525478 | .1860677  | .0907556 | .0108537 | .1265731 |
| max      | .25      | 39.31    | .95       | .58      | .32      | .62      |
| min      | .19      | 3.15     | .13       | .01      | .27      | .01      |
| skewness | .6389065 | 1.157625 | -.2598163 | 4.88879  | 1.056061 | 1.458136 |
| kurtosis | 3.23097  | 3.950246 | 2.609218  | 27.69823 | 3.91438  | 4.877966 |

The key findings from the descriptive statistics reveal moderate performance levels across firms, with a mean EPS of 0.208, ROA of 12.51%, and ROE of 0.58. Governance, Economic Sustainability, and Social Sustainability have mean values of 0.066, 0.29, and 0.15, respectively, indicating varying emphasis on ESG components. ROA exhibits the highest variability, with a standard deviation of 8.53, while Governance shows notable disparities. Skewness and kurtosis values highlight distribution patterns, with ROA and ECOS showing moderate positive skewness and outliers, whereas Governance displays extreme skewness

and leptokurtic behavior. These results emphasize variability in ESG practices and firm performance.

### 4.2 Correlation Matrix

The Correlation Matrix examines the relationships between key variables, including EPS, ROA, ROE, GOVS, ECOS, and SOCS. This analysis identifies the strength and direction of associations, providing insights into how Environmental, Social, and Governance factors influence the performance of manufacturing firms in Nigeria.

|      | eps     | roa     | roe     | govs    | ecos   | socs   |
|------|---------|---------|---------|---------|--------|--------|
| eps  | 1.0000  |         |         |         |        |        |
| roa  | -0.1410 | 1.0000  |         |         |        |        |
| roe  | -0.0576 | -0.0197 | 1.0000  |         |        |        |
| govs | 0.4805  | -0.0564 | -0.1522 | 1.0000  |        |        |
| ecos | 0.7218  | -0.2469 | 0.0384  | 0.5462  | 1.0000 |        |
| socs | 0.5669  | 0.0177  | 0.2115  | -0.1393 | 0.3264 | 1.0000 |

The correlation matrix reveals relationships among the variables. Earnings Per Share (EPS) shows a moderate positive correlation with Governance (GOVS, 0.4805), Economic Sustainability (ECOS, 0.7218), and Social Sustainability (SOCS, 0.5669), indicating that improved ESG practices relate to higher earnings. Return on Assets (ROA) and Return on Equity (ROE) exhibit weak or negligible correlations with ESG factors, suggesting limited direct relationships. Notably, ECOS correlates positively with GOVS (0.5462) and SOCS (0.3264), indicating interconnectedness among ESG components. Negative

correlations, such as between ROA and ECOS (-0.2469), highlight possible trade-offs. These findings provide insight into ESG impacts on performance.

#### 4.3 Multicollinearity Test

The Multicollinearity Test assesses the degree of correlation among independent variables, such as GOVS, ECOS, and SOCS, to ensure the reliability of regression analysis. This test identifies potential multicollinearity issues that could distort results, ensuring accurate interpretations of ESG impacts on firm performance.

| estat vif   |      |          |
|-------------|------|----------|
| Variable    | VIF  | 1/VIF    |
| -----+----- |      |          |
| govs        | 1.97 | 0.507420 |
| ecos        | 1.90 | 0.526211 |
| socs        | 1.34 | 0.747156 |
| -----+----- |      |          |
| Mean VIF    | 1.60 |          |

The Variance Inflation Factor (VIF) results suggest that multicollinearity among the independent variables is not a concern. The VIF values for Governance (GOVS), Economic Sustainability (ECOS), and Social Sustainability (SOCS) are 1.97, 1.90, and 1.34, respectively. Since VIF values below 10 indicate no significant multicollinearity, the findings suggest that the ESG variables are not highly correlated with each other, ensuring the reliability of the regression model. The mean VIF of 1.60 further supports the absence of multicollinearity, allowing for more accurate

and robust interpretations of the relationships between ESG factors and firm performance.

#### 4.4 Heteroskedasticity Test

The Heteroskedasticity Test evaluates whether the variance of errors in the regression model is constant. This test is crucial for ensuring the reliability of results, as heteroskedasticity can affect the efficiency of estimators, potentially leading to biased interpretations of ESG impacts on firm performance.

| Breusch-Pagan / Cook-Weisberg test for heteroskedasticity |   |        |
|-----------------------------------------------------------|---|--------|
| Ho: Constant variance                                     |   |        |
| Variables: fitted values of roe                           |   |        |
| chi2(1)                                                   | = | 11.26  |
| Prob > chi2                                               | = | 0.0008 |

The Breusch-Pagan / Cook-Weisberg test for heteroskedasticity examines whether the variance of the errors is constant. The null hypothesis (Ho) posits that there is constant variance (homoskedasticity). The test result shows a chi-squared value of 11.26 with a p-value of 0.0008. Since the p-value is less than the significance level of 0.05, we reject the null hypothesis and conclude that heteroskedasticity is present in the model. This suggests that the variance of the errors is not constant, which may affect the reliability of the regression estimates, requiring adjustments like robust standard errors for more accurate

results.

#### 4.5 Multiple Regression

The Multiple Regression analysis examines the relationship between firm performance indicators (EPS, ROA, ROE) and ESG variables (GOVS, ECOS, SOCS). This method quantifies the impact of ESG factors on performance, identifying significant predictors and providing a comprehensive understanding of their influence on quoted manufacturing firms in Nigeria.

**Table 1:** MODEL 1: Earnings Per Share (EPS)

| regress eps govs ecos socs |            |           |            |                        |                      |          |
|----------------------------|------------|-----------|------------|------------------------|----------------------|----------|
| Source                     | SS         | df        | MS         | Number of obs = 189    |                      |          |
| Model                      | .024167364 | 4         | .006041841 | F( 4, 184) = 136.46    |                      |          |
| Residual                   | .00814692  | 184       | .000044277 | Prob > F = 0.0000      |                      |          |
| Total                      | .032314283 | 188       | .000171884 | R-squared = 0.7479     |                      |          |
|                            |            |           |            | Adj R-squared = 0.7424 |                      |          |
|                            |            |           |            | Root MSE = .00665      |                      |          |
| eps                        | Coef.      | Std. Err. | t          | P> t                   | [95% Conf. Interval] |          |
| govs                       | .0638263   | .0075067  | 8.50       | 0.000                  | .049016              | .0786367 |
| ecos                       | .4065204   | .0616381  | 6.60       | 0.000                  | .2849121             | .5281288 |
| socs                       | .0524305   | .0044357  | 11.82      | 0.000                  | .0436791             | .0611819 |
| _cons                      | .1147304   | .0195889  | 5.86       | 0.000                  | .0760826             | .1533782 |

The regression analysis explores the impact of Governance (GOVS), Economic Sustainability (ECOS), and Social Sustainability (SOCS) on Earnings Per Share (EPS). The model is highly significant, with an F-statistic of 136.46 and a p-value of 0.0000, indicating that the independent variables collectively explain a substantial portion of the variation in EPS. The R-squared value of 0.7479 suggests that approximately 74.79% of the variation in EPS is explained by GOVS, ECOS, and SOCS, with the adjusted

R-squared of 0.7424 accounting for model complexity. Each independent variable has a positive and statistically significant relationship with EPS. GOVS, with a coefficient of 0.0638, ECOS, with a coefficient of 0.4065, and SOCS, with a coefficient of 0.0524, all indicate that improvements in ESG factors are positively associated with higher EPS. The constant term is also significant, with a coefficient of 0.1147, further supporting the model's reliability.

**Table 2:** MODEL 2: Return on Assets (ROA)

| regress roa govs ecos socs |            |           |            |                        |                      |           |
|----------------------------|------------|-----------|------------|------------------------|----------------------|-----------|
| Source                     | SS         | df        | MS         | Number of obs = 189    |                      |           |
| Model                      | 1400.11989 | 4         | 350.029973 | F( 4, 184) = 5.25      |                      |           |
| Residual                   | 12264.4292 | 184       | 66.6545063 | Prob > F = 0.0005      |                      |           |
| Total                      | 13664.5491 | 188       | 72.6837716 | R-squared = 0.1025     |                      |           |
|                            |            |           |            | Adj R-squared = 0.0830 |                      |           |
|                            |            |           |            | Root MSE = 8.1642      |                      |           |
| roa                        | Coef.      | Std. Err. | t          | P> t                   | [95% Conf. Interval] |           |
| govs                       | 22.70156   | 9.210403  | 2.46       | 0.015                  | 4.529983             | 40.87314  |
| ecos                       | -336.3966  | 75.62692  | -4.45      | 0.000                  | -485.6041            | -187.1892 |
| socs                       | 12.44383   | 5.442381  | 2.29       | 0.023                  | 1.706331             | 23.18132  |
| _cons                      | 118.6848   | 24.03465  | 4.94       | 0.000                  | 71.26584             | 166.1037  |

The regression analysis investigates the impact of Governance (GOVS), Economic Sustainability (ECOS), and Social Sustainability (SOCS) on Return on Assets (ROA). The model is statistically significant, with an F-statistic of 5.25 and a p-value of 0.0005, suggesting that the independent variables explain a notable portion of the variation in ROA. The R-squared value of 0.1025 indicates that approximately 10.25% of the variation in ROA is explained by GOVS, ECOS, and SOCS, while the adjusted R-squared of 0.0830 accounts for the complexity of the model.

Governance (GOVS) has a positive coefficient of 22.7016, meaning that a one-unit increase in governance is associated with a 22.70 increase in ROA, which is statistically

significant with a p-value of 0.015. Economic Sustainability (ECOS) shows a negative coefficient of -336.3966, indicating that a one-unit increase in economic sustainability is associated with a significant decrease in ROA, with a p-value of 0.000. This suggests that economic sustainability has a detrimental effect on asset returns in the sample. Social Sustainability (SOCS) has a positive coefficient of 12.4438, meaning that a one-unit increase in social sustainability leads to a 12.44 increase in ROA, with a p-value of 0.023, which is also statistically significant.

The constant term (\_cons) is significant with a coefficient of 118.6848, suggesting a baseline ROA of 118.68 when all independent variables are zero.

**Table 3: MODEL 3: Return on Equity (ROE)**

| regress roe govs ecos socs bsz |            |           |            |                     |                      |           |
|--------------------------------|------------|-----------|------------|---------------------|----------------------|-----------|
| Source                         | SS         | df        | MS         | Number of obs = 189 |                      |           |
| Model                          | .836454187 | 4         | .209113547 | F( 4, 184)          | =                    | 6.78      |
| Residual                       | 5.67232682 | 184       | .030827863 | Prob > F            | =                    | 0.0000    |
|                                |            |           |            | R-squared           | =                    | 0.1285    |
|                                |            |           |            | Adj R-squared       | =                    | 0.1096    |
| Total                          | 6.50878101 | 188       | .034621176 | Root MSE            | =                    | .17558    |
| roe                            | Coef.      | Std. Err. | t          | P> t                | [95% Conf. Interval] |           |
| govs                           | -.6292324  | .1980777  | -3.18      | 0.002               | -1.020028            | -.2384368 |
| ecos                           | 2.217533   | 1.626423  | 1.36       | 0.174               | -.9913021            | 5.426368  |
| socs                           | .2113579   | .1170431  | 1.81       | 0.073               | -.0195612            | .4422771  |
| _cons                          | -.7686365  | .516886   | -1.49      | 0.139               | -1.788422            | .2511488  |

The regression analysis examines the impact of Governance (GOVS), Economic Sustainability (ECOS), Social Sustainability (SOCS), and Firm Size (BSZ) on Return on Equity (ROE). The model is statistically significant with an F-statistic of 6.78 and a p-value of 0.0000, suggesting that the independent variables explain a meaningful portion of the variation in ROE. The R-squared value of 0.1285 indicates that approximately 12.85% of the variation in ROE is explained by GOVS, ECOS, SOCS, and BSZ, while the adjusted R-squared of 0.1096 accounts for the complexity of the model.

Governance (GOVS) has a negative coefficient of -0.6292, indicating that a one-unit increase in governance is

associated with a decrease in ROE, with a statistically significant p-value of 0.002. Economic Sustainability (ECOS) has a positive coefficient of 2.2175, but with a p-value of 0.174, which is not statistically significant, suggesting that ECOS does not have a significant impact on ROE. Social Sustainability (SOCS) has a positive coefficient of 0.2114, with a p-value of 0.073, which is marginally significant at the 0.10 level, indicating a weak positive relationship with ROE.

The constant term (\_cons) is negative at -0.7686, though it is not statistically significant (p-value of 0.139), implying that when all independent variables are zero, the baseline ROE is negative.

**Table 4: Multivariate Regression**

| Equation | Obs       | Parms     | RMSE     | "R-sq" | F                    | P         |
|----------|-----------|-----------|----------|--------|----------------------|-----------|
| eps      | 189       | 4         | .0066541 | 0.7479 | 136.4563             | 0.0000    |
| roa      | 189       | 4         | 8.164221 | 0.1025 | 5.251407             | 0.0005    |
| roe      | 189       | 4         | .1755787 | 0.1285 | 6.783264             | 0.0000    |
|          | Coef.     | Std. Err. | t        | P> t   | [95% Conf. Interval] |           |
| eps      |           |           |          |        |                      |           |
| govs     | .0638263  | .0075067  | 8.50     | 0.000  | .049016              | .0786367  |
| ecos     | .4065204  | .0616381  | 6.60     | 0.000  | .2849121             | .5281288  |
| socs     | .0524305  | .0044357  | 11.82    | 0.000  | .0436791             | .0611819  |
| _cons    | .1147304  | .0195889  | 5.86     | 0.000  | .0760826             | .1533782  |
| roa      |           |           |          |        |                      |           |
| govs     | 22.70156  | 9.210403  | 2.46     | 0.015  | 4.529983             | 40.87314  |
| ecos     | -336.3966 | 75.62692  | -4.45    | 0.000  | -485.6041            | -187.1892 |
| socs     | 12.44383  | 5.442381  | 2.29     | 0.023  | 1.706331             | 23.18132  |
| _cons    | 118.6848  | 24.03465  | 4.94     | 0.000  | 71.26584             | 166.1037  |
| roe      |           |           |          |        |                      |           |
| govs     | -.6292324 | .1980777  | -3.18    | 0.002  | -1.020028            | -.2384368 |
| ecos     | 2.217533  | 1.626423  | 1.36     | 0.174  | -.9913021            | 5.426368  |
| socs     | .2113579  | .1170431  | 1.81     | 0.073  | -.0195612            | .4422771  |
| _cons    | -.7686365 | .516886   | -1.49    | 0.139  | -1.788422            | .2511488  |

The regression results show the relationship between Environmental, Social, and Governance (ESG) factors and

the financial performance metrics of firms (EPS, ROA, and ROE).

For EPS (Earnings Per Share), all variables Governance (GOVS), Economic Sustainability (ECOS), and Social Sustainability (SOCS) have a statistically significant positive impact on EPS, with GOVS (0.0638), ECOS (0.4065), and SOCS (0.0524) all having strong positive coefficients. The model's R-squared value is 0.7479, indicating that around 75% of the variation in EPS is explained by the independent variables. The F-statistic (136.46) and p-value (0.0000) suggest the model is highly significant.

For ROA (Return on Assets), only GOVS and SOCS have a statistically significant positive relationship, while ECOS has a negative impact on ROA, with a coefficient of -336.3966 and a p-value of 0.000, suggesting that it significantly reduces ROA. The model explains about 10% of the variation in ROA, as indicated by the R-squared value of 0.1025. The F-statistic (5.25) and p-value (0.0005) show the model is statistically significant.

For ROE (Return on Equity), GOVS has a significant negative relationship with ROE, with a coefficient of -0.6292, suggesting that better governance leads to a decrease in ROE. ECOS shows a positive relationship, but the result is not statistically significant ( $p=0.174$ ). SOCS shows a marginally significant positive relationship with ROE. The R-squared value is 0.1285, indicating that 12.85% of the variation in ROE is explained by the independent variables. The F-statistic (6.78) and p-value (0.0000) indicate that the model is statistically significant.

These findings suggest that while ESG factors significantly affect financial performance, the direction and magnitude of their impact vary across different performance metrics.

## 5. Discussion of Hypotheses

### **Ho1: Environmental practices do not have a significant influence on the financial performance (EPS, ROA, and ROE) of quoted manufacturing firms in Nigeria.**

Based on the regression results, we observe that environmental practices (ECOS) have a statistically significant and positive influence on EPS (0.4065) with a p-value of 0.000, suggesting that stronger environmental practices positively impact the earnings per share of firms. This indicates that firms engaging in environmentally sustainable practices may see improved profitability, which is reflected in higher EPS. This finding is consistent with studies like Al-Tit *et al.* (2019) <sup>[9]</sup>, which found that companies with better environmental performance tend to experience higher profitability.

However, the impact of ECOS on ROA is negative (-336.3966) and statistically significant ( $p=0.000$ ), suggesting that stronger environmental practices might reduce return on assets. This result contrasts with findings from studies like Margaritis and Psillaki (2010) <sup>[46]</sup>, which reported a positive relationship between environmental practices and ROA due to the cost-saving benefits of sustainable practices. The discrepancy may be attributed to the sectoral context or specific operational challenges faced by manufacturing firms in Nigeria, where the costs of implementing environmental practices might initially outweigh the benefits in terms of asset returns.

Regarding ROE, the relationship with environmental practices is positive but not statistically significant ( $p = 0.174$ ). This implies that environmental practices may not have a substantial impact on the return on equity for Nigerian manufacturing firms. This finding aligns with

studies such as Awaysheh *et al.* (2018) <sup>[10]</sup>, which found that the influence of environmental practices on ROE was often weak or inconsistent, depending on industry and firm-specific factors.

Based on the results, Ho1 should be rejected for EPS as environmental practices significantly influence earnings, but accepted for ROA and ROE as the influence of environmental practices is either negative or statistically insignificant. The mixed findings highlight the importance of context, suggesting that while environmental practices are beneficial for profitability (EPS), their impact on asset utilization and equity return may be subject to external factors or costs inherent in the manufacturing industry. Further research into sector-specific challenges and long-term benefits of environmental practices is needed to clarify these findings.

### **Ho2: Social practices do not have a significant influence on the financial performance (EPS, ROA, and ROE) of quoted manufacturing firms in Nigeria.**

The regression results reveal that social practices (SOCs) have a statistically significant and positive influence on EPS (0.0524) with a p-value of 0.000, indicating that social practices positively contribute to the earnings per share of firms. This aligns with the findings from Jones (2011) <sup>[41]</sup>, which demonstrated that firms engaging in socially responsible practices tend to build stronger brand loyalty, customer trust, and employee satisfaction, ultimately leading to higher profitability. These factors likely contribute to enhanced financial performance, as reflected in higher EPS for Nigerian manufacturing firms.

For ROA, the relationship with social practices is also positive (12.4438) and statistically significant ( $p=0.023$ ), suggesting that firms with stronger social practices tend to experience higher return on assets. This finding is consistent with studies such as Cheng *et al.* (2014) <sup>[18]</sup>, which found that firms engaging in social initiatives improve operational efficiencies and asset utilization, leading to better financial performance. Social practices can include employee welfare programs, community engagement, and ethical labor practices, all of which enhance firm reputation and productivity.

Regarding ROE, the coefficient for social practices is positive (0.2114), and while the p-value is marginally significant ( $p=0.073$ ), it suggests a weaker relationship than for EPS and ROA. This indicates that social practices may have a modest effect on the return on equity, but it is not as pronounced as in the case of EPS and ROA. This finding is in line with Margolis and Walsh (2003) <sup>[47]</sup>, who concluded that the relationship between social responsibility and ROE could be mixed and often depends on firm-specific factors and the type of social practices being implemented.

Based on the regression results, Ho2 should be rejected for both EPS and ROA as social practices significantly influence earnings and asset utilization. While the effect on ROE is positive, it is only marginally significant. This suggests that social practices are a crucial factor in the financial performance of manufacturing firms in Nigeria, particularly in terms of profitability and operational efficiency. However, the effect on equity returns may depend on other factors such as capital structure or market conditions. Further research may explore these variables to provide a more comprehensive understanding of the relationship between social practices and financial performance.

### Ho3: The role of governance mechanisms such as transparency and accountability do not have significant influence on the financial performance (EPS, ROA, and ROE) of quoted manufacturing firms in Nigeria

The regression results show that governance practices (GOVS) have a statistically significant positive influence on EPS (0.0638) with a p-value of 0.000, suggesting that better governance mechanisms, particularly those related to transparency and accountability, positively affect the earnings per share of quoted manufacturing firms in Nigeria. This finding aligns with the work of Bhagat and Bolton (2008) <sup>[14]</sup>, who argued that strong governance practices improve financial performance by ensuring more efficient operations, reducing agency costs, and enhancing investor confidence. Firms with better transparency and accountability attract more investment and enjoy better access to capital markets, all of which contribute to higher earnings.

Similarly, governance mechanisms show a positive but less pronounced effect on ROA (22.7016) with a p-value of 0.015. This suggests that governance mechanisms such as transparency and accountability positively influence the return on assets of manufacturing firms. This is consistent with research by Gompers, Ishii, and Metrick (2003) <sup>[30]</sup>, who found that firms with stronger governance structures have higher operating efficiency and asset utilization. These mechanisms help ensure that firm resources are used effectively, leading to better profitability.

However, for ROE, the regression results indicate a negative relationship with governance mechanisms (-0.6292), with a p-value of 0.002, which suggests that transparency and accountability mechanisms may have a detrimental effect on the return on equity. This finding is somewhat unexpected, as one might assume that better governance should lead to higher returns on equity by improving corporate oversight and decision-making. However, this result could be explained by the fact that strong governance may lead to more conservative financial practices, which could reduce the potential for higher short-term profits or aggressive expansion strategies, thus affecting ROE negatively. This view is supported by La Porta *et al.* (2000) <sup>[43]</sup>, who suggested that some corporate governance mechanisms, particularly those aimed at ensuring long-term sustainability, may lead to a decrease in short-term profitability or aggressive financial performance indicators like ROE.

Based on the regression results, Ho3 should be rejected for EPS and ROA, as governance mechanisms have a significant positive influence on both of these financial performance indicators. However, Ho3 should be accepted for ROE, as the relationship between governance mechanisms and ROE is negative and statistically significant. This suggests that governance mechanisms are crucial for improving profitability and asset utilization but may have a complex or inverse relationship with return on equity in Nigerian manufacturing firms. Further research could explore the reasons behind this negative relationship with ROE, potentially considering factors like financial conservatism or changes in corporate strategy linked to strong governance practices.

## 6. Conclusion

The study examined the influence of governance mechanisms, such as transparency and accountability, on the

financial performance of quoted manufacturing firms in Nigeria, measured by EPS, ROA, and ROE. The findings reveal a significant positive impact of governance on EPS and ROA, highlighting that effective governance enhances earnings and asset utilization by improving operational efficiency and attracting investment. However, governance demonstrated a significant negative relationship with ROE, suggesting that stronger governance may lead to conservative financial practices, potentially reducing short-term equity returns. These results indicate that governance mechanisms are vital for overall financial performance, although their effects may vary depending on specific metrics. Firms should prioritize transparency and accountability to enhance profitability while balancing strategies that maintain shareholder equity returns, ensuring sustainable financial growth and stability. Further research can investigate governance's nuanced impact on ROE.

## 7. Recommendation

The study's recommendations aim to enhance financial performance by strengthening governance mechanisms, optimizing governance strategies for balanced ROE impact, and promoting sector-wide adoption of sustainable governance practices.

- Manufacturing firms should prioritize strengthening governance practices, such as transparency and accountability, to improve financial performance metrics like EPS and ROA. This can be achieved by adopting global best practices in corporate governance and ensuring strict adherence to ethical standards to foster investor confidence and operational efficiency.
- Companies should reassess their governance policies to balance their positive impact on earnings and asset utilization while addressing the potential reduction in ROE. Implementing targeted strategies, such as efficient capital allocation and performance-driven management, can mitigate the negative effects of conservative governance practices on equity returns.
- Regulatory bodies and industry stakeholders should encourage widespread adoption of governance frameworks across the manufacturing sector. This can be supported by periodic training, policy reviews, and enforcement mechanisms to ensure firms consistently uphold practices that enhance financial performance and long-term sustainability.

## 8. References

1. Abe M, Chan S, Lee J. Sustainable supply chain management practices in emerging markets. *International Journal of Logistics*. 2017;14(2):85-99.
2. Adeyemi K, Bello T. Corporate governance reforms and financial performance in developing economies. *African Journal of Economic Policy*. 2017;19(3):203-219.
3. Afolabi J, Oyedele K. The impact of Environmental, Social, and Governance (ESG) practices on the profitability of Nigerian manufacturing firms. *Journal of Business Research*. 2019;15(2):45-58.
4. Akinlo T. Economic challenges and sustainability practices in Nigeria's industrial sectors. *Journal of Sustainable Development in Africa*. 2022;24(3):12-24.
5. Akinsanya F, Lawal S. Energy conservation strategies and operational efficiency in Nigerian firms. *Energy Economics Journal*. 2020;19(3):204-218.

6. Akpan E, Eneh E. Impact of regulatory pressures on asset efficiency in Nigerian manufacturing firms. *International Journal of Economics and Business Research*. 2019;15(2):134-146.
7. Akinyele ST, Akintoye IR. Inventory control strategies and asset efficiency in Nigerian manufacturing sector. *Nigerian Journal of Management Studies*. 2020;18(1):45-60.
8. Al-ahdal WM, Alsamhi MH, Al-Qadasi AA. Corporate governance and performance: Evidence from India and Gulf countries. *International Journal of Emerging Markets*. 2023;18(4):745-762.
9. Al-Tit A, Al-Kilani N, Al-Nsour M. The effect of environmental performance on financial performance: Evidence from Jordanian manufacturing companies. *Environmental Economics and Policy Studies*. 2019;21(3):381-396. doi:10.1007/s10018-019-00264-3.
10. Awaysheh A, Heron RA, Dufresne C. The impact of environmental practices on corporate financial performance: Evidence from the USA. *Journal of Business Ethics*. 2018;149(2):409-429. doi:10.1007/s10551-016-3135-7.
11. Ahmed Z, Khan M, Ali R. Impact of financial inclusion on sustainable economic growth in developing nations. *Journal of Development Studies*. 2021;45(3):234-250.
12. Brigham EF, Houston JF. *Fundamentals of financial management*. 15th ed. Boston: Cengage Learning; 2018.
13. Basuony MAK, Elseidi RI, Elbayoumi AF. Sustainability, governance, and firm performance: Evidence from emerging markets. *Emerging Markets Review*. 2023;50:101654.
14. Bhagat S, Bolton B. Corporate governance and firm performance. *Journal of Corporate Finance*. 2008;14(3):257-273. doi:10.1016/j.jcorpin.2008.03.002.
15. Bocken NM, Short SW, Rana P, Evans S. Sustainable business models: Circular economy integration in manufacturing. *Journal of Cleaner Production*. 2016;129:109-122.
16. Barkemeyer R. Corporate narratives in sustainability reporting: How do companies communicate ESG issues? *Journal of Business Ethics*. 2017;152(2):307-320.
17. Campbell JL. Why would corporations behave responsibly? An institutional theory of corporate social responsibility. *Academy of Management Review*. 2007;32(3):946-967.
18. Cheng B, Ioannou I, Serafeim G. Corporate social responsibility and access to finance. *Strategic Management Journal*. 2014;35(1):1-23. doi:10.1002/smj.2131.
19. Chen L, Zhang Y. ESG adoption and its impact on financial performance: Evidence from Chinese firms. *Journal of Corporate Finance*. 2022;30(5):124-140.
20. Deegan C. *Financial accounting theory*. 4th ed. Sydney: McGraw-Hill; 2013.
21. Donaldson T, Preston LE. The stakeholder theory of the corporation: Concepts, evidence, and implications. *Academy of Management Review*. 1995;20(1):65-91.
22. Fatemi A, Glaum M, Kaiser S. ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*. 2018;38:45-64.
23. Fatimah M, John A. The role of ROA in financial performance evaluation. *Journal of Financial Research*. 2021;19(2):256-273.
24. Fama EF, Jensen MC. Separation of ownership and control. *Journal of Law and Economics*. 1983;26(2):301-325.
25. Feng J. Exploring the impact of ESG investments on firm value in China. *Asian Journal of Financial Studies*. 2022;28(1):15-32.
26. Freeman RE. *Strategic management: A stakeholder approach*. Boston: Pitman Publishing; 1984.
27. Elkington J. *Cannibals with forks: The triple bottom line of 21st-century business*. Oxford: Capstone Publishing; 1997.
28. Georgakopoulos G. Recycling metrics in environmental accounting. *Journal of Accounting and Sustainability*. 2020;12(3):175-188.
29. Gillan SL, Koch A, Starks LT. Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance*. 2021;66:101889.
30. Gompers PA, Ishii JL, Metrick A. Corporate governance and equity prices. *Quarterly Journal of Economics*. 2003;118(1):107-155. doi:10.1162/00335530360535162.
31. Gray R, Adams C, Owen D. *Accountability, social responsibility, and sustainability: Accounting for society and the environment*. London: Pearson Education; 2017.
32. Gray R, Adams C, Owen D. Accountability, social responsibility, and sustainability in ESG reporting. *Sustainability Accounting Journal*. 2020;15(4):243-267.
33. Harrison JS, Freeman RE. Stakeholder theory in modern organizations. *Journal of Business Ethics*. 2019;160(3):473-484.
34. Habbash M. Corporate governance and corporate social responsibility disclosure: Evidence from Saudi Arabia. *International Journal of Business Governance and Ethics*. 2016;11(1):1-19.
35. Heath RL, Bryant J. *Human communication theory and research: Concepts, contexts, and challenges*. 2nd ed. Mahwah: Lawrence Erlbaum Associates; 2000.
36. Ibrahim M, Dauda K. The influence of digital transformation on corporate governance practices in Africa. *African Journal of Corporate Governance*. 2021;14(2):90-115.
37. Iwedi M, Igwe N. ESG practices and financial performance: Evidence from Nigerian firms. *African Journal of Economic and Management Studies*. 2018;9(3):12-26.
38. Jamali D, Safieddine A, Rabbath M. Corporate governance and CSR: Synergies and interrelationships. *Corporate Governance: An International Review*. 2008;16(5):443-459.
39. Johnson D, Ngcobo M, Moyo G. Building stakeholder trust through governance practices in South Africa. *African Business Review*. 2020;22(6):22-36.
40. Jones MJ. Environmental accounting and reporting. In: *Routledge Handbook of Accounting and Sustainability*. Routledge; 2018. p. 23-42.
41. Jones TM. Ethical decision-making and corporate social responsibility. *Academy of Management Perspectives*. 2011;25(2):12-28. doi:10.5465/amp.2011.61020749.
42. KPMG. *Global ESG survey: Emerging markets and the*

- potential for growth. 2019.
43. La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny RW. Agency problems and dividend policies around the world. *Journal of Finance*. 2000;55(1):1-33. doi:10.1111/0022-1082.00199.
  44. Lee H, Kim J. The effects of ESG disclosures on financial performance in South Korea. *Asian Journal of Corporate Governance*. 2021;7(3):74-89.
  45. Lodh SC, Das S, Patra A. Impact of ROE on investor behavior: Evidence from emerging markets. *Global Financial Journal*. 2023;38(1):101-115.
  46. Margaritis D, Psillaki M. Capital structure, equity ownership, and firm performance. *Journal of Banking & Finance*. 2010;34(3):621-632. doi:10.1016/j.jbankfin.2009.08.023.
  47. Margolis JD, Walsh JP. Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*. 2003;48(2):268-305. doi:10.2307/3556659.
  48. McWilliams A, Siegel D. Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*. 2001;26(1):117-127.
  49. Miller D, Tsang E. Waste management practices in corporate sustainability. *Environmental Science and Policy*. 2017;12(4):344-355.
  50. Mohammed A, Yusuf O. ESG adoption and competitive advantage in Nigerian firms. *International Journal of Strategic Management*. 2023;18(2):95-110.
  51. Mikes A. Risk management and decision-making in organizations. *Risk Analysis*. 2009;29(2):215-231.
  52. Musa B, Agbo E. The role of social practices in firm reputation and productivity: A study on CSR in Nigerian businesses. *International Journal of Corporate Social Responsibility*. 2022;7(1):58-69.
  53. Ndubisi O. Environmental impacts of corporate governance in emerging markets. *Journal of Sustainability and Development*. 2021;33(6):120-134.
  54. Nuru M, Ibrahim T, Musa A. Adoption of AI-based systems for environmental sustainability in emerging economies. *Global Journal of Environmental Research*. 2024;19(1):12-34.
  55. Nwachukwu J, Olusegun F. Evaluating the relationship between economic policies and market performance in Nigeria. *West African Journal of Policy Studies*. 2018;13(4):211-229.
  56. Nwankwo S, Mba E. Corporate social responsibility and business sustainability in Nigeria. *Journal of African Business Review*. 2020;18(3):180-195.
  57. Ojo O, Olalekan A. Financial sustainability and corporate governance: Evidence from Nigerian firms. *Journal of Business Strategy*. 2021;35(2):44-59.
  58. Olayinka A, Temitope A. Sustainability practices and corporate governance in Nigeria. *Journal of African Business Studies*. 2020;15(3):240-255.
  59. Okeke J, Adebayo L. The role of innovation in improving sustainable development practices. *Journal of African Innovation Studies*. 2021;12(1):89-102.
  60. Ogunleye T, Oladipo K. Strategic financial management and its impact on firm performance. *Nigerian Journal of Financial Studies*. 2021;25(2):122-139.
  61. Oluwagbemiga A, Bello T, Adebayo M. Exploring ESG frameworks for enhancing corporate transparency in Africa. *Journal of Sustainable Corporate Practices*. 2023;27(1):50-72.
  62. Porter ME, Kramer MR. Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*. 2006;84(12):78-92.
  63. Ross SA, Westerfield RW, Jaffe J. *Corporate finance*. 12th ed. New York: McGraw-Hill Education; 2020.
  64. Schaltegger S, Wagner M. Managing sustainability performance measurement and reporting in an integrated manner: Sustainability accounting as the link between the sustainability balanced scorecard and sustainability reporting. *International Journal of Accounting and Finance*. 2017;6(2):129-148.
  65. Shamil M, Al-Khan S, Habib A. Governance and sustainability practices: A comparative analysis of GCC and Western nations. *Journal of Governance and Accountability*. 2022;31(3):145-170.
  66. Schaltegger S, Burritt R. *Contemporary environmental accounting: Issues, concepts, and practice*. London: Greenleaf Publishing; 2018.
  67. Scherer AG, Palazzo G. The new political role of business in a globalized world: A review of a new perspective on CSR and its implications for the firm, governance, and democracy. *Journal of Management Studies*. 2011;48(4):899-931.
  68. Shannon S, Smith R, Brown T. Corporate sustainability reporting: A review of trends and frameworks. *Journal of Sustainability Reporting*. 2017;9(4):112-128.
  69. Smith A. Corporate governance and the environment: The role of board directors. *Business and Environment*. 2020;22(3):189-202.
  70. Thorne L, Mahoney L, Manetti G. Corporate social responsibility and environmental sustainability: Global trends and future research opportunities. *Business and Society Review*. 2019;123(3):365-396.
  71. Terjesen S, Sealy R, Singh V. Women directors on corporate boards: A review and research agenda. *Corporate Governance: An International Review*. 2016;24(4):329-345.
  72. Tirole J. Corporate governance. *Econometrica*. 2001;69(1):1-35. doi:10.1111/1468-0262.00151.
  73. Ullah F, Saeed S. Sustainability and governance in emerging economies: A study on the practices of manufacturing firms. *Journal of Corporate Social Responsibility*. 2018;19(4):156-172.
  74. Van der Laan G, Abdo A. Financial accounting and business sustainability: Evidence from Nigeria. *Accounting & Finance Review*. 2021;24(2):112-125.
  75. Vachon S, Klassen RD. Environmental management and manufacturing performance: The role of collaboration in the supply chain. *International Journal of Production Economics*. 2008;111(2):299-315.
  76. Zhang W, Yang Y. Financial disclosures and firm value in relation to ESG performance. *International Journal of Financial Studies*. 2019;7(2):34-47.