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Sustainability reporting and financial performance of manufacturing companies in Nigeria: A mixed-methods analysis

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Abstract

This study examines the impact of sustainability reporting on the financial performance of manufacturing companies in Nigeria, employing a mixed-methods approach that combines quantitative regression analysis with qualitative thematic review. The research is grounded in Stakeholder Theory, Legitimacy Theory, and the Resource-Based View (RBV), providing a comprehensive framework for understanding the relationship between Environmental, Social, and Governance (ESG) practices and financial outcomes. Quantitative analysis of 15 listed manufacturing firms over the period 2019-2023 reveals a statistically significant positive correlation between sustainability reporting and key financial performance indicators, including Return on Assets (ROA) and Return on Equity (ROE). The regression model explains 33.3% of financial performance variability, with a p-value of 0.031 indicating the significance of sustainability practices. Qualitative thematic analysis identifies three categories of barriers to sustainability reporting: individual factors (lack of expertise, time constraints, limited awareness), institutional factors (regulatory uncertainty, standardization challenges, lack of incentives), and organizational factors (cultural resistance, poor communication, financial constraints). The findings demonstrate that robust ESG frameworks contribute to enhanced operational efficiency, improved stakeholder trust, and sustainable competitive advantage. The study offers actionable recommendations for manufacturing companies and policymakers, emphasizing the need for comprehensive reporting frameworks, capacity building, and regulatory incentives. This research contributes to the growing body of literature on sustainability accounting in emerging economies and provides practical insights for advancing sustainable business practices in Nigeria's manufacturing sector.

Keywords and phrases: sustainability reporting; ESG; financial performance; Nigerian manufacturing; mixed-methods research

1 Introduction

1.1 Purpose Statement

The purpose of this study is to properly examine how sustainability reporting affects the financial performance of the Nigerian manufacturing sector and further determine the link between the key financial metrics in the manufacturing sector, including the quality of sustainability reporting. It also attempts to pinpoint the challenges and problems of establishing this sustainability reporting requirement and how Nigeria's practices might benefit from global best practices.

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1.2 Background of the Study

Sustainability reporting has gained significant attention in recent years as companies worldwide recognise the importance of integrating Environmental, Social, and Governance (ESG) factors into their business practices.

As defined by [1], sustainability reporting involves reviewing and distributing sustainability data using performance indicators and management disclosures. This approach helps stakeholders to better understand the sustainability performance of an organisation and its consequences, spanning a broad spectrum of environmental, social, governance, and economic issues. It highlights the connection between financial and non-financial achievements, making it easier for stakeholders to evaluate the success of an organisation [2].

According to [3], the notion that organisations solely contribute to society through profit-making is considered outdated. Short-term profits are not enough to provide long-term economic value and sustainable competitive advantage, as stated by [4]. Nowadays, financial goals are understood to be closely linked with social ties and non-financial objectives [5].

As a result, sustainability reporting has emerged as an important modern business tool, surpassing conventional financial reporting frameworks [6]. It provides a comprehensive assessment of an organisation's impact on ESG and its overall effect on the organisation itself [7].

A select group of progressive businesses committed to social responsibility and environmental preservation were the main producers of sustainability reports, according to a study by [8], in which they used a periodic approach. However, sustainability reporting has evolved over time, and there is an indication of a clear distinction from volunteer efforts to more professional and formal reporting systems [9].

[10] highlight the growing demand for transparency in business sustainability practices, leading to the establishment of reporting standards such as SASB, TCFD, and GRI to improve the consistency and quality of sustainability disclosures. According to [11], SASB focuses on financial material sustainability information, TCFD provides recommendations for climate-related financial reporting, and GRI offers guidelines for sustainability reporting.

ESG challenges are pressing needs that must be addressed. These issues have resulted in a significant shift in how companies operate and report on their activities as companies all over the world are rapidly developing new methods to report procedures to satisfy stakeholders, investors, regulatory agencies, and consumer demands for greater accountability and transparency [12, 13].

To effectively manage and mitigate risks associated with ESG factors, companies must take advantage of new opportunities to strengthen relationships with stakeholders and clearly communicate their sustainability efforts. This will provide stakeholders with a comprehensive view of the company's performance [14].

KPMG's [15] report shows that Nigeria's manufacturing sector contributes about 10% to its GDP and accounts for 13% of total employment as of 2021. The sector includes various industries like food, beverage, textiles, clothing, footwear, chemical products, and automotive components. Despite facing challenges like infrastructural deficiencies, high inflation, production costs, tax rates, policy inconsistency, and implementation, the sector shows resilience and growth potential [16, 17].

However, a study by [18] reveals that sustainability reporting is a relatively new concept in Nigeria's manufacturing industry. The study highlights a noteworthy gap in reporting practices, where environmental aspects are not given the necessary attention despite the global emphasis on these environmental issues.

Also, [19] argue that incorporating Corporate Social Responsibility (CSR) expenses in a company's financial statement can negatively impact its finances. The study suggests that the money spent on CSR activities may not directly influence the return on investment, as they do not immediately translate into financial gain in terms of capital efficiency.

Furthermore, [20] identify several unsustainable trends, such as poverty, healthcare, and global warming, that pose significant challenges to the corporate sector.

Therefore, it is crucial to analyse global best practices to find solutions to current problems and prevent future challenges. Sustainability reporting can be vital in forecasting long-term growth and success, making it an essential tool for businesses to adopt [21].

1.3 Rationale of the Study

This research addresses the knowledge and practice gaps in sustainability reporting in Nigeria's manufacturing sector and its impact on financial performance [22]. Despite the growing prominence of ESG factors globally, the widespread adoption of sustainability principles in Nigeria's corporate operations is a work in progress [9]. The major obstacles are the need for more tangible benefits and the scarcity of empirical evidence linking sustainability reporting to financial performance [23].

[24] further highlighted the concerns raised by the Financial Reporting Council of Nigeria (FRCN) over the non-existence of sustainability reporting across most sectors of the economy, citing inconsistent responsibility reports.

This study is a valuable addition to the existing research on Nigeria's development, which has been explored from environmental, social, and economic sustainability perspectives by [25], [26], and others, emphasising the need for practical solutions that can benefit the manufacturing industry. However, Nigeria's sustainability reporting rate is slightly below the global average [15], indicating the need to align its reporting with global standards while considering the significant societal impacts of manufacturing activities.

The financial benefits of sustainability practices, identification of adoption barriers, and lessons drawn from international examples will allow the Nigerian manufacturing sector to steer toward sustainable and financially sound practices, offering valuable insights [27].

1.4 Aims and Objectives

This study aims to determine the impact of sustainability reporting on the financial performance of manufacturing companies in Nigeria by providing a clearer understanding of its strategic importance to organisational practices and results.

The objectives of this study are as follows:

[label=(4)]

1. To examine the relationship between sustainability reporting and financial performance indicators.
2. To identify potential barriers and challenges faced by manufacturing companies in Nigeria when implementing sustainability reporting practices.
3. To explore how specific aspects of sustainability reporting, such as environmental, social, and governance (ESG) factors, affect the financial performance of manufacturing companies in Nigeria.

1.5 Research Questions

[label=(5)]

1. Is there a significant relationship between sustainability reporting and financial performance indicators?
2. What barriers and challenges are faced by manufacturing companies in Nigeria when implementing sustainability reporting practices?
3. To what extent do specific aspects of sustainability reporting, such as environmental, social, and governance (ESG) factors, affect the financial performance of manufacturing companies in Nigeria?

1.6 Hypotheses

H1: There is a significant relationship between the level of sustainability reporting and financial performance indicators of manufacturing companies in Nigeria, such as Return on Assets, Return on Equity, and Net Profit Margin.

H2: There is a significant difference in the barriers to sustainability reporting adoption between Nigerian manufacturing companies that have implemented reporting and those that have not.

H3: ESG reporting levels of manufacturers in Nigeria positively correlate to financial performance indicators among manufacturing companies in Nigeria.

1.7 Justification of Research

This study is an essential area of research in light of the pressing need to integrate sustainability into business operations in the face of global challenges such as resource scarcity, social inequality, and climate change [176]. It argues that sustainability reporting becomes more than just a compliance tool but a strategic tool that can improve a business's bottom line and sustainability impact.

The study of [28] claims that incorporating sustainability principles into corporate operations in emerging economies can improve financial performance, operational efficiency, and competitive positioning. This research emphasises the relevance of sustainability and financial success in the sector.

The evidence reveals a significant gap in the current reporting environment in Nigeria, underscoring the urgent need for improvements to meet stakeholder expectations. According to [15], the sustainability reporting rate in Nigeria is 78%, slightly below the global average of 79%. However, when comparing the overall data for sustainability reporting in Nigeria to a more developed country like the United Kingdom, the level of reporting in Nigeria is notably inadequate, highlighting the pressing need for improvement.

The study focuses on manufacturing companies listed on the Nigerian Stock Exchange (NSE), which have significant societal impacts in terms of water, air, and soil pollution, with a specific focus on the potential effects on profitability and competitiveness.

1.8 Philosophical Perspective and Methodological Approach

This study employs a mixed methods design by combining quantitative and qualitative analyses. The research is guided by pragmatism, which acknowledges the objective measurability and subjective complexities of sustainability reporting. The study uses pragmatic ontology that recognises both tangible and intangible aspects of sustainability practices. It blends positivism for systematic data analysis with interpretivism to explore stakeholders' perceptions and experiences.

1.9 Structure of the Dissertation

The dissertation is structured to systematically explore the topic, presenting a logical flow from the introduction to conclusions and recommendations [29]. The structure is as follows:

Chapter One: Introduction—Provides an overview of the study, outlining the research problem, objectives, and significance.

Chapter Two: Literature Review—Offers a comprehensive review of the existing literature, establishing the theoretical and empirical background for the study.

Chapter Three: Methodology—Describes the research design, data collection methods, and analytical techniques employed to investigate the research questions.

Chapter Four: Data Analysis, Findings, and Discussions—Presents the results of the empirical analysis, interprets the data in the context of the study's research questions and objectives, and discusses the significance of the findings and their relevance to the research.

Chapter Five: Conclusions and Recommendations—Discusses their implications for theory and practice and summarises the key findings. Outlines the study's potential contributions to knowledge and practice, discusses limitations and suggests areas for future research.

2 Literature Review

2.1 Introduction

This literature review examines the relationship between sustainability reporting and financial performance, focusing on the Nigerian manufacturing industry. It explores this relatively unexplored area, particularly in developing countries like Nigeria, to uncover how sustainability practices impact financial outcomes [30, 31].

The next section of the discussion focuses on the Nigerian manufacturing industry and its current state of sustainability reporting. It highlights the progress made so far and the challenges Nigerian manufacturers face in implementing sustainability reporting, such as regulatory and economic obstacles [32].

It also analyses how sustainability reporting affects financial performance in the Nigerian manufacturing industry. Examining various studies and models identifies the direct benefits of sustainability reporting on a company's financial health, including profitability and efficiency [33, 31].

After identifying the challenges, it proposes strategies to improve the adoption and effectiveness of sustainability reporting in Nigeria. It draws inspiration from global examples to suggest ways Nigerian manufacturers can overcome their unique challenges.

The review concludes with case studies from the manufacturing sectors of other emerging economies. These case studies offer insights into best practices that have led to successful sustainability reporting. They provide practical guidance for enhancing sustainability efforts in Nigeria.

2.2 Sustainability Reporting: An Overview

According to [34], companies can effectively communicate their impacts on the environment, society, and governance through sustainability reporting. This type of reporting provides an in-depth view of a company's sustainability activities beyond regular financial statements. It covers energy usage, waste management, workers' rights, community involvement, and ethical corporate governance. The primary objective of sustainability reporting is to provide stakeholders, including investors, clients, workers, and regulators, with a comprehensive and detailed account of a company's performance across all sustainable goals [35].

Organisations are increasingly required to produce sustainability reports in response to growing concerns about the environment, social justice, governance theory, and ethics [36]. These reports are essential for improving a company's reputation, building trust and confidence among stakeholders, including investors of all sizes, and ultimately enhancing their financial performance [37]. Sustainability reporting goes beyond transparency and accountability; it also serves as a guide for businesses, helping them navigate the risks and opportunities associated with sustainability. This empowers them to make informed strategic decisions and improve operational efficiency [38].

2.3 Theoretical Framework

The correlation between a company's sustainability initiatives and their financial implications depends on the theoretical foundations of the reports they produce on sustainability and the economic effects of those reports. The Nigerian manufacturing sector can gain valuable insights from theories such as the resource-based view, legitimacy theory, and stakeholder theory.

2.3.1 Stakeholder Theory

The stakeholder theory was first introduced in 1984 by Dr. F.E. Freeman, who argued that a sustainability report should acknowledge the demands of all primary stakeholders, including those commonly associated with shareholders [39]. This theory is based on the principle that "strong relationships between a firm and its stakeholders contribute to maximizing its value while facilitating the attainment of corporate objectives" [40].

[41] also support this idea, stating that the stakeholder theory provides compelling arguments for organisations to prioritise sustainable development. Moreover, [42] study reveals that an organization's environmental performance is influenced by the expectations and needs of different stakeholders and is determined by senior management.

The stakeholder theory approach also considers who benefits from value creation, what constitutes value, and how it is created in each stakeholder relationship. This is depicted in Figure 1, which shows the segments and arrows representing value creation in each stakeholder relationship.

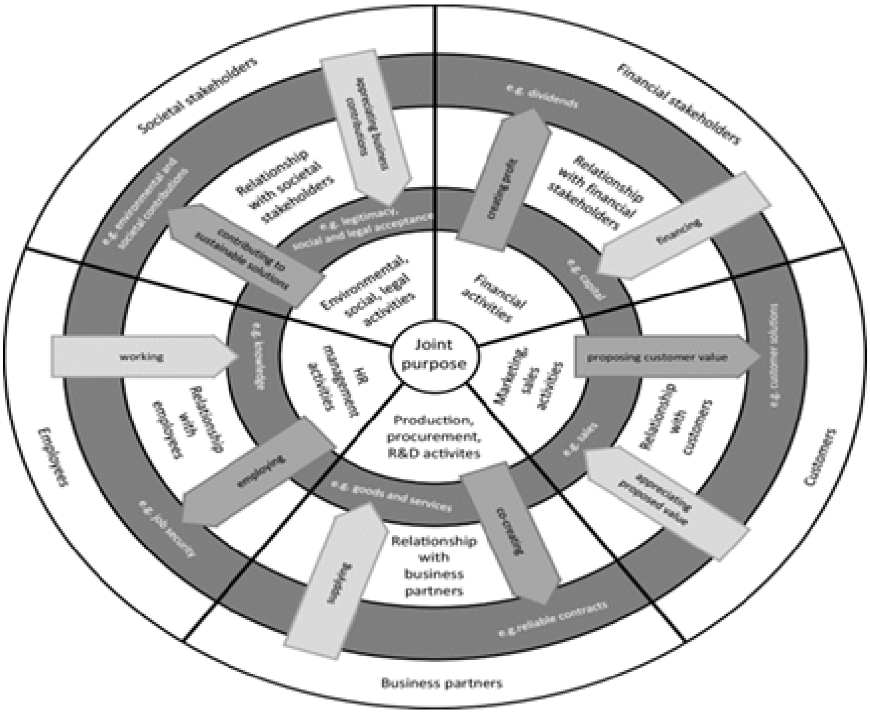

Figure 1: Stakeholder Value Creation Framework
Source: Freudenreich et al., 2019

2.3.2 Legitimacy Theory

Legitimacy theory is a model proposed by Dowling and Pfeffer in 1975, which is widely recognised for analysing business behaviour. According to the theory, corporations should continuously adjust their activities to align with the law and societal customs of the society in which they operate, demonstrating adaptability in their pursuit of legitimacy.

Moral standards are dynamic and can change over time [43], which means that companies need to be responsive to the dynamic moral environment to maintain legitimacy. Companies must also disclose their environmental, social, and economic impacts as part of sustainability reporting.

It is important to note that two significant groups of legitimacy theories exist (see Figure 2). The **institutional theory** of legitimacy, sometimes referred to as the "macro-theory" of legitimation, seeks to understand how entire **organisational frameworks**, such as government or capitalism, have gained acceptance within societies [44].

The premise of this theory is that there is a social contract between the community and the company that mandates the company to disclose and publicise information freely on what are regarded as specified social acts [45].

Figure 2: Categories of Legitimacy Theory
Source: Mgammal and Ismail, 2015

Legitimacy theory is essential to the business world's legal framework [46]. According to them, it plays a crucial role in placing a company within this framework. [47] suggests that this theory expects companies to comply with regulatory requirements and address sustainability issues.

When a company uses legitimacy theory in sustainability reporting, it demonstrates its commitment to ethical conduct and societal concerns in its business operations [48]. This goes beyond compliance and actively shapes ethical norms and societal expectations.

2.3.3 Resource-Based View

According to [49], the Resource-Based View (RBV) can be a strategic tool for analysing sustainability reporting. This involves examining a company's internal resources and capabilities that enable it to achieve a sustainable competitive advantage. In this context, sustainability practices and their reporting are considered valuable, rare, distinctive, and non-substitutable resources that can contribute to a company's strategic assets [50].

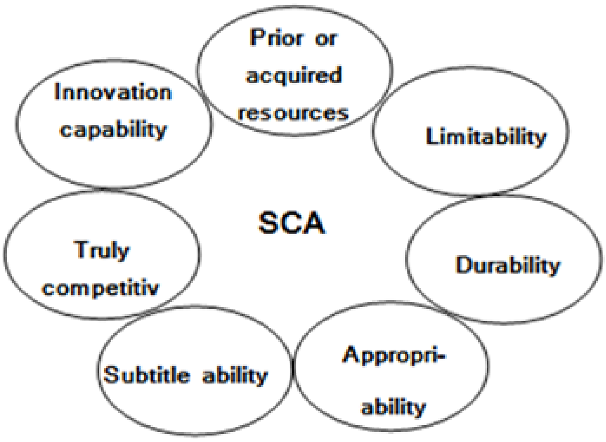

Figure 3: Resource-Based View: The Seven Main Elements
Source: Alalie et al., 2019

Investing in sustainability initiatives and implementing robust reporting mechanisms can help manufacturing companies develop distinctive competencies, such as efficient resource use, innovation in sustainable products or processes, and enhanced brand equity [51]. By putting a strong emphasis on sustainability, companies can achieve cost reductions, differentiation, and access to new markets, ultimately leading to improved financial performance. Therefore, the RBV suggests that sustainability reporting is not just a compliance or marketing instrument but a strategic investment that can yield tangible financial returns [52].

2.3.4 Application to the Nigerian Context

According to [53], Stakeholder theory posits that the engagement of Nigerian manufacturing firms in sustainability reporting serves as a foundational mechanism for cultivating enhanced stakeholder relationships. This engagement is theorized to foster increased loyalty and trust, culminating in superior financial outcomes [54]. The rationale is that these robust stakeholder relationships contribute to operational efficiency and the exploration of new market opportunities [53].

Conversely, Legitimacy theory elucidates Nigeria's evolving societal norms regarding corporate responsibility, characterised by a heightened focus on environmental stewardship and social welfare [55]. This evolution is partially attributed to global sustainability initiatives and Nigeria's unique environmental challenges, such as pollution and the depletion of natural resources [56].

From the RBV perspective, sustainability reporting can be seen as effectively managing a company's strategic asset that bolsters its reputation, manages risks, and promotes innovation [57]. These factors are pivotal for maintaining a competitive advantage in an increasingly global market. Seamlessly incorporating sustainability practices into a company's operations can result in operational efficiencies, cost reductions, and better stakeholder relationships [58].

In conclusion, incorporating the Stakeholder Theory, Legitimacy Theory, and RBV provides a comprehensive framework for understanding sustainability reporting in the Nigerian manufacturing sector. The Stakeholder and Legitimacy Theories explain how external forces and societal norms influence the adoption of sustainability reporting [55, 53], while the RBV highlights the utilisation of internal resources and competencies for achieving a competitive and financial edge [58]. Combining these three theories offers a sophisticated perspective for evaluating the unique opportunities and challenges faced by Nigerian manufacturing entities in pursuing sustainability. It accomplishes this by thoroughly capturing the external benefits and intrinsic processes by which sustainability reporting can impact a company's financial health.

2.4 Sustainability Reporting and Corporate Governance in Nigeria

Nigeria has witnessed significant developments in sustainability reporting, driven by global trends and local initiatives, according to [59]. Companies in Nigeria are increasingly adopting transparent and accountable sustainability reporting practices due to the rising demand from various stakeholders, including consumers, investors, and regulatory bodies [9]. This shift towards more robust sustainability practices is evident in the adoption of the Global Reporting Initiative (GRI) Standards, which are recognized for their comprehensive approach to reporting sustainability performance [60].

The active involvement of the government and regulatory bodies is a pivotal aspect of Nigeria's progress in sustainability reporting. Legislative measures such as the Climate Change Act and the Nigerian Energy Transition Plan (NETP) have been implemented to ensure that the country achieves a net-zero GHG emission by 2060 [61, 62]. The 2060 timeline is quite interesting because it represents a middle point of the 2050-2070 timeline set by the 2021 Climate Change Act. These efforts are further underscored by the early adoption of the International Sustainability Standards Board's (ISSB) IFRS sustainability disclosure standards, positioning Nigeria as a proactive participant in the global sustainability discourse [63].

The relationship between corporate governance and the quality of sustainability reporting is crucial in understanding the dynamics of sustainability reporting in Nigeria. Research by [64] has shown that board governance and audit committee characteristics play a significant role in shaping the quality of sustainability reporting among listed firms. This relationship underscores the importance of strong corporate governance in promoting effective sustainability reporting practices. However, the differences in governance standards across firms lead to inconsistencies in reporting quality, emphasising the need for uniform governance frameworks to achieve high-quality sustainability reporting [9].

Despite the advancements, the widespread acceptance of sustainability reporting in Nigeria faces skepticism, particularly regarding the practical implementation challenges [65]. Critics such as [66] highlight the high costs, complexity of international standards, and potential diversion of resources from core operations as significant barriers, especially for small and medium-sized enterprises (SMEs).

Furthermore, the voluntary nature of sustainability reporting standards may result in uneven adoption rates, especially without clear incentives for compliance and robust enforcement mechanisms [67]. This critique also suggests that without concerted efforts to address these challenges, the efficacy of sustainability reporting in promoting sustainable development and financial performance in the Nigerian manufacturing sector may be compromised.

2.5 Sustainability Reporting in the Nigerian Manufacturing Sector

The current state of sustainability reporting in Nigeria's manufacturing sector is impacted by both local business practices and global sustainability trends, as noted by [68]. While sustainability reporting is recognised as significant globally, its adoption rate in Nigeria's manufacturing sector is limited, according to [69]. However, there are opportunities for growth and development through the commercial viability of sustainability promotion programs, pressure from stakeholder groups, and legal parameters.

As [68] pointed out, SMEs and local Nigerian businesses tend to have lower rates of sustainability reporting due to factors such as limited resources, a lack of awareness, and perceived complexity. In contrast, multinational subsidiaries are taking a more proactive approach, driven by pressure from international stakeholders and their internal commitments [70]. While Europe strongly emphasises environmental accountability in business, manufacturing companies in Nigeria are not legally required to report on their sustainable development efforts, resulting in voluntary reporting practices [51].

As a result, there is a significant variation in the calibre, comprehensiveness, and regularity of sustainability reports, which makes it difficult to evaluate progress towards sustainability goals [71]. Nigerian firms tend to create unbalanced sustainability reports, as they only report their positive environmental and social contributions while ignoring their negative impact [72]. This violates the balance principles that define the quality of sustainability reports and is a crucial aspect that requires immediate attention.

In contrast, Nigerian manufacturing companies manage sustainability information by adopting a selective posturing strategy. They emphasize aspects of sustainability that align with their operations or stakeholder expectations [73]. While this approach can be sustained, more is needed to address the broader range of sustainability information that matters to domestic and international investors and consumers. Additionally, a more global perspective on local sustainability reporting practices must be considered [74].

2.6 Evolution of Sustainability Reporting in Nigeria

The development of sustainability reporting in Nigeria, moving from informal CSR activities to the adoption of formal sustainability reporting frameworks, underscores the influence of stakeholder requests for transparency in environmental, social, and governance (ESG) issues and adherence to global sustainability standards [75].

Initially, socially active Nigerian companies demonstrated more interest in giving back to their community and addressing local environmental and societal effects rather than systematically reporting on them [72]. However, the importance of formal sustainability reporting has taken various interpretations, especially with the emergence of global trends and the increasing pressure of foreign investors.

As pioneering leaders in the Nigerian cement industry, Lafarge Africa Plc and Dangote Cement Plc have set a commendable example by fully embracing sustainability reporting and diligently complying with global reporting guidelines such as the Global Reporting Initiative (GRI) [76].

Dangote Cement plc [77] stated that the company employs innovative and eco-friendly technologies, such as large contemporary rotary kilns with exhaust gas recycling pre-heaters, to heat raw materials before they enter the kiln. This forward-thinking approach significantly reduces the amount of fuel and kiln time required to convert raw materials into clinker, thereby generating less CO2 emissions per tonne of cementitious material and clinker produced.

Lafarge [78] announced in its 2022 sustainability report that the company had significantly reduced its CO2 emissions. They achieved a remarkable 3.7% reduction, from 595 kgCO2/t in 2021 to 574 kgCO2/t in 2022, using alternative fuels and implementing energy-efficient technologies across their production and distribution processes. This achievement, along with a global thermal substitution rate of 13.5% compared to 9.4% in 2021, underscores their unwavering commitment to sustainability.

In the food and beverage industry, companies like Guinness Nigeria Plc and Nestlé Nigeria Plc have adopted sustainability reporting. These companies provide comprehensive details regarding their social efforts, governance procedures, and environmental impacts. In its 2020 Sustainability Report, Guinness Nigeria Plc, a subsidiary of Diageo, emphasized the importance of water stewardship and demonstrated its commitment to conserving resources by achieving a 32% reduction in water usage within its operational activities. Nestlé has set a goal to achieve a global recycling or reutilization rate of 100% for its packaging by the year 2025 [79, 80].

2.7 Case Studies: Lessons from Other Emerging Economies

Internationally, emerging economies have advanced in attaining sustainability reporting in their industrial sector. Essential lessons and best practices from these countries' experiences can be learned and built upon to progress Nigeria's sustainability reporting framework [81]. This case study identifies the key strategies and tools from countries with advanced sustainability reporting that may provide potentially valuable ideas for Nigeria.

2.7.1 India

According to [82], the top 1,000 listed Indian companies are now required to submit Ecological, Social, and Governance (ESG) reports based on market capitalization. The Securities and Exchange Board of India (SEBI) has mandated that these companies disclose their sustainability-related risks and ESG criteria through a new format called the Business Responsibility and Sustainability Report (BRSR).

Initially, BRSR reporting was voluntary in FY 2021-2022, but it became mandatory from FY 2022-2023 onwards [83, 84].

2.7.2 South Africa

The country is leading on integrated reporting; South Africa has regulatory requirements for listed companies to report their financial and non-financial performance in an integrated manner [85]. South Africa's sustainability reporting rates have routinely exceeded 90% from 2013 to 2022. In light of the requirement for South African companies registered on the Johannesburg Stock Exchange to report on sustainability, this could have some merit [86].

The integrated reporting approach adopted by South Africa is based on the idea that financial and non-financial data should be combined to give a complete picture of the performance of a business [87]. Exposing businesses and stakeholders in Nigeria to it would help them understand that sustainability and financial success are interlinked. According to [86], South Africa had the highest proportion in Africa and the world in 2022, with an integrated reporting rate of 84%. Nonetheless, Nigeria's proportion of Integrated Reporting was just 8% lower than that of the United Kingdom (12%).

Furthermore, according to [87], managers are more motivated to create an integrated report to fulfil stakeholder needs and improve the company's reputation than to please investors. This creates a mismatch between managers' understanding of the report's intended readership, capital providers, and the International Integrated Reporting Council's (IIRC) perception of that audience. This issue requires further consideration. The report did not identify any outcomes of integrated reporting that could lead to improved resource allocation or cost reductions.

Table 1: Comparative Summary: Key Lessons from India and South Africa

Aspect	**India**	**South Africa**	**Implications for Nigeria**
Regulatory Approach	Mandatory ESG reporting for top 1,000 listed companies (BRSR format)	Mandatory integrated reporting for listed companies on JSE	Nigeria could benefit from phased mandatory reporting starting with large-cap companies
Reporting Framework	Business Responsibility and Sustainability Report (BRSR)	Integrated Reporting (<IR>) framework	Nigeria could adopt a hybrid approach combining ESG and integrated reporting
Implementation Timeline	Voluntary in FY 2021-22, mandatory from FY 2022-23	Mandatory since 2010	Nigeria should consider a transitional period before full mandatory implementation
Reporting Rate	Rapidly increasing compliance	Consistently above 90% since 2013	Nigeria's current 78% rate could be improved through regulatory mandates
Key Driver	SEBI regulatory mandate	JSE listing requirements	FRCN and SEC Nigeria could collaborate on similar mandates
Stakeholder Engagement	Focus on ESG criteria	Emphasis on connecting financial and non-financial performance	Nigerian companies should adopt a holistic approach to stakeholder communication

2.8 Regulatory and Policy Framework for Sustainability Reporting in Nigeria

Research conducted by [9] has shown that sustainability reporting, albeit voluntary, exerts a significant influence on the financial performance of Nigerian firms. Similarly, [22] revealed that sustainability reporting has considerable impacts on the financial performance of listed oil and gas firms, underlining the criticality of disseminating information on sustainability endeavours. Likewise, [88] accentuated the beneficial repercussions of sustainability reporting on industrial goods companies, positing a linkage between exhaustive sustainability reports and the enhancement of financial indicators.

However, concerns about the genuineness and efficacy of these reports have emerged, with critics like [89] pointing to the possibility of "greenwashing" and casting doubt on the tangible effects on environmental and social outcomes. Despite such impediments, the drive towards more stringent standards and verification mechanisms affirms a commitment to amplifying the credibility and usefulness of sustainability reporting in the Nigerian milieu.

2.9 Challenges and Prospects

The legislative and legal framework in Nigeria for sustainability reporting grapples with various challenges. One revolves around the current guidelines being voluntary. It results in widely differing degrees of both the quality of reporting and its implementation [65]. There is equally a need for more extensive awareness about the importance of sustainability reporting for businesses—particularly for small and medium enterprises (SMEs). Their capacity to report from within a full understanding of the issue also needs to be developed [66].

Greenwashing is a common occurrence, with fashion brands promoting seemingly sustainable fabrics and companies claiming their products are all-natural or organic without proper certification [90]. This poses a potential issue that requires transparency and stakeholder trust in non-financial sustainability disclosures, as highlighted by [89] and [91].

According to an article by [92], Ahmed Tiamiyu, Executive Director of Community Action Against Plastic Waste (CAPws), was recently interviewed by Radio Nigeria and discussed the issue of greenwashing in Nigeria. Tiamiyu revealed that many companies are falsely promoting their products as eco-friendly to appeal to environmentally conscious consumers without any evidence to support these claims. Additionally, it was discovered that Nigeria currently lacks specific legislation to address this deceptive practice.

However, the future of the regulatory system seems promising from an accountability perspective. There is growing pressure from local and international stakeholders for companies to be more transparent and accountable in their business conduct [93]. If Nigeria keeps engaging with global sustainability frameworks and standards, these discussions could lead to the adoption of more comprehensive and mandatory sustainability reporting criteria in Nigerian law [94].

2.10 Conclusion

In the final part of our literature study, we delved into the intricate world of sustainability reporting, explicitly focusing on the potential role within Nigeria's manufacturing sector and its connection to financial performance [95]. This investigation was underpinned using theoretical frameworks such as the resource-based view, stakeholder theory, and legitimacy theory, revealing the intricate relationship between a company's financial performance and sustainable actions.

Overall, this assessment supports the need for a customised strategy to enhance sustainability reporting in Nigeria's manufacturing sector. It argues that achieving more general sustainable development goals depends on such an effort. The goal of this scholarly investigation is to spur a change in company operations towards more environmentally conscious and economically feasible sustainable practices.

3 Methodology

3.1 Introduction

This chapter outlines the methodology used to study the relationship between sustainability reporting and the financial performance of Nigerian manufacturing companies. It also explores the challenges and constraints these companies encounter while reporting their sustainability practices [33].

The primary purpose of this research is to quantitatively evaluate the impact of sustainability reporting on key financial performance indicators, such as Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Current Ratio, and Debt-to-Equity Ratio. Additionally, it will delve into qualitative measures that influence financial outcomes, explicitly analysing the sustainability factors in shaping these dynamics [96].

A mixed-methods approach is considered the most comprehensive technique for examining the research topic. [97] support this methodological position, which involves using quantitative and qualitative analytical tools. This integration thoroughly examines the sustainability-financial performance nexus while providing detailed insights into the sector's operational challenges, problems, and ESG-focused issues.

We will conduct quantitative analyses using R, a robust statistical computing and graphics environment well-known for its versatility in handling diverse data types, comprehensive statistical capabilities, and open-source nature that enhances its accessibility for academic pursuits [98]. This choice reflects our commitment to employing rigorous, transparent, and replicable analytical tools to analyse the quantitative aspects of our research.

For the qualitative aspect, we will engage in a thematic analysis of secondary data sources. Our goal is to decisively interpret the qualitative data found within sustainability and CSR reports, industry documents, and academic research to shed light on the contextual factors influencing financial outcomes.

Our research will involve a meticulous manual data coding process to ensure a comprehensive engagement with the content. The result is a precise identification of themes that accurately reflect the key aspects of sustainability reporting.

3.2 Research Design

By adopting a purposive sampling technique, we will gather secondary data that is relevant and aligned with the study's objectives. This section seeks to clarify our chosen methodological approach's broad strategy, fundamental aspects, and philosophical underpinnings. Our research methodology incorporates a mixed-methods approach, which combines quantitative and qualitative techniques to provide a more comprehensive understanding of the study's critical issues.

This approach is necessary as it combines numerical analysis of financial indicators with precise qualitative insights into sustainability reporting challenges and best practices [99]. Our methodology effectively addresses the study objectives from different perspectives, enabling a complete understanding of the research.

3.2.1 Key Elements and Concepts

Quantitative Analysis: This involves using secondary data to evaluate how sustainability reporting affects specific financial performance indicators such as ROA, ROE, and Net Profit Margin. This aspect of the research design is geared towards establishing measurable, empirical correlations between sustainability practices and financial outcomes [100].

Qualitative Analysis: It seeks to uncover the subjective experiences, perceptions, and challenges encountered by Nigerian manufacturing companies in their sustainability reporting endeavours. This component is essential for identifying the barriers to sustainability reporting and understanding the contextual factors influencing financial performance [101].

Mixed-Methods Integration: The deliberate integration of quantitative and qualitative findings is a key strength of this study. It aims to provide a more complete picture of the study's thematic landscape, facilitate data triangulation, and enhance the validity and reliability of the research conclusions [102].

3.3 Rationale and Alignment with Study Objectives

The selection of a mixed-methods research design is informed by the study's objectives, which are to quantify the impact of sustainability reporting on financial performance and to explore the qualitative understanding of the challenges and constraints encountered by companies within this framework [103]. This methodological decision acknowledges the nature of the relationship between sustainability practices and financial outcomes, a relationship too complex to be fully captured through quantitative measures alone [104]. It necessitates a comprehensive exploration that encompasses both the tangible effects on financial metrics and the intangible, qualitative factors that drive these outcomes.

This technique enables a full empirical and interpretive study [105]. It is inherently versatile, allowing researchers to explore and analyse new themes [106, 107] while simultaneously maintaining the organised and rigorous framework necessary for methodological integrity [108].

3.4 Research Philosophy

Research philosophy is one of the fundamental sections of scholarly study. It forms a structured paradigm, radically shaping the alternatives within research strategies and methods. Such philosophical paradigms are represented by positivism, interpretivism, and pragmatism, and they guide the researcher to appreciate reality, knowledge, and methods, befitting their investigations [109, 110].

Figure 3.1 below is a detailed illustration of the central role of data collection and utilisation as demonstrated by the Research Onion technique introduced by [111]. This multi-layered diagram serves as a systematic approach to structuring the research methodology of a research dissertation. It provides a useful framework for determining the best research philosophy and developing a strategy by addressing several layers, including research philosophies, approaches, strategies, choices, time horizons, and techniques and procedures [112].

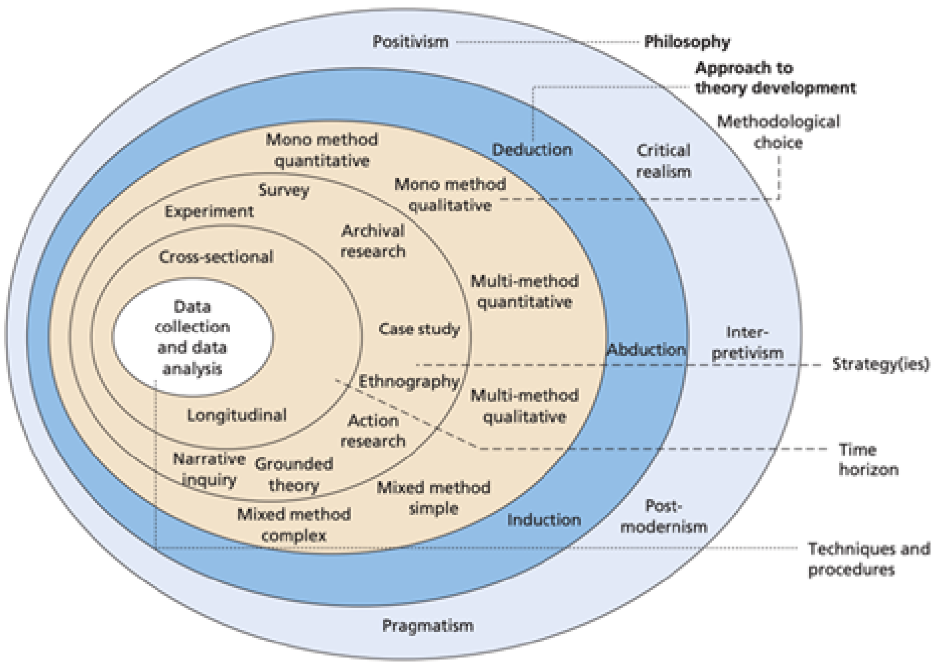

Figure 4: Onion Model by Saunders et al. (2009)
Source: Saunders et al., 2009

Research philosophy often includes an examination of ontology, which delves into the nature of reality and the conceptualisation of entities and their relationships within the research realm [113].

This ontological insight poses a critical question for researchers: Are phenomena objective entities independent of observers, or are they constructed from the perceptions and interactions of individuals?

This question is especially relevant when exploring the nature of corporate sustainability practices. Is sustainability an objective reality with a measurable impact on financial performance, or is it based on corporate actors' and stakeholders' perceptions and actions? This ontological question is grounded in the understanding that sustainability is not just a set of actions, but a phenomenon rooted in corporate culture and stakeholder engagement.

Epistemology complements this focus on knowledge by examining how knowledge is acquired, understood, and validated [114]. It is a branch of philosophy concerned with evaluating ways to exchange knowledge about phenomena [115].

This research takes a pragmatic and mixed-methods approach, incorporating positivist inquiry methods to gather objective and quantifiable data and interpretivism inquiry methods to explore the subjective perceptions and impacts of sustainability practices.

Therefore, a mixed-methodology approach is essential for a thorough analysis of the measurable financial impacts, as well as the subjective perceptions and impacts of sustainability practices in the manufacturing sector.

3.5 Significance of Paradigms and Their Assumptions

The research paradigm chosen has a significant influence on the entire research process, from hypothesis formulation to data interpretation, as noted by [110]. Each paradigm offers different approaches to understanding reality due to their unique assumptions and perspectives.

Positivism, according to [116], asserts that reality is objective and can be observed and described from an external standpoint. This paradigm prioritises quantitative methods to identify statistical patterns, laws, and theories commonly associated with natural sciences, as noted by [117]. Positivism assumes that the social world can be understood through systematic observation and analysis, much like the physical world [118].

In contrast, interpretivism views reality as a social construct, accentuating the subjective interpretation of human experience and the social processes that mould reality [119]. This paradigm advocates for a contextual understanding of phenomena, prioritizing human interaction and interpretation while leaning towards qualitative methods to unravel the complexities inherent in social phenomena [120].

Pragmatism, as [121] describe it, represents methodological flexibility that prioritises the research question in determining the approach. It challenges the binary opposition between positivism and interpretivism, advocating for a mixed-methods strategy that employs both quantitative and qualitative analyses grounded in the utility of research. Pragmatism focuses on practical applications and solutions to real-world issues, as noted by [122].

3.6 Adopted Philosophical Perspective

The decision to adopt a pragmatic philosophical stance was deliberate and strategic, informed by the multidimensional nature of the research. Pragmatism was chosen due to its inherent adaptability, which allows for the integration of both quantitative and qualitative methods to tackle the complex questions at hand [121]. This flexibility is key, particularly when investigating a topic that involves both quantitative financial indicators and qualitative insights into reporting challenges [122].

The study found that relying solely on positivism was insufficient, as it failed to capture the complexities and perspectives related to sustainability reporting [123]. While it facilitated the quantitative analysis of financial data, it was unable to comprehend the qualitative aspect [117]. On the other hand, Interpretivism offered depth in exploring perceptions and experiences but lacked the structure to quantitatively measure the impact of sustainability reporting on financial performance [124].

The pragmatic viewpoint played a significant role in shaping the research design, resulting in the integration of a mixed-methods strategy. The adaptability of pragmatism allowed for an investigative blueprint that was well-suited to the study's objectives, enabling a comprehensive and equitable exploration of the topic [125].

3.7 Research Strategy

The technique utilised in social science research is crucial in determining the direction and structure of a study. The research strategy is a vital component of this technique and is commonly categorised as deductive or inductive [126]. These approaches are fundamental to the research process and closely related to the type of study—whether quantitative, qualitative, or mixed methodologies [127].

Deductive reasoning is a top-down approach that follows a hypothesis derived from existing theory, which is then tested through empirical observation [126]. This strategy is characterised by its structured nature and its focus on testing theory against empirical data to confirm or reject predefined hypotheses [128, 129].

In contrast, Inductive reasoning takes a bottom-up approach, where observations lead to the formulation of new theories or hypotheses [128]. It is exploratory and open-ended, allowing new insights and theories to emerge from the data [128, 126].

By strategically combining quantitative and qualitative approaches, the mixed-methods approach tests hypotheses about the quantitative impact (deductive reasoning) while also exploring in-depth the qualitative aspects of sustainability practices and challenges (inductive reasoning) [107].

3.8 Data Collection and Sampling Procedure

For this study, we will employ a purposive sampling technique that is particularly relevant and adequate for several reasons. It will enable us to target companies with sustainability disclosures, allowing for a more detailed research analysis. By doing so, we will promote efficiency and maximise the use of resources [130].

To ensure accuracy and relevance, we will gather data by thoroughly reviewing reliable and accessible secondary sources, such as financial reports, sustainability disclosures, and relevant databases. Through these sources, we aim to obtain in-depth information about financial performance metrics and company sustainability reporting practices [131].

3.9 Source of Data

Our research will collect secondary data from a diverse range of credible sources, such as reputable journals, year-on-year financial reports, and sustainability reports of Nigerian manufacturing companies that are conveniently accessible online. This data will be utilised for thematic qualitative and quantitative analyses, focusing on key indicators such as profitability and liquidity.

3.10 Data Collection Process

The data collection process will be limited to companies that satisfy our inclusion criteria, comprising those listed on the NSE and manufacturing companies that have released sustainability reports within the last five years, ensuring our data is pertinent and accurately reflects current industry practices. Exclusion criteria will also be implemented to ensure the quality and relevance of the data by excluding non-listed companies, those without public sustainability disclosures, and those who have ceased operations or are experiencing financial difficulties.

The list of observed firms includes Dangote Sugar Refinery, Guinness, Flour Mills, Honeywell Flour Mill, International Breweries, Lafarge Africa, May and Baker, NASCON Allied Industries, Nestle, Nigeria Breweries, Nigerian Enamelware, Nigerian Northern Flour Mill, Unilever, UAC of Nigeria, and PZ Cussons.

In this data collection, quantitative research utilised Bloomberg Terminals to source current, accurate financial data for selected Nigerian manufacturing companies. This platform provided essential financial performance indicators, such as Return on Assets (ROA) and Return on Equity (ROE), among others, for five years.

The quantitative data was analysed using statistical software, R, and Microsoft Excel. R was particularly useful in conducting more complex statistical testing and modelling. Using both Excel and R allowed for data cleaning, preliminary analyses, trend generation, and identifying key relationships in the data.

The literature review was based on qualitative data sourced from comprehensive secondary databases, including ScienceDirect, Elsevier, Google Scholar, ResearchGate, and company reports. An in-depth review of annual reports from the selected companies was also conducted. Thematic analysis was the chosen method, as it allowed for the coding and identification of themes deemed significant for sustainability practices and impacts. This thematic analysis proved invaluable in interpreting the impact of qualitative sustainability practices on corporate financial performance.

The selection of a varied mix of manufacturing companies, characterised by active sustainability reporting, ensured that the results reflected the industry's practices. The insights from this study are applicable across the industry, and the sampled strategy takes a centred view [132].

3.11 Data Analysis Procedures

The data analysis procedures employed in this study are meticulously selected to align with the mixed-methods research design. This guarantees that quantitative and qualitative data contribute effectively to understanding the study. The chosen methods are designed to complement each other, resulting in a comprehensive analysis that effectively addresses the research objectives.

3.11.1 Quantitative Data Analysis

The research will be conducted using R, an advanced software environment for statistical computing, to conduct all quantitative data analyses. R offers a wide range of capabilities to analyze complex datasets and perform various tests and visualizations, making it an ideal tool for this study [98]. The data analysis protocol, based entirely on secondary sources, will include the following steps and methods:

Multiple Regression Analysis: This primary tool for quantitative analysis [133] will be employed to examine the relationship between sustainability reporting (independent variable) and various financial performance indicators (dependent variables). Regression analysis is particularly suited for this study as it can isolate the effect of sustainability reporting on financial performance while controlling for other variables that might influence these outcomes [133].

Correlation Analysis: This will also be conducted to identify any associations between the different financial performance metrics and aspects of sustainability reporting. This analysis helps to understand the direction and strength of relationships between variables, providing insights into how different dimensions of sustainability reporting are related to financial outcomes.

3.11.2 Model Specification

The analysis explores how sustainability reporting affects various financial performance indicators of manufacturing companies. The regression model can be specified as follows:

$$FP_i = \beta_0 + \beta_1 SR_i + \beta_k CV_{ki} + \varepsilon_i \tag{1}$$

Where:
FP_i represents the financial performance indicator for company i,
SR_i is the sustainability reporting variable for company i,
CV_{ki} are the control variables for company i,
β_0 is the intercept,
$\beta_1, \ldots, \beta_k$ are the coefficients of the explanatory and control variables,
ε_i is the error term.

3.11.3 Dependent Variables (Financial Indicators)

[label=–]

- Return on Assets (ROA)
- Return on Equity (ROE)
- Net Profit Margin
- Current Ratio
- Debt to Equity Ratio

3.11.4 Qualitative Data Analysis

Thematic Analysis: This will be employed to analyse content based on qualitative data reviewed from secondary databases. Thematic analysis is a flexible and effective method for identifying, analysing, and reporting patterns (themes) within data [134]. Using this method, we can deeply understand the qualitative aspects of sustainability reporting, uncovering underlying challenges, strategies, and perceptions that quantitative data alone cannot reveal.

Coding Procedure: A manual coding procedure will support the thematic analysis to systematically categorise qualitative data into meaningful themes related to sustainability reporting practices, challenges, and their perceived impact on financial performance. The developed themes will be carefully reviewed to ensure they align with our research objectives, ultimately clarifying how sustainability reporting impacts a corporation's financial metrics.

3.12 Justification with Research Design and Objectives

The selection of multiple regression and correlation analysis for the quantitative component is founded on accurately measuring the impact of sustainability reporting on financial performance and scrutinising the relationships between different performance metrics [135].

Likewise, the use of thematic analysis for the qualitative component is justified by the study's intention of exploring the complexities of sustainability reporting beyond quantitative metrics. This approach is particularly adept at eliciting the subtle perspectives and experiences of those involved in sustainability reporting, aligning perfectly with the study's objective of comprehending the qualitative dimensions of these practices.

3.13 Ethical Considerations

This study heavily relies on secondary data and strictly adheres to ethical guidelines for using published data. Precautions have been taken to ensure the confidentiality and anonymity of any person or entity [136]. No sensitive information is disclosed if it is not available to the public. Therefore, end-to-end confidentiality assurance (ECA) is crucial when handling various data types. Copyright regulations and intellectual property rights of the organisations that have made the data accessible are respected [137]. The study maintains integrity in its analysis and results, regardless of whether they support the initial hypotheses.

3.14 Summary

This chapter presents the methodological framework developed for the study. The framework is designed to provide a robust methodology that combines both quantitative and qualitative analysis to examine how sustainability practices impact corporate outcomes and the challenges that companies face.

The study employs a comprehensive mixed-methods approach that balances high-level statistical analysis with in-depth qualitative inquiry. This approach was intentionally chosen to allow for a dynamic exploration of the topic. The quantitative section of the study employs advanced statistical tools to dissect the relationships between sustainability reporting and core financial metrics.

4 Data Analysis, Findings and Discussion

4.1 Introduction

In this chapter, we delve into the empirical analysis of the data collected to examine the influence of sustainability reporting on the financial performance of manufacturing companies in Nigeria. Leveraging the theoretical frameworks and methodologies detailed in the previous chapters, this section aims to conduct a comprehensive quantitative and qualitative evaluation of integrating sustainability practices into corporate operations and their impact on pivotal financial performance metrics, including ROA, ROE, and NPM.

It provides an in-depth examination of the data sourced from various manufacturing companies in Nigeria. The analysis incorporates multiple regression models to establish the relationships between the level of sustainability reporting and various financial metrics. Additionally, qualitative insights are integrated to provide a context to the quantitative findings, offering a deeper understanding of the dynamics behind the numbers.

This chapter aims to provide a holistic view of the study by conducting a comprehensive analysis of the data through both statistical techniques and thematic analysis. The findings are instrumental in substantiating the study's hypothesis that enhanced sustainability reporting positively correlates with improved financial performance.

Furthermore, it will discuss the implications of these findings, considering the current sustainability practices observed in the sector. It will provide critical insights into the effectiveness of these practices and highlight areas where improvements are necessary. The analysis will also explore the challenges and opportunities these companies face as they strive to align more closely with global sustainability standards.

Through rigorous data analysis, Chapter Four aims to contribute valuable knowledge to academic and practical fields, informing future strategies for successfully integrating sustainability into core business practices. This chapter is pivotal in understanding the impact of sustainability reporting on corporate performance and will lay the groundwork for the discussions and recommendations in upcoming chapters.

4.2 Examination of the Relationship Between Sustainability Reporting and Financial Performance Indicators

This section analyses the relationship between sustainability reporting and financial performance indicators. It evaluates social, environmental, and economic factors that contribute to or affect financial performance.

4.2.1 Social Indicator Factors

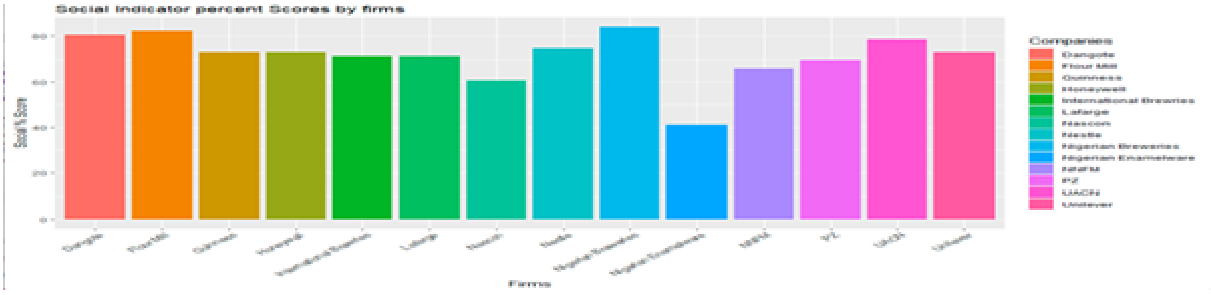

Figure 5: Social Indicator Scores from Firms' ESG Reports (2019-2023)
Source: Researcher's Compilation from R Studio, 2024

Figure 5 depicts the CSR activities of 14 selected firms and offers valuable insights into how the public perceives them based on their social indicator scores. It is worth noting that most firms have demonstrated commendable performance in their CSR endeavours, with most scores surpassing the average. This indicates a favourable public perception of these companies.

However, there are notable variations among the selected firms, with the Nigerian Enamelware Company standing out with the lowest score, suggesting that the company may have areas in its CSR initiatives that require improvement. On the other hand, Nigeria Breweries emerges as a standout performer, boasting the highest score of over 80% on the social indicator. This exemplary performance not only underscores the company's commitment to social responsibility but also paints a positive image of Nigeria Breweries in the eyes of the public.

4.2.2 Economic Indicator Factors

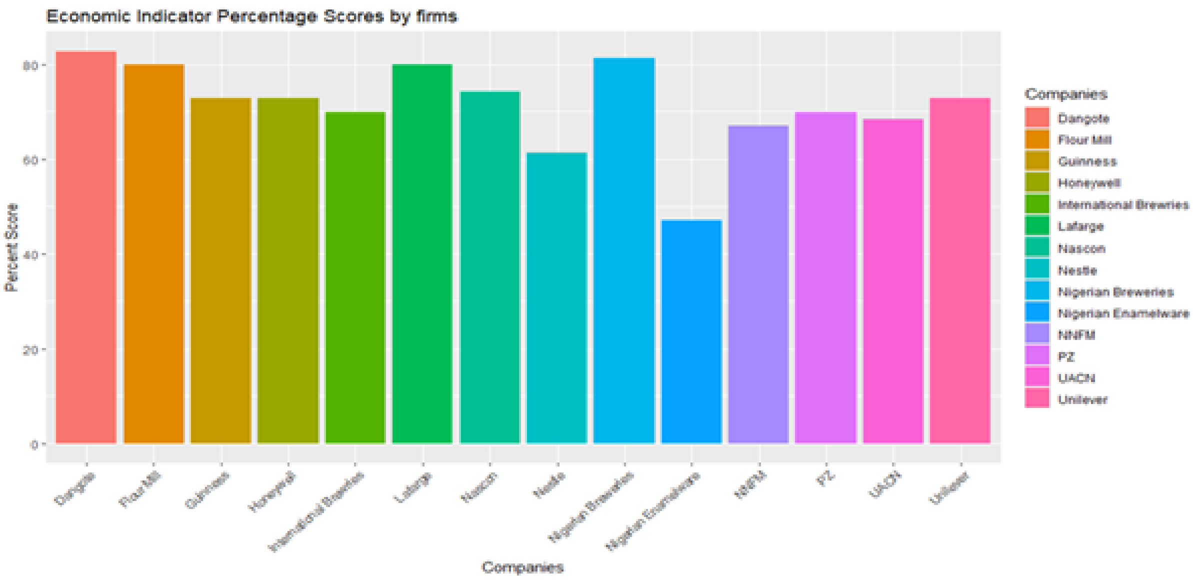

Figure 6: Economic Indicator for Various Selected Firms Operating in Nigeria
Source: Researcher's Compilation from R Studio, 2024

In **Figure 6**, we explore the correlation between economic metrics and companies' market perception, using the simulation data provided to illustrate our findings. Our study focuses on how specific companies leverage their financial resources to support sustainable community practices. These initiatives can range from basic infrastructure improvements, such as roads and clean water, to more advanced measures like renewable energy and waste reduction.

Our data indicates that companies with strong economic metrics, like Dangote, with an impressive score of 82.74%, are better equipped to invest in community-focused initiatives. This highlights their financial strength and underscores their commitment to social responsibility. As a result, companies like Dangote can cultivate a positive public image, showcasing their contributions to community improvement.

In conclusion, while economic indicators are critical to a company's ability to support community welfare, a comprehensive evaluation of its social impact must consider a broader range of factors. This nuanced perspective can help stakeholders better assess a company's contribution to societal well-being.

4.2.3 Environmental Indicator Factors

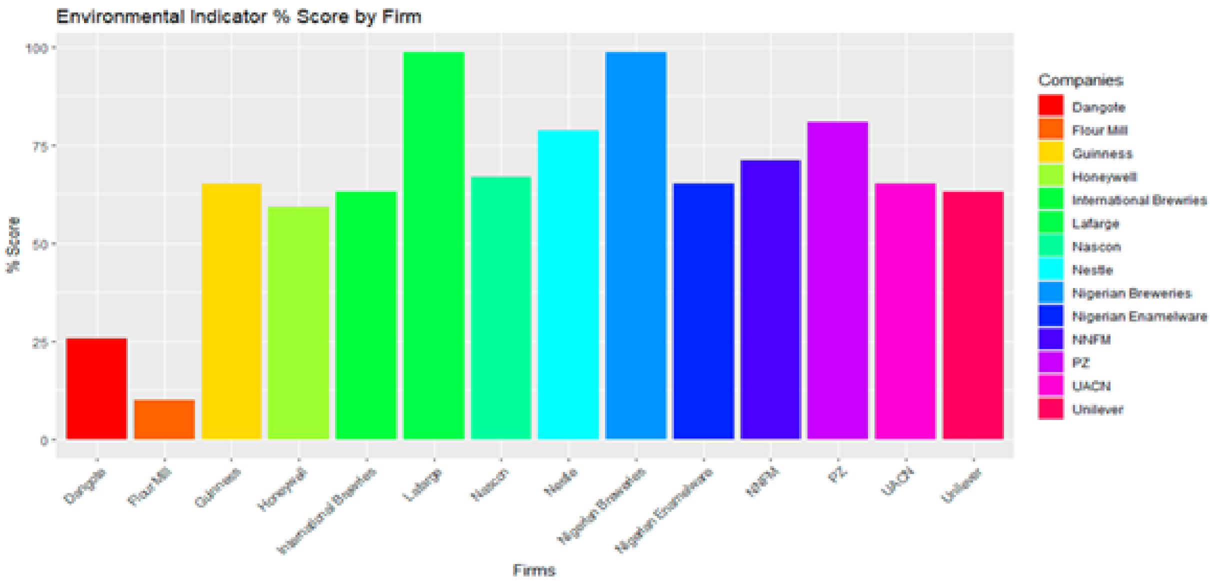

Figure 7: Environmental Indicator for Assessing Firm Environmental Performance
Source: Researcher's Compilation from R Studio, 2024

In **Figure 7**, the graphical visualisation demonstrates each company's ESG focus on environmental performance and impact. The bar chart highlights that companies with low environmental percent scores may need to make more efforts to address environmental concerns or poor environmental performance. This could signal potential environmental liabilities, reputational damage, or operational inefficiencies to stakeholders who interpret the low scores.

4.2.4 Table 4.1: ANOVA Table Showing Regression Analysis Between FPIs and SR

Table 2: ANOVA Table Showing Regression Analysis Between FPIs and SR

Source	Df	Sum Sq	Mean Sq	F value	Pr(>F)
SR	1	0.2934	0.2934	5.987	0.031*
Residuals	12	0.5879	0.0490		
Total	**13**	**0.8813**			

*Note: Significance codes: 0 ’***’ 0.001 ’**’ 0.01 ’*’ 0.05 ’.’ 0.1 ’ ’ 1*

According to the data presented in **Table 4.1**, the p-value is 0.031, significantly lower than the standard significance level of 0.05. This indicates less than a 5% chance that the observed correlation between SR and FPI is due to chance. As a result, the relationship between SR and FPI is not merely coincidental but genuinely exists in the population. The research findings provide statistical evidence that sustainability policies have a significant impact on financial performance, thus reinforcing the notion that the two are interconnected.

4.2.5 Table 4.2: Regression Analysis for SR and FPIs

Table 3: Regression Analysis for SR and FPIs

Coefficient	Estimate	Std. Error	t value	Pr(>|t|)	Sig.
(Intercept)	0.00254	0.06133	0.041	0.968	
SR	0.44286	0.18097	2.447	0.031	*

Note: Significance codes: $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

R-squared: 0.333, Adjusted R-squared: 0.2775

The findings presented in **Table 4.2** suggest a significant relationship exists between sustainability reporting (SR) and financial performance indicators (FPI), as evidenced by the regression equation coefficients and the observed p-value of 0.031, which is similar to the findings from Table 4.1.

Notably, the strong correlation between SR and FPI implies that sustainable enterprises will likely offer greater financial returns to investors and analysts. This underscores the strategic relevance of sustainability investments and efforts within corporate contexts. By extension, regulators and lawmakers could leverage these findings to tighten sustainability reporting requirements, enhancing corporate social responsibility and financial outcomes.

However, it is crucial to note that the regression model only explains 33.3% of FPI variability, indicating that additional variables may be necessary in explaining financial success. Hence, investors should consider other factors that may impact financial performance.

4.2.6 Table 4.3: Residual Statistics - Model Prediction Accuracy and Dependability

Table 4: Residual Statistics - Model Prediction Accuracy and Dependability

Statistic	Value
Minimum Residual	-0.68007
1st Quartile	-0.28900
Median	-0.07140
3rd Quartile	0.23400
Maximum	0.72700
Standard Deviation	0.41931

Table 4.3, which is the Residual Statistics table, shows the regression residuals in detail, revealing model prediction accuracy and dependability. The table shows an inconsistency or uncertainty in the prediction errors because a standard deviation of 0.41931 suggests some variability in the residuals, and the result would not be able to help us explain how the financial year relates to each company's financial performance.

As a result of this uncertainty, we will perform a linear regression analysis for each company from our dataset using R. In general, it was discovered that R-squared provides insights into the goodness of fit of the linear regression model; however, with an average high R-squared, this indicates that the linear regression model for each manufacturing company is able to explain and predict the observed data points.

4.3 Potential Barriers and Challenges Faced by Manufacturing Companies in Nigeria

Sustainability reporting has increasingly become a standard practice in businesses, either as a standalone report or as part of their annual financial reporting. However, it is important to note that reporting sustainability is not always a straightforward task. In our investigation, we found that several companies in Nigeria are still faced with significant barriers and challenges regarding sustainability reporting. Based on the results of our systematic review, we categorised these challenges into three groups: individual, institutional, and organisational. In the following discussion, we will delve into each of these categories.

4.3.1 Individual Factors and Sustainability Reporting

The individual factors that impact sustainability include managers' mindset, willpower, knowledge, and skills. This relationship is examined below.

Understandability: One key aspect of sustainability reporting is understandability or the ease with which accounting information users can comprehend a company's financial report. Unfortunately, several studies have found that many managers lack the consciousness, knowledge, and skills to report on sustainability effectively. For example, [138], [139], [140], and [141] have all identified a lack of knowledge and understanding of sustainability reporting, as well as a lack of expertise in environmental accounting, engineering, and social knowledge, time constraints, and a general lack of awareness among management and employees as individual factors that hinder sustainability reporting. These deficiencies can be demotivating for organisations striving to engage in sustainability reporting.

Professional Accountants' Commitment: As representatives of a company's owners, professional accountants' responsibilities often include reporting the company's performance to stakeholders, providing valuable insight on corporate strategy, and offering guidance to help businesses reduce costs, increase revenue, and manage risks.

While their focus is primarily on economic concerns rather than environmental and social issues, this aligns with research conducted by [138]. Their work revealed that accountants view corporate sustainability as encompassing social and environmental considerations in business decisions, aiming to maximise shareholder value. This perspective does not prioritise social responsibility over profit but seeks to ensure responsible business practices. Interestingly, many accountants' sustainability knowledge derives from international sources rather than local accounting associations. A significant portion reported not knowing sustainability reporting at all.

4.3.2 Institutional Factors and Sustainability Reporting

The institutional factors that comprise GRI guidelines/standards, sustainability reporting award schemes, and stakeholder pressure are significant hindrances to firms' application of sustainable development principles, as reflected in their sustainability reporting. This is in alignment with various studies that have supported this notion.

Standardisation: This occurs when all relevant parties in an organisation adhere to processes associated with manufacturing goods or services and measuring accounting information, which is prevalent across nations. Due to the prevalence of voluntary and mandatory disclosures, reporting entities have trouble comparing their sustainability reporting practices with those of other entities within and across industries and nations, which hinders standardisation. [142] identified several barriers to sustainable reporting, such as cost reduction, voluntariness, and low effectiveness of sustainability reporting for most Italian municipalities. On the contrary, the study by [143] suggested that mandating sustainability reporting may not necessarily lead to producing comprehensive and relevant reports in India, highlighting the need for a balanced approach.

Performance Incentive: Incentivising sustainability performance effectively drives sustainability progress. However, many companies do not link management incentives to sustainability performance, making it challenging to incorporate sustainability measures into annual remuneration packages. [144] identified poor sustainability education in academic institutions, lack of incentives for designers to facilitate sustainable design, ignorance of lifecycle cost benefits, and a lack of prioritisation of sustainable construction as major sustainability barriers in the Nigerian construction industry. Similarly, in Nigeria and South Africa, institutional and financial barriers were the primary factors preventing environmental management accounting (EMA) practices, respectively, according to [145].

Government Policies: These play a significant role in shaping firms' sustainability initiatives. Political uncertainty and a lack of government policies have been shown to reduce or delay firms' sustainable development practices. [146] found that no policy actively encourages and supports SMEs in developing sustainability reports in Indonesia, and SMEs are not obliged to promote the submission of sustainability reports in Indonesia.

4.3.3 Organisational Factors and Sustainability Reporting

Organisational factors are crucial in determining a company's ability to implement sustainable practices. They comprise top management support, employee support and resistance, technical issues with data, organisational reputation, and organisational culture. Those that can hinder effective sustainability reporting include:

Poor Communication: This may involve a failure to communicate the organisation's sustainability strategy, irregular communication, or restricted sharing of information with specific levels of the organisation. This lack of communication is consistent with the findings of [147] that many small and medium-sized Italian enterprises have limited or no communication on effectively implemented sustainability practices. Additionally, [148] identified a lack of knowledge and understanding of sustainability reporting, a dedicated team for carrying out sustainability reporting, and the failure to communicate with various stakeholder groups as the main barriers to implementing sustainability reporting.

Collective Efforts: Sustainability is a collective responsibility that requires the cooperation of all stakeholders. Companies must recognise that their operations impact the global community and each other. [143] emphasised that responsibility for sustainability issues lies collectively with organisations and institutions that seek to increase sustainability disclosure, including responsible investors, NGOs, special interest groups, consumers, governments, and stock exchanges. Therefore, a lack of collective efforts among stakeholders can be a significant barrier to effective sustainability reporting.

4.3.4 The Impact of Not Applying Sustainable Practices in Manufacturing Companies

Failing to implement sustainable practices in manufacturing companies can have severe consequences for continuing partnerships and the overall success of the businesses involved. Here are some of the risks:

[label=–]

- **Reputation Damage:** Neglecting sustainability can result in negative publicity, damaging the companies' reputation [149]. With consumers and stakeholders becoming increasingly aware of environmental and social issues, being associated with unsustainable practices can lead to losing trust and credibility [150].

- **Increased Costs:** Unsustainable practices can create inefficiencies and wasteful resource management, leading to higher operational costs [151]. Such expenses can strain the financial viability of the cooperation, potentially resulting in financial difficulties.

- **Legal and Regulatory Risks:** Ignoring sustainability can expose businesses to legal and regulatory risks [152]. Non-compliance with environmental or social regulations can result in fines, penalties, or even legal actions that disrupt business operations.

- **Supply Chain Disruptions:** If sustainability is not considered throughout the supply chain, businesses may face disruptions in the availability of resources or materials [153]. This can affect production and cause delays in delivering products or services to customers.

- **Limited Access to Capital and Investment:** Investors and financial institutions now consider sustainability criteria when making investment decisions [154]. Companies with unsustainable practices may find it challenging to attract investment or secure financing for growth.

4.4 Exploration of How Specific Aspects of Sustainability Reporting (ESG) Affect the Financial Performance of Manufacturing Companies in Nigeria

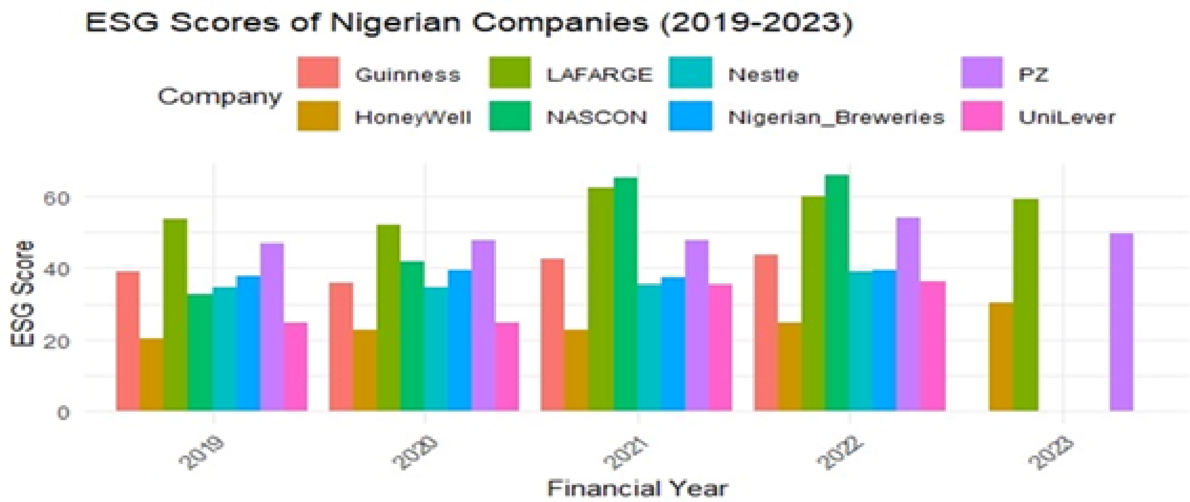

Figure 8: Environmental, Social, and Governance (ESG) Scores for Selected Companies Operating in Nigeria (2019-2023)

Source: Researcher's Compilation from R Studio, 2024

Figure 8 visualises the ESG scores of Nigerian companies between 2019 and 2023. Each bar in the graph represents a company, and its height indicates its ESG score for a particular year. A higher bar signifies a higher ESG score, indicating better risk management, improved reputation, and potentially higher investor returns.

Our analysis reveals that most of the selected companies improved their ESG performance during the study period (2019 to 2023), with some minor fluctuations. Several factors may have contributed to these positive trends, such as initiatives taken by the companies to reduce their environmental footprint, enhance social practices like employee welfare and community engagement, and improve governance structures to ensure transparency and accountability. However, obtaining complete data on specific ESG metrics presents a challenge, making it difficult to analyse the factors driving these trends comprehensively.

Figure 9: Return on Equity (ROE) Results (2019-2023)
Source: Researcher's Compilation from R Studio, 2024

The chart showing analysis of the Return on Equity (ROE) for various Nigerian firms from 2019 to 2023 has highlighted a fluctuating financial pattern that distinguishes corporate strategies from economic reality.

The observed pattern indicates that Lafarge and NASCON have charted a course of relative stability and commendable levels of ROE, suggesting that their strategic underpinnings are robust and able to weather economic worries. On the other hand, International Breweries and Nigerian Breweries depict a developmental path characterised by high volatility, reflecting high responsiveness to changes in the market, operational overhauls, or shifts in consumer behaviour.

The research also shows that firms with robust ESG frameworks typically achieve superior operational efficiencies, leading to increased profitability.

The Current Ratio remained consistently above 1 throughout the observed period. On the other hand, the debt-to-equity Ratio showed an increasing trend, with the year 2023 indicating a particularly visible spike. This trend suggests that the firm relies more heavily on borrowed funds, which may indicate aggressive growth strategies fuelled by sustainable investment.

However, this also raises concerns about the long-term sustainability of such financial structures. Modigliani and Miller's [155] capital structure theory sheds light on this issue, as borrowing can increase equity returns. However, over-reliance on borrowed capital can also increase financial risk and jeopardize financial soundness.

This section presents compelling evidence highlighting the positive association between high ESG scores and critical financial metrics like ROA and ROE, as demonstrated by [156]. According to research, companies with robust ESG frameworks attain superior operational efficiencies, leading to increased profitability [157]. These efficiencies often result from sustainable practices such as energy savings and waste reduction, which reduce operational costs and directly enhance asset utilisation and profitability [158].

Policymakers are encouraged to develop more integrated and standardised ESG reporting frameworks to facilitate comprehensive and comparable disclosures [159]. Additionally, incentives for firms to adopt advanced sustainability management systems could help mitigate the technical and financial barriers associated with effective ESG implementation [160].

In light of these findings, it is suggested that companies like Unilever and May and Baker, which walk the middle path of moderate undulation, orchestrate their growth initiatives carefully in alignment with sustainable practices to guard against more vicious financial cycles that less balanced strategies might bring.

5 Conclusion and Recommendations

5.1 Introduction

The primary aim of this research was to investigate the impact of sustainability reporting on the financial performance of manufacturing companies in Nigeria. Throughout the previous chapters, this study has systematically examined how the integration of environmental, social, and governance (ESG) factors into business operations influences key financial metrics. Our findings underscore that effective sustainability reporting is not merely a regulatory or ethical practice but a strategic tool that significantly enhances financial outcomes. These include improvements in Return on Assets (ROA), Return on Equity (ROE), and overall financial stability.

The significance of this study extends beyond academic circles; it offers crucial insights for business leaders, investors, and policymakers. By demonstrating the tangible financial benefits of sustainability reporting, this research encourages Nigerian manufacturing companies not only to adopt but to innovate in their sustainability practices. It also provides a basis for policy reforms aimed at standardizing sustainability reporting to ensure transparency, accountability, and comparability across the industry.

Chapter One introduced the background and the urgency of integrating sustainability practices in light of global and local environmental challenges.

In Chapter Two, we reviewed relevant related literature by establishing a theoretical framework for understanding the intersections of sustainability and financial performance.

Chapter Three outlined the research methodology, which integrated both quantitative and qualitative analyses to comprehensively assess the impact of sustainability practices. Chapter Four presented the data analysis, revealing positive correlations between robust sustainability reporting and enhanced financial metrics, and discussed these findings within the broader context of sustainability's role in operational efficiency and strategic advantage.

As we conclude, this chapter aims to synthesize these insights, proposing actionable recommendations and identifying areas for future research to continue advancing the understanding of sustainability reporting's financial implications in emerging markets like Nigeria. This study not only contributes to academic literature but also serves as a strategic guide for businesses seeking to harness the benefits of sustainability for economic gain and societal good.

5.2 Summary of Key Findings

5.2.1 Major Findings

[label=(1)]

1. **Positive Impact on Financial Performance:** The research consistently demonstrated a positive correlation between sustainability reporting and key financial performance indicators such as Return on Assets (ROA) and Return on Equity (ROE). Companies engaging in comprehensive sustainability reporting exhibited better financial health, marked by improved asset utilization and shareholder value creation.

2. **Enhanced Operational Efficiency:** The findings suggest that companies with robust sustainability practices often experience increased operational efficiency. These efficiencies arise from reduced waste, lower energy consumption, and improved resource management, all of which contribute to lower operating costs and enhanced profitability.

3. **Stakeholder Trust and Market Positioning:** Companies that actively engage in sustainability reporting benefit from increased trust and loyalty among stakeholders, including customers, investors, and regulatory bodies. This enhanced reputation not only helps in retaining consumer loyalty but also attracts environmentally conscious investors, thus improving market positioning.

4. **Challenges and Barriers:** Despite the benefits, the study also highlighted several challenges, such as the complexity of implementing comprehensive sustainability reporting frameworks and the initial costs involved. These challenges are particularly pronounced in the context of Nigeria's manufacturing sector, which faces infrastructural and regulatory hurdles.

5.2.2 Broader Implications for the Nigerian Manufacturing Sector

[label=(2)]

1. **Competitive Advantage:** As global markets increasingly favor sustainable business practices, Nigerian manufacturing companies that advance their sustainability reporting can gain a significant competitive edge as this is consistent with the study by [100]. Not only does this enhance their appeal to international investors, but it also positions them favorably in global supply chains that prioritize sustainability.

2. **Regulatory Compliance and Policy Development:** The findings from this study underscore the need for clearer, more consistent sustainability reporting regulations in Nigeria. Policymakers could use this data to craft regulations that encourage transparency and accountability, helping to standardize practices across the sector and ensure fair competition.

3. **Social and Environmental Responsibility:** By demonstrating the financial benefits of sustainability reporting, the study encourages companies to take a proactive role in addressing social and environmental issues. This shift is crucial in a country like Nigeria, where industrial activities have significant impacts on the environment and communities.

4. **Long-term Sustainability:** The financial benefits associated with effective sustainability reporting underscore the importance of these practices for the long-term sustainability of businesses. According to [175], by investing in sustainable practices now, companies not only enhance their immediate financial performance but also ensure their resilience and relevance in a future where environmental and social governance will likely dictate market dynamics.

These key findings highlight the integral role of sustainability reporting in driving the financial and operational success of manufacturing companies in Nigeria. As the country seeks to expand and modernize its manufacturing sector, embracing sustainability reporting can provide a pathway to more sustainable economic growth and development.

5.3 Theoretical Implications

The direct contribution of this research to the theoretical framework is in the evidence proving the positive correlation between the high levels of ESG (Environmental, Social, and Governance) reporting and improved financial metrics such as Return on Assets and Net Profit Margin among the Nigerian manufacturers. This finding, far from merely supporting previous research, extends it by isolating specifics on how ESG factors interact with financial outcomes in a developing economy context that has seen less focus in existing literature.

Importantly, it bridges a critical gap in governance practice in the sense that it sends a signal about the tangible benefits of better reporting on ESG. The findings also send a signal to manufacturers in Nigeria and other similar settings in the sense that compliance with international sustainability standards may not only be feasible, but it is, to say the least, lucrative.

The advantages accruing to stakeholders are multi-storied. To investors, clear linkage of ESG initiatives to the performance of finances entails reduced risks and an indication of appropriate investment [161]. Companies will have benefits accruing from the adoption of ESG standards in the market that can enhance market reputation and operational efficiency by decreasing costs and eventually improving profitability [162].

It moves the discussion away from regarding ESG practices as a compliance cost to one where they form an essential component of strategic management that could bring about great financial returns. The theoretical implications of this research are strong and relevant in proffering an argument in support of the integration of sustainability reporting within the core business strategies of manufacturing firms in emerging economies like Nigeria.

5.4 Recommendations for Manufacturing Companies

[label=(4)]

1. **Implement Comprehensive Sustainability Frameworks:** Companies should adopt comprehensive frameworks like the Global Reporting Initiative (GRI) or the Sustainability Accounting Standards Board (SASB) guidelines to ensure their sustainability practices are thorough and standardized [163]. This will also facilitate benchmarking and tracking progress over time.

2. **Invest in Sustainability Training:** To enhance the quality of sustainability reporting, companies should invest in regular training for their employees, particularly those involved in data collection and reporting [164]. This will ensure that the data is accurate, reliable, and compliant with international standards.

3. **Leverage Technology for Sustainability Reporting:** Adopt advanced technologies such as data analytics and blockchain to enhance the accuracy and integrity of sustainability reporting [165, 166]. These technologies can help in automating and improving data collection, as well as reducing human errors, making the process more efficient.

4. **Engage Stakeholders Regularly:** Companies should establish regular communication channels with stakeholders, including local communities, customers, and suppliers, to gather feedback on their sustainability practices [167, 168]. This will not only improve the reporting process but also enhance stakeholder trust and satisfaction.

5. **Report Both Challenges and Successes:** To improve transparency, companies should report both their successes and challenges in implementing sustainability practices [169]. This honesty can enhance credibility with stakeholders and provide a realistic picture of the company's sustainability efforts.

5.5 Policy Recommendations for Regulators

[label=(5)]

1. **Establish Clear Reporting Standards:** Regulators should establish clear, detailed, and mandatory sustainability reporting standards that align with international best practices [170]. These standards should be regularly updated to reflect new sustainability challenges and innovations. In the Nigerian context, this could involve adopting the IFRS Sustainability Disclosure Standards issued by the ISSB and adapting them to local circumstances.

2. **Create Incentives for Reporting:** Introduce incentives such as tax reductions, subsidies, or recognition awards for companies that meet or exceed sustainability reporting standards [86]. This can motivate companies to adopt and maintain high standards in their sustainability practices.

3. **Monitor and Enforce Compliance:** Regulators should actively monitor companies' compliance with sustainability reporting standards and enforce penalties for non-compliance [146]. This will ensure that all companies adhere to the required standards, leveling the playing field.

4. **Support SMEs in Sustainability Efforts:** Since small and medium enterprises (SMEs) may lack the resources to implement effective sustainability practices, regulators should provide targeted support such as training programs, access to sustainability tools, and financial assistance [171].

5. **Promote Transparency and Public Access to Reports:** Ensure that sustainability reports are easily accessible to the public and transparent [172]. This could involve creating a centralized digital platform where all sustainability reports are available for review by stakeholders.

5.6 Limitations of the Current Study

[label=(6)]

1. **Scope of Data:** The study primarily focused on manufacturing companies in Nigeria, which may limit the generalizability of the findings to other sectors or regions. Different industries and geographical areas might experience different impacts from sustainability reporting due to varying regulatory and market conditions. The sample size of 15 firms is relatively small, which may not fully represent the diversity of the Nigerian manufacturing sector.

2. **Quantitative Focus:** While the study incorporated both quantitative and qualitative data, the emphasis was more on quantitative analysis. This might overlook some nuanced insights that qualitative data could provide regarding the motivations, perceptions, and challenges faced by companies in implementing sustainability practices.

3. **Temporal Constraints:** The study covered a specific period (2019-2023), which may not fully capture long-term trends and outcomes of sustainability practices. Sustainability impacts often unfold over longer periods, and the results might change with extended observation.

4. **Voluntary Reporting Bias:** Since sustainability reporting is largely voluntary, there is a potential bias toward positive reporting. Companies might be more inclined to report successes rather than failures or challenges, which can skew the understanding of the actual impact of sustainability practices.

5. **Lack of Standardization:** The lack of standardized reporting practices across companies could lead to inconsistencies in the data, making it difficult to compare and analyze results accurately. This limitation is acknowledged and was addressed by focusing on companies that follow established reporting frameworks.

6. **Limited R-squared Value:** The R^2 value of 33.3% (Table 4.2) indicates that other factors beyond sustainability reporting influence financial performance. This should be considered when interpreting the results, as other variables such as market conditions, management quality, and competitive dynamics may also play significant roles.

5.7 Future Research Recommendations

Building upon the findings and acknowledging the limitations of this study, particularly the relatively small sample size of 15 firms and the exclusive focus on large, listed manufacturing companies. Therefore, future research should pursue several avenues to advance knowledge in this field and enhance the generalizability of findings.

[label=(7)]

1. **Cross-Industry and Cross-Regional Studies:** Future research should consider expanding the scope to include various industries and other regions to determine if the findings are applicable universally. Comparing the impacts of sustainability reporting across different sectors and cultural contexts could provide deeper insights [173].

2. **Longitudinal Studies:** Conducting longitudinal studies would allow researchers to track the long-term effects of sustainability reporting on financial performance and other operational metrics [174]. This could help in understanding the sustained impacts of sustainability practices over time.

3. **Qualitative Deep Dives:** Future studies should incorporate more qualitative research to explore the perceptions, motivations, and challenges companies face regarding sustainability reporting. This could provide a richer, more nuanced understanding of the barriers and enablers of effective sustainability practices.

4. **Impact of Reporting Standards:** Research could be directed towards understanding the impact of different sustainability reporting standards and frameworks [163]. This would help in identifying which standards are most effective in various contexts and why.

5. **Policy Impact Analysis:** Studies analyzing the impact of specific regulatory changes or incentives on sustainability reporting quality and compliance could provide valuable feedback for policymakers and regulators [165].

6. **Role of Technology:** Investigating the role of emerging technologies like artificial intelligence and blockchain in enhancing the accuracy, efficiency, and transparency of sustainability reporting could be another fruitful area of research.

7. **Expanding sample size and scope:** Future research should prioritize expanding the sample size and scope to enhance the generalizability of findings. This could include broadening to include SMEs and unlisted manufacturing firms to capture the full spectrum of the sector and test whether the observed relationships hold across firms of different sizes and institutional contexts. Given that SMEs constitute the vast majority of manufacturing establishments in Nigeria, understanding their unique sustainability challenges and the potential financial benefits of reporting is critical for inclusive policy formulation. Adopting stratified random sampling would ensure representation across sub-sectors (e.g., food and beverage, textiles, cement, pharmaceuticals, and consumer goods) and geographic regions, thereby capturing the diversity of operational, regulatory, and market conditions.

8. **Addressing greenwashing and reporting quality**: Future research should investigate the prevalence and determinants of greenwashing in sustainability reporting within emerging economies. Studies could develop robust methodologies for assessing the credibility of sustainability disclosures and examine the gap between reported performance and actual outcomes.

9. **Sector-specific studies:** Given the diversity of manufacturing sub-sectors, future research could conduct detailed sector-specific analyses to uncover how sustainability reporting impacts financial performance in different industrial contexts, providing more targeted and actionable insights.

5.8 Conclusion

This study has illuminated the substantial benefits that sustainability reporting can bring to manufacturing companies in Nigeria, not just in enhancing their financial performance but also in contributing to societal welfare. The positive correlation between robust sustainability practices and improved financial metrics such as Return on Assets (ROA) and Return on Equity (ROE) underscores the fact that sustainability is not a peripheral concern but a central strategic element that can drive corporate success.

Integrating sustainability into core business strategies enables companies to address complex global challenges such as climate change, resource scarcity, and social inequality. Furthermore, such integration helps companies build trust with stakeholders, attract and retain talent, and maintain a competitive edge in an increasingly environmentally conscious market.

Moreover, the role of sustainability reporting extends beyond individual corporate gains to broader economic sustainability. By promoting environmental stewardship and social responsibility, sustainability practices contribute to the overall health and stability of the Nigerian economy. They address pressing environmental issues and foster a more equitable society by ensuring that business growth does not come at the expense of ecological or social well-being.

The study's findings provide compelling evidence for the adoption of sustainability reporting as a strategic business practice in Nigeria's manufacturing sector. The positive impact on financial performance, coupled with the potential for improved stakeholder relationships and enhanced corporate reputation, makes a strong case for companies to embrace sustainability reporting not just as a compliance exercise but as a core business strategy. As Nigeria continues to develop and integrate into the global economy, the adoption of robust sustainability reporting practices will be crucial for attracting investment, ensuring long-term competitiveness, and contributing to sustainable development goals.

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