

Corporate Governance Practices and Green Reporting in Nigeria



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**BEING A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF
ACCOUNTING, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN,
BENIN CITY. IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
AWARD OF BACHELOR OF SCIENCE (B.SC), DEGREE IN ACCOUNTING.**

JUNE, 2026

DECLARATION

I, OZIEGBE OSARUESE MARTHA hereby declare that,

- i. This project report is based on a study undertaken by me, under the supervision of Mr. Bakare in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City.
- ii. This work has not been submitted for the award of degree elsewhere.
- iii. Ideas and views are product of my personal research and where the view of others has been expressed, they have been duly acknowledged.
- iv. Any liability arising from this work is to be wholly borne by me alone.

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CERTIFICATION

This is to certify that this project work titled “Liquidity Management and Profitability of Listed Banks in Nigeria” was carried out by **OZIEGBE OSARUESE MARTHA** with matriculation number **MGS1911490** in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, Nigeria. It is adequate in scope and quality in partial fulfilment of the requirements for the award of Bachelor of Science, (BSc) Degree in Accounting.

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DEDICATION

This project is dedicated to God Almighty who gave me the strength , wisdom, knowledge and resources to go through this programme successfully.

ACKNOWLEDGEMENT

I wish to acknowledge first, God Almighty the initiator and finisher of this work for his grace, protection, love, favour, journey mercies and divine providence throughout the duration of my Bachelor's degree programme.

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ABSTRACT

This study examines the influence of corporate governance practices on green reporting among listed manufacturing firms in Nigeria, with a focus on the industrial goods firms listed on the Nigerian Exchange Group (NGX). Specifically, the study focused on how board independence, board financial expertise, audit committee meetings, and board gender diversity affects green reporting by the sampled firms. The study adopted a longitudinal research design and covered a ten-year period from 2015 to 2024. Census sampling was employed, covering all thirteen (13) industrial goods firms listed on the Nigerian Exchange Group (NGX). The secondary panel data were obtained from the annual reports of the sampled companies. After expunging the firm-years with incomplete information, a final panel dataset used for the analysis amounted to 119 firm-year observations. The unbalanced panel data were analysed using descriptive statistics, Pearson correlations, and binary logistic regression. The results indicated that board independence has a small and negative effect on green reporting. On the other hand, board financial expertise and meetings of the audit committee have a positive and important effect on green reporting. The study also found that board gender diversity has a positive but insignificant effect on green reporting. Based on these findings, the study recommends that listed manufacturing firms strengthen board competence through the inclusion of financially knowledgeable directors and encourage more active audit committee engagement in sustainability-related matters. The study also recommends the establishment of sustainability-focused governance structures to enhance green reporting practices and corporate accountability.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Over the past decade, Nigerian authorities have implemented various voluntary and mandatory corporate governance and green reporting regulations (Ozili, 2021). Numerous studies have investigated corporate governance, green reporting, and the interplay between firms and society, focusing on both voluntary and mandatory disclosures (Al-Hattami et al., 2026). Recent studies have further highlighted the growing importance of corporate governance mechanisms in enhancing sustainability reporting quality and environmental disclosure practices (Oyerogba et al., 2024; Jinadu et al., 2025). Much of this research has explored green reporting trends through voluntary disclosures, linking these practices to factors such as company size, earnings, and industry sector. Green reporting practices differ by country, with significant variations between enterprises in developing and developed nations (Akinlade, 2021). Reports also vary by industry and sector. For instance, in industrialised nations, green reporting often emphasises human resources disclosures, such as salaries, equal opportunities, employee stock ownership, disability policies, and training (Chavez & Romi, 2021). In contrast, Chaklader and Gulati (2015) highlighted less-publicised issues, like labour union activities, compensation awards, and redundancy costs. While most green reporting disclosures are qualitative and results vary, business size, industry type, and ownership structure are predictive. Larger companies provide

more green information than smaller ones, according to Chavez and Romi (2021). More recent evidence suggests that board characteristics, governance structures and green innovation initiatives also influence the quality of sustainability and integrated reporting (Brogi & Lagasio, 2025; Chouaibi & Fadhli, 2026). Shuaibu (2020) argued that business size only matters in particular disclosures.

In contrast, De Villiers et al. (2011) found no association between business size and green reporting. Nigeria's rapid economic expansion, driven by government and private sector investments in industry and infrastructure, has hurt the environment (Abogun et al., 2015). Environmentalism greatly impacts a company's success in Nigeria. Shareholders, government agencies, consumers, workers, and the public pressure companies to enhance their environmental performance. Accounting professionals are studying environmental challenges in corporate operations to improve financial performance and mitigate environmental impacts (Osemene et al., 2021; Amorelli & García-Sánchez, 2021; Forgione et al., 2020; Agyemang et al., 2020; Al-Hattami et al., 2026). Business methods are being studied as environmental challenges rise (Akinlade, 2021). Waste-to-energy, carbon emission trading, renewable energy credits, and green insurance have had little impact on environmental information disclosure. Environmental impact disclosure is essential for green accounting reporting and stakeholder outreach. Depending on the disclosure technique and system, stakeholders can certify firms, goods, processes, and management practices or use self-regulatory instruments to monitor board objectives (Akinlade, 2021).

Some corporations publish separate green reports, while others include sustainability efforts in annual reports. Recent regulatory developments and stakeholder expectations have further increased the demand for transparent sustainability reporting across firms (Aina & Ajayi, 2026; Financial Reporting Council of Nigeria, 2026). Firms in emerging countries like Southeast Asia and the Middle East tend to report greener than those in established economies (Amorelli & García-Sánchez, 2021). China requires IPO prospectuses to include environmental concerns since 2001. To address environmental lobbies' concerns about sustainable corporate development, a government rating system divides a company's environmental performance into five colour-coded tiers. Though vast, most empirical studies on corporate governance and green reporting have focused on oil and gas subsectors, ignoring manufacturing and other non-oil and gas businesses. Recent Nigerian evidence has also concentrated largely on listed oil and gas firms, financial institutions, and broad market samples (Bamwa et al., 2025; Oyerogba et al., 2024; Jinadu et al., 2025). There is little empirical study on corporate governance and green reporting in listed industrial enterprises, especially in Nigeria. This study addresses this gap by concentrating on understudied Nigerian locations.

1.2 Statement of the Research Problem

The issue of environmental reporting practices among listed manufacturing companies in Nigeria is intricate and multifaceted, with non-compliance significantly impacting their performance (Akeem et al., 2016; Aguguom & Ajayi, 2020). However, Inegbedion and Ohiokha (2025) assert that the effectiveness of sustainability disclosure largely depends on corporate governance

practices. Similarly, recent studies have highlighted that corporate governance mechanisms play a critical role in enhancing sustainability reporting quality, environmental disclosure, and integrated reporting practices (Oyerogba et al., 2024; Jinadu et al., 2025; Chouaibi & Fadhli, 2026). While Zik-Rullahi and Ibikunle (2023) stated that companies globally are facing the urgent need to account for their environmental impact and communicate their sustainability efforts transparently, recent regulatory developments have further intensified stakeholder demand for credible sustainability disclosures and accountability (Aina & Ajayi, 2026; Financial Reporting Council of Nigeria, 2026). As the effects of environmental degradation become more pronounced, manufacturing firms in these countries are recognising the importance of adopting green accounting practices to ensure their long-term viability and resilience (Zik-Rullahi & Ibikunle, 2023). To adapt to this changing context, regulators followed by investors and stakeholders are clamouring for more transparency and accountability from manufacturers (Ika et al., 2021). Green accounting was not an optional approach as it has gone beyond and become one of the key components to keep a business competitive, attract investments and preserve company reputation.

As a result, Zik-Rullahi and Ibikunle (2023) asserted that manufacturing companies' consumption of resources can sometimes lead to environmental challenges. During both their operational activities and the use of their products, these firms can generate various forms of waste, including solid, liquid, and gaseous materials (Choi et al., 2013; Chaklader & Gulati, 2015; Kilian & Hennigs, 2014). Therefore, environmental elements such as air, soil, and water

may experience contamination (Şimşek & Öztürk, 2021). Conversely, Abogun et al. (2015) said that companies are taking measures to reduce these impacts by green accounting, technology and environmental regulations. Green accounting (also referred to as environmental accounting) is a type of speciality cost benefit analysis crafting green financial reporting into the traditional kind, by integrating environmentally related costs and benefits. The goal is to increase the reliability of financial reporting and gain a broader insight into national welfare. In essence, the incorporation of green accounting into financial reporting may help companies make better decisions that balance environmental sustainability and effective corporate governance practices (Sebastian, 2022). Recent evidence further suggests that environmental reporting, sustainability disclosures, and green innovation initiatives have become important mechanisms through which firms demonstrate accountability to stakeholders and improve reporting quality (Brogi & Lagasio, 2025; Chouaibi & Fadhli, 2026).

Nevertheless, there is limited research on the impact of green accounting on corporate governance practices, particularly in the context of the manufacturing sector in Nigeria. The manufacturing sector is among the most significant contributors to environmental degradation due to the nature of its products and processes. These companies disclose comprehensive financial information (financial performance and financial position) as little or no reporting on the damage that has been caused to their surroundings. As an example, the KPMG Report (2020) shows that Nigerian companies are selective in their green reporting and provide little information regarding their sustainability activities despite a significant negative impact by these

entities on their environment. Thus, there is a need to examine how green accounting practices can mitigate the impact of environmental regulations and contribute to effective corporate governance practices in these sectors.

While some studies have looked at the link between green accounting and corporate governance in different contexts, there is still no consensus on its nature and strength. Oyerogba et al. (2024), Erin et al. (2021), Osemene et al. (2024), Jinadu et al. (2025), and Octavio et al. (2026) documented positive associations between corporate governance mechanisms and sustainability or environmental reporting practices. Conversely, Ashafoke and Ogbebor (2023) and Bamwa et al. (2025) reported negative, insignificant, or mixed relationships between certain governance mechanisms and environmental reporting practices. These inconsistencies suggest that the relationship remains inconclusive and warrants further investigation. The discrepancies in findings may partly be attributed to differences in study periods, institutional settings, governance proxies, and statistical techniques employed by the researchers. This study therefore seeks to fill this gap by providing empirical evidence on the extent to which green accounting practices are being adopted in the industrial goods sector and how such practices enhance corporate governance. The study will also provide useful insights for firms, investors, regulators, and other stakeholders regarding the importance of green accounting and its potential benefits for environmental sustainability and sound corporate governance practices.

1.3 Research Questions

1. How does the independence of the board of directors' impact green reporting in publicly traded manufacturing firms in Nigeria?
2. What is the influence of board members' financial expertise on green reporting in publicly traded manufacturing firms in Nigeria?
3. What impact does the audit committee play in green reporting among Nigeria-listed manufacturing companies?
4. How does board gender diversity affect green reporting in listed manufacturing firms in Nigeria?

1.4 Objectives of the Study

This study aims to examine the influence of corporate governance practices on green reporting in listed manufacturing firms in Nigeria. The specific objectives were to:

1. determine the impact of board independence on green reporting in listed manufacturing firms in Nigeria.
2. investigate the influence of board members' financial expertise on the likelihood of green reporting in listed manufacturing firms in Nigeria.

3. evaluate the impact of the audit committee on green reporting in listed manufacturing firms in Nigeria.
4. assess the influence of board gender diversity on green reporting among listed manufacturing firms in Nigeria.

1.5 Research Hypotheses

Based on the research questions and objectives, the following null hypotheses will be tested in this study:

H₀₁: Board independence does not significantly influence green reporting in listed manufacturing firms in Nigeria.

H₀₂: Board members' financial expertise does not significantly influence green reporting in listed manufacturing firms in Nigeria.

H₀₃: Audit committee does not significantly impact green reporting in listed manufacturing firms in Nigeria.

H₀₄: Board gender diversity does not significantly influence green reporting among listed manufacturing firms in Nigeria.

1.6 Scope of the Study

This study investigates the impact of corporate governance practices on green reporting in publicly quoted manufacturing firms in Nigeria. The period which was studied spanned a decade (10) years from 2015 to 2024 and these companies were the thirteen (13) industrial goods firms on the Nigerian Exchange Group (NGX). Industrial good sector was chosen because it had a large environmental footprint from production activities, and the effectiveness of its products could affect natural resources as well as environmental sustainability.

The Industrial Pollution Projection System (IPPS) report which also indicated industrial activities as the largest sector responsible for Nigeria's environmental pollution and resource degradation provides more than adequate support in selecting this sector. Moreover, most of the previous studies regarding corporate governance and green reporting focused on oil and gas firms but industrial goods firm is underrepresented. Third, examining the industrial goods sector presents new evidence about green reporting in an essential but little studied segment of Nigeria's economy.

1.7. Significance of the Study

This study will made notable contributions to the body of knowledge by extending the green perspective research in manufacturing firms in the following ways

- (1) This study will provide theoretical insights to corporate governance practices on green reporting research in manufacturing firms, the extent to which corporate governance practices on green reporting have been adopted in manufacturing firms in Nigeria.
- (2) Also, the findings will offer an important conceptual and methodological toolbox from which further investigations can be undertaken into these neglected corporate governance initiatives on green reporting area of research.
- (3) This study will assist policy makers in establishing environmental regulations to entice investors, as well as provide information to government policymakers in order for other organisations to adopt corporate governance practices related with green reporting by utilising a voluntary environmental program.
- (4) Similarly, the relevant government agencies and management of manufacturing firms can utilize the findings of this research study to develop strategic reactions toward factors that impact green reporting practices.
- (5) Lastly, the outcome of the study will also help regulators in convincing more companies to adopt green manufacturing practices by providing incentive for those companies that are already align with corporate governance socio-environmental goal related to green reporting.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter provides a conceptual review of various studies critical to this study, as well as an examination of the corporate governance and green reporting literature, coupled with theoretical framework upon which this research is built.

2.2.1 Green Reporting

Forgione et al. (2020) describe "environmental or green reporting" as "the preparation, presentation, and sharing of information relevant to an organization's natural environment interactions." Although common in big companies, this reporting may apply to any firm. Government agencies, independent entities, and pressure groups should report other organisations for environmental accountability, although they frequently self-report (Forgione, Laguir & Staglian, 2020). Green reporting shares extractives industry environmental impact monitoring and management data, according to Thomson and Bebbington (2005). This comprises laws and rules. Environmental management techniques that comply with regulations are covered.

According to O'Dwyer (2021), green reporting emphasises an organization's environmental performance. Green reporting covers environmental, social, economic, and governance

performance. Green reporting disclosure processes are the guidelines/framework/models and actions a firm uses to recognise, measure, present, and disclose environmental risks to develop green financial statements within accounting rules/principles (Ahmad, Waseer, Hussain & Ammara, 2018). To help management make decisions, regulate, and disclose environmental costs and benefits, green reporting accounts for past, present, and future. Financial and non-financial information on an organization's ecological impacts or CO₂ emissions for a financial period is "green reporting" according to Onwuka (2021). Recent studies have further emphasized that green reporting has evolved beyond environmental disclosure to encompass broader sustainability and integrated reporting practices aimed at improving transparency, accountability, and stakeholder confidence (Brogi & Lagasio, 2025; Chouaibi & Fadhli, 2026).

Environmental/green reporting is booming. The Institute for Environmental Management and KPMG claim that 35% of the 250 biggest firms worldwide publish environmental reports. Few corporations disclosed their environmental performance a decade ago (Kilian & Hennigs, 2014). Companies employ "green" reporting to increase profits. Public reporting boosts public perception and supports green business practices. Effective green reporting may help socially conscious companies recruit talent. It may increase a company's investor and consumer attractiveness. Green reporting investigates all organisational procedures, helping managers save costs and discover new business (Calderon, Manuela Jr & Briones, 2021). Recent evidence from Nigeria also suggests that stronger corporate governance mechanisms enhance the quality and

credibility of sustainability and environmental disclosures among listed firms (Oyerogba et al., 2024; Jinadu et al., 2025).

Ceres, a 1989 Boston partnership of investor, environmental, and investment funds, launched Green Reporting. Global corporate reporting on environmental, social, and economic performance is standardised by the 1997-founded Global Reporting Initiative (GRI). Over 1200 businesses utilize it. This was built with the 1976-founded Boston-based non-profit Tellus Institute for Research and Policy. The 1990 Ceres framework for environmental reporting sought to hold corporations accountable for their environmental practices (Subramaniam, 2008). The new recommendations state that companies can fulfill materiality, sustainable context, completeness, defining reporting quality, comparability, accuracy, timeliness, clarity, dependability, and reporting boundary setting. Several firms have adopted the core criteria and framework, and GRI has 450 organizational stakeholders (Dennis, Connole & Kraut, 2015). Despite its greatness, this knowledge is still far from being accepted by all organizations.

Such green reporting advantages enterprises in capital budget cost, shareholder reputation, and new customer horizons. With the tangible benefits of the green report, G3 rules need standards and an outside compliance institution to assist the company. Whether or not these conditions are followed, such an entity is expected to improve worldwide reporting. Spain, Denmark, and Canada have offered incentives to corporations to comply with disclosure requirements and report greener (Hill, 2007). More recently, sustainability reporting has received increased regulatory attention globally, with regulators and standard-setting bodies introducing more

comprehensive sustainability disclosure guidelines to improve reporting consistency and accountability (Aina & Ajayi, 2026; Financial Reporting Council of Nigeria, 2026).

2.2.2 Green Accounting, Sustainability Reporting & IFRS

Studies examining the intersection of International Financial Reporting Standards (IFRS) with green accounting and corporate sustainability reporting illustrate a new trend where business, both financial and non-financial aspects, are converging. Merging Non-Financial Information with Financial Disclosure: With the recognition that environmental and social matters can affect financial performance, companies are increasingly combining non-financial information, including disclosures on environmental impacts or relations with society, with their financial reports. IFRS, though traditionally focused on financial reporting, is increasingly being considered as a platform to include sustainability-related information (Fries et al., 2015).

As an important feature, materiality is crucial in both IFRS and sustainability reporting frameworks. Researchers stress that materiality thresholds should be consistent for both financial and sustainability disclosures to create a complete picture of the firm with respect to its value creation process or risk profile (Jones et al., 2016). This cohesion enables stakeholders to make informed decisions.

Measurement issues emerge from the inclusion of non-financial information (like environmental impacts and social performance). Deegan (2007) also highlights the challenges associated with quantifying and comparing these metrics and emphasises the need for more guidelines and

framing. The extent of convergence is argued to be influenced by regulatory environments where IFRS and sustainability reporting can significantly converge. The regulatory landscape can influence the extent to which environmental and social information is integrated into financial reports (Amir et al., 2016). Integrated reporting frameworks (IR) aim to present a holistic picture of an organisation's value creation, with financial, environmental, social, and governance aspects combined. The alignment of IR with IFRS and the opportunity to promote transparency and accountability are addressed in this part by scholars (Adams et al., 2016).

When it comes to the reliability of sustainability information within IFRS-compliant reports, assurance and audit take centre stage. Studies discuss external assurance providers verifying nonfinancial disclosures (Bebbington et al., 2014). IFRS's inclusion of environmental and social aspects in reporting can help reshape better corporate behaviour. Several researchers also analysed the future practice of sustainability metrics, stating they can help ensure more efficient resource management and risk prevention strategies (Ferlinska & Machowska, 2019). Recent empirical research studies by Zik-Rullahi and Ibikunle (2023) observed a peculiar focus on the intersection between green accounting, corporate sustainability reporting, and IFRS frameworks. Researchers anticipate that aligning financial and non-financial information will lead to more comprehensive reporting and decision-making. However, challenges persist in aligning metrics, defining materiality thresholds, and ensuring regulatory compliance. With the landscape changing, more research is needed to study its practical integration and effectiveness.

2.2.3 Emerging Trends in Green Accounting

Challenges in implementation: The literature identifies challenges related to implementing green accounting and sustainability reporting. Data issues (such as accuracy and the lack of consistent criteria between firms), subjectivity in measurement, and a higher risk for greenwashing are among some challenges making it hard to implement that have been discussed by other authors (Milne et al., 2006; Gray et al., 1996).

Adoption Drivers: Numerous drivers of green accounting and sustainability reporting have been discussed in the literature, such as regulatory pressures and stakeholder expectations competing with giving corporations an edge over their competitors and gaining publicity (Dillard et al., 2008; Delmas & Burbano, 2011). Standardisation and Frameworks: Several studies suggest that there will be a need for rapid development of standardised frameworks for sustainability reporting, such as the Global Reporting Initiative (GRI) and Sustainability Accounting Standards Board (SASB). The frameworks represent a standardised method for businesses to report on environmental, social and governance (ESG) indicators (GRI, 2016).

Stakeholder Engagement and Transparency: Literature indicates that stakeholder engagement plays a role in aspects of sustainability reporting. As such, they promote cross-cutting transparency and accountability among various stakeholders, including investors, customers (Awosusi & Kalu, 2022), employees or local communities (O'Dwyer; Schaltegger et al., 2013). Innovation and Competitive Advantage: Several studies have highlighted that green

accounting and sustainability reporting can play a crucial role in fostering innovation. Moreover, the sustainable practices provide new product/service development and process improvement opportunities along with cost savings which become a source of competitive advantage (Porter & van der Linde, 1995; Hart, 1995).

Influence on Firm Performance: Here the study talks about the issue regarding the relationship between green accounting, sustainability reporting and its impact on financial performance. Research exploring the link between sustainable development and effectively diminished data offered mixed findings. Some of the studies point out that there is a link between adopting sustainable practices and financial performance, while others indicate the complicated nature of proving direct causal relationships (Clarkson et al., 2008; Eccles et al.

Barriers in Developing Nations: Research suggests that green accounting and sustainability reporting are important for both developed and developing nations, but the latter have their own challenges. In developing economies, lack of awareness, limited recourse and inadequate regulatory frameworks are barriers to implementation (Moneva et al., 2006; Unerman & O'Dwyer, 2006).

Future Directions: Trends observed in the literature on ESG investment call for greater incorporation of these variables into traditional financial analysis (KPMG, 2020; Bassen, 2018). This review highlights the changing landscape of green accounting and corporate sustainability reporting. Many challenges remain, but recognising that sustainable environmental responsibility

is increasingly part of successful business will continue to promote research and standardisation efforts so attention to this issue can be further extended across the globe.

2.2.4 Green Reporting in Nigeria

Green reporting describes the extractives industry's environmental management and monitoring. This section covers legal and regulatory requirements. It also covers regulatory environmental management approaches. Mining, oil, and gas operations have major environmental impacts. Environmental protection authorities implement national laws and regulations and govern most of these effects. The environmental effect of extractive industries is a frequent public issue. Disclosures regarding ecological issues can raise awareness, spark debate, and promote responsible resource use. In addition to regulatory compliance, stakeholders and the public may be interested in corporate environmental effect and payments to comply with laws, rules, and contracts (Traxler, Schrack & Greiling, 2020). Due to the growing relevance of green reporting, corporations in Spain are increasingly using standards and norms such Global Reporting Initiative, UN Global Compact, Carbon Disclosure Project. Nigeria is not immune to this tendency. So, most corporations reporting social and environmental protection efforts utilise voluntary reporting systems like GRI, the World Resource Institute's GHG Protocol, etc. And, more recently, the International Integrated Reporting Framework (IIRF) (Agyemang, Yusheng, Ayamba, Twum, Chengpeng & Shaibu, 2020). GRI, the OECD Guidelines for Multinational Enterprises, the UN Global Compact, and the International Organization for Standardization provide sustainability reporting guidance, according to Onwuka (2021). Most Nigerian

sustainability reporting is voluntary. British American Tobacco Nigeria (2010) reports that green reporting is rare in Nigeria and that corporate social responsibility is often associated with charity (Akinlade, 2021). Environmental or green reporting standards for public company financial statements are not included in the Corporate and Allied Matters Act.

The UN created GRI in 2000 to standardize green reporting. Nigeria implicitly adopted the UN Global Compact on Global Reporting Initiative (GRI) as a UN member (Osemene, Adinnu, Fagbemi & Olowookere, 2021). Corporate governance disclosure by stock market issuers is becoming more crucial for market authorities and operators. Governments have historically devised and led sustainability programs and legislation, but market regulators and operators are increasingly promoting strong corporate governance and transparency among stock exchange-listed corporations. Because of this, the exchange initiated green reporting for its listed businesses in 2015 (Onwuka, 2021). Production has drained resources and harmed the ecosystem (Adediran & Alade, 2013). The ozone layer has been destroyed by these activities, creating an environmental imbalance. Concerns about environmental deterioration, resource depletion, and economic viability have made Environmental Accounting and Reporting popular. Nigerian environmental accounting is new and recognises production and consumption's environmental implications.

2.2.5 Benefits of Green Reporting

Environmental sustainability is one of a company's numerous performance indicators, and green reporting charges are one of many expenses of supplying products and services to clients (Shuaibu, 2020). Chaklader and Gulati (2015) argued that performance and green reporting expenses require management attention. Many green reporting expenses can be reduced or eliminated by operational and administrative improvements, investments in "greener" process technologies, and process/product innovation.

Some overhead accounts hide indirect green reporting expenses. Bad managerial decisions and reporting would occur. Selling garbage, byproducts, or pollution allowances may cover environmental expenses for many firms. Good environmental cost management improves sustainability, public health, and firm reputation. Better understanding of the environmental implications of processes, goods, and services may help companies estimate costs, price items, and create eco-friendly alternatives. Green goods, methods, and services may provide clients an edge. A firm can develop and implement an environmental management system with green reporting. ISO 14001 will soon compel international trade enterprises to have such a system (Daniel, Adewumi & Adeyinka, 2015). Green reporting seeks long-term growth, community harmony, and efficient environmental protection. Accounting professionals can help companies assess the cost and benefits of environmental restoration, provide the best quantitative measurement (financial or tangible), and communicate their findings. When done right, green reporting may benefit individuals and organizations (Worimegbe & Oyewole, 2021). There are

several benefits: It may boost corporate and product image and turnover. Environmental accounting may boost a company's stock price by enhancing its image and analyzing environmental risk. Due to positive environmental risk scenarios, environmental accounting may enhance financing conditions. Green reporting reduces the company's risk of environmental mishaps and financial loss. Green reporting boosts the company's profile due to environmental obligations.

Green reporting lets companies reuse waste to produce new products (Worimegbe & Oyewole, 2021). Green reporting can boost investor interest since they need environmental performance and spending data for decision-making (Amorelli & García-Sánchez, 2021; Abogun, Fagbemi & Fadipe, 2015; Worimegbe & Oyewole, 2021). More accurate product price may be achieved using green reporting. Green reporting may attract government tax rebates and subsidies. Green reporting can aid in establishing an environmental management system (EMS) for international trade firms (Amorelli & García-Sánchez, 2021; Abogun et al., 2015; Worimegbe & Oyewole, 2021). Reporting on environmental concerns might range from ad hoc statements in yearly reports to standalone publications. Companies now include environmental investment in their social responsibility activities. Due to this, green reports are vital for expressing environmental issues to stakeholders. Companies realize that their corporate duty is sustainable development—meeting current demands without compromising future needs (Worimegbe & Oyewole, 2021). Shareholders and stakeholders value economic growth because it promotes environmental protection. Several publications describe developed and developing

countries businesses' green reporting and carbon footprints. Greece's enterprises lack openness in sustainability reporting and non-financial information disclosure (Floropoulos & Moschidis, 2005). Annual stakeholder-linked reports show the company's policies, goals, and strategies to achieve its corporate sustainability plan. Most experts agree that companies benefit from transparency regarding their social responsibility efforts. Benefits include increased perception, shareholder value, and ROI (Agyemang, Yusheng, Ayamba, Twum, Chengpeng & Shaibu, 2020). In Nigeria, corporate social responsibility reporting may help a firm keep its operating license and earn public and commercial acceptance. This might be because organizations that report more greenly are seen as more open in their operations and information distribution (Worimegbe & Oyewole, 2021). Lack of reporting on environmental, social, and economic factors that may have helped Nigerian businesses innovate has hurt their reputations (Osemene, Adinnu, Fagbemi & Olowookere, 2021). This study is noteworthy since Nigeria has few green reporting studies.

2.3. Corporate Governance

Cuomo, Mallin, and Zattoni (2016) describe corporate governance as "when an organization and its stakeholders combine corporate policies and best practices to achieve its goals." Corporate governance has grown worldwide as firms have grown in size and activity. Kinyua and Ngari (2021) define corporate governance as principles that regulate management-stakeholder relations. Anik, Chariri, and Isgiyarta (2021) further argue that CG improves corporate openness and accountability, which boosts performance. The report also reveals that

successful CG practises might assist organizations establish stakeholder confidence and avoid financial crises and fraud.

The methods that regulate and administer a company are called corporate governance. This means leading and managing corporations. It involves meeting the needs of all stakeholders—financiers, consumers, management, workers, the government, and the public. The board of directors and appropriate committees operate it for the company's stakeholders. Balancing individual, communal, economic, and societal goals is key (Okudo, 2021).

2.3.1. Conceptual Issues on Corporate Governance

Chen (2019) defines "corporate governance" as a company's rules, techniques, and processes. Businesses must balance the different interests of its many stakeholders to succeed. Corporate governance, which comprises action plans, internal controls, performance assessment, and transparency, outlines a company's aims and objectives. Businesses follow corporate governance rules, legislation, and procedures. The corporate governance model assigns rights and responsibilities to members. Governance provides fair and transparent decision-making and protects owners, managers, workers, suppliers, and customers (Ejoh, Orok & Sackey, 2014). Aw (2019) describes corporate governance as corporation regulation and governance. Director boards control corporations. Directors and external auditors must be chosen by shareholders and provided a good governance framework. The board administers the firm, establishes strategic objectives, and reports to shareholders on their stewardship (Council & Britain, 2010). Not full-

time directors' everyday activities, corporate governance involves a company's board of directors' actions and ideals (Council & Britain, 2010). 1992 Cadbury, 1995 Greenbury, and 1998 Hampel reports highlighted corporate governance.

This 1999 OECD corporate governance principle encompassed shareholders' obligations, boards of directors' duties, and timely and accurate information dissemination. The separation of management and ownership made corporate governance crucial in contemporary organisations. Managers' interests differ from owners. Management and direction issues represent the principal-agent dilemma due to the firm's stakeholders' various interests (Adediran & Alade, 2013). Corporate governance may be defined from numerous perspectives. Cadbury (2000) defines corporate governance as guiding and governing an organization with responsibility and transparency. Control involves how managerial tasks are conducted out by relevant norms of behavior and regulation (Cadbury, 2000).

Corporate governance aligns stakeholder and management interests to achieve goals and benefit the business while producing wealth (Agyemang, Yusheng, Ayamba, Twum, Chengpeng & Shaibu, 2020). Corporate governance, according to Chavez and Romi (2021), is the collective responsibility of stakeholders who provide the firm with resources for survival, competitiveness, and success. Alshareef and Sandhu (2015) define corporate governance as a set of universal principles that hold top management responsible to all employees. These aspects ensure the organization is lawful and accountable to its employees. Reporting systems should promote effective governance. Protecting shareholders' and other stakeholders' rights requires strategic

management and an effective command structure. Increase management responsibility and staff performance (Akinlade, 2021).

2.3.2 Corporate Governance Standards and Principles in Other Countries

Various companies have developed corporate governance principles over time. Financial scandals that have caused global firm failures have increased demand for accountability and transparency, which boosts investor trust (Mulili & Wong, 2011). Nigeria's financial crisis reaction was inspired by the UK. The US and OECD also developed corporate governance. Several committee codes from various nations are discussed here; The UK Numerous UK studies have set the standard for corporate governance committees. Over time, these committees have generated several reports. Many further studies exist, includes Cadbury (1992), Greenbury (1995), Hempel (1998), and Higgs (2003). Cadbury Report 1992

The May 1991-founded London Stock Exchange 'The Financial Aspects of Corporate Governance' Committee examines. The findings were called 'The Cadbury Report.' Executive and non-executive directors, auditors, and stockholders were under investigation by the committee. Public companies should follow the Code of Best Practice, says the research. Companies have to disclose whether they followed the Codes in their annual reports. The board's non-executive directors should also be larger and more independent. To increase transparency, CEO and chairman roles were distinct.

Director salary was the focus of the 1995 Greenbury Report. After protests about high director compensation, it was founded. The Sir Richard Greenbury inquiry targeted public firms. The Code of Best Practices for director compensation applies to listed companies. The Report suggests non-executive directors lead pay committees to prevent conflicts of interest. Executive directors and senior executives' pay policies are described in annual reports (Marrone, 2020; Jadoon, Ali, Ayub, Tahir, & Mumtaz, 2021).

The 1998 Hampel Report, A new Committee was formed to report on Corporate Governance study and advise following the Cadbury and Greenbury Committees' recommendations. The committee's report was 'The Hampel Report.' They examined the Cadbury and Greenbury reports on director shareholder reporting and auditor corporate governance. Twenty Committee-established corporate governance rules promote strong firm governance. These criteria included director remuneration, accountability, audit, and shareholder and director roles, like previous reports. Mainly, the study addressed salary and audit committee problems and expanded non-executive directors' obligations. Higgs Report (2003)

The UK government recruited Derek Higgs to evaluate public business non-executive directors. Examined were the board's non-executive director ratio, appointment, independence, remuneration, effectiveness, and accountability. Some major suggestions: A shareholder dispute-savvy independent director was selected; A concise definition of the non-executive director's role; a large non-executive nominating committee for board nominees; At least half the board should be independent; 'Independence' that includes direct and indirect correlations that affect a

director's impartiality; non-executive directors should be compensated enough to retain and reward talented workers. CEO and chairman should separate. Executive directors, board members, and members require annual performance assessments (Jadoon, Ali, Ayub, Tahir, & Mumtaz, 2021).

Comprehensive Corporate Governance Code (2003) Cadbury, Greenbury, and Hampel probes produced the Combined Code of Corporate Governance. This code addressed Higgs Report (2003) issues concerning the board, chairman, non-executive directors, audit, and compensation committees. The Code of Good Governance Principles should include non-executive director recruitment and appointment, according to study. Non-executive directors and chairmen should follow instructions and best practices. At least half the board must be non-executive. CEO and board chairman should have independent roles (Iatridis, 2013; Elsakit & Worthington, 2014; Jadoon et al., 2021).

The OECD

In 1999, the OECD published Corporate Governance Principles, which provided business administration rules. These codes provide the foundation for enhancing corporate governance institutions, laws, and regulations in many nations (Elsakit & Worthington, 2014). Note that these policies are suggestions for economies worldwide to adapt to their specific conditions. Following OECD principles, thirty nations evaluated the following regulations to promote corporate governance in 2002. Shareholder equity, stakeholders' roles in corporate governance,

the board's responsibilities, laying the groundwork for an efficient corporate governance framework, and disclosure and transparency of shareholder rights and critical ownership functions were discussed. In response to rising firm failures worldwide, the OECD approved these additional standards. Investor confidence in financial markets hit a record low (Iatridis, 2013; Elsakit & Worthington, 2014; Jadoon, Ali, Ayub, Tahir, & Mumtaz, 2021).

2.3.3. Corporate Governance Mechanisms

Many Nigerian authorities and people are responsible for holding public corporations accountable. Their functions are listed below. Government Role Nigerian startup founders vary from subsidiaries of large multinational firms that trade on global financial markets and the Nigerian Stock Exchange to small local businesses with one or two proprietors. Due to their impact on Nigeria's economic progress, limits have been imposed to serve all stakeholders. The Federal Government influences Nigeria's corporate governance system via economic administration and management legislation (Aladejebi & Oladimeji, 2021). Nigeria's corporate governance legislation states: The members-elected board of directors maintains thorough financial records and submits obligatory reports. Members choose independent auditors to check financial records and corporate returns.

The SEC superseded the Capital Issues Commission as Nigeria's principal capital market regulator. Established on April 1, 1978, by Decree No. 71 of 1979, it plays a significant role in publicly listed firms' corporate governance. After reviewing the capital market and financial

sector, Decree 45 of 1999 on Investments and Securities was approved. The Act improved Nigeria's investment environment. SEC was designed to safeguard investors from dishonest stockbrokers and middlemen. Securities market regulation is provided by the SEC, Investment and Securities Act of 1999, and others. Another law is the 1999 Investment and Securities Act. Nigerian foreign portfolio investment records must be kept separately by the Commission. Investor and securities intermediary training must also expand (Adegbite, 2012).

Corporate Affairs Commission CAMA (1990) created the Corporate Affairs Commission (CAC) to regulate company creation, registration, administration, and dissolution. Within 42 days following the AGM, the CAC must receive audited financial statements. CAC accepts updated financial statements from smaller firms. With dates, the CAC's Registrar of Firms fines businesses and officers who violate the Act. The Commission must "prepare for or conduct an examination of any company's operations if the interests of shareholders or the public warrant it." The Commission's Wide Area Network System may give corporate information upon request, enhancing public confidence in business and protecting consumers, creditors, and shareholders (Adekoya, 2011). Director Duties Board of directors' tasks are the most obvious company control (Dabor, & Adeyemi, 2009). CAMA 1990 mandates two directors for private Nigerian firms. The board of directors must protect the company's assets, grow it, and uphold its ideals legally. Company fiscal year activities must be accurately reported in financial accounts (Oladimeji & Aladejebi, 2021).

CEO and chairman responsibilities Chairmanship is "critical" to corporate governance (Cadbury Report, 2000). Due of its significance, this role should be separate from the CEO's. The Cadbury Committee stated "combining the two functions in a single person suggests a considerable concentration of power." Uchendu, Ironkwe, & Nwaiwu (Management Directors) recommend a clearly defined separation of tasks at the top of a firm to ensure a balance of power and authority and prevent a single person from having unconstrained decision-making power. Boards of directors run corporations. This makes a robust board of directors essential to the organization's future. Nigeria and the UK have single-member boards. The statute requires at least two directors on the board, although the number seems to be unlimited. However, the Nigerian Committee on Corporate Governance of Public Companies proposes a diversified, honest, accessible, and independent expert Board. Executive and non-executive directors are recommended by the Committee. Directors report to a Chairman of the Board, which should have 5-15 members. Directors are elected and approved by shareholders. Company boards should balance executive and non-executive directors (Oladimeji & Aladejebi, 2021; Udemezue, 2021). Board committees to enhance board effectiveness, the Committee suggests board member selection, remuneration, professional help, and director training. The Public Company Corporate Governance Committee proposes nomination and compensation committees. They also recommend auditors (external), which Nigerian corporate law requires. Committee requires a non-executive director to head the nominating committee and majority non-executive. Boards should also establish non-executive pay committees led by non-executive directors to advise on executive director compensation (Oladimeji & Aladejebi, 2021).

Nigerian auditors objectively evaluate the company's books and records to ensure annual account integrity (section 359). Annual reports are more credible with an audit (Welford, 2007). Auditors verify the company's accounting records first. Second, if the auditor's accounts correctly and fairly represent the business's financial health; and third, whether CAMA 1990's statutory and other disclosure requirements have been met. The most important statutory requirement is that the statement of comprehensive income and statement of financial position correctly and honestly portray the company's performance and finances (Uchendu, Ironkwe, & Nwaiwu, 2016).

2.4 Theoretical Reviews

Since the concept of corporate governance emerged, many researchers have sought to explain it through theoretical approaches. This study will utilize legitimacy theory, stakeholder theory, and agency theory to explain the relationship between corporate governance and green reporting. According to Onwuka (2021), the legitimacy theory and stakeholder theory are the primary explanations for the practice of revealing social and environmental repercussions. Both theories predict that organizations will strive to legitimize their conduct in response to various groups' wishes. They believe this is because they are unconcerned about maintaining their authenticity. This study will be anchored on agency theory because it spells out the need for corporate governance and how agency theory seeks to ensure total disclosures of transactions and events of an organisation.

2.4.1 Legitimacy Theory

Lindblom (1994) defines legitimacy as an entity's value system aligning with its social structure. Green reporting as part of corporate social responsibility may help avoid credibility gaps and environmental and social challenges. Introducing a company's profile to key stakeholders helps boost its legitimacy (Agyemang, Yusheng, Ayamba, Twum, Chengpeng & Shaibu, 2020). The legitimacy theory holds that corporations must demonstrate corporate social responsibility under social contracts. This means the company's aims are accepted by the public, ensuring its long-term existence (Osemene, Adinnu, Fagbemi & Olowookere, 2021). To get legitimacy from society, organisations should follow natural society's rules.

Legitimacy theory emphasises the "social contract," or organization-society link. A social contract is an agreement between an organisation and society that its actions will reflect societal values. PR measures such as environmental awareness and responsibility reports may convince the public that a company is committed to environmental sustainability via its industrial activities (Amorelli & García-Sánchez, 2021).

2.4.2. Stakeholder Theory

Freeman and Reed (1983) say organisations need groups to exist. Thus, the stakeholder theory will direct the company's disclosure efforts next. Owuka (2021) defines stakeholders as organisations or persons who have a connection with the corporation and may affect its aims.

According to stakeholder theory, a corporation must benefit both itself and its stakeholders (Amorelli & García-Sánchez, 2021).

Stakeholder relationships require businesses to prioritise their stakeholders. To secure long-term access to essential resources that may be regulated, managers must be transparent to stakeholders (Osemene, Adinnu, Fagbemi & Olowookere, 2021). The corporation must act to satisfy its environmental obligations and maintain stakeholder trust. Because of this link, the firm has a higher chance of winning constituent support, which is vital to its survival. Environmental disclosure may be part of corporate social responsibility when company actions harm nature. Forgione, Laguir, & Staglianò (2020) state that environmental disclosure fulfils information needs for investors, shareholders, customers, and other stakeholders. This research will be anchored on agency theory since it explains corporate governance and how it seeks full transparency of transactions and occurrences.

2.4.3. Agency theory

Agency theory, developed by Jensen and Meckling (1976), describes how shareholders (principals) authorise directors (agents) to make firm choices. Since people are self-interested, principles and agents might clash. Agency theory emphasises conflicts of interest by separating control and ownership. Managers typically make judgements with greater knowledge than stockholders in such arrangements. This imbalance may lead to management misconduct, when managers put themselves above stakeholders. Principals (shareholders) and agents (managers)

have different agendas, which may lead to disputes and agency costs such administrative choices that hurt shareholders.

2.5. Empirical Review

2.5.1. Board Independence and Green Reporting

Jinadu, Fasua and Mamidu (2025) investigated the effect of corporate governance attributes on environmental reporting quality among listed companies in Nigeria. Using panel data obtained from 102 listed companies covering the period 2014–2023, the study employed panel least squares regression analysis to examine the relationship between governance mechanisms and environmental reporting quality. The findings revealed that board-related governance attributes significantly influence environmental reporting quality. Specifically, the study reported that effective board structures contribute to improved environmental disclosure practices and greater reporting transparency among Nigerian listed firms.

Chouaibi and Fadhli (2026) examined the effect of corporate governance on integrated reporting quality and the moderating role of green innovation among 522 companies from G20 countries between 2015 and 2022. Using panel linear regression analysis based on data obtained from the Thomson Reuters ASSET4 database, the study found that board characteristics positively influence integrated reporting quality. The study further revealed that green innovation strengthens the relationship between board characteristics and reporting quality. The findings

suggest that effective governance structures enhance the quality of sustainability-related disclosures and reporting practices.

Oyerogba et al. (2024) investigates the link between composite corporate governance (CCG) index and sustainability reporting quality of listed banks in Nigeria. This study analyses the association between corporate governance index and sustainability reporting quality using a balanced panel data of 190 observations from 19 listed banks over a period of 10 years (2012–2021). The results also reveal that the board independence has a statistically significant influence on the quality of sustainability reporting.

Osemene et al. (2024) examined the impact of corporate governance on environmental accounting reporting (EAR) in selected quoted African companies. The study was designed with ex-post facto research including on the population of quoted firms classified into six major sectors across four African countries mainly; Egypt, Nigeria, Kenya and South Africa. To get environmental disclosure and global reporting score, a content analysis was performed on respective scopes of the documents which were included for studies. The results showed that independent board is a major determinant of EAR in African countries.

Contrary to the above outcome, Ashafoke and Ogbebor (2023) investigate how corporate governance characteristics affect the quality of sustainability reports for a researched listed firms in Nigeria manufacturing sector. A sample of 20 companies was chosen from the population base with the help of Burley's formula which is a sampling technique. The qualitative Sustainability

reporting of these selected companies over a seven-year period (2015–2021) was assessed by means of content analysis, targeting the annual reports and corporate websites. They also used the ordered least square regression method to evaluate their hypotheses. The study revealed a strong negative association between board independence and the quality of sustainability reporting.

Shahriar Ferdous (2022) also examined the Influences of Corporate Governance Elements on Bangladesh Listed Cement Firms Environmental Disclosures. The study employed a sample of all the companies was selected that listed as cement in Dhaka Stock Exchange (DSE). Further, the unweighted content analysis was used to determine the number of environmental disclosures by the selected firms. In order to find the relationship between dependent and independent variables utilized in this study Ordinary least square (OLS) regression & robust OLS regressions were applied. The results reveal that the independence level of board has a significant and favourable influence on companies' environmental disclosure.

Choudhury et al. (2022) examine the impact of corporate governance attributes on sustainability reporting in the context of 435 non-financial companies from the top 500 BSE-listed companies based on market capitalization. The study is based on secondary data collected from the published sustainability, governance, and annual reports for a period of 6 years, that is, from 2015 to 2020. Using panel data regression, the Outcome of the regression results clearly indicates that except for independent directors all aspects of corporate governance, such as board size, gender diversity significantly influences the sustainability disclosure of Indian firms

Oyekale et al. (2022) examined the effect of corporate governance and environmental sustainability disclosure for non-financial companies listed in Nigeria. The study utilised an ex-post facto research design. The theoretical population was 109 non-financial companies quoted in Nigeria as at 31 December 2020. To collect a sample, 72 non-financial companies existing over the period of time from 2012 to 2020 were selected using stratified and purposive sampling techniques. Data were sourced from the published yearly reports of the sampled non-financial companies and corroborated by certifications with external auditors and the Nigerian Stock Exchange. The secondary panel data were analysed using descriptive and multiple regression methods. The research reveals BOI positively and significantly influences environmental sustainability disclosure.

Ajao and Olayinka (2021) examine the moderating role of firm size and age on corporate governance as well as sustainability disclosures in sample quoted firms across Nigeria. The research design used for the study was ex-post facto. The population of the study includes 169 quoted companies on the Nigerian Stock Exchange (NSE), as of December 31, 2019. A sample of 42 quoted firms was chosen using stratified purposive sampling over a period of 10 years (2010-2019). Sample companies published audited annual reports and accounts were used to extract data. Descriptive and inferential (multiple regression) statistics were used to analyse the data. The results indicated that company board independence had a significant impact on sustainability.

Haladu (2018) examined how environmental policy administrators, financial performance, board independence, and foreign ownership concentration influenced sustainability reporting in 67 eco-friendly Nigerian firms from 2009 to 2014. Research found that board independence helped environmentally aware companies make stronger sustainability disclosure.

Odoemelum and Okafor, (2018) investigates the influence of corporate governance on environmental disclosure of nonfinancial firms listed in Nigeria Stock Exchange (NSE), anchoring on “Trinity theory” (agency, stakeholder and legitimacy theories). Data were collected for 86 firm-year observations across the entire companies quoted on Nigeria Stock Exchange (NSE) by way of a content analysis, cross-sectional data combined with OLS regression techniques to determine how board characterizes impact overall environmental disclosure in OED. Results indicated that board independence which is the ratio of non-executive directors, and green disclosure was found to be statistically significant.

2.5.2. Board Financial Expertise and Green Reporting

Oyerogba et al. (2024) determines the effect of composite corporate governance (CCG) index on sustainability reporting quality in listed banks in Nigeria. Their paper empirically explores the link between corporate governance index and quality of sustainability reporting using a balanced panel with 190 observations from 19 quoted banks within ten (10) years’ time period, covering the sample from 2012–2021. The findings reveal that financial expertise has a statistically significant impact on quality of sustainability reporting.

Jinadu, Fasua and Mamidu (2025) examined the effect of corporate governance attributes on environmental reporting quality among 102 listed companies in Nigeria covering the period 2014–2023. Using panel least squares regression analysis, the study found that board-related governance characteristics significantly improve environmental reporting quality. The findings suggest that boards with relevant competencies and expertise are better positioned to promote transparency and enhance the quality of environmental disclosures.

Ashafoke and Ogbebor (2023) studied corporate governance characteristics and sustainability reporting quality of selected quoted manufacturing firms in Nigeria. for the sample selection, their study captured a total of 20 companies were selected from the Nigerian employment sector on the student of Burley's formula, a method for determining sample size. The Sustainability reporting quality of these chosen corporations is measured using a content analysis approach on their corresponding annual reports and corporate websites over a period for seven years (2015-2021). The study's results indicate board financial expertise exhibited an insignificant negative relationship with sustainability reporting quality.

Erin et al. (2021) examine the association between corporate governance and sustainability reporting quality of listed firms in Nigeria. In carrying out their empirical analysis, they carefully sample 120 firms listed on the Nigeria Stock Exchange and use ordered logistic regression as their main choice of quantitative data analytical tool. Results of the study show that it is strongly and positively correlated with improved quality of sustainability reporting for board

members having domain-specific financial skills, indicating that corporate boards need to have skilled individuals who enhance transparency in disclosures.

2.5.3. Audit Committee and Green Reporting

Bamwa et al. (2025) analysed the impact of corporate governance mechanisms on environmental reporting in Nigerian listed oil and gas companies. The research used a panel data spanning 10 years (2013–2022) for nine (9) stock-listed oil and gas firms in Nigeria. The data analysis was performed using a panel data multiple regression. The findings of the study showed that audit committee independence positively but not statistically significantly influenced environmental reporting.

Oyerogba et al. (2024) measure the relationship between composite corporate governance (CCG) index and sustainability reporting quality of listed banks in Nigeria. This research examines the effect of corporate governance index on sustainability reporting quality with a balanced panel data comprising 190 observations between November 2012 and December 2021 from 19 listed banks. The finding indicates that audit committee has significant influence on sustainability reporting quality.

Bokime and Ukpung (2023) investigated corporate governance mechanisms of selected manufacturing firms and extent of their environmental disclosures in Nigeria. They employed an ex post facto research design was used. Population of the study consisted 21 listed consumer goods manufacturing companies in Nigeria. The researcher has used the easily available

sampling method for 12 samples of periods from 2013 to year end,2030. A model specification was adapted according to the purposes of this study. Then, a descriptive and regression analysis was performed on the data set. The results show that the audit committee has a positive and significant effect on environmental information disclosure.

Ashafoke and Ogbebor (2023) analyse sustainability reporting quality of selected quoted firms in Nigerian manufacturing sector: the role played by corporate governance characteristics. The study relied on a sample of 20 companies from Nigerian manufacturing sector, which was determined based on Burley formula. The qualitative content analysis on the annual reports and corporate websites of these selected companies was carried out to assess sustainability reporting quality in temporal dimension based on a seven-year baseline data (2015-2021). Findings also showed that the audit committee has an insignificant inverse relationship with sustainability reporting quality.

Wang and Sun (2022) studied Chinese audit committees' environmental and social responsibility declarations. They found that female audit committee members enhanced disclosures more than men. Widagdo et al. (2022) examined how audit committee characteristics impact Indonesian high-emission firms' carbon emissions reporting. They found frequent audit committee meetings enhanced carbon emissions reporting

Ika et al. (2021) studied the effect of corporate governance practices on environmental reporting (2021). Their independent variables include corporate governance characteristics. The

corporate governance factors used in the study are audit committee effectiveness, board size and ownership concentration. They focused on a sample of 306 observations relating to 102 manufacturing companies listed in the Indonesia Stock Exchange (IDX) from the year 2015 to the year 2017. Based on a panel regression analysis of the data, the results show that the audit committee has a positive and significant effect on environmental reporting.

Erin et al. (2021) explore how corporate governance relates to the sustainability reporting quality of listed companies in Nigeria. The ordered logistic regression technique is employed in the study, which focuses on 120 quoted firms on the Nigerian Stock Exchange. The results indicate that the audit committee has a significant impact on sustainability reporting quality. They also found that gender diversity, together with board meeting frequency and independent board and audit committee, significantly contributed to lower emissions of carbon.

Das et al. (2021) are also investigating how corporate governance mechanisms affect environmental reporting (ENVR) evidence from Bangladesh. They used a deterministic measure (359 firm-year observations) obtained from the annual reports associated with 86 listed manufacturing firms on the Dhaka Stock Exchange during five consecutive years between 2015 and 2019. They performed multiple linear regression analysis to identify the drivers of ED practices. The result of their study revealed a statistically significant positive correlation between audit committee size and ENVR.

Inegbedion and Ohiokha (2025) explore the relationship between audit committee characteristics and sustainability reporting among listed sensitive companies in Nigeria. Using a longitudinal research design, the study draws on secondary data from 46 firms listed on the Nigerian Exchange Group over a ten-year period (2013-2022). The analysis conducted through descriptive and inferential statistical method, reveals that strengthening audit committee structures can enhance transparency and accountability in environmental reporting practices.

The above reviewed study, relating to how Audit Committee diligence (meeting) influence green reporting, are suggestive that the audit committee characteristics play an important role in enhancing environmental, sustainability, and green reporting practices. However, on the one hand, some of the reviewed studies showed that such relationship is positive (see Oyerogba et al., 2024; Bokime & Ukpog, 2023; Ika et al., 2021; Erin et al., 2021; Das et al., 2021; Inegbedion & Ohiokha, 2025). On the other hand, however, others such as Ashafoke and Ogbebor (2023) found an insignificant negative relationship, while Bamwa et al. (2025) reported a positive but insignificant effect of audit committee independence on environmental reporting. These mixed findings indicate that the influence of audit committee attributes on green reporting remains inconclusive and may depend on the institutional environment, governance structure, and measurement approaches adopted by researchers.

2.5.4. Board Gender Diversity and Green Reporting

Chinda et al (2024) examine the impact of corporate governance mechanisms on the social and environmental disclosure quality of listed non-service companies in Nigeria. Utilising secondary data extracted from the annual reports of 51 non-service companies (out of 74) over a five-year period from 2018 to 2022, sourced from the Nigerian Exchange Group and companies' websites, the study employs generalised least square analysis to achieve its objectives. The findings reveal a significant positive relationship between board gender and environmental disclosure quality.

The recently published study of Octavio et al. (2026) studied the 43 publicly listed companies in Indonesia from 2019 until 2023. Their major objective was to evaluate the moderating role of public attention in the relationship between corporate governance and sustainability performance. Specifically, their analysis utilised a panel data regression model to explore the impact of board sample size, gender diversity in boards, foreign presence on boards tabled through ESG committees and risk committee insights using both quantitative and qualitative insight methodology between 2011 and 2023. The results show the importance of corporate governance mechanisms to improve ESG performance. However, public attention had no moderating effect on the link between gender diversity and ESG performance. Despite these, the study highlighted board gender diversity as a key governance mechanism affecting sustainability outcomes.

Ashafoke and Ogbebor (2023) studied the effect of corporate governance characteristics on sustainability reporting quality: The study provides evidence from selected listed firms in Nigeria. The animal study adopted 'Burley', which is a formula for determining sample size which was sampled down to Abuja, and, of these, fifteen were selected with respect to Nigeria's manufacturing sector. The researchers applied a content analysis to the sustainability sections of their annual reports/corporate websites in order to assess how well (based on different dimensions) these companies had done over 7 years, namely 2015-2021. It also used the ordinary least squares regression method to test hypotheses. The results of the study show that there is a strong positive correlation between gender diversity on boards and sustainability reporting quality.

Shahriar Ferdous (2022) examined how the characteristics of corporate governance affect environmental reporting by listed companies in Bangladesh's cement industry. The sample consists of all the listed cement companies covering a span in the Dhaka Stock Exchange (DSE). On the other hand, un-weighted content analysis was used to evaluate how many of those companies reported on their environmental practices. Ordinary least squares (OLS) regression and robust OLS regression were used to discover the relationship with the dependent variable and independent variables utilised in this research after extracting data till October 2023. The results reveal that board females positively influence companies' environmental disclosure practices.

Choudhury et al. (2022) equally examine the impact of corporate governance attributes on sustainability reporting in the case of 435 non-financial firms from the top 500 listed firms at BSE based on market capitalisation. The research utilises secondary data, specifically published sustainability governance for 6 years (2015-2020) and annual reports. Using panel data regression, they showed that even gender diversity is incredibly important in determining the sustainability disclosure of Indian corporations.

Relatedly, Ong and Djajadikerta (2022) examine the effect of corporate governance on sustainability reporting among firms in Australia's resources industry. These results provide empirical evidence that more effective corporate governance not only occurs from enhanced board diversity but also as companies are providing a greater extent of sustainability disclosures.

Ajao and Olayinka (2021) examined the effect on corporate governance practice and sustainability reporting in selected quoted companies of Nigeria, while company size is controlled for. The ex post facto research design was used for the investigation. The population of the study is 169 listed businesses on the Nigerian Stock Exchange (NSE) as of the 31st of December 2019. The sample size of 42 quoted businesses for the period under consideration which is a decade (2010-2019) is selected using stratified and purposive selection techniques. The panel data are drawn from public, audited annual reports and accounts of the sample businesses. Descriptive and inferential (multiple regression) statistics were employed to examine the data, whose outcome revealed that having a female director has a positive impact on sustainability.

Abazu and Okoye (2021) analysed the effect of corporate governance on environmental disclosure of listed construction firm in Nigeria between the periods of 2010-2018. Panel Least Square (PLS) method of data analysis was used. From the analysis result the study found that board gender diversity has a positive effect and significant relationship with environmental disclosure.

The general premise is further backed up by the empirical evidence reviewed regarding how board gender diversity enhances environmental, sustainability and green reporting. Studies featured primarily found a positive, significant relationship between sustainability disclosure and female board representation (Chinda et al., 2024; Ashafoke & Ogbebor, 2023; Shahriar Ferdous, 2022; Choudhury et al., 2022). Similarly, Octavio et al. (2026) showed board gender diversity has been linked to more sustainable performance. These findings are consistent across models, which indicates that the increased presence of gender diversity on boards is associated with greater support for strong environmental and sustainability reporting processes and practices.

2.6 Summary of Empirical Studies

s/n	Authors & Year	Title	Country	Methodology	Findings
1	Suharti, Zaira, Sulhendri, Munzir and Alamsyah (2026)	Green Accounting, Environmental Performance: Mediating Role of Corporate Governance	Indonesia	Employed quantitative research design. Used panel data from 10 chemical companies listed on the Indonesia Stock Exchange (IDX) for the period	Found that green accounting and environmental performance significantly and positively affect corporate governance. Furthermore, corporate governance significantly mediates the relationship between green accounting, environmental performance.

				2019–2023. Panel data regression.	
2	Yahaya (2026)	Impact of Green Financing Instruments on Nigerian Capital Structure.	Nigeria	Employed a quantitative panel data research design using firm-level data collected over a 5-year period. Fixed-effects panel regression models were used.	Found that green financing instruments significantly influence firms' capital structure decisions. Specifically, firms that adopted green financing instruments exhibited higher leverage ratios than firms relying solely on conventional financing.
3	Al-Hattami, Mady and Al-Bukhrani (2026)	Impacts of Green Digital Accounting and Sustainable Entrepreneurship on Financial Sustainability and Performance.	Yemen (Emerging Economy Context)	Used survey data collected from 180 entrepreneurs operating across various sectors in Yemen between June and July 2025. Data were analysed using PLS Structural Equation Modelling	The findings revealed that Green Digital Accounting significantly and positively influences financial sustainability and business performance. Financial sustainability was found to mediate the relationship between GDA and business performance.
4	Bamwa et al. (2025)	How corporate governance affects environmental reporting	Nigeria	Employed an ex-post facto research design. Used panel data of 9 listed oil and gas firms (2013–2022). Data were analysed using panel regression.	While board sizes and composition had negative, non-significant relationships in environmental reporting, audit committee independence was positively but insignificant relationship with environmental disclosure.
5	Brogi and Lagasio (2025)	Do Corporate Governance Frameworks Affect Sustainability Reporting?	International (Meta-analysis of studies from multiple countries)	Data were synthesized from 34 empirical studies comprising over 60,000 observations. Employed meta-analysis and Two-Stage Structural Equation Modelling (TSSEM).	Results suggested that board size and activity, gender diversity (female representation) positively influenced ESG disclosure as compared to independent directors (no significant impact on top corporate ESG).

6	Jinadu, Fasua and Mamidu (2025)	Corporate Governance Attributes and Environmental Reporting Quality: The Nigerian Perspective	Nigeria	Used panel data of 102 listed Nigerian companies covering the period 2014–2023. Panel least squares regression was employed for the analysis.	Environmental reporting quality was positively influenced by board education and foreign ownership while audit committee independence negatively impacted it.
7	Wibisono and Honggowati (2024)	Examining how corporate governance influence the drive for sustainability disclosures	Indonesia	The multiple regression	Sustainability disclosure negatively impacted by audit committee member financial expertise; board and audit committee size were not correlated.
8	Oyerogba et al. (2024)	Does banks' governance structure affect their degree of sustainability reporting	Nigeria	Employed a panel research design. Used balanced panel dataset of 19 listed banks (2012–2021). Analysed using panel multiple regression	Corporate governance exerts strong effects on sustainability reporting quality, where ownership dilution, stronger board independence of directors (BID), financial expertise in the audit committee (AC) and institutionalized shareholder rights leverage.
9	Adebanjo and Okere (2024)	Green accounting practices and firm value	Nigeria	Used secondary data from 18 listed firms in Nigeria covering the period 2012–2021. Data were analysed using Panel Generalised Method of Moments (GMM) and other econometric tests.	The waste management disclosure was not predictive of Tobin's Q but positively affected price-earnings ratio signifying the green accounting improves a part of firm value.
10	Aguguom (2024)	The impact of environmental conservation expenditures on the financial stability of listed industrial businesses in Nigeria	Nigeria	Pooled Ordinary Least Squares (OLS) regression	Environment policies have a significant positive effect on the sustainability practices of Nigerian manufacturing firms.

11	Osemene et al., (2024)	Corporate governance mechanisms and environmental accounting reporting (EAR) in selected African quoted companies	Nigeria	Panel regression	Key Board Committees and EAR: Evidence from Africa: Board committees have a large impact on determining EAR in Africa, while other variables such as board diversity, size, independence and institutional ownership explain significant differences in EAR across countries.
12	Chinda et al (2024)	Corporate governance mechanisms and social and environmental disclosure quality.	Nigeria	Sampled listed non-service companies in Nigeria. Used Generalised least square	The quality of Social and Environmental disclosures is positively related to the presence of women in corporate boards, size of boards, frequency of board meetings and choice of audit firm.
13	Igbinovia and Agbadua (2023)	ESG reporting and value-based performance; and the moderating effect of firm advantage on the nexus	Nigeria	The multiple regression	Firm value was not impacted by ESG reporting, but was significant when viewed through the lens of firm advantage.
14	Bokime and Ukpong, (2023)	Corporate governance mechanisms impact on environmental disclosures	Nigeria	The multiple regression	The effects of board size, meetings and audit committee on environmental information disclosure.
15	Ashafoke and Ogbebor (2023)	How corporate governance characteristics impact on sustainability reporting	Nigeria	Ordinary Least Squares (OLS) regression	Board size and board gender positively relate to sustainability reporting quality, while there is a negative relation between board independence and women members on the board; also, financial expertise and audit committee attributes exhibit insignificant negative links with sustainability reports.
16	Oyekale, et al, (2022)	Examines how corporate governance on environmental sustainability	Nigeria	Multiple regression analysis	Corporate governance has a positive significant effect; board independence, and sustainability committees have positive significant effects. Risk and

		disclosure			remuneration committees have positive insignificance effects and board meetings show negative insignificance relationship towards environmental disclosures.
17	Ong and Djajadikerta (2022)	Corporate governance and sustainability reporting.	Australia'	Multiple regression analysis	Independent directors, multiple directorships and women directors are negatively associated with sustainability disclosures; firms with sustainability committee disclose more than those without.
18	Choudhury et al., (2022)	Corporate governance attributes and sustainability reporting	Indian	Panel regression	For Indian firms it finds that board size, gender diversity and CEO duality positively influence the sustainability disclosure but independent directors not.
19	Shahriar Ferdous (2022)	How attributes of corporate governance affect environmental reporting practices	Bangladesh	Ordinary least square (OLS) regression	Significant positive relationships are found between environmental reporting and foreign ownership, as well as the presence of independent and female board members.
20	Ajao and Olayinka (2021)	Effect of corporate governance on environmental sustainability reporting	Nigeria	Multiple regression	Corporate governance affects sustainability reporting through the company size and age; whereas board size, independence, female directors, ownership, size and age are significantly related to corporate governance & CEO duality is not.
21	Ika, et al., (2021)	How corporate governance practices influence environmental reporting.	Indonesia	Panel regression analysis	The results also show that audit committee effectiveness and board size both have a positive influence on environmental reporting.
22	Erin et al., (2021)	Investigating the nexus between corporate governance and	Nigeria	Multiple regression	The quality of sustainability reporting is highly associated with larger board, gender diversity, expertise and audit

		sustainability disclosures			committee size, expertise, and meeting frequency.
23	Das et al., (2021).	How corporate governance mechanisms affect environmental disclosure	Bangladesh	Multiple regression	Environmental disclosure is positively associated with foreign stockholdings, board size and audit committee size.
24	Ghuslan et al. (2021)	Evaluating how corporate governance and environmental/social reporting quality influence firms' corporate reputation	Malaysia	Multiple regression	Corporate governance effective and the quality of environmental/social reporting positively affect corporate reputation.
25	Abazu and Okoye (2021)	Examining corporate governance and environmental disclosure	Nigeria	Sampled listed construction firm in Nigeria. Used Panel Least Square (PLS)	Environmental disclosure is positively and significantly associated with board gender diversity.
26	Eze (2021)	How green Accounting Reporting and Financial Performance	Nigeria	Secondary data from 40 listed manufacturing firms (2010–2019). Data were analysed using descriptive statistics, panel regression GMM estimator.	Green Accounting Disclosure enhances both ROA and ROE, but adversely affects share price in Nigerian Manufacturing firms.
27	Md. Abdul Kaium, et al., (2018)	Corporate governance elements and environmental sustainability reporting performance (ESRP)	Bangladesh	Multiple regression	Institutional ownership are positively associated with ESRP, as well is the presence of independent directors on the board, board size; share ownership by directors is also statistically significant but family ownership and female directorship do not appear to be related to ESG.
28	Machdar (2018)	Corporate governance and firm performance with sustainability reporting as an intervening variable	Indonesia	Multiple regression	Audit committee contributes impact to sustainable economic and sustainable environmental but not social sustainability reporting, institutional and managerial ownership and

					independent boards are insignificant effect on sustainability reporting.
29	Odoemelum and Okafor (2018)	Corporate Governance and Environmental Disclosure in Nigeria	Nigeria	OLS regression techniques	Board independence and environmental disclosure are important; audit committee independence and board size do not matter.
30	Rafique et al., (2017)	Corporate governance and environmental reporting in Pakistan	Pakistan	Multiple regression	Environmental disclosure displays a significant positive relationship with independent directors and board size, and negative with institutional investors.
31	Yusoff et al. (2015)	Do corporate governance mechanisms influence environmental reporting practices?	Malaysia	Multiple regression	Board size has a positive relationship with environmental reporting; there is no relationship between board independence, ownership concentration and female directorship.

Source: Researcher's Compilation (2026)

2.7 Summary and Gap Identifications

This thesis addresses a substantial knowledge gap revealed after evaluating and analysing previous research in this area. Although the influence of corporate governance on green, environmental, and sustainability reporting has received considerable scholarly attention, much of the existing evidence has focused on the oil and gas sector, financial institutions, and broad samples of listed firms. Consequently, manufacturing and other non-oil sectors, particularly the industrial goods sector, have received relatively limited empirical attention (Oyerogba et al., 2024; Bamwa et al., 2025).

Few empirical studies have specifically examined the relationship between corporate governance mechanisms and green reporting among listed industrial goods companies in Nigeria. Most studies have concentrated on industrialised countries' carbon emission disclosures (Choi et al., 2013; Chaklader & Gulati, 2015; Iatridis, 2013; Kilian & Hennigs, 2014; Pandey et al., 2011), sustainability reporting quality (Brogi & Lagasio, 2025; Chouaibi & Fadhli, 2026), or environmental reporting practices in sectors other than industrial goods (Jinadu et al., 2025; Oyerogba et al., 2024). Consequently, empirical evidence on the industrial goods sector in Nigeria remains limited.

Furthermore, previous studies have reported mixed findings regarding the influence of corporate governance mechanisms on environmental and sustainability reporting. While some studies documented positive relationships between governance attributes and reporting quality (Oyerogba et al., 2024; Jinadu et al., 2025; Octavio et al., 2026), others reported insignificant, negative, or mixed outcomes (Ashafoke & Ogbebor, 2023; Bamwa et al., 2025). These inconsistencies suggest that the relationship remains inconclusive and warrants further empirical investigation.

In addition, recent developments in sustainability reporting frameworks and regulatory expectations have increased the need for contemporary evidence on corporate governance and green reporting practices (Aina & Ajayi, 2026; Financial Reporting Council of Nigeria, 2026). This study therefore seeks to bridge these gaps by examining the influence of board

independence, board financial expertise, audit committee, and board gender diversity on green reporting among listed industrial goods companies in Nigeria using more recent data.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter covers the study design, population and sample size, data sources, theoretical framework, model specifications, data analysis method, and variable operationalization. These elements are crucial to research goals.

3.2 Research Design

This study adopted a longitudinal research design. The design was considered appropriate because it involves repeated observations of the same firms over a specified period. It was also suitable since the dependent and independent variables used to examine the relationship between corporate governance mechanisms and green reporting were not manipulated by the researcher.

3.3 Population of the Study

The population of the study comprised all thirteen (13) industrial goods companies listed on the Nigerian Exchange Group (NGX) between 2015 and 2024. These firms constituted the population because they operate within a sector with significant environmental implications and are expected to provide environmental and sustainability-related disclosures.

3.4 Sample Size and Sample Techniques

The study adopted the census sampling technique whereby all thirteen (13) listed industrial goods companies on the Nigerian Exchange Group (NGX) were included in the sample. The census approach was adopted because the population size was manageable and allowed the researcher to utilise all available firms in the sector. Based on the study period of 2015–2024, the expected panel dataset consisted of 130 firm-year observations. However, eleven (11) firm-year observations with incomplete information were excluded during the data screening process, resulting in a final sample of 119 firm-year observations used for the analysis.

3.4 Data Sources

The study relied on secondary data obtained from the published annual reports and accounts of the selected companies. The data covered the period from 2015 to 2024. This period was considered appropriate because it provides recent evidence on corporate governance practices and green reporting among listed industrial goods companies in Nigeria while capturing contemporary developments in sustainability reporting and environmental disclosure.

3.5. Model Specification

This study examines the influence of corporate governance practices on green reporting in Nigeria. The model of Oyekale, Olaoye and Nwaobia (2022) was adapted and modified to suit the objective of this study. The model of Oyekale et al. (2022) was stated as:

$$END_{it} = \beta_0 + \beta_1 BOI_{it} + \beta_2 BOM_{it} + \beta_3 RIC_{it} + \beta_4 NOC_{it} + \beta_5 REC_{it} + \beta_6 SRC_{it} + \varepsilon_{it} \text{-----}(1)$$

Where:

END=Environmental Sustainability Disclosure

BOI= Board Independence

BOM= Board Meeting

RIC= Risk Committee

NOC= Nomination Committee

REC= Remuneration Committee

SRC=Sustainability Responsibility Committee

β_0 = Intercept

β_1 - β_6 =Coefficient of slope parameter

i= selected firms

t= time dimension

The study modified the above model employed by Oyekale et al. (2022) to develop an econometric model suitable for achieving the study's objectives. Given that Green Reporting (GR) is a dichotomous variable measured as 1 when a firm discloses green information and 0 otherwise, binary logistic regression was adopted to estimate the probability of green reporting among listed manufacturing firms in Nigeria. The logistic regression model estimates the probability that a listed industrial goods firm will disclose green information, given its corporate governance characteristics and firm size. Accordingly, the functional form of the model is given as:

$$GR = f(BIND, BFE, ACOM, BGD, FSIZE) \text{ -----}(2)$$

The econometric form of the Logit model is given as:

$$\text{Logit}(GR_{it}) = \beta_0 + \beta_1 BIND_{it} + \beta_2 BFE_{it} + \beta_3 ACOM_{it} + \beta_4 BGD_{it} + \beta_5 FSIZE_{it} + \varepsilon_{it} \text{----}(3)$$

Where:

GR=Green Reporting

BIND=Board Independence

BFE=Board Financial Expertise

ACOM=Audit Committee Meetings

BGD=Board Gender Diversity

FSIZE=Firm Size (Control Variable)

β_0 =Constant term.

$\beta_1 - \beta_5$ =Coefficients of the explanatory variables.

i = Individual manufacturing firm.

t = Time period (year).

ε_{it} = Error term capturing other factors affecting green reporting but not explicitly in the model.

α_0 = Intercept

$\alpha_1 - \alpha_6$ =Coefficient of slope parameter

i = selected firms

t = time dimension

3.6 Data Analysis Method

Two major patterns of analysis were employed; descriptive and inferential statistics. Descriptive statistics were used to summarise and describe the characteristics of the data through the mean, standard deviation, minimum value and maximum value of the study variables. Inferential statistics comprised Pearson correlation analysis and Binary Logistic Regression. Pearson correlation analysis was employed to examine the direction and strength of the relationship among the variables and to assess the presence of multicollinearity. Binary Logistic Regression was used to estimate the effect of corporate governance variables on the likelihood of green reporting among listed manufacturing firms in Nigeria. The technique was considered appropriate because the dependent variable, Green Reporting (GR), is dichotomous and measured as 1 where a firm discloses green information and 0 otherwise.

Table 3.1. Operationalisation of Variables

Variable	Proxy	Mode of Measurement	Source	Apriori Expectations
Dependent Variable				
Green Reporting	GR	Measured using a binary scale (0, 1). A dummy variable of 1 indicates disclosure and 0 otherwise.	Eze (2022); Suharti et al. (2026)	NA
Independent Variables				
Board Independence	BIND	Proportion of independent or non-executive directors divided by the total number of board members.	Jinadu et al. (2025); Ani (2021)	+
Board Financial Expertise	BFE	Proportion of board members with financial qualifications (finance graduates, professional accountants and financial analysts).	Agyemang et al. (2020)	+

Audit Committee	ACOM	Number of audit committee meetings in a financial year.	Wang and Sun (2022)	+
Board Gender Diversity	BGD	Proportion of female board members divided by total board size.	Konadu et al. (2022)	+
Firm Size	FSIZE	The natural log (Ln) of total assets	Fatmawati et al. (2026)	+/-

Source: Researcher's Compilation, (2026)

CHAPTER FOUR

DATA PRESENTATION AND ANALYSES

4.1. Introduction

This chapter describes the methodology adopted in achieving the objectives of this study as enumerated in the first chapter. The research was conducted using statistical and economic tools to create an appropriate setting. These techniques made it possible to analyse the data in-depth, guaranteeing that the statistical and economic aspects were looked at in detail. The analysis's findings provide a strong basis upon which to infer important findings and information in the study's final sections.

4.2 Descriptive Statistics

The table below presents descriptive statistics for each the variables included in the model. These statistics include the mean maximum, minimum, standard deviation and Jarque-Bera.

Table 4.1: Descriptive Statistics

	GR	BIND	BFE	ACOM	BGD	FSIZE
Mean	0.474576	6.618644	2.169492	4.000000	1.521008	7.179133
Maximum	1.000000	16.00000	7.000000	8.000000	6.000000	9.417580
Minimum	0.000000	2.000000	0.000000	2.000000	0.000000	5.219755
Std. Dev.	0.501483	3.110279	1.341673	0.857346	1.556009	1.122384
Jarque-Bera	19.66720	10.61061	33.17772	133.1275	18.50418	9.651712
Probability	0.000054	0.004965	0.000000	0.000000	0.000096	0.008020

Source: Researcher's Compilation (2026)

The summary statistics for the above table 4.1 represent the six variables of interest, namely, green accounting (GR), board independence (BIND), board financial expertise (BFE), audit committee (ACOM), board gender diversity (BGD) and the control variable, FSIZE. The mean score of 0.47 for GR indicates that the sampled manufacturing organisations were 47% likely to disclose green sustainability reporting information during this investigation. This means that Nigerian industrial enterprises rarely share green information. The highest and lowest values of GR, which are 1 and 0, show that the green report data set is dichotomous. The variable of board independence indicates that 60% of the sampled firms had more independent directors than dependent directors on their boards. This implies a good fit, as it could mean manufacturing firms in Nigeria want to comply with global best practices and consequently benefit from the inherent advantages of green reporting. The statistic also showed, on average, that manufacturing firms have more than two board members who are financial experts. The variable of the audit committee (ACOM) indicated that 40% of the entire sample of manufacturing firms' audit committee members had their meetings a maximum of 8 times and a minimum of 2 times a year.

The variable of board gender diversity shows that the ratio of female to male directors on the board is 10%. The statistic also shows that some manufacturing firms do not have any female representatives on their boards. It is indicative of the fact that there is less awareness of the importance of female participation on the board among manufacturing firms in Nigeria. Generally, our data set's standard deviations show a wide dispersion of low series values of 0.50,

1.34, 0.8 and 1.5 for green reporting disclosure, board independence, board financial expertise, audit committee meetings, and female board members of Nigerian manufacturing firms. The Jarque-Bera statistics and low probability values indicate that each variable's data set does not follow the usual curve pattern.

4.3 Correlation Analysis

The purpose of a correlation analysis is to establish whether or not there is a relationship between two or more independent variables. A high correlation indicates that the variables have a linear relationship. The correlation matrices shed light on the interactions between the essential variables

Table 4.2: Correlation Analysis

	GR	BIND	BFE	ACOM	BGD	FSIZEA
GR	1.000000					
BIND	0.309311	1.000000				
BFE	0.336953	0.464919	1.000000			
ACOM	0.356038	0.085540	-0.121084	1.000000		
BGD	0.222753	0.350974	-0.191528	0.281839	1.000000	
FSIZE	0.424269	0.738095	0.448467	0.213345	0.292985	1.000000

Researcher’s Compilation (2026)

From the result in table 4.2, it could be deduced that the highest correlation coefficient stood at 0.464 which is between board independence (BIND) and board financial expertise (BFE). Conversely, the lowest correlation coefficient (i.e., -0.191) is between board financial expertise (BFE) and board gender diversity (BGD) which indicate a weak negative correlation

between the two variables. Hence, Wooldridge (2006) opined that if the correlation is greater than 0.80 for variables, the correlation is considered high. Therefore, in this study, it could be seen that there is no problem of multicollinearity among the independent variables as all the variables have figures less than the threshold of 0.8, which would be an indicator of possible multicollinearity problem.

4.4 Diagnostic Tests

The relevant diagnostic tests relating to the adopted regression pattern are presented in this subsection. The first diagnostic test was the redundant test to ensure accuracy, safety and reliability when dealing with uncertainty or high risk situation, the second diagnostic test was wald test on the restriction which is a fundamental statistical procedure used to assess whether the estimated parameter of the model are significantly different from zero, while the third diagnostic test was the Andrews and Hosmer-Lemeshow tests which establish the goodness of fit test for binary classification models which tells how well data fits a given models.

Table 4.3: Redundant Variables Test
 Specification: GR BIND BFE ACOM FSIZE C
 Redundant Variables: BIND BFE ACOM FSIZE

	Value	Df	Probability
Likelihood ratio	42.76918	5	0.0000
LR test summary:			
	Value	Df	
Restricted LogL	-81.63876	117	
Unrestricted LogL	-60.25417	112	

Table 4.3 presents the diagnostic test on redundant variables which aims at detecting if any of the variables of interest in this study were redundant in the model specified in the study. The

probability of 0.00 is an indication that there were no redundant variables in the model specified in the study.

Table 4.4: Restricted Test Equation:

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.063771	0.115462	-0.552311	0.5807

Table 4.4 presents the Wald test on the restriction of the coefficient of the variables in the logit regression analysis to 0. The high probability value of 0.58 of the tests is an indication that none of the coefficients of the variables used in the study is restricted to the value of 0.

Table 4.5: Andrews and Hosmer-Lemeshow Tests

Goodness-of-Fit Evaluation for Binary Specification
Andrews and Hosmer-Lemeshow Tests

	Quantile of Risk		Actual	Dep=0		Actual	Dep=1 Expect	Total Obs	H-L Value
	Low	High		Expect					
1	4.00E-09	0.0164	12	11.9572	0	0.0428	12	0.04296	
2	0.0179	0.0582	13	12.4848	0	0.51519	13	0.53645	
3	0.0585	0.1336	12	10.9408	0	1.05925	12	1.1618	
4	0.1713	0.3455	7	9.70275	6	3.29725	13	2.96832	
5	0.3458	0.479	9	7.63446	4	5.36554	13	0.59178	
6	0.4893	0.5827	3	5.68444	9	6.31556	12	2.40873	
7	0.5912	0.6845	5	4.65656	8	8.34344	13	0.03947	
8	0.6883	0.7563	1	3.32214	11	8.67786	12	2.24455	
9	0.7585	0.856	7	2.54798	6	10.452	13	9.67526	
10	0.8607	0.9932	1	1.35297	12	11.647	13	0.10278	
		Total	70	70.2841	56	55.7159	126	19.7721	
H-L Statistic			19.7721	Prob. Chi-Sq(8)			0.0118		
Andrews Statistic			44.4578	Prob. Chi-Sq(10)			0.0112		

Researcher's Compilation (2026)

Table 4.5 presents the Andrews and Hosmer-Lemeshow Test (HL Test) of goodness of fit test for binary classification models which tells how well data fits a given model. Specifically,

the HL calculated observation of low difference of 19.77 in the statistics match the actual and expected value, and the high values of 44.45 of the Andrews and Hesmer-Lemeshow statistics are indications that our binary specification model in the study is well-fitted

4.5 Regression Analysis

Table 4.6: Logit Regression Analysis

Variable	Coefficient	z-Statistic	Prob.
BIND	-0.060659	-0.752761	0.4516
BFE	0.450716	3.459787	0.0005
ACOM	0.738660	3.342386	0.0008
BGD	0.192962	1.905114	0.0568
FSIZE	0.352488	1.771956	0.0764
C	-6.421821	-4.544267	0.0000
McFadden R-squared	0.261942	Mean dependent var	0.474576
S.D. dependent var	0.501483	S.E. of regression	0.426105
Akaike info criterion	1.126185	Sum squared resid	20.33529
Schwarz criterion	1.267067	Log likelihood	-60.44490
Hannan-Quinn criter.	1.183387	Deviance	120.8898
Restr. Deviance	163.2775	Restr. log likelihood	-81.63876
LR statistic	42.38773	Avg. log likelihood	-0.512245
Prob(LR statistic)	0.000000		

Researcher's Compilation, (2026)

Table 4.6 presents the results of the logit regression analysis. Based on the result from the table, the specific findings from the explanatory and control variables are discussed as follows. It is important to note that the McFadden R-square value of approximately 26% indicates a moderate explanatory power of the model, suggesting that the corporate governance variables included in the model explain a reasonable proportion of the variations in green reporting among the sampled firms. However, the remaining variation may be attributable to other factors not captured in the model. Although the McFadden R-square has certain limitations and does not by

itself determine whether coefficient estimates are unbiased or whether the model is adequate, it nevertheless provides useful information regarding the model's goodness of fit. Furthermore, the likelihood ratio (LR) statistic of 42.38773 with a probability value of 0.0000 indicates that the model is statistically significant overall and that the explanatory variables jointly influence green reporting. Regardless of the McFadden R-square value, the coefficient value of -0.06 for board independence (BIND) and its associated p-value of 0.45 indicate a negative and statistically insignificant relationship between board independence and the likelihood of green disclosures in the annual reports of manufacturing firms in Nigeria. This implies that board independence does not significantly influence green reporting among the sampled firms, although the negative coefficient suggests an inverse relationship between the variables.

The coefficient of 0.45 and its associated p-value of 0.00 suggest a positive and statistically significant relationship between the financial expertise of board members and the likelihood of green disclosures in annual reports. The positive coefficient indicates that firms with a greater number of financially knowledgeable board members are more likely to engage in green reporting practices. Therefore, having more financially literate members on the board of manufacturing firms may enhance the quality and extent of green reporting disclosures.

Also, ACOM has a positive coefficient of 0.73 and a significant p-value of 0.00, suggesting a positive and statistically significant relationship between the number of audit committee meetings per year and the likelihood of green information disclosure in annual reports. This implies that firms with more active audit committees are more likely to disclose green

information. The result further suggests that frequent audit committee meetings may strengthen oversight functions and promote greater environmental disclosure among manufacturing companies listed on the Nigerian Exchange Group.

The coefficient of 0.19 and a p-value of 0.06 for the relationship between board gender diversity (BGD) and green reporting (GR) indicate a positive but statistically insignificant relationship between the number of female board members and the likelihood of green disclosures. Although the positive coefficient suggests that firms with more female directors tend to disclose more green information, the relationship is not statistically significant at the conventional 5% level of significance. Thus, board gender diversity does not exert a significant influence on green reporting among the sampled firms.

In addition to the explanatory variables, the analysis includes firm size as a control variable. Firm size (FSIZE) has a positive coefficient of 0.35 and a p-value of 0.07, indicating a positive relationship with green reporting. The result shows that larger firms are more likely to engage in green reporting practices. Although the relationship is not statistically significant at the 5% level, it is significant at the 10% level, suggesting that firm size may play a role in explaining green reporting behaviour among manufacturing firms in Nigeria. Overall, the findings indicate that corporate governance mechanisms, particularly board financial expertise and audit committee activities, are important determinants of green reporting among listed manufacturing firms in Nigeria.

4.6 Hypotheses Test

The hypotheses in this study were tested with the aid of regression (z-test) at 5% level of significance. The decision rule is to reject the null hypothesis when $p\text{-value} < 0.05$ and accept the null hypothesis when the $p\text{-value}$ is > 0.05 (that is, we do not reject the null hypothesis).

Hypothesis One

H_{01} : Board independence does not significantly influence green reporting in listed manufacturing firms in Nigeria.

The result shows that there is negative and insignificant relationship between board independence and green reporting green reporting in listed manufacturing firms in Nigeria. This is affirmed by the z-Statistic of -0.752 and at $p\text{-value}$ of 0.45% which is greater than 5% conventional level of significance. Based on the result, we therefore accept the null hypothesis which states that board independence does not significantly influence green reporting in listed manufacturing firms in Nigeria.

. Hypothesis Two

H_{02} : Board members' financial expertise does not significantly influence green disclosures in listed manufacturing firms in Nigeria.

The result reveals that there is positive and significant relationship between board members' financial expertise and green reporting green reporting in listed manufacturing firms in

Nigeria. This is confirmed by the z-Statistic of 3.459 and at p-value of 0.00% which is lesser than 5% conventional level of significance. Based on the result, we therefore reject the null hypothesis which states that board members' financial expertise does not significantly influence green disclosures in listed manufacturing firms in Nigeria.

. Hypothesis Three

H₀₃: Audit committee does not significantly impact green disclosures in listed manufacturing firms in Nigeria.

The result reveals that there is positive and significant relationship between audit committee and green reporting green reporting in listed manufacturing firms in Nigeria. This is established by the z-Statistic of 3.342 and at p-value of 0.00% which is lesser than 5% conventional level of significance. Based on the result, we therefore reject the null hypothesis which states that audit committee does not significantly impact green disclosures in listed manufacturing firms in Nigeria.

Hypothesis Four

H₀₄: Board gender diversity does not significantly influence green reporting among listed manufacturing firms in Nigeria.

The result reveals that there is positive and non-significant relationship between board gender diversity and green reporting green reporting in listed manufacturing firms in Nigeria. This is

revealed by the z-Statistic of 1.905 and at p-value of 0.06% which is higher than 5% conventional level of significance. Based on the result, we therefore accept the null hypothesis which states that board gender diversity does not significantly influence green reporting among listed manufacturing firms in Nigeria.

4.7 Discussion of Findings

Based on the results obtained from the empirical analysis, the findings of the study are discussed as follows:

Firstly, it was observed that board independence and green reporting was statistically insignificant, suggesting that board independence does not significantly influence green reporting in listed manufacturing firms in Nigeria. This could occur because the presence of independent directors may inadvertently side-line the valuable knowledge and experience of executive directors in the matter related to the environment. The result showed negative coefficient and negated to our apriori expectation, such that increase in the board independent member could lead to decrease in green accounting disclosure in listed manufacturing firms in Nigeria. The finding is divergent with Odoemelam and Okafor (2018), Adinehzadeh, Jaffar, Shukor, and Abdul Rahman (2018), Haladu (2018), and Odoemelam and Okafor (2018) who found that board independence affected environmental disclosure in Nigerian Stock Exchange (NSE)-listed non-financial firms. The finding is also inconsistent with Oyerogba et al. (2024)

and Jinadu et al. (2025), who reported that board-related governance mechanisms significantly improve sustainability reporting quality and environmental reporting practices.

Secondly, it was witnessed that board members' financial expertise has significantly influence on green accounting disclosure. This was evident in the test of hypothesis which depicts that board members' financial expertise does significantly influence green disclosures in listed manufacturing firms in Nigeria. It showed positive coefficient value with board members' financial expertise which is agreed to our apriori expectation, implying that increase in the board members' financial expertise could increase green accounting disclosures. The finding is consistent with Shahab et al. (2020) who discovered that board financial literacy improves long-term performance and environmental reporting, and also more likely to engage in sustainability and environmental efforts. Equally, Oyerogba et al., (2024) results also confirm that financial expertise has a statistically significant influence on the quality of sustainability reporting. The finding further supports Jinadu et al. (2025), who argued that board competencies and expertise enhance the quality and credibility of environmental reporting among listed firms.

Thirdly, the study revealed that audit committee was statistically significant, implying that audit committee does significantly impact green disclosures in listed manufacturing firms in Nigeria. It disclosed positive coefficient value with audit committee members' which is maintained to our apriori expectation. The finding supports the views of Oyerogba et al. (2024), Bokime and Ukpong (2023), and Inegbedion and Ohiokha (2025), who found that effective audit

committee characteristics enhance sustainability and environmental reporting practices through improved monitoring and accountability mechanisms.

Lastly, board gender diversity was discovered to be statistically positive and non-significant, denoting the fact that there is less awareness of the importance of female participation in the board among listed manufacturing firms in Nigeria. The finding is contrary with Ashafoke and Ogbebor (2023), Abazu and Okoye (2021), Chinda et al. (2024), and Octavio et al. (2026), who reported that gender-diverse boards contribute positively to sustainability performance and environmental reporting practices.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.1. Introduction

This chapter is about the presentation of the presents the summary of key findings, conclusion, and recommendations of this study. Also, the contribution to the extant literature and the recommendations for further studies are presented in this chapter.

5.2 Summary of Findings

The analysis conducted in this study revealed the following:

1. Board independent directors had a negative and insignificant relationship on green disclosures in listed manufacturing firms in Nigeria.
2. Financial board expertise members have a significant and positive relationship on green disclosure in listed manufacturing firms in Nigeria.
3. Audit committee meetings have a positive relationship on green disclosures in listed manufacturing firms in Nigeria.
4. Board gender diversity had a positive and insignificant relationship between on green disclosures in listed manufacturing firms in Nigeria.

5.3 Conclusion

This study examined the intricate relationship between corporate governance and green reporting within the context of listed manufacturing firms in Nigeria. Using data from over a period of 10 years, the study scrutinized how various facets of corporate governance influenced the green disclosures in the manufacturing listed companies. The study shows that manufacturing firms in Nigeria are rapidly catching up when it comes to increases in the level of disclosure in green accounting disclosures. Binary logistics regression provided support that corporate governance practices disclosures through compliance with environmental policies by firms improves green accounting. Corporate governance practices that are positively associated with green accounting disclosures are board of directors' financial literate members and audit committee meetings. However, the board diversity factor and board independence was found to have a non-significant influence on the likelihood of green disclosures. As such, care should be taken about the number of outside directors appointed to the board and the mode of compensating the directors as they have value decreasing effect, while more female on the board should be engaged to monitor the actions of managers. Therefore, the findings uncovered that corporate governance factors are indispensable factors that influence the likelihood of green reporting among the listed manufacturing firms in Nigeria.

5.4 Recommendations

According to the study's results and “corporate governance variables on green reporting in Nigerian listed manufacturing firms, the following recommendations are made:

1. Flowing from the outcome which showed that board independence does not influence green accounting reporting practices among the sampled firms, this study recommends that the board of directors institute a sustainability responsibility committee to promote green accounting disclosure in the industrial sector. The management should also ensure an appropriate composition of the board of directors by having adequate independent and non-executive directors to strengthen the company’s corporate governance.
2. The analysis indicated that board financial knowledge influences level of green accounting reporting practices of listed manufacturing business in Nigeria. Therefore, this study recommends that manufacturing firms should consider increasing the number of board financial expertise members as this will contribute to improving green accounting disclosure and consequently reduce information asymmetry. This not only clarifies the conflicts of interests between shareholders and management but also makes management more accountable.
3. The study found that audit committee impact the level of green accounting reporting practices of listed manufacturing firm in Nigeria. Thus, this study recommends that manufacturing firms should ensure that audit committee meet regularly and actively engage in sustainability matters. Increase audit committee meeting will enhance

monitoring functions and improve the credibility of green accounting disclosure. Also, frequent and proactive engagement in sustainability discussions will enable audit committee to identify risk, ensure compliance and enhance corporate accountability.

4. The study found that board gender diversity does not influence the level of green accounting reporting practices of listed manufacturing firm in Nigeria. Therefore, this study recommends that board gender diversity in the workplace particularly giving female chance to participate on the board is strategy that should be sustained by all manufacturing companies in Nigeria considering that women with the risk averse nature influence firms strategies. Bearing in mind that number of outside directors appointed to the board can have counter- productive effect on corporate performance; shareholders are advised to be cautious in handling these issues.
5. Going by the study's findings that board gender diversity has no effect on green accounting reporting practices, the study suggests proportion of that gender diversity on the board of directors in the workplace should be more critically considered. Other evidences support that giving women the opportunity to sit on the board, is a policy that should be continued considering their risk-averse tendency which can be valuable in reducing the risk of non-compliance with environmental disclosure requirements.

5.5 Contribution to Knowledge

This research study highlighted the following noteworthy contributions of knowledge made by this study to both academia and practical applications:

1. This study is one of the few to investigate the relationship between corporate governance practices and green reporting in the context of listed manufacturing firms in Nigeria. Much of the existing research on this topic has focused on developed economies or specific sectors such as the oil and gas industry. By conducting this inquiry in the Nigerian manufacturing sector, this research provides valuable insights that can be applied in a previously understudied context.
2. The study uses recent data in its analysis and therefore extends the findings of other studies in this area in Nigeria. This is also considered a contribution to existing literature in the Nigerian context.

5.6 Areas for Further Research

1. **Exploring Sector-Specific Variations:** Future research can investigate deeper into sector-specific variations within the Nigerian manufacturing industry. It may be beneficial to compare the green reporting practices of companies in sub-sectors such as food and beverages, cement production, textiles, and chemicals. These sub-sectors often face unique environmental challenges and regulatory pressures, which can influence how corporate governance structures affect sustainability practices.
2. **Qualitative Analysis of Corporate Governance Mechanisms:** A complementary approach to this study's quantitative analysis would involve qualitative investigations. Qualitative research can provide a nuanced understanding of how specific corporate governance mechanisms, such as audit committees, operate in practice. In-depth

interviews, case studies, and content analysis of corporate documents could shed light on the decision-making processes that lead to green reporting practices.

3. **Comparative International Studies:** Comparative studies that assess the “corporate governance and green reporting practices of Nigerian manufacturing firms” in contrast to their counterparts in other emerging economies would be enlightening. Cross-country analyses could reveal commonalities or differences in how corporate governance systems influence sustainability practices within different contexts.

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Appendix A: Results

	GR	BIND	BFE	ACOM	BGD	FSIZEA
Mean	0.470588	6.613445	2.168067	3.991597	1.521008	7.164191
Median	0.000000	6.000000	2.000000	4.000000	1.000000	6.700183
Maximum	1.000000	16.00000	7.000000	8.000000	6.000000	9.417580
Minimum	0.000000	2.000000	0.000000	2.000000	0.000000	5.219755
Std. Dev.	0.501245	3.097591	1.336066	0.858613	1.556009	1.129441
Skewness	0.117851	0.741003	1.039211	1.306752	0.963724	0.471619
Kurtosis	1.013889	2.942481	4.619661	7.457298	3.129911	1.986587
Jarque-Bera	19.83429	10.90660	34.42637	132.3771	18.50418	9.503664
Probability	0.000049	0.004282	0.000000	0.000000	0.000096	0.008636
Sum	56.00000	787.0000	258.0000	475.0000	181.0000	852.5387
Sum Sq. Dev.	29.64706	1132.218	210.6387	86.99160	285.6975	150.5251
Observations	119	119	119	119	119	119

	GR	BIND	BFE	ACOM	BGD	FSIZEA
GR	1.000000	0.309311	0.336953	0.356038	0.222753	0.424269
BIND	0.309311	1.000000	0.464919	0.085540	0.350974	0.738095
BFE	0.336953	0.464919	1.000000	-0.121084	-0.191528	0.448467
ACOM	0.356038	0.085540	-0.121084	1.000000	0.281839	0.213345
BGD	0.222753	0.350974	-0.191528	0.281839	1.000000	0.292985
FSIZEA	0.424269	0.738095	0.448467	0.213345	0.292985	1.000000

Redundant Variables Test
Equation: UNTITLED
Specification: GR BIND BFE ACOM BGD FSIZEA C
Redundant Variables: BIND BFE ACOM BGD FSIZEA

	Value	df	Probability
Likelihood ratio	42.76918	5	0.0000

LR test summary:

Value	df
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Restricted LogL	-81.63876	117
Unrestricted LogL	-60.25417	112

Restricted Test Equation:
 Dependent Variable: GR
 Method: ML - Binary Probit (Quadratic hill climbing)
 Date: 04/05/26 Time: 02:28
 Sample: 2015 2024
 Included observations: 118
 Convergence achieved after 3 iterations
 QML (Huber/White) standard errors & covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.063771	0.115462	-0.552311	0.5807
Mean dependent var	0.474576	S.D. dependent var	0.501483	
S.E. of regression	0.501483	Akaike info criterion	1.400657	
Sum squared resid	29.42373	Schwarz criterion	1.424137	
Log likelihood	-81.63876	Hannan-Quinn criter.	1.410191	
Deviance	163.2775	Restr. deviance	159.3407	
Avg. log likelihood	-0.691854			
Obs with Dep=0	64	Total obs	120	
Obs with Dep=1	56			

Goodness-of-Fit Evaluation for Binary Specification
 Andrews and Hosmer-Lemeshow
 Tests
 Equation: UNTITLED
 Date: 04/05/26 Time: 01:02
 Grouping based upon predicted risk (randomize ties)

Quantile of Risk			Dep=0		Dep=1		Total	H-L
Low	High		Actual	Expect	Actual	Expect	Obs	Value
1	4.00E-09	0.0164	12	11.9572	0	0.0428	12	0.04296
2	0.0179	0.0582	13	12.4848	0	0.51519	13	0.53645
3	0.0585	0.1336	12	10.9408	0	1.05925	12	1.1618
4	0.1713	0.3455	7	9.70275	6	3.29725	13	2.96832
5	0.3458	0.479	9	7.63446	4	5.36554	13	0.59178
6	0.4893	0.5827	3	5.68444	9	6.31556	12	2.40873
7	0.5912	0.6845	5	4.65656	8	8.34344	13	0.03947
8	0.6883	0.7563	1	3.32214	11	8.67786	12	2.24455

9	0.7585	0.856	7	2.54798	6	10.452	13	9.67526
10	0.8607	0.9932	1	1.35297	12	11.647	13	0.10278
Total			70	70.2841	56	55.7159	126	19.7721
H-L Statistic			19.7721	Prob. Chi-Sq(8)			0.1118	
Andrews Statistic			44.4578	Prob. Chi-Sq(10)			0.0021	

Dependent Variable: GR

Method: ML - Binary Logit (Quadratic hill climbing)

Date: 04/05/26 Time: 00:59

Sample: 2015 2024

Included observations: 118

Convergence achieved after 5 iterations

QML (Huber/White) standard errors & covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
BIND	-0.060659	-0.752761	0.4516	-0.060659
BGD	0.450716	3.459787	0.0005	0.450716
BFE	0.738660	3.342386	0.0008	0.738660
ACOM	0.192962	1.905114	0.0568	0.192962
FSIZEA	0.352488	1.771956	0.0764	0.352488
C	-6.421821	-4.544267	0.0000	-6.421821
McFadden R-squared	0.261942	Mean dependent var		0.474576
S.D. dependent var	0.501483	S.E. of regression		0.426105
Akaike info criterion	1.126185	Sum squared resid		20.33529
Schwarz criterion	1.267067	Log likelihood		-60.44490
Hannan-Quinn criter.	1.183387	Deviance		120.8898
Restr. deviance	163.2775	Restr. log likelihood		-81.63876
LR statistic	42.38773	Avg. log likelihood		-0.512245
Prob(LR statistic)	0.000000			
Obs with Dep=0	62	Total obs		118
Obs with Dep=1	56			