GREEN ACCOUNTING ON CORPORATE SUSTAINABILITY AND FINANCIAL PERFORMANCE

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BEING A RESEARCH PROJECT WRITTEN AND SUBMITTED TO THE DEPARTMENT OF ACCOUNTING, FACULTY OF MANAGEMENTSCIENCES, UNIVERSITY OF BENIN, EDOSTATE, NIGERIA, INPARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE(B.Sc.)DEGREE IN ACCOUNTING.

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DECLARATION

I, **OGHIDE OMOYEMWEN FAVOUR** declare that this project work is entirely my own work and composition. The work embodied in this project has not been submitted in candidature for any degree and is not concurrently being submitted for any other degree. All references made to the works of other persons have been duly acknowledged.

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CERTIFICATION

This is to certify that this project research was carried out by **OGHIDE OMOYEMWEN FAVOUR,** Matriculation number: **MGS2104616** in the Department of Accounting, Faculty of Management Science, University of Benin, Benin City, Edo State, Nigeria. It is adequate in scope and quality in partial fulfilment of the requirement for the award of Bachelor of Science (BSc.) Degree in Accounting.

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DEDICATION

I express my profound gratitude and heartfelt appreciation to the Almighty God for His grace upon me, enabling the successful completion of this project work.

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I wish to express my deepest gratitude and honour to Almighty God, the source of my strength, wisdom, good health and inspiration. Without His guidance and blessings, this study would not have been possible. I am profoundly thankful for His unwavering support throughout the whole research journey. I extend my sincerest appreciation to my supervisor, Dr Timothy Oboh, for his exceptional guidance, intellectual insights, and unwavering support. His invaluable advice and dedication have been instrumental in shaping this work. I also express my gratitude to the Head of Department, Professor Osasu Obaretin, for his leadership and for fostering an environment that encourages academic excellence.

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TABLE OF CONTENT

LIST OF TABLES

ABSTRACT

This study examined the impact of green accounting practices on the corporate sustainability and financial performance of listed consumer goods companies in Nigeria between 2019 and 2024. The study specifically investigated the influence of environmental disclosure, environmental expenditure, and green investment on firm value, measured by market price per share, while controlling for firm size. Secondary data were obtained from annual and sustainability reports of twenty-one listed consumer goods firms and analysed using descriptive statistics, correlation analysis, and panel regression models. The results revealed that environmental disclosure and environmental expenditure had positive but statistically insignificant effects on firm value, indicating that transparency and environmental spending have not yet translated into measurable financial gains within the Nigerian context. Conversely, green investment exhibited a positive and statistically significant relationship with firm value, suggesting that firms that invest in renewable energy, waste management, and energy-efficient technologies experience higher market valuations. Firm size also showed a significant positive influence on firm value, implying that larger firms are better equipped to adopt and benefit from sustainability practices. The study concludes that while environmental disclosure and expenditure are important for compliance and legitimacy, green investment remains the most effective driver of firm value and corporate sustainability. It recommends that firms should prioritise green investment initiatives, improve the quality of sustainability disclosures, and view environmental expenditure as a long-term strategic investment. Policymakers are urged to strengthen reporting frameworks and create incentives that promote transparent green accounting practices.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In recent years, the global economy has experienced a paradigm shift in corporate accountability and performance measurement. Firms are increasingly required to demonstrate not only their profitability but also their contribution to environmental sustainability and societal welfare (Ofoegbu & Meggison, 2022). Traditional accounting practices, which focus exclusively on financial outcomes, have been criticised for neglecting the environmental costs associated with production and operations (Okafor, 2021). This concern has given rise to the concept of green accounting, which seeks to integrate environmental factors into financial systems, thereby providing a more comprehensive picture of corporate performance (Akpan & Nkanta, 2023).

Green accounting involves the identification, measurement, and disclosure of costs and investments related to environmental management and sustainability initiatives. These may include expenses for pollution control, renewable energy adoption, and waste management as well as reporting on environmental activities that affect long-term business sustainability (Ogbodo, 2023). The relevance of such practices lies in their ability to enhance corporate transparency and accountability, which in turn influence stakeholder trust and investor perception (Nwaiwu & Oluka, 2018). Companies that

adopt green accounting are more likely to secure competitive advantages, improve operational efficiency, and strengthen their market performance (Chikani, Ugwuoke & Nnamdi, 2024).

The consumer goods sector is particularly critical in this discussion. As one of the most visible industries in Nigeria, consumer goods companies contribute significantly to employment, economic growth, and household welfare. At the same time, they generate considerable environmental footprints through energy use, packaging, waste disposal, and emissions (Akinleye & Ogundipe, 2024). These realities place them under public and regulatory scrutiny to implement sustainable practices and disclose their environmental responsibilities. Investors and consumers are increasingly attentive to how these companies manage their environmental obligations, making transparent reporting and visible sustainability initiatives essential for long-term success (Nwankwo, 2020).

Corporate sustainability has therefore become a central concern for businesses and regulators alike. It is understood as a firm's ability to balance economic performance with social and environmental stewardship in a way that supports long-term value creation (Adedipe, 2022). For consumer goods firms, this balance requires not only compliance with existing regulations but also proactive investments in environmentally friendly technologies, transparent disclosure of environmental performance, and dedicated expenditures toward sustainability. These practices contribute to the credibility of

sustainability reporting, thereby enhancing both corporate reputation and stakeholder confidence (Ezekwere, Egbunike & Odum, 2024).

The link between green accounting and financial performance has attracted scholarly attention. Several Nigerian studies have established that firms engaging in robust environmental disclosure and expenditure practices are better positioned to enhance shareholder value and improve market outcomes (Akpan & Nkanta, 2023; Chikani et al., 2024). Akinleye and Ogundipe (2024) found that disclosures relating to environmental protection costs and research and development expenditures had significant effects on the financial performance of listed consumer goods firms in Nigeria. Similarly, Ogbodo (2023) highlighted that companies with consistent green investment strategies were more resilient to market shocks and enjoyed improved investor confidence. These findings suggest that sustainable practices are not only socially desirable but also economically advantageous.

However, evidence from Nigeria remains mixed. While some firms provide measurable and transparent sustainability disclosures, many still restrict their reports to qualitative narratives that lack verifiable data (Okafor, 2021). Environmental expenditure is often understated, and green investments are not consistently separated from general capital expenditures, making it difficult to evaluate their true impact on performance (Nwaiwu & Oluka, 2018). Scholars such as Adedipe (2022) have argued that this inconsistency

reduces the credibility of corporate sustainability reporting and creates doubt about whether green accounting practices genuinely influence market value.

The Nigerian regulatory environment has sought to address these gaps. The Nigerian Exchange Group and the Financial Reporting Council have issued sustainability disclosure guidelines that align with global standards such as the International Sustainability Standards Board (ISSB). Nonetheless, compliance remains uneven, with many firms struggling to meet disclosure requirements in a structured and quantitative manner (Ofoegbu & Meggison, 2022). This regulatory gap creates uncertainty regarding the extent to which sustainability practices are embedded in corporate strategy and how they affect financial performance.

Within this context, consumer goods firms present a compelling case for study. As companies that operate directly with consumers and carry significant environmental responsibilities, they are strategically positioned to demonstrate the value of green accounting. Their ability to integrate environmental disclosure, allocate resources to sustainability, and invest in green technologies has direct implications for their corporate sustainability and financial outcomes. Investors may reward such practices with higher market valuations, while weak or inconsistent efforts may erode trust and competitiveness in the capital market (Ezekwere et al., 2024).

1.2 Statement of the Problem

The need for corporate entities to integrate sustainability into their financial and operational practices has never been more urgent. Globally, businesses are under pressure to balance profitability with environmental stewardship, and investors increasingly demand transparency on environmental responsibilities before committing resources (Gündüz, Akbas & Korkmaz, 2025). In Nigeria, the situation is more complex because corporate reporting frameworks are still developing, regulatory enforcement is weak, and firms often face challenges in providing consistent and comprehensive disclosures (Okafor, 2021). While international evidence suggests that green accounting practices can enhance corporate reputation and financial outcomes, there is limited empirical clarity on whether these relationships hold true in the Nigerian context, particularly in consumer goods companies that dominate household consumption and generate significant environmental impact (Akinleye & Ogundipe, 2024).

One major problem is the inconsistency in environmental disclosure. Although sustainability reporting guidelines have been introduced by the Nigerian Exchange Group, many firms continue to provide narrative disclosures without quantifiable data (Chikani, Ugwuoke & Nnamdi, 2024). Inadequate information on issues such as energy consumption, greenhouse gas emissions, water usage, and waste management raises questions about the credibility of reports and limits stakeholders' ability to evaluate environmental performance (Nwankwo, 2020). This weak disclosure culture undermines

investor confidence, as shareholders are left uncertain about the extent to which firms are genuinely committed to sustainability.

Another challenge lies in the area of environmental expenditure. Several Nigerian studies have noted that many firms either fail to report their environmental costs or subsume them under general operating expenses (Nwaiwu & Oluka, 2018). Even when expenditures are disclosed, the amounts are often minimal, suggesting that environmental responsibility is not prioritised in resource allocation (Okafor, 2021). This creates a perception gap between corporate communication and actual environmental commitment, further intensifying scepticism about the sincerity of sustainability initiatives in Nigeria (Adedipe, 2022).

In addition, green investments such as renewable energy adoption, waste recycling facilities, and energy-efficient technologies are still at a nascent stage in the Nigerian consumer goods sector. While some firms have made progress, investment levels remain inconsistent and fragmented (Ogbodo, 2023). This raises concerns about whether Nigerian consumer goods companies are prepared to meet global sustainability expectations, especially given the increasing importance of environmental performance in attracting foreign investment and maintaining global competitiveness (Ofoegbu & Meggison, 2022).

The financial implications of these challenges remain ambiguous. Scholars have argued that environmental disclosure and expenditure should influence market performance

positively by signalling transparency, reducing information asymmetry, and demonstrating long-term risk management (Akpan & Nkanta, 2023; Ezekwere, Egbunike & Odum, 2024). However, empirical findings in Nigeria have been mixed, with some studies reporting positive and significant effects, while others reveal weak or insignificant relationships (Akinleye & Ogundipe, 2024). This inconsistency leaves a gap in knowledge about whether green accounting truly drives financial performance in Nigerian consumer goods firms.

Furthermore, most existing Nigerian research has focused broadly on corporate social responsibility or general environmental disclosure without isolating the measurable elements of green accounting such as disclosure indices, environmental expenditure, and green investments. There is also limited use of market-based performance indicators such as market price per share, which directly reflect investor perception and valuation in the capital market (Ogbodo, 2023). The absence of focused, sector-specific studies that link these variables limits the ability of firms, regulators, and investors to make evidence-based decisions.

Against this backdrop, there is a clear research gap. It remains uncertain whether the environmental disclosure, sustainability expenditures, and green investments of consumer goods firms in Nigeria genuinely influence their corporate sustainability and financial performance as measured by market value. Without empirical evidence, sustainability reporting may risk being treated as a mere compliance exercise rather than a strategic

driver of competitiveness and value creation. This uncertainty creates the motivation for the present study, which seeks to provide sector-specific and time-bound evidence on the relationship between green accounting and financial performance of listed consumer goods companies in Nigeria between 2019 and 2024.

1.3 Research Questions

This research will explore the following questions:

1. Is there a significant relationship between environmental disclosure and the market price per share of listed consumer goods companies in Nigeria?
2. Is there a significant relationship between environmental expenditure and the market price per share of listed consumer goods companies in Nigeria?
3. Is there a significant relationship between green investment and the market price per share of listed consumer goods companies in Nigeria?

1.4 Objectives of the Study

The primary aim of this study is to examine the relationship between green accounting practices and the financial performance of listed consumer goods companies in Nigeria. The specific objectives are to:

1. Assess the relationship between environmental disclosure and the market price per share of listed consumer goods companies in Nigeria.
2. Examine the relationship between environmental expenditure and the market price per share of listed consumer goods companies in Nigeria.
3. Investigate the relationship between green investment and the market price per share of listed consumer goods companies in Nigeria.

1.5 Hypotheses of the Study

The study employs null hypotheses, formulated in alignment with the specific objectives, as follows:

1. There is no significant relationship between environmental disclosure and the market price per share of listed consumer goods companies in Nigeria.

2. There is no significant relationship between environmental expenditure and the market price per share of listed consumer goods companies in Nigeria.

3. There is no significant relationship between green investment and the market price per share of listed consumer goods companies in Nigeria.

1.6 Scope of the Study

This study aims to examine the relationship between green accounting practices and the financial performance of listed consumer goods companies in Nigeria. The analysis will focus on companies listed on the Nigerian Exchange (NGX) as of 31st December, 2024. Specifically, the study will encompass firms in the consumer goods sector, which forms a significant part of the Nigerian economy and has strong environmental and social footprints due to its manufacturing intensity and direct interaction with consumers.

The population of this research consists of the 21 consumer goods companies quoted on the Nigerian Exchange Group. The study is designed to cover the period from 2019 to

2024, providing a six-year window for analysis. This timeframe captures recent trends in sustainability and green accounting practices in Nigeria, coinciding with global momentum for improved corporate environmental accountability and Nigeria's adoption of new disclosure frameworks aligned with ISSB and IFRS sustainability standards.

The study will focus on three dimensions of green accounting: environmental disclosure, environmental expenditure, and green investment. Financial performance will be proxied by market price per share. The decision to focus on the consumer goods sector is based on its high visibility, its direct impact on consumers, and the increasing pressure on firms in this sector to demonstrate environmental responsibility and transparency. This scope provides an opportunity to investigate how green accounting contributes to financial outcomes in one of Nigeria's most critical and consumer-facing industries.

1.7 Significance of the Study

This research on the relationship between green accounting and the financial performance of listed consumer goods companies in Nigeria is of great importance to both practice and policy.

First, the study provides timely insights into how green accounting practices, particularly environmental disclosure, expenditure, and investment, affect market performance in a developing economy context. By examining how these practices influence the market price per share of consumer goods firms, the study contributes to a clearer understanding

of whether green accounting enhances firm value in Nigeria. This knowledge is vital for professional bodies such as the Nigerian Exchange Group (NGX) and the Financial Reporting Council of Nigeria (FRCN), as it offers evidence to guide the formulation of effective disclosure requirements and reporting guidelines.

For listed consumer goods companies, the findings of this study will be invaluable in shaping their sustainability and reporting strategies. Understanding which aspects of green accounting most strongly influence investor confidence and share price performance will help firms to allocate resources more effectively, strengthen their reputational capital, and potentially improve access to financing. In an era where sustainable investing is expanding globally, this knowledge can give Nigerian consumer goods firms a competitive advantage both locally and internationally.

For investors and financial analysts, the study provides evidence on the financial relevance of green accounting in Nigeria. It will help them identify firms whose disclosure and investment in environmental practices translate into better market valuation, thereby supporting more informed and socially responsible investment decisions. This aligns with the global movement toward environmental, social, and governance (ESG) conscious investing and enhances transparency in Nigeria's capital market.

Policymakers and regulators will also benefit from the findings. Evidence from this study can inform the design of policies and frameworks that encourage firms to adopt more

robust green accounting practices. By linking disclosure and expenditure to market outcomes, this research demonstrates the economic benefits of sustainability practices, helping to reduce resistance from firms that may view green initiatives as a financial burden.

Academically, this study contributes to the growing body of literature on corporate sustainability and finance in emerging markets. It provides a Nigeria-specific case study that can serve as a reference for scholars, particularly in Africa, where empirical research on the financial impact of green accounting remains relatively scarce.

Finally, society at large will benefit from the broader implications of this study. By showing that environmentally responsible practices can go hand in hand with financial performance, the study promotes the adoption of sustainable business models that protect the environment while ensuring profitability. This has long-term benefits for economic growth, environmental protection, and the well-being of consumers who depend on responsible corporate practices in the consumer goods sector.

1.8 Definition of Terms

Green Accounting

Green accounting refers to the integration of environmental information into conventional accounting and reporting systems. It involves the identification, measurement, and disclosure of costs and investments associated with environmental protection, energy use, waste management, and sustainable resource utilization. In this study, green accounting is

represented by three measurable dimensions: environmental disclosure, environmental expenditure, and green investment.

Environmental Disclosure

Environmental disclosure is the extent to which a firm provides information on its environmental activities, performance, and impact in its annual or sustainability reports. This may include disclosure of energy consumption, greenhouse gas emissions, water usage, waste management, and compliance with environmental regulations. For this research, environmental disclosure is treated as one of the key indicators of green accounting and is measured through a disclosure index constructed from company reports.

Environmental Expenditure

Environmental expenditure refers to the financial resources allocated by a firm towards environmental protection and sustainability-related activities. This may include spending on pollution control, renewable energy projects, environmental training, compliance costs, or remediation programs. Within this study, environmental expenditure serves as a proxy for green accounting, indicating a firm's commitment to environmental responsibility through actual monetary investments.

Green Investment

Green investment represents capital outlays directed toward environmentally friendly projects and technologies. These include investments in renewable energy sources, waste recycling plants, energy-efficient equipment, or other projects designed to reduce environmental impact. In this research, green investment is assessed as a practical indicator of how companies integrate long-term sustainability considerations into their business strategies.

Corporate Sustainability

Corporate sustainability is the ability of a firm to operate responsibly by balancing economic performance with environmental stewardship and social responsibility. It reflects how well companies manage risks and opportunities related to environmental and social issues in a way that supports long-term business growth. In this study, corporate sustainability is understood as an outcome linked to green accounting practices, expressed through improved stakeholder trust, compliance with sustainability standards, and alignment with global reporting frameworks.

Financial Performance

Financial performance refers to the degree to which a firm uses its resources to achieve profitability, market value, and shareholder wealth. It reflects the financial outcomes of business decisions, strategies, and operations. In this study, financial performance is

measured through market price per share, which captures investor perception of company value and the influence of green accounting practices on market confidence.

Market Price per Share (MPS)

Market price per share is the value of a company's stock as determined by trading on the stock exchange. It reflects investor confidence, firm performance, and expectations of future growth. For the purpose of this study, market price per share serves as the proxy for financial performance, providing a market-based measure of how green accounting practices influence firm value in the Nigerian consumer goods sector.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews relevant literature on the relationship between green accounting, corporate sustainability, and financial performance of listed consumer goods companies in Nigeria. It examines the conceptual foundations of green accounting and its components, the link between environmental practices and corporate outcomes, and the challenges in implementing such practices. The chapter also identifies research gaps in existing studies and discusses the theoretical frameworks, including Stakeholder and Legitimacy theories, which underpin the study.

2.2 Conceptual Review

2.2.1 Green Accounting

Green accounting also known as environmental accounting, involves the integration of environmental costs and impacts into financial reporting and traditional financial accounting systems of companies. It has emerged as a crucial concept in response to growing concerns about environmental degradation and sustainability. The US protection agency (EPA, 2021) defines green accounting as the process of identifying, measuring, and allocating environmental costs, into business decisions and reporting.

This approach enables organizations to quantify previously externalized environmental impacts, such as carbon emissions and resources depletion, making them visible in traditional financial analyses. Schaltegger and Burritt (2010) expand this conceptualization by distinguishing between three dimensions of green accounting: management accounting, internal environmental cost tracking), financial accounting (recognition of environmental liabilities), and external reporting (sustainability disclosures). These practices have gained significance as stakeholders in increasingly demand transparency regarding corporate environmental performance (freeman, 1984).

The term Green Accounting has variety of meanings. In many context, Green Accounting is taken to mean the identification and reporting of environmental specific costs (Nkwoji, 2021), and benefits or effects. Green accounting is a method of measuring, in economic terms, the performance of any type of organization in relation to the environment. The goal is to provide information on the company's operational performance based on environmental protection. Conventional accounting only provides economic information that is financial in nature to shareholders and bondholders for the decision making. Environmental impacts need to be reported as a manifestation of responsibility towards stakeholders (Astuti, 2012). Green Accounting or environmental accounting aims at achieving sustainable development, maintaining a favourable relationship with the community, and pursuing effective and efficient environmental conservation activities. The accounting procedures allow a company to identify the cost of environmental

conservation during the normal course of business. Green Accounting is a method of reporting the impact that a company's management activities have on the environment by including it in financial report environmental accounting, according to (Kundu and Hauff 2009), concentrates on the costs of environmental liability and other sustainable environmental expenses reporting.

The implementation of green accounting can provide information about the extent to which an organization or company makes a positive or negative contribution to the quality of human life and the environment. Green accounting measures and recognises environmental costs, other social costs and present the information in the financial statements.

2.2.2 Green Accounting and Corporate Sustainability

According to the US environmental protection agency (EPA), sustainability is based on a simple principles that can be interpreted as everything we need for the survival and wellbeing of life, which directly or indirectly affects the natural environment (www.epa.gov). sustainability creates and maintains a condition in which humans and nature can live together in harmony, which enables it to meet the social, economic and other needs of the current and future generations. The concept of sustainability began to be introduce globally by the Brutland commission in the common future reporting activity organized by the world commission on the environment and development (WCED, 1987). WCED connects sustainability with environmental and social integrity

by creating a term called sustainable development which is defined as development that meets current needs without reducing the needs of future generation (WCED, 1987, p.43;(Linnenluecke & Griffiths, 2010)). Sustainability development explains that production most not trigger undue depletion of natural resources or threaten the environment. In other word sustainability joins economic and social systems with environmental factors.

Corporate sustainability refers to business strategies that integrate environmental, social, and governance (ESG) considerations into long- term decision- making while maintaining economic viability (Elkington, 1997). Rooted in the concept of sustainable development – defined by the Brundtland commission (world commission on environmental and development [WCED], 1987) AS "meeting present needs without compromising future generations"—corporate sustainability emphasises the triple bottom line (TBL) frame work of balancing profit, people and the planet.

Green Accounting plays a pivotal role in enhancing corporate sustainability by systematically integrating environmental considerations into financial decision making processes. It involves the identification, measurement, and reporting of environmental costs associated with a company's operations, such as resources usage, emissions, and waste disposal. By accounting for these externalities, the organization can assess the true environmental impact of their activities and adjust their strategies accordingly (khan & Gupata, 2024).

The implementation of Green Accounting practices supports corporate sustainability by promoting transparency, improving regulatory compliance, fostering responsible resource management. Companies, that disclose their environmental performance often experience increase in stakeholder confidence and a stronger reputation, which can contribute to long- term success. Furthermore, aligning financial objectives with environmental priorities allows firms to pursue sustainable development while maintaining profitability (Kartini, Puspitasari, & Larpiana, 2024).

Empirical evidence suggests that businesses adopting green accounting frameworks are more likely to implement sustainable practices across their value chains, contributing to both ecological preservation and economical resilience. As sustainability becomes a central concern for investors, regulators, and consumers, the strategic integration of green accounting has evolved from a voluntary initiative to a competitive necessity in many industries.

2.2.3 Green Accounting on Financial Performance

Financial performance refers to an organisation's ability to effectively utilize its resources to generate revenue and manage expenses over a specific period (Brigham &Ehrhardt, 2020). Key indicators of financial performance include profitability, revenue growth, return on investment, and efficiency ratios. Strong financial performance indicates operational effectiveness and the potential to deliver long - term value to stakeholders. Conversely, poor financial results may highlight inefficiencies or external challenges

impacting business operations. Regular evaluation of financial performance is crucial for informed decision-making, strategic planning, and maintaining investor's confidence (Penman, 2013).

Green accounting integrates environmental costs and benefits into financial reporting, influencing corporate financial performance. Research indicates that firms adopting green accounting practices often experience improved cost efficiency through reduced waste and energy consumption, leading to higher profitability (Schaltegger & burritt, 2018). Additional, transparent environmental disclosures enhance investor confidence, resulting in better access to capital and higher market valuations (Eccles et al.,2020). Regulatory compliance and risk mitigation further strengthen financial stability, as companies avoiding environmental penalties and leverage sustainability incentives report stronger long-term returns (Alshehhi el al., 2018). Empirical studies, such as those by Al-tuwaijri el al. (2004), demonstrate a positive correlation between environmental accounting and key financial metrics, including return on equity (ROE) and return on assets (ROA). Thus, green accounting not only support sustainability but also contributes to superior financial outcomes by aligning ecological responsibility with economic performance.

Moreover, green accounting can enhance a firm's reputation and stakeholder confidence, which indirectly contributes to financial performance through improved market valuation and customer loyalty. Transparent environmental disclosures serve as signals of responsible governance and risk management, helping firms meet investor expectations

in increasingly sustainability-conscious markets (Ezekwere & Ikilidi, 2024). The relationship between environmental performance and financial performance can be observed in terms of income and costs. From the income side, it can be explained that consumer preference for consumer-oriented products allows these companies to enjoy market differentiation, competitive advantages, and consumers have a tendency to be willing to pay higher prices for environmentally oriented products(premium prices). On the cost side, there are many benefits that companies get as a result of increasing efficiency, avoiding potential liabilities, been better positioned to meet or exceed standards, and creating entry barriers for potential competitors. Thus, it can be explained through disclosure of environmental costs, that it will reflect the business ethics carried by the company, as well as responsible management of resources. This will increase the social trust of the stakeholders such as the public and the consumers, which in turn will be able to improve financial performance, such as achieving maximum company profitability. According to Dutta et ai. (2020) stated that green accounting issue relate to corporate profitability.

Green accounting has a significant effect for financial performance in the oil industry, where environmental costs and regulatory pressures are substantial. By incorporating environmental liabilities—such as carbon emissions, oil spill remediation, and regulatory compliance –into financial statements, oil companies can improve cost management and operational efficiency (Hassan & Romilly, 2018). Studies suggest that firms adopting

green accounting practices, such as quantifying emissions-related risks and investing in cleaner technologies, experience reduced long-term compliance costs and enhanced profitability (bui el al. 2021). Empirical research, including a studying a study by Albarrak et al. (2022), found that oil firms utilizing green accounting metrics reported stronger return on equity (ROE) due to improved risk mitigation and access to green financing.

2.2.4 Challenges in Implementing Green Accounting

Despite the growing adoption of green accounting practices across industries, several significant challenges hinder its full implementation and effectiveness. One major obstacle is the lack of standardized guidelines and regulatory frameworks. While some international bodies such as the Global Reporting Initiative (GRI) provide voluntary reporting frameworks, there is no universally mandated structure for environmental accounting, leading to inconsistencies in reporting practices across firms and sectors (Khan & Gupta, 2024).

Another challenge is the difficulty in quantifying environmental costs and benefits. Assigning monetary values to environmental externalities such as carbon emissions, biodiversity loss, or water pollution often involves subjective judgements and complex estimation models , which can reduce the reliability and comparability of green accounting reports (Okporo et al., 2024). Many companies also lack the internal technical expertise or data infrastructure required to accurately track and measure such metrics.

Additionally, organizational resistance and short-term financial pressure pose barriers to adoption. Firms may hesitate to implement green accounting practices due to perceived high cost, a lack of immediate financial returns, or a low level of awareness among management and staff (Ezekwere &Ikilidi, 2024). This is especially common in developing economies where environmental regulations are less enforced or where businesses prioritize short-term profitability over long-term sustainability.

Lastly, the absence of stakeholder pressure or incentives can limit corporate motivation to adopt green accounting. Without strong regulatory mandates or market-driven incentives, as optional rather than strategic.

Addressing these challenges requires stronger institutional support, clearer reporting standards, capacity-building initiatives, and a shift in corporate culture toward long-term environmental responsibility.

2.3 Research Gaps and Future Directions

While the existing literature provides valuable insights into the benefits of green accounting on corporate sustainability and financial performance, several research gaps remain that warrant further scholarly attention. One of the most pressing gaps is the limited number of the longitudinal and casual studies. Most current research relies on cross-sectional or correlational data, which restricts the ability to infer causal relationships between green accounting practices and firm performance over time (Khan

& Gupta, 2024). Longitudinal studies would better capture the dynamic effects of environmental investments and reporting on financial and sustainability outcomes.

Another significant gap is the lack of uniform standards for environmental accounting. Although voluntary frameworks like the GRI and ISO 14001 offer guidance, their inconsistent application across industries and regions limits the comparability and reliability of environmental disclosures (Kartini, Puspitasari, & Karpriani, 2024). Future research could explore the development of sector-specific green accounting metrics and assess the feasibility of integrating these into existing financial reporting systems such as IFRS.

There is also a scarcity of empirical research in emerging and developing economies, particularly in regions like Sub-Sahara Africa and Southeast Asia.

Many studies are concentrated in developed countries or specific industries such as manufacturing and energy (Okporo et al., 2024). Expanding geographic and sectoral coverage could enhance the generalizing of findings and reveal context-specific drivers of green accounting effectiveness.

Furthermore, there is need for research into the organizational and behavioural factors influencing the adoption of the green accounting. Factors such as leadership commitment, employee awareness, and organizational culture remain underexplored yet are critical to the successful implementation of environmental initiatives (Ezekwere & Ikilidi, 2024).

Finally, emerging technologies such as blockchain , artificial intelligence, and big data analytics offer new avenues for enhancing the precision and credibility of green accounting systems. However, studies examining the integration of these digital tools into environmental reporting are still in their infancy. Future investigations could examine how digital transformation can support more effective, real-time environmental accounting.

Addressing these gaps will not only contribute to academic theory but also provide practical insights for policymakers, standard-setters, and corporations aiming to improve environmental accountability and performance.

2.4 Theoretical Framework

The relationship between green accounting, corporate sustainability, and financial performance is supported by several theoretical views that explain why and how firms add environmental considerations into their strategic and financial decision-making.

Stakeholder Theory (freeman, 1984) is one of the primary frameworks that gives support to green accounting. It argues that organisations have a responsibilities not only to shareholders but also to a broader group of stakeholders, which include customers, regulators employees, and the community. According to the hypothesis, organisations disclose environmental information as a result of stakeholder pressure, and that an organisation would respond to the worries and expectation of influential stakeholders,

with some reaction taking the form of strategic disclosures. The society, shareholders, creditors, workers, customers, and suppliers, all of whom may be interested in the business's social and environmental actions, are stakeholders in the context a business. These individuals are referred to as stakeholders by Freeman (1984). Stakeholders vary in terms of their type and extent of influence on a company's operations. Organisations are thus responsible to these stakeholders and rely on their continual approval to sustain a successful operating environment, according to Roberts (1992). Stake holder theory focus on establishing elements that influence a company's ability to continue to exist. According to stakeholder theory companies require the support and acknowledgement of stakeholders in order to improve their environmental performance. These enterprises must communicate their positions, efforts, and accomplishments in the applications of environmental responsibility to their stakeholders (Elijido-ten, 2004). Firms must consequently increase stakeholders trust, remove misunderstandings about environmental protection, and build relationships with external stakeholders, before disclosing additional data which can enhance good reputation and long-term performance. As environmental awareness grows, businesses must manage stakeholder interests to become eco-friendly within their operational environment (Daryanto et al., 2020). According to Daryanto et al.(2020), the key focus of stakeholder theory in environmental disclosure is to manage environmental disclosure, value, and inclusion in financial statements for external users.

Legitimacy Theory

Legitimacy theory states that the organisation must ensure that it's operation most adhere to the boundaries and standards of the communities in which they operate. The theory is based on the phenomena of social contact between organisations and society, in which an organisation's goals must be compatible with societal ideals. Organisational actions, according to this notion, must have socially acceptable activities and performance. There is a threat to society's legitimacy when there is a disparity (incompatibility) between the two systems. To run the company well, managers must meet the expectations of society, to create a legitimised company status (C. M. Deegan, 2019). Implementation of activities that are in accordance with community expectations can build stakeholder trust in the company (kholmi & Nafiza, 2022). This can happen because if the company discloses the components of environmental costs in its annual report or sustainability report, it can attract the attention of stakeholders and legitimize the company so that profitability will be in the same direction (Rounaghi, 2019).

Effective green accounting practices can reduce environmental uncertainty, cost reduction and enhances economic performance.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology adopted to examine the effect of green accounting on corporate sustainability and financial performance among listed consumer goods companies in Nigeria for the period 2019 to 2024. The study uses an ex post facto design based on secondary, archival firm-year data drawn from annual reports, sustainability reports, and Nigerian Exchange records.

3.2 Research Design

This study adopted an ex post facto research design to investigate the relationship between green accounting practices and the financial performance of listed consumer goods companies in Nigeria. The choice of this design is appropriate because the study relies on historical data obtained from published annual reports, financial statements, and market records of firms, covering the period from 2019 to 2024. The variables of interest, including environmental disclosure, environmental expenditure, green investment, and market price per share, are already determined by company practices and cannot be influenced or manipulated by the researcher.

3.3 Population and Sample

The target population for this study comprises all 21 consumer goods companies listed on the Nigerian Exchange (NGX) as of December 31, 2024. These companies were selected because of their significant contributions to the Nigerian economy and their potential environmental and social impacts. The study employs a census sampling technique, using the entire population of 21 companies, provided they have available and complete annual reports for the period 2019–2024. This approach ensures a comprehensive analysis of firms operating in the consumer goods sector and enhances the external validity of the study.

3.4 Data Sources/Collection

This study employed secondary data, collected from the published annual reports and financial statements of listed consumer goods companies in Nigeria. The variables of interest include green accounting indicators (environmental disclosure, environmental expenditure, and green investment) and financial performance, represented by market price per share.

Data on environmental disclosure were derived using a structured disclosure index developed in line with the Global Reporting Initiative (GRI) framework, while data on environmental expenditure and green investment were obtained from relevant notes in the annual reports. Market price per share figures were extracted from Nigerian Exchange

records. The choice of Nigeria as the research setting is justified by the importance of the NGX as one of the most active stock markets in West Africa and the growing attention to sustainability practices among listed firms. The study period of 2019 to 2024 was chosen to capture recent trends in corporate sustainability reporting and green accounting practices in the consumer goods sector.

3.5 Model Specification

The econometric model for this study adapts from prior literature, particularly Nwaiwu and Oluka (2018), but is modified to include green accounting variables as independent constructs and financial performance as the dependent construct. The functional form of the model is expressed as:

$FPt = f(ED, EE, GI, FS)$

Where:

FPt = Financial Performance in year t, measured by Market Price per Share (MPS)

EDt = Environmental Disclosure in year t

EEt = Environmental Expenditure in year t

GIt = Green Investment in year t

FSt = Firm Size in year t

The econometric form of the model is specified as follows:

$FP_{it} = \beta 0 + \beta_1 ED_{it} + \beta 2 EE_{it} + \beta 3 GI_{it} + \beta 4 FS_{it} + U_{it}$

Where:

i = individual firms

t = time (2019–2024)

U_{it} = error term, assumed to be normally distributed with zero mean and constant variance

3.6 Operationalisation and Measurement of Variables

To provide clarity on how the variables in this study are defined and measured, this section outlines the operationalisation process. The independent variables are environmental disclosure, environmental expenditure, and green investment, while the dependent variable is financial performance, measured by market price per share (MPS). Firm size is included as a control variable. The disclosure index is constructed using a content analysis approach, drawing from the Global Reporting Initiative (GRI) Standards and the International Sustainability Standards Board (ISSB) guidelines, which are widely recognised frameworks for sustainability reporting.

Table 3.7.1: Variable Description and Operationalisation

Variable	Measurement/Indicator	Expected Sign	Sources
Financial Performance (MPS)	Closing market price per share at financial year end		Akpan & Nkanta (2023), Ogbodo (2023)
Environmental Disclosure (ED)	Environmental disclosure index based on GRI/ISSB checklist	+	Akinleye & Ogundipe (2024), Ezekwere et al. (2024)
Environmental	Environmental expenditure disclosed	+	Nwaiwu &

Expenditure (EE)	in monetary terms (scaled by sales), or binary (1 if disclosed, 0 otherwise)		Oluka (2018), Okafor (2021)
Green Investment (GI)	Green capital investments disclosed in annual reports (scaled by total capex), or binary (1 if disclosed, 0 otherwise)	+	Ofoegbu & Meggison (2022), Ogbodo (2023)
Firm Size (FS)	Natural logarithm of total assets	+	Akpan & Nkanta (2023), Adedipe (2022)

Source: Researcher's Compilation (2025)

Table 3.7.2: Green Accounting Disclosure Index (Sample Indicators with Codes)

Attribute	Item	Narration	Code
Environmental Disclosure (ED)	Carbon Emissions	Assign 1 if the company discloses carbon emissions, 0 otherwise	ED1
	Waste Management	Assign 1 if the company discloses waste management or recycling practices, 0 otherwise	ED2
	Energy Usage	Assign 1 if the company discloses total energy usage or energy efficiency initiatives, 0 otherwise	ED3
	Water Usage	Assign 1 if the company discloses water consumption or conservation practices, 0 otherwise	ED4
	Climate Action	Assign 1 if the company discloses climate change mitigation or emission reduction initiatives, 0 otherwise	ED5
Environmental Expenditure (EE)	Pollution Control Costs	Assign 1 if the company discloses pollution control costs, 0 otherwise	EE1
	Environmental Levies/Taxes	Assign 1 if the company discloses environmental taxes or levies, 0 otherwise	EE2
	Environmental Training	Assign 1 if the company	EE3

		discloses expenditure on environmental training or awareness, 0 otherwise	
	Remediation/Restoration Costs	Assign 1 if the company discloses costs of site remediation or restoration, 0 otherwise	EE4
Green Investment (GI)	Renewable Energy Projects	Assign 1 if the company discloses investment in renewable energy, 0 otherwise	GI1
	Waste Recycling/Management Facilities	Assign 1 if the company discloses investment in recycling or waste treatment facilities, 0 otherwise	GI2
	Energy-efficient Equipment	Assign 1 if the company discloses investment in energy-efficient technologies, 0 otherwise	GI3
	Water Treatment/Conservation Infrastructure	Assign 1 if the company discloses investment in water treatment or conservation facilities, 0 otherwise	GI4

Source: Researcher's Compilation (2025)

3.7 Methods of Data Analysis

The analysis of this study will begin with preliminary tests, including descriptive statistics to summarise the basic features of the variables, such as mean, standard deviation, minimum, maximum, skewness, kurtosis, and the Jarque-Bera statistic for normality. Diagnostic tests will also be conducted to ensure the validity of the regression estimates. These include multicollinearity tests using the Variance Inflation Factor (VIF) and heteroskedasticity tests.

To address the study objectives, panel data regression techniques will be employed. Both fixed effects and random effects models will be estimated, with the Hausman specification test applied to determine the more appropriate model for the data. The regression will be estimated using panel least squares (PLS), relating financial performance, proxied by market price per share, to the explanatory variables of environmental disclosure, environmental expenditure, and green investment, while firm size will be included as a control variable.

The choice of panel regression is appropriate as it controls for firm-specific characteristics and captures variations across time, thereby improving the robustness and explanatory power of the results. Statistical tests of significance will be conducted at the 5 percent level. All analyses will be carried out using econometric software to ensure accuracy, reliability, and reproducibility of findings.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the analysis of data on green accounting and financial performance of listed consumer goods firms in Nigeria. The focus is to examine how environmental disclosure, environmental expenditure, and green investment affect market price per share from 2019 to 2024. Descriptive, correlation, and panel regression analyses were conducted using data obtained from firms' annual and sustainability reports. Results are presented in tables and interpreted in line with the study objectives to reveal how green accounting practices influence corporate sustainability and market value. The results are presented and interpreted as follows:

4.2 Data Presentation and Interpretation

4.2.1: Descriptive Analysis

Table 4.1: Descriptive Analysis

Summary	*Firm Value*	*Firm Size*	*ED*	*EE*	*GI*
Mean	188.97	4.08	0.99	0.92	0.95
Standard Error	25.63	0.15	0.00	0.00	0.01
Median	65.00	4.53	1.00	0.94	1.00
Mode	65.00	4.53	1.00	0.94	1.00
Standard Deviation	286.56	1.70	0.04	0.05	0.08
Sample Variance	82116.07	2.90	0.00	0.00	0.01

Kurtosis	7.24	-0.45	59.93	4.61	2.97
Skewness	2.62	-0.50	-7.81	-2.00	-1.82
Range	1399.50	6.73	0.33	0.28	0.36
Minimum	0.50	0.41	0.67	0.72	0.64
Maximum	1400.00	7.13	1.00	1.00	1.00
Sum	23621.10	510.22	124.33	115.28	118.82
Count	125	125	125	125	125

Source: Authors compilation using Excel

The descriptive statistics provide an overview of the data used to evaluate how green accounting practices influence the financial performance of listed consumer goods companies in Nigeria. The mean market price per share of 188.97 indicates a relatively high average market value among the sampled firms. However, the standard deviation of 286.56 shows wide dispersion, suggesting that firm values differ considerably across the sector. The median and mode, both at 65.00, are lower than the mean, which supports the positive skewness of 2.62. This means that a few firms recorded exceptionally high market values compared with the majority. The kurtosis value of 7.24 confirms a leptokurtic distribution, indicating that extreme observations are concentrated around the upper tail of the distribution.

For firm size, the mean value of 4.08 and the standard deviation of 1.70 imply moderate variability among the sampled firms. The median and mode, both at 4.53, are close to the mean, and the skewness value of −0.50 suggests a slightly left-skewed but almost normal distribution. The kurtosis of −0.45 indicates a fairly flat pattern around the mean, which means the firms have comparable asset bases and operate within a similar size range.

The green accounting indicators show consistently high averages. Environmental disclosure (mean = 0.99), environmental expenditure (mean = 0.92), and green investment (mean = 0.95) all reveal that most companies maintain strong commitments to environmental responsibility. The low standard deviations for the three variables demonstrate limited variation, indicating that the sampled firms have adopted similar environmental practices. The negative skewness values show that many firms score near the maximum possible disclosure and investment levels, while the high kurtosis values reflect that the distributions are concentrated around these upper scores.

In summary, the descriptive analysis reveals that while financial performance varies widely among consumer goods firms, their engagement in green accounting practices remains consistently high. This suggests that companies in the sector generally recognise the importance of environmental management and disclosure as part of their operational strategies. The patterns observed here form the basis for the subsequent correlation and regression analyses that test the specific relationships among the study variables.

4.2.2: Correlation Analysis

Table 4.2: Correlation Analysis

	Firm Value	*Firm Size*	*ED*	*EE*	*GI*
Firm Value	1				
Firm Size	0.493	1			
EDI	0.0654	0.0452	1		
GDI	0.120	0.0527	-0.0543	1	
SDI	0.175	-0.0142	-0.0764	0.101	1

Source: Authors compilation using Excel

The correlation analysis explores the association between **firm value**, **firm size**, and the **green accounting variables** (environmental disclosure, environmental expenditure, and green investment) among listed consumer goods companies in Nigeria.

The correlation coefficient between **firm value and firm size** is 0.493, indicating a moderate positive relationship. This shows that larger firms tend to have higher market values, likely because they possess stronger resource bases, better visibility, and greater investor confidence.

The relationship between **firm value and environmental disclosure (ED)** is weak and positive, with a coefficient of 0.065. This suggests that while firms that disclose more environmental information tend to have slightly higher market values, the association is not strong. The correlation between **firm value and environmental expenditure (EE)** is also positive but low (0.120), indicating that spending on environmental activities has a small yet favourable connection with market performance. The relationship between **firm value and green investment (GI)** shows the strongest positive correlation among the green accounting variables (0.176). This implies that firms investing more in environmentally friendly projects tend to achieve better market valuations, though the relationship remains modest.

Firm size shows weak associations with the green accounting indicators. The correlations between **firm size and ED (0.045)** and **firm size and EE (0.053)** are both low, meaning that company size does not significantly influence disclosure or environmental spending

levels. The slightly negative relationship between **firm size and GI (−0.014)** further confirms that investment in green projects is not necessarily dependent on firm size.

Among the green accounting variables themselves, **ED and EE** are weakly and negatively correlated (−0.054), indicating that a higher level of disclosure does not always correspond with increased environmental expenditure. Similarly, **ED and GI (−0.076)** have a weak inverse relationship, suggesting that some firms disclose environmental information without making equivalent investment commitments. However, the positive correlation between **EE and GI (0.101)** shows that companies that spend more on environmental programs often make related green investments.

Overall, the results show that firm value is moderately related to firm size and only weakly related to green accounting variables, particularly green investment. The weak correlations among the green accounting indicators suggest that companies vary in their emphasis across different environmental practices. These findings provide preliminary insight into the patterns of association among the study variables and justify the need for regression analysis to determine the extent and significance of these relationships.

4.2.3: Regression Analysis

Table 4.3: Regression Analysis

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.5357
R Square	0.2870
Adjusted R Square	0.2632
Standard Error	245.9755
Observations	125

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	2921920.9877	730480.2469	12.0733	0.0000
Residual	120	7260471.7807	60503.9315		
Total	124	10182392.7683			

	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	-1555.8261	717.0757	-2.1697	0.0320
Firm Size	82.3650	13.0044	6.3336	0.0000
ED	418.3530	528.7289	0.7912	0.4304
EE	436.8247	425.4936	1.0266	0.3067
GI	620.3075	268.6972	2.3086	0.0227

Source: Authors compilation using Excel

The regression analysis was conducted to examine how environmental disclosure (ED), environmental expenditure (EE), and green investment (GI) affect the financial performance of listed consumer goods firms in Nigeria, while firm size (FS) was included as a control variable. The model uses market price per share (MPS) as the dependent variable, representing firm value.

The Multiple R value of 0.5357 indicates a moderate positive relationship between the predicted and actual firm values, suggesting that the independent variables have a meaningful combined effect on market performance. The R Square value of 0.2870 shows that 28.7 percent of the variation in firm value is explained by the model, while the Adjusted R Square of 0.2632 confirms that the model remains reliable after accounting for the number of variables included. The standard error of 245.98 shows that the predicted firm values deviate moderately from the actual figures, which suggests that the model has an acceptable level of accuracy.

The ANOVA result confirms the overall significance of the model. The F-statistic of 12.0733 with a probability value of 0.0000 indicates that the independent variables jointly have a statistically significant effect on firm value at the 5 percent level. This means that the set of predictors used in the model can explain the variations in firm value better than by chance.

The coefficient of the intercept is −1555.83 and it is statistically significant with a p-value of 0.032. This means that when all independent variables are held constant, firm value would be negative. The result implies that without the influence of green accounting variables and firm size, the market value of firms would decline, showing that these variables are essential drivers of value creation.

Firm size has a positive coefficient of 82.37 with a very low p-value of 0.000. This confirms that larger firms tend to achieve higher market values. A one-unit increase in

firm size is associated with an 82.37-unit increase in firm value. This finding supports the view that larger firms benefit from economies of scale, market confidence, and resource advantages that enhance financial performance.

Environmental disclosure has a positive coefficient of 418.35 but is statistically insignificant with a p-value of 0.430. This means that while environmental reporting contributes positively to firm value, its effect is not strong enough to be considered significant. It is possible that disclosure alone, without tangible environmental performance, does not strongly influence investors' perception.

Environmental expenditure also shows a positive coefficient of 436.82 with a p-value of 0.307. This indicates that firms that spend more on environmental programs tend to have slightly higher firm values, although the relationship is not statistically significant. The result suggests that the financial benefits of environmental spending may not be immediate or easily captured in short-term market performance.

Green investment has a coefficient of 620.31 and a p-value of 0.0227, which indicates a positive and statistically significant relationship with firm value. This means that firms that commit resources to environmentally friendly projects tend to experience better market valuation. A one-unit increase in green investment leads to an estimated 620.31-unit increase in firm value. This result demonstrates that investors place greater value on visible, long-term environmental investments than on disclosure or expenditure figures alone.

In general, the regression results show that the model is statistically valid and meaningful. Firm size and green investment are the major determinants of firm value among the variables considered. Environmental disclosure and expenditure, though positive, do not exert a significant influence. These findings highlight that environmental actions which produce measurable outcomes, such as green investments, are more likely to improve market confidence and financial performance. The model provides evidence that green accounting practices, when combined with organizational scale, can play an important role in driving sustainable growth and firm value in Nigeria's consumer goods sector.

4.2.4: Diagnostic Analysis

Table 4.4: Diagnostic Analysis

Test	**p-value**	**Conclusion**
ADF	0.0000	No Unit Root
Breusch-Pagan	0.0056	Heteroscedasticity present
Breusch-Pagan LM	0.423	No Cross-Sectional dependence
Breusch-Godfrey	0.0000	No Serial Correlation

Source: Authors compilation using R programming

Diagnostic tests were conducted to evaluate the reliability and validity of the regression model and to ensure that the underlying assumptions of the classical linear regression

model were not violated. The tests included the Augmented Dickey-Fuller (ADF) test for stationarity, the Breusch-Pagan test for heteroscedasticity, the Breusch-Pagan LM test for cross-sectional dependence, and the Breusch-Godfrey test for serial correlation.

The ADF test result produced a p-value of 0.0000, which is below the 0.05 significance level. This indicates that the variables are stationary, meaning their statistical properties such as mean and variance remain constant over time. The absence of unit roots confirms that the model's variables are suitable for regression analysis and will not produce spurious results.

The Breusch-Pagan test shows a p-value of 0.0056, which is statistically significant at the 5 percent level. This suggests the presence of heteroscedasticity in the model, implying that the error variances are not constant across observations. Although this violates one of the assumptions of the classical regression model, the issue can be corrected through the application of the Generalized Least Squares (GLS) method or the Two-Stage Least Squares (2SLS) approach to ensure more consistent and efficient parameter estimates.

The Breusch-Pagan LM test returned a p-value of 0.423, which is greater than 0.05. This indicates that there is no evidence of cross-sectional dependence among the sampled firms. The absence of cross-sectional dependence means that the performance of one firm does not directly influence the performance of another within the panel dataset. This finding supports the reliability of the model's estimates in representing independent firm-specific behaviour.

Finally, the Breusch-Godfrey test result yielded a p-value of 0.0000, confirming that there is no serial correlation in the residuals. The absence of serial correlation suggests that the error terms are independently distributed over time and that the model's predictions are not systematically biased.

In summary, the diagnostic analysis validates the robustness of the regression results. Although heteroscedasticity was detected, other key assumptions such as stationarity, independence, and lack of autocorrelation hold true. By addressing the heteroscedasticity problem with appropriate estimation techniques, the model can provide efficient and reliable estimates of the relationship between green accounting variables and firm value among consumer goods companies in Nigeria.

4.3. Hypothesis Testing

This section presents the test of hypotheses formulated in Chapter One using evidence derived from the regression results in Table 4.3 and the correlation outcomes discussed earlier. The decision rule states that when the probability value (p-value) is less than 0.05, the null hypothesis is rejected in favour of the alternative, but when the p-value is greater than 0.05, the null hypothesis is not rejected.

4.3.1 Environmental Disclosure and Financial Performance (H_{01})

Null Hypothesis (H_{01}): Environmental disclosure has no significant effect on the financial performance of listed consumer goods firms in Nigeria.

From the regression result, environmental disclosure recorded a positive coefficient of B = 418.35, but with a p-value of 0.4304, which is greater than 0.05. This means that the variable is not statistically significant in explaining variations in firm value. Although the positive coefficient suggests that firms with higher environmental reporting tend to have slightly higher market values, the relationship is weak and not strong enough to be considered meaningful in statistical terms.

This finding implies that while companies may publish environmental information, such disclosures alone do not necessarily enhance market performance. It is possible that investors perceive environmental reporting as routine or as a regulatory compliance requirement rather than a key indicator of profitability or long-term growth.

Decision: Since $p > 0.05$, do not reject H_{01}. Environmental disclosure does not have a significant effect on the financial performance of listed consumer goods companies in Nigeria.

4.3.2 Environmental Expenditure and Financial Performance (H_{02})

Null Hypothesis (H_{02}): Environmental expenditure has no significant effect on the financial performance of listed consumer goods firms in Nigeria.

The regression coefficient for environmental expenditure is B = 436.82 with a p-value of 0.3067, which is greater than 0.05. The result shows a positive but statistically insignificant relationship between environmental expenditure and firm value. This means

that while increased spending on environmental activities might contribute marginally to the reputation and operational efficiency of firms, such expenditure does not significantly influence their market price per share during the study period.

This outcome suggests that the financial benefits of environmental spending may take time to materialize or may not be immediately recognized by investors. Firms might also be underreporting the economic gains from environmental investment, which reduces its visible impact on market valuation.

Decision: Since $p > 0.05$, do not reject H_{02}. Environmental expenditure does not significantly influence the financial performance of listed consumer goods companies in Nigeria.

4.3.3 Green Investment and Financial Performance (H_{03})

Null Hypothesis (H_{03}): Green investment has no significant effect on the financial performance of listed consumer goods firms in Nigeria.

The regression analysis shows that green investment has a coefficient of B = 620.31 and a p-value of 0.0227, which is below the 0.05 significance level. This indicates a positive and statistically significant relationship between green investment and firm value. Therefore, as companies commit more funds to renewable energy, energy-efficient production, and waste management infrastructure, their market performance improves.

The result demonstrates that tangible and verifiable environmental actions such as capital investment in sustainability yield direct economic and reputational benefits. Investors appear to reward firms that move beyond disclosure and allocate real resources to environmentally responsible operations.

Decision: Since $p < 0.05$, reject H_{03}. Green investment has a significant positive effect on the financial performance of listed consumer goods firms in Nigeria.

4.4 Discussion of Findings

The findings of this study provide empirical insights into the relationship between green accounting practices and financial performance among listed consumer goods companies in Nigeria. The analyses focused on three major dimensions of green accounting: environmental disclosure, environmental expenditure, and green investment, with market price per share (MPS) representing financial performance and firm size as a control variable.

4.4.1 Environmental Disclosure and Financial Performance

The study revealed that environmental disclosure had a positive but statistically insignificant effect on firm value ($B = 418.35$, $p = 0.4304$). This suggests that while companies that disclose environmental information tend to have slightly higher market values, the influence is weak and not statistically meaningful. Many firms in Nigeria's consumer goods sector disclose environmental information mainly to meet regulatory or

public expectations, rather than to demonstrate measurable environmental performance. Consequently, such disclosures may not strongly affect investors' valuation decisions.

This finding aligns with Nwobu (2022), who observed that environmental disclosure by Nigerian manufacturing firms improved corporate visibility but had limited influence on financial performance. Similarly, Okafor and Ugochukwu (2021) reported that most listed firms in Nigeria treat environmental reporting as a compliance exercise rather than a strategic tool for improving firm value. However, the result contrasts with Akinleye and Ogundipe (2024), who found that detailed quantitative disclosure of environmental costs and performance indicators significantly enhanced firm value. The variation across studies may be due to differences in disclosure quality and industry characteristics. Overall, the insignificance of environmental disclosure in this study suggests that investors may require stronger evidence of environmental performance rather than narrative disclosures before rewarding firms with higher valuations.

4.4.2 Environmental Expenditure and Financial Performance

The result showed a positive but statistically insignificant relationship between environmental expenditure and firm value (B = 436.82, p = 0.3067). This implies that spending on environmental protection, pollution control, waste management, and related activities does not significantly influence the market price per share of listed consumer goods firms in Nigeria. Although such expenditures enhance compliance and corporate image, their short-term financial benefits may be minimal or delayed.

This result is consistent with Adeleye and Adegbite (2022), who found that Nigerian firms' environmental expenditures did not have an immediate impact on profitability but improved long-term sustainability and stakeholder trust. Olayinka and Alabi (2021) also reported that environmental spending can initially increase operational costs before yielding measurable returns. Similarly, Chikani et al. (2024) observed that most Nigerian firms underreport environmental spending, making it difficult for investors to quantify its financial impact. The findings of this study therefore indicate that while environmental expenditure is important for compliance and social responsibility, its direct contribution to short-term financial performance remains limited in Nigeria's consumer goods sector.

4.4.3 Green Investment and Financial Performance

The regression analysis revealed that green investment had a positive and statistically significant effect on firm value (B = 620.31, p = 0.0227). This means that companies that invest in renewable energy, energy-efficient technology, or other environmentally sustainable projects tend to experience higher market valuation. Green investment demonstrates a firm's genuine commitment to sustainability, which enhances investor confidence, reduces regulatory risks, and strengthens brand reputation.

This finding agrees with Abubakar and Dandago (2022), who reported that firms that invested in green innovation and renewable energy in Nigeria recorded improved financial performance and market reputation. Ekwochi and Eze (2021) similarly found that capital investment in green infrastructure significantly increased profitability among

Nigerian manufacturing firms. In addition, Horváth and Pucihar (2021) confirmed that sustainable investment practices enhance firm resilience, reduce operational risks, and positively influence stock performance in European markets. The consistency of these results reinforces the evidence that green investment is the most impactful dimension of green accounting on financial performance in Nigeria's consumer goods industry.

4.4.4 Firm Size and Financial Performance

Firm size was found to have a strong and statistically significant relationship with firm value (B = 82.37, p = 0.000). This indicates that larger consumer goods firms tend to perform better financially, as they possess greater resources, operational capacity, and market strength to implement sustainability initiatives. Larger firms are also more likely to attract investors, improve disclosure standards, and benefit from economies of scale.

This result is supported by Nwaigwe et al. (2022), who showed that firm size enhances market confidence and profitability among listed Nigerian companies. Similarly, Bellucci et al. (2019) found that large firms are better positioned to implement sustainability strategies that boost corporate image and shareholder value. Ogbodo (2023) also observed that larger Nigerian firms were more resilient to market fluctuations due to their stronger governance and environmental management systems.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATION

5.1 Introduction

This chapter presents the summary of findings, conclusion, and recommendations derived from the analysis and discussion in Chapter Four. The study examined the influence of green accounting practices—specifically environmental disclosure, environmental expenditure, and green investment—on the financial performance of listed consumer goods companies in Nigeria. Financial performance was measured using market price per share, while firm size was included as a control variable. The chapter highlights key results from the regression, correlation, and diagnostic analyses, draws conclusions from the empirical evidence, and proposes practical recommendations for firms, policymakers, and researchers.

5.2 Summary of Findings

The study sought to determine how various aspects of green accounting affect the financial performance of listed consumer goods companies in Nigeria. The major findings are summarized as follows:

1. **Environmental Disclosure and Financial Performance**

   The regression analysis showed a positive but statistically insignificant relationship between environmental disclosure and firm value. This suggests that

while disclosing environmental information enhances transparency and corporate image, it does not significantly influence market value within the Nigerian consumer goods sector. Many firms focus on narrative disclosures rather than measurable environmental performance indicators, which may reduce investor confidence in such reports.

2. **Environmental Expenditure and Financial Performance**

   The results revealed that environmental expenditure had a positive but insignificant effect on firm value. Although investments in pollution control, waste management, and environmental protection promote compliance and long-term sustainability, they appear to increase operational costs in the short term. This finding implies that environmental spending has more of a reputational and regulatory benefit than an immediate financial payoff.

3. **Green Investment and Financial Performance**

   Green investment demonstrated a positive and statistically significant influence on firm value, indicating that firms that allocate resources to renewable energy, energy-efficient technologies, and sustainable infrastructure experience improved financial performance. This suggests that tangible environmental actions are more valued by investors than mere disclosures or expenditures.

4. **Firm Size and Financial Performance**

   The analysis confirmed that firm size is a significant determinant of financial performance. Larger firms tend to have stronger financial positions and more

resources to implement effective sustainability programs. Their scale allows for efficient cost management, better investor confidence, and enhanced market reputation.

5.3 Conclusion

This study examined the influence of green accounting practices on corporate sustainability and financial performance of listed consumer goods companies in Nigeria. The research focused on three major components of green accounting: environmental disclosure, environmental expenditure, and green investment, with market price per share used as the measure of firm value and firm size as a control variable. The study was conducted to determine how these components contribute to the financial success and long-term sustainability of firms in the consumer goods sector.

The findings from the empirical analysis presented in Chapter Four provided valuable insights into the relationship between environmental responsibility and firm performance. The results revealed that environmental disclosure and environmental expenditure both had positive but statistically insignificant effects on firm value. This implies that while these activities are essential for transparency and regulatory compliance, they are yet to translate into measurable financial gains in the Nigerian consumer goods industry. Many firms disclose environmental activities primarily to meet reporting obligations rather than as a strategic tool for investor confidence or performance improvement. This limited

impact may also be attributed to the qualitative nature of most environmental reports, which often lack verifiable data and quantifiable indicators that investors can rely on.

In contrast, green investment showed a significant and positive effect on firm value. This means that companies that allocate resources to renewable energy projects, energy-efficient technologies, and sustainable production systems tend to perform better financially. Such investments enhance corporate reputation, improve operational efficiency, and reduce long-term costs associated with environmental risks. This finding highlights that investors place greater confidence in firms that demonstrate practical environmental commitment through capital projects rather than through disclosures alone. The evidence clearly suggests that green investment is the most influential component of green accounting in improving firm value among listed consumer goods companies in Nigeria.

Firm size was also found to have a statistically significant and positive impact on firm value. Larger firms are better equipped with financial and managerial resources that enable them to implement sustainability initiatives effectively. They also benefit from greater market visibility, improved access to capital, and stronger stakeholder trust, all of which enhance their overall financial performance. The finding implies that scale provides a competitive advantage in both implementing and benefiting from sustainability practices.

Overall, the study has shown that while environmental disclosure and environmental expenditure are important, they do not significantly influence firm value at the current

stage of adoption in Nigeria. However, green investment plays a vital role in improving financial performance and ensuring long-term corporate sustainability. This means that firms should move beyond symbolic or voluntary reporting of environmental issues and focus on integrating sustainability directly into operational and investment decisions.

5.4 Recommendations

Based on the key findings of this study, the following five recommendations are proposed to enhance the financial and environmental impact of green accounting among listed consumer goods companies in Nigeria:

1. **Prioritize Green Investment as a Strategic Driver of Growth'**

   Firms should allocate substantial resources to projects that promote renewable energy, energy efficiency, and sustainable production systems. Green investment should be integrated into the corporate strategic plan as a key mechanism for reducing costs, improving productivity, and increasing profitability over time.

2. **Enhance the Quality and Depth of Environmental Disclosure**

   Companies should move from narrative-based reporting to quantitative, evidence-based environmental disclosures. Reports should include measurable indicators such as energy consumption, carbon emissions, water usage, and waste reduction.

3. **Optimize Environmental Expenditure for Long-Term Value Creation**

   Firms should view environmental spending as a strategic investment rather than a short-term cost. Resources should be directed toward initiatives that yield

measurable environmental and economic benefits, such as waste recycling programs, clean production technologies, and pollution prevention systems. Over time, such expenditures will contribute to cost savings and improved corporate reputation.

4. **Strengthen Institutional and Regulatory Support for Green Accounting**

   Government agencies such as the Financial Reporting Council of Nigeria (FRCN), the Nigerian Exchange Group (NGX), and the Corporate Affairs Commission (CAC) should enforce comprehensive sustainability reporting standards. These agencies should also provide incentives for firms that implement verifiable green accounting systems. A unified framework will enhance the reliability of environmental data and increase investor confidence.

5. **Build Capacity and Promote Awareness Among Corporate Stakeholders**

   Firms should organize continuous training for their accounting, audit, and environmental management teams on modern green accounting practices and sustainability reporting frameworks. Stakeholders should also be educated on how environmental performance contributes to financial success. Awareness and technical competence will ensure that sustainability practices are well understood, correctly implemented, and effectively reported.

5.5 Suggestions for Further Studies

Future research should broaden the scope of this study to include other sectors beyond the consumer goods industry, such as manufacturing, oil and gas, telecommunications, and banking. This would enhance the general applicability of the findings and provide a more comprehensive understanding of how green accounting influences financial performance across industries. Researchers are also encouraged to employ a longitudinal research design to capture the long-term financial and sustainability effects of environmental disclosure, environmental expenditure, and green investment, since their impacts may unfold gradually over time.

Further studies may explore the role of regulatory frameworks and enforcement mechanisms in shaping the quality and reliability of green accounting practices in Nigeria. Comparative studies between publicly listed and privately owned firms could reveal differences in how ownership structure affects environmental and financial reporting behaviour. Additionally, future research could examine the mediating and moderating roles of firm characteristics such as board composition, industry competition, or financial leverage in the relationship between green accounting and firm value. Finally, researchers may investigate the challenges firms face in implementing green accounting, such as cost implications, technical expertise, and lack of standardized guidelines, and propose practical solutions to overcome them.

5.6 Contribution to Knowledge

This study contributes to the growing body of knowledge on sustainability accounting and corporate performance in developing economies by providing empirical evidence from Nigeria's consumer goods sector, an area that has received limited scholarly attention. The findings confirm that environmental disclosure, environmental expenditure, and green investment influence firm value differently, with green investment emerging as the most significant driver of financial performance. By applying descriptive, correlation, and regression analyses, the study presents a data-driven assessment of how green accounting practices enhance corporate sustainability and financial outcomes.

The study further demonstrates that while environmental disclosure and expenditure may not have immediate financial effects, they are vital for promoting transparency, compliance, and long-term legitimacy. Green investment, however, directly contributes to profitability and market confidence, underscoring its strategic relevance. Overall, the study positions green accounting not only as a regulatory necessity but also as a value-creating approach that aligns financial success with environmental responsibility. The findings provide practical guidance for managers, investors, and policymakers to strengthen reporting frameworks, develop incentive structures, and promote the wider adoption of sustainability practices across industries.

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