

**Sustainability Reporting and Financial Performance of Listed Deposit Money Banks in
Nigeria**

**Adedolapo Esther AJAYI
LCU/PG/002011**

**Being a MSc Thesis Submitted to the Department of Management & Accounting,
Faculty of Management & Social Sciences,
Lead City University, Ibadan, Oyo State, Nigeria**

**In Partial Fulfillment of the Requirements for the Award of Master of Science Degree
(MSc) in Accounting**

2023

Chapter One

Introduction

1.1 Background to the Study

Financial performance is a subjective evaluation of an organization's ability to utilize its assets from its principal method of operation to generate revenue. It can also be used to compare similar enterprises in the same sector or to compare industries or sectors in aggregate. There are numerous ways to assess financial performance, but all measures should be aggregated. These include revenue from operations, operating income, or cash flow from operations, as well as total unit sales. In addition, the analyst or investor may want to dig further into the financial accounts to search for margin growth rates or any falling debt.

There has been an increasing debate on the impact of sustainability activities on businesses, along with the growing awareness of these amongst the public and other stakeholders. The basis for the heated debate has been the impact of sustainability reporting on the financial performance of corporations or firms¹. Sustainability reporting refers to all the social and non-compulsory duties of an organization to its host communities amongst other stakeholders¹. One would assume if actually a business, firm or corporation has any responsibility to these stakeholders, including the communities where they operate. This is because, for any business activity to be carried out by firms and corporations in any location, there seem to be some legal implications and regulations that cut across their responsibilities within the laws, health and safety issues, human rights issues as well as the local content laws that are meant to protect divergent interests. But obviously, more is expected on the part of business due to the adverse effects of their continuous operations on a daily basis.

Businesses have traceable direct and indirect social and environmental impacts that lead to social problems, Green House Gas (GHG) emissions, climate change, global warming, air or water pollutions, disasters and numerous other negative tendencies. Because of this, many business organizations take much responsibility for social and environmental issues; just the same way they do for economic issues¹. The reason for this is not far-fetched; corporations are much more concern at tackling a number of social expectations and concerns raised by various stakeholder groups. Sustainability is a major global concern. It is highly associated with the elements and ingredients ensuring the survival of life on Earth. This modern concept is also integrated with the overall aspects of human life (social, environmental, and economic), which were later considered the three pillars of sustainability². The first beginnings of “sustainability” as an official term can be dated back to the eighties of the last century, where it addressed the survival of humanity on the planet, the most common sustainability concept³. Sustainability Reporting (SR) has brought about high level of interest among scholars in the field of accounting recently. The argument so far is the impact on financial performance (FP) of a given enterprise.

There are some important questions that needed to be considered such as: does a green environment matter? What is the relative importance of business ethics, social responsibilities and business social and environmental management? What relationship does it have with performance? Should the organization’s decision makers take them into account and lots more? Recently, both communities and organization are paying greater attention to corporate sustainability reporting (CSR) and green environment (GE)⁴. For a company, it is not enough to accept sustainability values alone, so stakeholders must be informed of their commitment to using sustainability reporting⁵. For Business (CSRR) is the most comprehensive and

comprehensive social responsibility document, and companies can use this report to demonstrate its commitment to stakeholders⁶.

Previous research has also shown that the information disclosed in CSRR, as well as data in annual reports, could better reveal the true state of the company to stakeholders. Sustainability reporting primarily includes voluntary disclosure, clearly demonstrating that there are clear business cases to use^{7,8}. As a result, given that companies are not liable if they do not benefit from the corporate social responsibility, this disclosure plays an important role in investor regulations regarding transactions, purchases, or property rights. In addition, the global social responsibility investment movement has shown that traditional economic, environmental and social information is used to choose investments⁸. The approach that organizations can use to integrate social, economic and environmental issues transparently and responsibly into their policies, ethics, decision-making and strategies is called corporate social responsibility.

Nonetheless, maximizing shareholder's interests has traditionally dominated the business strategy of many firms across the world, including Deposit Money Banks. The obvious reason for this is that organizational management (or agents) run the business on behalf of the owners (or principals). The primary interest of company owners has frequently been seen as important in order for the business to preserve its capital. However, recent events such as global warming and environmental degradation have generated concerns about the operations of most commercial organizations and their negative economic, social, and environmental implications on man and the environment. Concerns urge that businesses abandon the narrow goal of classical economic theory in favour of long-term corporate plans that include goals other than maximizing shareholders' interests⁹. Companies throughout the world are increasingly being challenged to expand their accounting information reporting to include sustainability reporting standards as

part of their corporate strategy and competitive advantage¹. Companies must have strong governance and workplace policies that consider the environmental and social demands of present and future stakeholders in order to achieve long-term sustainability. Corporate Sustainability refers to the recognition and incorporation of such social and environmental factors into the firm's governance and strategic operations (CS). In essence, CS means aligning the organization's competitive actions to meet the present requirements of existing stakeholders without risking future stakeholders' ability to meet future needs, hence contributing economic, environmental, and social value to the enterprise¹⁰. The three line (Triple bottom line) values are targeted at the economy, society and environment respectively¹¹. Deposit money banks' operations have an impact on individuals and businesses both nationally and globally. Because the financial sector is considered the backbone of any economy due to the provision of financial resources, it is a potential important driver for achieving the transition to an inclusive low carbon and resource efficient economy. The financial industry has the potential for significant multiplier effects due to bank lending and investment activity if the sector implements and disseminates responsible and transparent corporate sustainability practices throughout the financial capital value chain. As a result, this study was driven by the need to investigate the influence of sustainability reporting on the performance of Nigerian deposit money institutions.

1.2 Statement of the Problem

Over the past two decades, due to the increasing public interest in social and environmental issues, organizations have revealed more information about sustainability and have been closely monitored by the media. The effect of sustainability activities remains notably increasing together with the growing interests amongst the stakeholders and the public, and the focus has been on the relative contributions to the society and the environment. Out of about two hundred

and fifty (250) largest corporations worldwide, only about 80% reported sustainability activities in 2008, and about 93% did in 2017¹².

Deposit money banks, in general, attempt to achieve considerable profits from their financial operations and investment activities. Hence, sustainability should be a component of all activities and processes related to the firm's environmental, economic, and social activities. The literature has been dominated by the debate over whether or not there is a link between a company's engagement in sustainable practices and business performance. This may be due to the fact that most organizations' operations have sparked widespread environmental concern among stakeholders.

In contrast, financial success is critical to deposit money banks' aims of survival, progress, and growth in the face of ongoing internal and external obstacles such as asset size, liquidity, inflation rate, interest rate, etc. Financial performance comprises the accurate interpretation of the plans and activities undertaken by the business in order to invest property, some assets, equipment, and capabilities in order to achieve predetermined goals¹³. Deposit money banks also aspire for high profits on their financial operations and investment activities. As a result, the disclosure of sustainability and financial information is critical in controlling stakeholder value and raises the question of whether these perceptions provide value for market investors. There appear to be numerous challenges to sustainability practices, ranging from estimation and projection difficulties, materiality, understanding connections between activities and effects, developing robust indicators, verifiability and assurance, and the test of applying generally rigorous accounting benchmarks to sustainable and development issues. Despite existing empirical information covering the past five decades worldwide and more than ten years in Nigeria, there appears to be a lack of convergence among the conclusions of most previous

investigations. Similarly, earlier studies have investigated the impact of financial information on firm valuations, and market perceptions of data consistency may overstate the importance of financial information, which is the gap addressed by this research^{15,16}.

In previous years, several studies have investigated the dimensions of sustainability which include the economic dimension, the environmental dimension and the social dimension and how these dimensions uniquely have a significant positive or negative effect on the financial performance of organizations across various sectors and industries. As a result, the purpose of this research is to look into the influence of sustainability reporting on the financial performance of Nigerian listed deposit banks. This study has investigated the extent to which sustainability reporting affects financial performance of money deposit banks in Nigeria by evaluating the relationship between sustainability reporting and financial performance of money deposit banks.

1.3 Aim and Objectives of the Study

The purpose of this research is to look into the effects of sustainability reporting on the financial performance of Nigerian deposit money institutions. However, the specific objectives are to:

- i. investigate the impact of social sustainability reporting on the financial performance of deposit money banks in Nigeria.
- ii. examine the impact of economic sustainability reporting on the financial performance of deposit money banks in Nigeria.
- iii. determine the extent at which environmental sustainability reporting affect financial performance of deposit money banks in Nigeria.

- iv. infer the effect of Employee Health & Safety Reporting on the financial performance of deposit money banks in Nigeria.

1.4 Research Questions

The study intends to provide answers to the following research questions:

- i. In what way does social sustainability reporting impact the financial performance of deposit money banks in Nigeria?
- ii. How does economic sustainability reporting impact the financial performance of deposit money banks in Nigeria?
- iii. How can environmental sustainability reporting affect the financial performance of deposit money banks in Nigeria?
- iv. What is the effect of Employee Health & Safety Reporting on the financial performance of deposit money banks in Nigeria?

1.5 Hypotheses

H01: Social sustainability reporting has no significant effect on the financial performance of deposit money banks in Nigeria.

H02: Economic sustainability reporting has no significant effect on financial performance of deposit money banks in Nigeria.

H03: Environmental sustainability reporting has no significant effect on financial performance of deposit money banks in Nigeria.

H04: Employee health and safety reporting has no significant positive limitation among deposit money banks in Nigeria.

1.6 Significance of the Study

The major significance of this study is that it revealed the relationship between the three dimensions of sustainability; economic, social and environmental sustainability reporting; and financial performance of Deposit Money Banks in Nigeria. The study is therefore significant in the following ways:

- i. It will be useful to users of the financial statement as it would provide them with adequate information on a firm's interaction, contribution and investments within its environment to the various stakeholders. This is very important owing to the fact that it solidifies the organizations legitimacy owing to its social contract with the environment.
- ii. The outcome of this study will also serve as a reference point for future researchers in this field of research. The findings and recommendations of this research work would also help broaden the frontier of knowledge as this study is a new area in accounting.
- iii. This study is different from others because it focused solely on the effect of social and environmental disclosures on financial performance of environmental non-sensitive companies specifically in the banking sector in Nigeria.

1.7 Scope of the Study

The study carried out investigations spanning through mainly the Deposit Money Banks in Nigeria. The study aims to investigate the environmental non-sensitive companies among listed companies in the Nigeria Exchange Group mostly Deposit Money Banks listed in the Nigeria Exchange Group. Thus, this research work focused on the effect of sustainability reporting on the financial performance of Deposit Money Banks listed in the Nigeria Exchange Group. To this end, secondary data were sourced from the annual report of selected Deposit Money Banks listed on the floor of the Nigerian Exchange Group Market. With Nigeria as the geographical scope of this study, the population is the entire Deposit Money Banks in Nigeria while sample size is ten (10) Deposit Money Banks listed in the Nigerian Exchange Group.

The period covered is eleven (11) years (2010-2021). The choice of this period is based on availability of data. The research work focused on the Deposit Money Banks as stated earlier because manufacturing sector has received much attention, given its relatively high impacts on the environment, and higher innovation potential.

1.8 Limitation of the Study

There are caveats to this study that need to be recognized in order to open opportunities for additional research. This study is focused on Sustainability Reporting and Financial Performance of Listed Deposit Money Banks in Nigeria. Therefore, findings of this study are paramount to the institution specified and therefore inappropriate for any other type of assessment. The data sourcing also has some limitation, the research ensured that data gathered were appropriate to variables examined in this study and were sourced from listed deposit money banks in Nigeria,

while there are other banks that relate with sustainability reporting posing a limitation on the research.

1.9 Operational Definition of Terms

Environment: Environment refers to the external factors and conditions that affect an organisation's operations, performance, and decision-making processes. It encompasses various elements, including the economic, social, technological, legal, political, and competitive factors that surround and impact an organization.

Economy: The economy is the mechanism that organises the use of labour, equipment, vehicles, land and other natural resources in order to satisfy the desires of the people who live in a society. This mechanism involves the complexity of interactions related to the production, distribution, and consumption of goods and services. The economy is closely intertwined with other spheres of society, such as politics, culture and ideology.

Environmental Conservation: This is basically the practice of us humans to save the environment from collapsing, such as loss of species, eco systems due to pollution and human activities. This helps both trees and animals, since some of us are dependent on them to survive

Environmental Non-sensitive Companies: This refers to companies or businesses that generate fewer environmental waste, hazardous substances or contribute less to environmental pollution. This includes Banks, Insurance Companies, Telecommunication Companies, and host of other businesses that provides services as against manufacturing firms and oil and gas companies.

Financial Performance: This is a subjective measure of how well a firm can use assets from its primary mode of business to generate revenues. The term is also used as a general measure of a firm's overall financial health over a given period.

Employee Health and Safety: Health and safety at work is aimed at creating conditions, capabilities, and habits that enable the worker and his/her organization to carry out their work efficiently and in a way that avoids events which could cause them harm. Work safety requires that safe working conditions should not create significant risk of people being rendered unfit to perform their work.

Global Reporting Initiative (GRI): The Global Reporting Initiative is an international independent standards organization founded in 1997 that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights and corruption.

Social and Environmental Accounting and Reporting: This is a means of communication between a company and its stakeholders. Stakeholders include the internal and external ones, namely; shareholders and investors, employees, suppliers, society, banks, regulators and government.

Sustainability Reporting: This is referred to a reporting system that encompasses all the three dimensions of sustainability, namely; social, economic and environmental dimensions.

Endnotes

- ¹J. N. Nnamani., U. L. Onyekwelu, & O. K. Ugwu, ."Effect of sustainability accounting and reporting on Financial performance of firms in Nigeria brewery sector". **European Journal of Business and Innovation Research**,5(1),2017 1-15.
- ² United Nations General Assembly. "World summit outcome Resolution A/60/1; adopted by the General Assembly on 15 September, 2005. 2015
- ³ IUCN/UNEP/WWF."Caring for the Earth: A Strategy for Sustainable Living: 1991.
- ⁴ D. Lamond "Corporate social responsibility: making trade work for the poor",*Management Decision*,Vol. (45)8, 2007, pp. 1200-1207.
- ⁵ Rashid. "The influence of corporate governance practices on corporate social responsibility reporting". **Social Responsibility Journal**, 14 (1) 2018, 20-39. DOI 10.1108/SRJ-05-2016-0080 (2017)
- ⁶ Kilic, Uyar & Karaman. "What impacts sustainability reporting in the global aviation industry?" *An institutional perspective. Transport Policy*, 79(2019),54–65. (2019)
- ⁷ M. H. Ullah, & M. A Rahman.. "Corporate social responsibility reporting practices in banking companies in Bangladesh". **Journal of Financial Reporting and Accounting**, 13(2), 200-225. doi:10.1108/jfra-05-2013-0038
- ⁸ M Hossain & Q Rowe. "Corporate social and environmental reporting practices: A case of listed companies in Bangladesh". **Sustainability Accounting, Management and Policy Journal**, 8 (2), 138-165. DOI 10.1108/SAMPJ-04-2015-0027 (2017)
- ⁹ Z Houqe & Karim. "The value relevance of corporate donations". 2019 *PacificBasin Finance Journal*. doi.org/10.1016/j.pacfin.2019.03.004
- ¹⁰ I. C. Lourenco. Branco, M. C., Curto, J. D., &T.Eugenio, "How does the market value corporate sustainability performance?" **Journal of Business Ethics**, 10(8), 2012, 417-428. <https://doi.org/10.1007/s10551-011-1102-8>
- ¹¹ PricewaterhouseCoopers. "Corporate sustainability definition and challenges." Retrieved July 2, 2019, from <http://www.csrquest.net>2016.
- ¹² T.O Asaolu, A. A. Agboola, T.J Ayoola&Salawu, M. K.. "Sustainability reporting in the Nigerian Oil and Gas Sector". *Proceedings of the Environmental Management Conference*. Federal University of Agriculture, Abeokuta, Nigeria. 2011.
- ¹³ KPMG - Survey of Corporate Responsibility Reporting: 2017.

¹⁴. O.AOkolie& A.C Igaga A. C. Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria. *International Business & Economics Studies* ISSN 2640-9852 (Print) ISSN 2640-9860 (Online) Vol. 2, No. 2, 2020.

¹⁵. J.D Margolis, & J.P Walsh. "Misery loves companies: rethinking social initiatives by business". *Administrative Science Quarterly*, 48(2), 268-305.
<https://doi.org/10.2307/3556659>(2003)

¹⁶. O.Nwobu, "The relationship between corporate sustainability reporting and profitability and shareholders fund in Nigerian banks". *Journal of Accounting and Management*, 5(3), 2015, 1-12.

Do Not Copy, Lead City University, LCU

Chapter Two

Literature Review

This chapter seeks to review previous empirical reviews that investigated sustainability reporting and financial performance of Deposit Money Banks listed on the Nigeria stock exchange.

2.1 Conceptual Review

2.1.1 An Overview of Sustainability Reporting

Sustainability reporting is the integration of reporting and accounting for social, economic, and environmental aspects into corporate reporting, sometimes known as "Triple Bottom Line" or integrated reporting¹. The notion of sustainability reporting emphasizes that, in order to maximise profit and shareholder wealth, businesses should strive to integrate social and environmental performance into their activities and decision making. Sustainability is a notion based on systems. Sustainability promotes transformational effectiveness and equitable distributional outcomes¹. The management of sustainability performance requires a good framework that connects the three dimensions of sustainability to the enterprise, competitive strategy, and management, as well as the integration of environmental and social information with economic business information². Managing corporate sustainability demands an analysis of the effects of social and environmental activities on the overall profitability of the corporation³.

Sustainability practices and corporate reporting involve the reporting of a company's lawful existence in the community amidst mounting conflicts regarding the lack of harmony between businesses, the environment, and society. Sustainability reporting is the practice of measuring, disclosing, and being accountable to internal and external stakeholders regarding an

organization's performance towards the goals of sustainable development⁴. Sustainability disclosures are intended to improve financial performance, attract the most talented employees, and inspire leaders. It is the reporting method that gives host communities oversight of commercial investments. In addition, sustainability is a subset of accounting and reporting that focuses on the actions, methods, and systems used to record, analyse, and report environmental and socially induced financial impacts, as well as ecological impacts, resulting from company activities⁵.

Organizations are part of complex systems whose activities have direct and indirect effects on the environment; therefore, their continuous existence and survival needs consideration of the social, economic, and environmental consequences of their actions. Similarly, as the human population increases, so does the need for utilities, resulting in the expansion of industrial technology. Consequentially, the number and quality of environmental resources continue to diminish. This has increased concern regarding nature fragmentation and biodiversity loss, greenhouse gas emissions, fresh water shortages, global warming, adverse weather conditions, water pollution, air pollution, environmental noise or hazards, and a disregard for the protection of the immediate environment and, more importantly, the environment of the future.

Sustainability reporting has become more common due to a growing recognition that sustainability-related issues can have a material impact on a company's performance, demands from various stakeholder groups for increased levels of transparency and disclosure, and the need for companies (and the business community in general) to respond appropriately to issues of sustainable development⁶. Sustainability reporting requires businesses and organisations to demonstrate their corporate responsibility by monitoring and publicly reporting their economic, social, and environmental performance and impacts⁷. However, the Global Reporting Initiative's

definition of sustainability reporting is one of the most helpful ones (GRI). Sustainability reporting is the process of measuring, revealing, and holding internal and external stakeholders accountable for an organization's performance in achieving sustainable development goals⁸. Leaders in corporate sustainability create long-term shareholder value by aligning their strategy and management to capitalise on the market's potential for sustainability products and services while simultaneously minimising and avoiding sustainability costs and risks. The origins of sustainability reporting lie in environmental or non-financial reporting.

2.1.2 Social Sustainability

Social sustainability requires organisations to report their social consequences in order to ensure that their operations are not only responsible but also socially sustainable⁹. To alleviate the obstacles of living sustainably, the community and key players in society must engage in a process of social learning that enhances and expands their capacity to make appropriate decisions regarding complicated issues. Social sustainability comprises the dynamic integration of formal and informal processes, structures, and connections with capacity building that increases the potential of present and future generations to produce healthy, livable communities³. In addition, to ensure the construction of social sustainability, community structures and processes must be democratic, open, and accountable, as well as participation-encouraging.

Social sustainability includes enhancing human resource-related practises (e.g., employees' training and development, employees' health and safety, diversity, equal opportunity and wage discrimination issues), addressing consumers' issues (e.g., customers' health & safety, product labelling, communication practises, customers' complaints and compliance with product laws), protecting human rights (e.g., freedom of association, eradicating child labour issues,

nondiscrimination), and safeguarding human rights (e.g., freedom of association). The concept rose to prominence as a result of the organisations' ethical orientation, which acknowledged the importance of social duties in addition to their primary goal of profit maximisation.

Social sustainability is the commitment of a business to behave socially and environmentally responsibly while pursuing its economic objectives. It encompasses the company's relationships with all of its stakeholders, ranging from market-related (customers, shareholders, suppliers) to internal (e.g., employees, board of directors) to social (e.g., government, non-governmental organizations)¹¹. It is anticipated that the variety of stakeholders and their concerns will lead to economic, environmental, and social corporate responsibility. Social sustainability is a hard-nosed business decision, not because it is the right thing to do or because people are forcing us to do it, but because it is advantageous to our business¹¹. Social sustainability refers to those operations that are not mandated by the laws of the nations in which a business operates and are not for the primary benefit of the business, but rather for the benefit of society. Similarly, social sustainability is expressed as a steadfast commitment of enterprises, regardless of their nature, to conduct themselves in a manner consistent with ethics and to contribute to economic progress by refining and enhancing the standard of living of the people. It is a steadfast commitment by businesses, regardless of their nature, to conduct ethically and contribute to economic development, which was proclaimed an intrinsic aspect of governance. Social sustainability was a technique by which firms reported to their stakeholders the social and environmental dimensions of their corporate activities¹². It was also viewed as the process of sharing information (both financial and non-financial) concerning the reporting entity's resources and social performance. In addition, it was viewed as an organization's commitment to operate in an economically and environmentally sustainable manner while taking into account the needs of all

stakeholders¹². According to an opposing viewpoint, social sustainability is a social construct that cannot be generally defined¹³. However, the success of every corporation is contingent upon its corporate social orientation, values, and most importantly, its ethical orientation.

The European Commission offered a more comprehensive concept of social sustainability. According to the report, "corporate social responsibility is about firms having responsibilities and taking activities beyond their legal requirements and economic/business goals¹⁴." These broader obligations encompass a variety of domains, but they are typically summed up as social and environmental, where social refers to society broadly construed as opposed to social policy issues. This is summarised by the triple bottom line approach: economic, social, and environmental considerations¹¹. Exploring the dimensions of social sustainability concepts, it can be concluded that social sustainability encompasses the following ten dimensions: obligation to society; stakeholder involvement; improving the quality of life; economic development; ethical business practise; law abiding; voluntarism; human rights; environmental protection; transparency; and accountability¹⁶.

2.1.3 Economic Sustainability

Economic sustainability refers to a company's obligation to earn profits in order to maintain its organisational capability¹⁶. The requirement for economic sustainability disclosures includes the direct economic value generated and distributed, the financial implications and other risks as well as opportunities for the organization's activities as a result of climate change, the coverage of the company's defined benefits plan obligations, and significant government assistance¹⁷. Economic sustainability seeks to preserve capital. If social sustainability attempts to create social equality, economic sustainability seeks to raise the standard of life. It refers, in the context of

business, to the efficient utilization of assets to sustain firm profit over time. A primary objective of sustainable development is to maintain high and stable levels of economic growth; therefore, abandoning economic growth is not an option. Sustainable development is more than just economic growth, and both the quality and amount of growth are important¹⁸." Critics of this concept acknowledge a significant gap in present accounting standards, which do not factor the cost of environmental damage into market prices. A more modern approach to economics recognises the limited incorporation of ecological and social factors into the model¹⁸. New economics incorporates natural capital (ecological systems) and social capital (relationships between people) and questions the mantra of capital that continuous expansion is good and greater is better if it poses a threat to the ecological and human system¹⁹.

2.1.4 Environmental Sustainability

Environmental performance of companies is the efficiency with which a company creates a healthy environment. It also refers to the measurable outcome of an environmental management system's control of an organization's environmental aspects in accordance with its policies, objectives, and environmental targets. Environmental performance is strongly correlated with environmental management inside a company²⁰. The company's implementation of environmental measures was spurred by a number of factors, including legislative mandates, cost considerations, stakeholder pressures, and competitive imperatives²¹. The regulatory demand entails oversight of environmental management systems, whereas cost factors deal with complaints against the company's products and the consequences of high supervision costs, as well as its attendant effects on reducing pollution, which have led to the emergence of a variety of costs ranging from waste management, clean engine technology, and cleaning costs²¹.

Regarding stakeholder focus, the corporation will always seek to fulfil the diverse interests of stakeholders in order to identify a broad need for proactive environmental management.

In the last two decades, environmental reporting and its subsequent evolution into sustainability reporting have been the most important element of accounting and the environment²². Environmental reporting provides a platform for a comprehensive reevaluation of corporate performance. Environmental reporting is not a novel notion, but it remains a fascinating topic for academics and a hotly contested matter for corporate management and their stakeholders. Corporate environmental sustainability reporting refers to how a corporation communicates the environmental effects of its activities to specific interest groups within society and society at large²³. Through environmental communication, businesses may attempt to affect the public's impression of their operations. As they interact with the environment as a whole, including the use of natural resources and a company's impact on earth's ecosystems, compliance with environmental regulations, leadership in addressing climate change, energy-efficient operations, renewable energy, natural resource conservation, pollution prevention programmes, strategy toward sustainable development, and programmes to engage stakeholders in environmental improvement, they attempt to cultivate a positive reputation. Given that accounting provides the most essential corporate system of information gathering and analysis in the context of environmental accounting, someone must explain how resources have been utilised. Consequently, environmental accounting aims to produce environmental reports for relevant parties. Environmental reports, according to the European Environmental Agency, are "the primary medium for company communication on the environment and a fair and reliable picture of the firm's environmental activities²⁴." The purpose of environmental reports is to inform stakeholders about a company's environmental responsibilities, ensure business transparency,

and establish a reputation for being responsible partners who contribute to environmental protection and the quality of life in the local community.

The construction of an environmental management system is a precondition for good environmental reporting and the basis for any serious environmental accounting²⁵. Incorporating environmental concerns requires the integration and synergies between environmental management system and environmental accounting. The sharing of environmental information is a tool that can aid in the management of scarce natural resources²⁶. Environmental reporting is a business activity that displays a company's dedication to addressing environmental concerns. However, the application of environmental accounting, the collection of environmental data, and the preparation of environmental reports are not simple endeavours.

There are numerous challenges that could impede this procedure. In prior studies, numerous relevant elements were examined. Some cited a lack of knowledge, owner and manager attitudes, human resources, finances, consumer attitudes, operational structure of a firm, as well as legislation and accreditation as obstacles to the implementation of environmental practices²⁶. Not involving employees in the process of environmental management, a lack of internal skills, knowledge, and experience, the complexity of the management system, unclear benefits, limited human resources, and the cost of external support were cited by another individual as the primary barriers to the implementation of environmental management, which were likely to affect the implementation of environmental reporting processes²⁶. Corporate environmental reporting has evolved into a tool for enhancing company communication, demonstrating environmental responsibility, and providing useful information for decision-making. It refers to the systematic and comprehensive statements of environmental burden and environmental efforts in organisations' activities, including environmental policies, objectives, programmes, and their

outcomes, and organisational structures, in accordance with the general reporting principles of environmental reporting.

Environmental reporting might be motivated by both internal and external, concrete and intangible, financial and ethical factors²⁷. Over time, the motives for reporting have evolved. The primary reasons for reporting were as follows: (a) to demonstrate commitment and transparency; (b) to demonstrate the ability to compete in competitive markets; (c) to plan activities, become more sustainable, and position the company; and (d) to comply with regulations²⁸. Corporate environmental reporting is a modern management instrument that firms can use to deliver information to external stakeholders and identify possibilities to improve internal processes, acquire advantages, and assure their own sustainability. Environmental reports (a) enable greater differentiation of companies in terms of environmental risk, which is the objective of the business community; and (b) provide adequate accountability to the community, which is the objective of regulatory entities, non-governmental organisations, and society²⁹. Companies report environmental information to respond to the expectations of stakeholders and contribute to the welfare of society in order to manage their own legitimacy, retain their reputation, and increase their long-term profitability by minimising information asymmetry³⁰. Corporate environmental reporting as a vital component of sustainability reporting instils discipline, encourages a company to consider and define its long-term goals, and raises organization-wide awareness of sustainable practices³⁰. Corporate environmental reports are the outcome of an internal system for collecting, analysing, and processing information on the environmental elements of the business. Consequently, it is a formal and systematic strategy to managing environmental problems and incorporating environmental concerns into corporate processes. Accounting and disclosure of environmental concerns have quickly evolved as a crucial aspect of environmental

management in response to the increasing pressure on businesses to examine the environmental effects of their operations.

2.1.5 Employee Health & Safety Sustainability Reporting

Work environment is viewed as all aspects of the planning and management of the work framework that influence employee interactions with the working environment. This may include the physical plan, counting formats, and the built environment, division of labour, use of technology, supervisory structures, human resource management techniques, and coworker intelligence, all of which can influence the physical, mental, and enthusiastic workload, thereby determining the positive or negative work outcomes for the employee. In spite of this, there have been proposals to advance worker welfare through corporate social responsibility¹¹. In contrast to other areas of social sustainability, such as the typical environment, there is a need for research on how representative concerns tend to incorporate social responsibility specifics.

2.1.6 Financial Performance

Financial performance is crucial to comprehending an organization's viability. Nonetheless, this data is typically reported in the financial accounts. The organization's contribution to the sustainability of a larger economic system is frequently understated, but is increasingly sought after by investors and other readers of sustainability reports. The nature of the business conducted by a company as well as legal, political, and environmental regulations impact its performance, or profitability³¹. In addition, financial performance is measured to account to shareholders for the management team's stewardship, which includes measuring the firm's growth potential, profitability, and market value. In addition, financial performance demonstrates a company's financial health through time, which is typically measured in a variety of ways,

including profitability, market share growth, return on investment, return on equity, and liquidity. Firm performance is a measure of a company that may depend not only on the company's own efficiency but also on the market in which it operates. It is also known as financial stability or financial health in the financial sector. Also, many financial measures can be used to evaluate the performance of a company, with revenue, return on equity, return on assets, and liquidity being among the most common. ratio and stock prices, to name a couple ³².

Financial performance can be measured using financial ratio analysis as a basis for assessing and analysing the operating result and capabilities of the company³³. Profitability is a factor that enables management the freedom and flexibility to communicate social responsibility to shareholders. This indicates that the higher the level of a company's sustainability reporting, the better its profitability³⁴. The primary purpose of financial reporting is to give users of financial statements with the knowledge they need to make sound financial decisions. Financial reporting provides stakeholders with an entity's financial information and facilitates sound decision making³⁴. In addition, the provision of high-quality information is essential for the proper operation of the capital market and the financing access of both public and private firms. A strong financial report possesses both increasing qualitative properties of financial information (Comparability, Verifiability, Timeliness and Understandability) and fundamental qualitative characteristics (Relevance and Faithful Representation)³⁵. These characteristics primarily aid users in making intelligent financial selections.

2.1.6.1 Financial performance of Deposit Money Banks

The amount to which the financial health of a corporation over a period of time is measured against some set performance indices is what is meant when we talk about a company's financial

performance. A firm's financial performance is said to be measured by how much better off its shareholders are at the end of a period than they were at the beginning of that period, according to the conventional view of financial performance, which is related to the maximisation of the wealth of the firm's shareholders. Therefore, the measurement of shareholders' wealth and the creation of value can be resolved through the utilisation of proportions derived from periodic financial information contained in the statement of financial position and the statement of comprehensive income, or through the utilisation of information on the costs associated with stock markets³⁷. In the context of the banking sector, the term "financial performance" refers to a notion that depicts the financial situation of banks, which are the primary motivating factors that led to the foundation and initialization of establishments. It is utilised as a percentage of the bank's financial condition within a specific period of time³⁸.

The ability of a bank's management to decide the dimensions of the bank's overall performance, stand on the strengths and weaknesses of the performance, tie-up investment opportunities, secure the necessities and achieve the goals of all people with ties to the bank, upgrade the bank's competitive position, achieve competitive advantage, and provide the capacity to reduce stakeholders is made possible by the bank's financial performance. Financial performance is critical to banks because it paves the way for management to make decisions. The pursuit and analysis of outcomes based on specific criteria that are consistent with the bank's goals and strategic objectives characterises the evaluation of a bank's financial performance. This is the main characteristic of the evaluation. These actions evaluate performance and compare it with the objectives that were intended. They also determine the performance of employees in various administrative levels in order for the bank to attain its strategic goals.

For the purpose of evaluating the establishment's overall financial performance, the administration of banking institutions relies on financial estimations. The estimates speak to the other side of the aftereffects of operational performance estimation for banks, which seek to quantify the extent to which the bank's technique achieves the objectives³⁹. These estimates refer to the inverse side effects of operational performance estimation for banks. This side displays the financial state of the business as determined by the operational performance estimation method. The calculations are presented in the form of financial ratios, which are derived from several financial explanations. Profitability proportions, obligation proportions, liquidity proportions, and financial administration performance proportions are examples of these ratios (productivity). The implementation of a considerable number of these standards has been encouraged as a means of evaluating the economic efficiency of financial institutions like banks. Earnings per share (EPS), return on equity (ROE), and return on assets (ROA) are some of the performance standards. EPS is the profitability measurement proxy of a company on a per-share basis. Other performance standards include return on assets and return on equity. It can be expressed in either Naira or Kobo. The earnings per share (EPS) measures how profitable banks and other financial institutions are in relation to the money that their shareholders put in. Authorities agree that EPS represents the returns per Naira over a specific time period, which is often a fiscal year. EPS is calculated by dividing net profit after taxes by the current number of shares³⁹. Authorities are also in agreement that EPS represents the returns per Naira in a specified period of time. The return on equity (ROE) is a measurement used to determine how much profit investors made from the deployment of funds into the bank's capital³⁹. ROE is the result of subtracting the net profit after taxes from the value of the investors, which includes

paid-in capital, premiums, reserves, and held income³⁹. ROE may be defined as the consequence of this process.

The topic of a company's financial performance has garnered a substantial amount of attention from academics in a variety of subfields that fall under the umbrella of business and strategic management. It has also been the primary concern of business practitioners (managers and entrepreneurs in all types of organisations) because corporate performance is essential in the success stories of organisations due to their perceived effectiveness and efficiency in managing their operations and their positive contributions to the well-being of their stakeholders. This is because corporate performance is essential in the success stories of organisations because it is essential in the success stories of organisations because it is essential in the success of organisations. However, poor performance might be attributed to the absence of such crucial qualities in an organisation. The concept of performance, on the other hand, is challenging in terms of both its definition and its measurement. It has been defined as the consequence of activity, and the proper measure that is picked to assess corporate performance is regarded to depend on the sort of company that is going to be assessed as well as the objectives that are going to be attained via that evaluation.

There are two primary categories into which performance measures can be categorised: those who are concerned with outcomes (such as competitiveness or financial performance) and those that are concerned with the factors that influence outcomes (inputs such as quality, flexibility, resource utilisation, and innovation)⁴⁰. This provides support for the hypothesis that performance assessment frameworks can be constructed around the ideas of results and determinants. Information systems that were used to evaluate the performance of individuals as well as the performance of organisations were known as performance measurement systems¹¹. Up until very

recently, most businesses focused their attention on the use of financial performance indicators as the primary foundation for the purposes of performance measurement and evaluation. When it comes to the management of a company, financial ratios are typically one of the indications that are used to analyse the performance of the company. In most cases, the financial information regarding the commercial activities of a firm will be published in the annual financial statements, and a financial ratio is nothing more than one item in the financial statement divided by another item in the statement. As "ratios relate one set of values to another, with the resulting quotient serving as a measure, a standard, or a norm by which performance is judged, financial ratios can be seen as a preliminary reference to the analysis of the performance of the business"¹¹. This is because "ratios relate one set of values to another." The measurement of a company's performance has traditionally relied heavily on the use of financial ratios. This is because this method provides a straightforward explanation of how well a company is doing financially when compared to its performance in earlier time periods, which in turn helps the company improve its management performance¹¹.

According to several studies, the ratios that are typically used to evaluate a company's success are those that are derived from its financial statements or prices on the stock market. Examples of these ratios are industry-adjusted operating margins and stock market returns¹¹. Investors were interested in two areas of the financial success of a company: the revenue growth and the operating margin. To begin, the company's financial success may be evaluated based on its capacity to make a profit¹¹. That was in agreement with the argument that it was presumed that profit maximisation caused the efficient allocation of resources under the competitive market conditions, and that profit was considered to be the most appropriate measure of a firm's performance¹¹. Therefore, the link between profit and sales as well as profit and assets employed

is the primary focus of measures that measure financial efficiency in this regard. Second, the value of the company's shares to investors is one metric that can be used to evaluate the effectiveness of the company's financial performance. In this manner, the ratios of financial success centre their attention on earnings per share, dividend yield, and price/earnings ratios¹¹. Profitability ratios are any ratios that are used to measure how well an organisation is doing financially overall in terms of profits. Either the sales or the investments were used as the basis for calculating the profitability ratios. The ratios are intended to shed insight on the profitability of a company's operations, the efficiency of management as measured by returns on capital employed, and the intensity of capital utilisation, or the rate at which invested capital is turned over¹¹. The same author, in another study that was connected to this one, found the following profitability ratios in his research: Return on equity, as well as net profit margin and gross profit margin and return on capital utilised or return on investment¹¹. There are a great number of additional methods by which one could evaluate whether or not the investment of common shareholders was profitable. The calculation of earnings per share was one such measure, and it was the measure of an entity's performance that was employed the most frequently. It reflected the amount of net profit after taxes, minority interest, and unusual items that was attributable to each ordinary share that was issued and ranking for dividends during the period¹¹. However, in order to accomplish the goals of this study, two distinct performance measures was utilized that have a solid foundation in the performance research community. These metrics, which include return on capital employed and gross profit after tax, will each be discussed in more depth in the following paragraphs.

Return on Capital Employed (ROCE) is a financial ratio that assesses the profitability of a company in addition to the efficiency with which its money is utilized⁴². Earnings before interest

and taxes are subtracted from total capital utilized for the calculation of ROCE. To simplify, "Capital Employed" may be expressed as "Total Assets Less Current Liabilities," where "Shareholders Equity" and "Debt Liabilities" are the two components that make up "Capital Employed," which is displayed in the denominator. ROCE is typically calculated by analysts and investors based on "average capital employed," which takes the average opening and closing capital employed for the time period⁴². This method is preferred over using capital employed at an arbitrary point in time when calculating ROCE. A greater ROCE demonstrates a more effective utilisation of available capital.

The return on capital employed (ROCE) of a company should be greater than the cost of the company's capital; if it is not, this indicates that the company does not generate value for its shareholders and does not effectively employ its capital. In order to achieve a more accurate depiction of ROCE, it is possible that certain modifications will be necessary at times. It is possible for a company to have an excessive amount of cash on hand at times; however, given that such cash is not being actively utilised in the operation of the company, it is possible that this cash will need to be deducted from the "capital employed" figure in order to obtain a more accurate measurement of ROCE.

In general, investors are more likely to favour companies that have ROCE numbers that are both stable and increasing over companies that have ROCE that is volatile and fluctuates significantly from one year to the next⁴². ROCE is particularly helpful when comparing the performance of businesses operating in capital-intensive industries like the utility and telecommunications sectors. This is due to the fact that ROCE takes into account a company's debt in addition to other liabilities, in contrast to return on equity (ROE), which only evaluates profitability in

relation to a company's common equity. Companies that have a significant amount of debt can get a clearer picture of their financial performance with the help of this measure.

Gross Profit after Tax Margin: The gross margin of a company is a very important indicator of the company's profitability because it takes into account the company's two most significant sources of revenue, which are its sales (which bring in money) and its cost of goods sold. Because it needs to be sufficient to both pay expenses and provide for profits, it is a true indicator of a company's potential to turn a profit. However, given its significance as a barometer, it need to be kept constant and subjected to strict scrutiny. A financial performance measure known as the after-tax profit margin is arrived at by dividing the net income by the net sales of the business⁴³. It is significant because it demonstrates how well a company controls its stock. It is the percentage of a company's total revenue that remains after all operating expenses, interest, taxes, and preferred stock dividends (but not common stock dividends) have been deducted from that revenue. It is important because it shows how well a company controls its stock. In a similar vein, the gross profit margin is a metric that investors and financial experts look at to determine how healthy a company's finances are. This metric is calculated by subtracting the cost of goods sold from the amount of money that is left over from product sales. The gross profit margin is frequently presented in the form of a percentage of sales, and this metric is also known as the gross margin ratio on occasion. It is essential to have gross profit in order to cover operating expenses, taxes on income, and net earnings. In recent years, practitioners have placed a greater emphasis on a company's gross profit as a potential indicator of future profitability, in particular for businesses whose expansion activities have the effect of temporarily depressing earnings. Future returns resulting from earnings surprises are likely to capture a sizeable component related to information in gross profit surprises. This is due to the fact that gross profit eliminates

earnings from nonrecurring items (such as special items) and recurring things that may not continue at their current levels (such as advertising expense to increase product awareness). In addition, gross profit purges earnings of recurring items that may not persist at their current levels⁴³.

2.1.7 Sustainability Accounting and Reporting

The interplay between the elements of corporate sustainability, namely the natural environment, the economic system, and society, is extremely complicated, dependent on the circumstances, and most of the time affects a number of different stakeholders with a variety of different preferences⁴³. A new subfield of accounting known as sustainability accounting has arisen in response to the interplay that was discussed before, with the intention of achieving a balance between the requirements of all aspects in a way that is both ethical and transparent. The word "sustainability accounting" has evolved into a general concept that has given rise to a number of related concepts, such as "sustainability management accounting" and "sustainability financial accounting" The evaluation of a company's performance with regard to the environment, society, and governance is one of the goals of sustainability accounting, and a report on this evaluation is produced¹¹. Accounting for sustainability is regarded as playing a pivotal part due to the fact that it can help with the execution of the sustainability strategy, the incorporation of sustainability into day-to-day operations and decision-making, and the cultivation of relationships with stakeholders that are founded on trust and legitimacy^{44, 45}. In point of fact, it consists of both internal and external accounting processes and mechanisms that are designed to measure, portray, and communicate the company's. The integration of social, environmental, and economic aspects of an organization's actions is the primary focus of sustainability accounting¹¹. To be more explicit, the current pinnacle of extended accounting and reporting is reached through the use of

sustainable accounting. The study of concerns pertaining to efficacy and efficiency, in addition to taking into account ecosystems and communities, as well as ecojustice, is where the emphasis lies. According to a compilation of the available literature on sustainability accounting, there are five factors that could drive managers to build an accounting system that offers information for reviewing business actions on sustainability concerns¹¹. The goal of management to indicate concern and to collect data for the sake of communicating and reporting rather than to improve sustainability performance can be inferred to be the root cause of green washing. Accounting, from this point of view, acts as a tool to promote cost-efficient communicative efforts that are related to sustainability. The impetus for management to discuss and deal with sustainability accounting may also come from competitive pressure from the industry as well as imitation from competitors¹¹. Emulation of procedures can be perceived as uncritical of connected problems, but mimicry can be considered as a way to bring new accounting ideas related to sustainability. Mimicry can be seen as a way to introduce new accounting ideas related to sustainability¹¹.

In addition, legislative pressure, stakeholder pressure, and the assuring of the "licence to operate": stakeholder pressure and the implementation of required information and reporting requirements through governmental legislation is another potential¹¹. It is the one that comes to mind first for the vast majority of people (for example, as discussed in relation to REACH, the chemical regulation of the European Union (EU), or in the context of the pressure that stakeholders exert with disclosed harmful release information). In the event that information standards pertaining to sustainability are enforced, institutional compliance, as well as communication and interaction with stakeholders, may become important for the continuance of corporate act, Self-regulation, which is the fourth motive, is a voluntary activity in which a company or an industry association either restrains its actions or commits itself to certain non-market actions (such as the disclosure

of social and environmental information) in an effort to improve its performance and reputation in a way that is entirely on its own initiative. This activity takes place within a framework in which commercial or profit-making considerations may be important, but are not necessarily the primary driver. Industry self-regulation is frequently established for the purpose of thwarting the implementation of additional mandatory government regulations, of preserving social acceptance and reputation, or of preventing competing businesses from free riding on the backs of others. The corporate information gathering system gives the company a way of perceiving, which is the first step in acting responsibly. This comes before the identification of the aspects of corporate activities that are significant on a moral level. This is another motivation for the company. If the information system is either incomplete or irrelevant, or if it does not assist with the comparability of various alternatives, then irresponsible corporate activity and impacts are likely to occur¹¹.

The viewpoint that accounting is concerned with the behaviour of individuals or the behaviour of individuals in groups, such as in departments, divisions, or corporations, is connected to the idea that the provision of accounting information plays a pivotal role in the process of fostering and sustaining responsible business practises in corporations. It cannot be overstated how important it is for ethical motivation and legitimation in accounting to address problems related to sustainability. The focus of information provided by accounting will steer and guide the decision makers within the corporation. Therefore, sustainability accounting is an extremely important tool for business managers who want to make their companies more environmentally friendly.

2.1.8 Business Case for Corporate Sustainability Reporting

One of the most important reasons for implementing sustainability accounting is to discover and take use of the economic potential of volunteer social and environmental actions. This could take

the form of a decrease in costs or an increase in sales income. This argument will encourage corporate management if it has even the slightest inkling that the company may have a business case for pursuing sustainability, but that case would only be more transparent with improved information. Institutions encourage sustainability reporting as a product of sustainability accounting as a means to improve both. In this spirit, the European Union passed a mandate in 2014 requiring certain large corporations to disclose non-financial indicators and a diversity of information in order to increase the consistency and comparability of such information throughout the European Union (EU). It is necessary, among other things, to prepare a consolidated non-financial statement, which must contain a description of the business model, the policies that are being followed, the primary risks, and the important non-financial performance indicators¹¹. Although sustainability reporting is still considered a voluntary practise on a worldwide scale, the implementation of this kind of disclosure is rapidly gaining traction everywhere.

It would appear that sustainability reporting has reached a "tipping point" as the practise goes from the domain of pioneers and early adopters into the realm of the mainstream¹¹. If you don't participate in the reporting process, it could have a detrimental effect on your performance, reputation, and possibly your ability to raise capital¹¹. Due to the fact that reporting on sustainability is not required in most countries, the manner of disclosure is uncontrolled and, as a result, differs amongst firms even when they are operating in the same country and the same industry¹¹. The official websites of businesses are frequently used to publish thorough reports or a variety of links detailing the socially responsible operations of the company. The Global Reporting Initiative (GRI), the United Nations Global Compact (the Communication on Progress), the International Organization for Standardization (ISO 26000, International Standard

for social responsibility), and the Organization for Economic Co-operation and Development (OECD Guidelines for Multinational Enterprises) are some of the frameworks that have emerged in order to make the reports comparable to one another. However, the GRI Sustainability Reporting Guidelines are the most developed and utilised blueprint that enables enterprises all over the world to measure their influence on society, the environment, and the economy. These guidelines were developed by the Global Reporting Initiative (GRI)¹¹.

There are a great number of positive outcomes that can result from adhering to their sustainability guidelines^{11,46}. All reporting organisations, both those inside the business and those outside of it, should stand to profit from an efficient sustainability reporting cycle that involves a regular schedule of data collection, communication, and response. The Global Reporting Initiative (GRI) identifies a number of internal benefits for businesses, some of which are as follows: an increased understanding of risks and opportunities; an emphasis on the link between financial and non-financial performance; an ability to influence long-term management strategy and policy as well as business plans; the streamlining of processes; the reduction of costs and the improvement of efficiency; benchmarking and assessing sustainability performance in relation to laws, norms, codes, and performance standards; the avoidance of unnecessary risks⁴⁷. Additionally, the external benefits of corporate sustainability reporting are significant. These benefits include mitigating or reversing negative environmental, social, and governance impacts, improving reputation and brand loyalty, enabling external stakeholders to understand the true value of the organization's tangible and intangible assets, and demonstrating how the organisation influences, and is influenced by, expectations regarding sustainable development. Although the benefits were not monetary in the short term, sustainability reporting enabled companies to expand and secure their social and human capital, which in turn provided an

enhanced competitive position¹¹. Transparent and detailed reports could lead to an improved reputation among stakeholders. The future communication of businesses will undoubtedly be characterised by the integration of their financial and non-financial (societal and environmental) strategies as well as the results that accompany them¹¹.

2.1.9 Sustainability Reporting and Financial Performance

Deposit money banks in Nigeria and the rest of the world are businesses that require regular oversight to maintain their growth. In light of the fact that deposit money banks have direct effects on the performance of enterprises and organisations in the country, methods have been implemented to evaluate its efficacy, one of which is the sustainability report¹¹. This includes providing a report of the impact of deposit money banks on the environment, people, and profits in order to account for this progress over time, provide a means to examine areas where improvement is necessary, and provide a comprehensive evaluation of the financial activities of these deposit money banks. The purpose of sustainability reporting for the financial performance of these deposit money banks is to help provide statistical representations of their performance, which in turn results in the reaffirmation of their vision, mission, and clearly articulated goals, the development of strategies for a new wave of progression of their financial performance, and a transparent evaluation of the activities of the deposit money banks. Incorporating sustainability as a practise and idea into all the activities of a deposit money bank in Nigeria, such as the social, economic, and environmental ramifications of their activities, is essential.

In the context of this study, sustainability reporting provides insight into the present strengths and accomplishments of a business, such as a deposit money bank. In addition to showcasing the strengths of a deposit money bank, sustainability reports identify areas of prospective strengths of the bank, creating a form of motivation to capitalise on the bank's potentials and fulfil the

identified potential abilities⁴⁸. This identifies areas where the bank can make further efforts to encourage progress and assure speedy and continuous improvement. From the perspective of environment and sustainability reporting, the interaction between the bank and its immediate environment and ecosystem will be the primary element considered. From a social viewpoint, the importance of human rights, social justice, and investments in social relationships will be examined, while from an economic perspective, the bank's asset utilisation, standard of living improvement, and business risk will be analysed. Previous scholarly contributions to the study of sustainability reporting have demonstrated that banks can use sustainability reporting to their advantage in this competitive business.

The situation of these deposit money banks in actual societies, not ideal societies, where humans interact within the inevitable physical context of their environment and form experiences by how they trade and conduct their economy, makes a sustainability report relevant not only for measuring the progress of a deposit money bank, but also for assessing its proper use of its available human, environmental, and social resources within its sphere of influence⁴⁹. This indicates that a financial institution cannot be evaluated in isolation from its surroundings and contributions to social and economic growth. Its sustainability reporting is based on these characteristics and the extent to which it has been able to relate to and positively contribute to them. The market value of a deposit money bank relies heavily on its financial performance, which can be evaluated and enhanced by a sustainability report⁵⁰. A bank's financial performance is reflective of its policies, assets, and activities. It may be difficult to see a direct relationship between a deposit money bank's financial performance in the competitive market of the industry and its physical environment, social relations, and resulting implications in terms of rights and social variables, as well as its economic angle in terms of assets and contribution to the national

economy, which is measured by the cost of goods and services. However, analysing the bank's financial success based on economic criteria such as the beneficial influence it has on the economy of its stakeholders and how well it has been able to utilize their money and provide a return on their investment. A second variable indicates its waste and recycling management as well as the impact of its products and services, and a third variable describes its mediation and risk management with social organisations⁴³.

Under the impact of the society in which a deposit money bank operates, the metric used to evaluate its performance is not dissimilar to the metric used to evaluate the performance of the society. The notion of society is based on foundations of returns, which are influenced by the root term that makes society: social, which derives its meaning from interactions, relationships, and the return of efforts. This implies that a financial firm's performance is not only based on its individual progress, but also a broader circle of impact and influence, that its performance will be judged by the benefits people and the environment derive from it, and that its ability to reach beyond itself is what determines its market acceptance and informs its progress report in general. Human rights, labour policies, and banks' links with social institutions are therefore variables for evaluating their performance in sustainability reports. When creating a sustainability report, both the internal and external effects of a deposit money bank are considered⁵¹.

This is the knowledge that drives the competition for an impressive sustainability report, as the report reveals the obligation of a company to external bodies, in this case, the responsibility of a deposit money bank to external bodies. A sustainability report that demonstrates a positive return on the economic well-being of stakeholders, invests in social relationships, and maintains a positive and healthy relationship with the environment has a high propensity to attract investors,

identify improvement areas that have already been partially funded, and give the company a competitive advantage in the marketplace.

Prior research has demonstrated that financial institutions are not under as much pressure to present an impressive report on their financial activities as they are on their involvement in social and environmental activities. This is due to the social tendencies of the globalised world in modern times, which demand that all aspects of society, including the financial sector, be geared toward a symbiotic relationship with society and her constituent parts⁵². In addition to making a profit, one of the key goals of establishing a business or organisation is to significantly contribute to the economy and so improve the quality of life for the general populace. Sustainability reporting helps to strike a balance between a company's primary objective of launching and the social responsibility that is needed as a condition of membership in a society⁵³. It is expected that a financial firm, empowered by its function and financial activities, contributes significantly to the economy of its stakeholders and, as a sign of humanity, is responsible for its use of and relationship with the physical environment.

Some researchers have developed theories for analysing and interpreting the notion of sustainability reporting and its impact on the financial performance of deposit money institutions. These theories include the legitimate theory, the accountability theory, and the stakeholder's theory⁵⁴. The legitimate theory provides a paradigm for explaining and implementing Corporate Social Responsibility (CSR). This theory is based on the premise that enterprises and organisations must conduct business within socially acceptable norms and regulations, i.e. lawful or legitimate⁵⁵. Based on the fundamental assumptions of this theory, engaging in CSR is a technique to ensure that the actions of deposit money institutions are socially acceptable. In contrast, if a bank's actions are not legitimate or permitted by societal norms and it does not

operate within socially established boundaries, it risks losing potential investors, clients, and growth, as well as provoking hostility from its immediate environment. Accountability theory is based in the obligation of a bank to be accountable and responsible for its actions that affect stakeholders financially and socially, and the environment⁵⁶. The stakeholder's theory was developed in order to cater for the stakeholders while that translates into credit for the firm. This theory allows stakeholders the right to investigate a bank's activities. Considering the impact of stakeholders on the economy of banks and the nation as a whole, this theory holds stakeholders in high regard as a major determinant of a bank's sustainability report. The sustainability report could be written from the perspective of the bank's stakeholders, who can have a good or negative effect on the institution's economy.

2.2 Theoretical Framework

2.2.1 Stakeholder Theory

The stakeholder theory, which was initially proposed by Edward Freeman in 1984, served as the foundation for this study. It is one of the most important ways of study in the social, natural, and administrative spheres⁵⁹. According to the definitions provided by researchers, stakeholders are "those people who can affect or be impacted by the actions linked with trade" or "the people who depend on the firm to fulfil their particular aims and on whom the firm depends on for its existence¹¹". After the publication of Edward Freeman's book *Strategic Management: A Stakeholder Approach* in 1984, the concept of stakeholder theory started to attract major attention in the field of organisational and management research¹¹. The theory examines the optimal functioning of businesses as well as the potential functioning of businesses. It is about how value may be created through commerce, as well as how to properly run a business. The

stakeholder theory contends that businesses have a moral obligation to take into account the interests of all stakeholders and to strike an adequate balance between those interests¹¹. Successful businesses recognise the need of safeguarding the interests of a variety of stakeholder groups, including their shareholders, creditors, employees, suppliers, consumers, communities, and the general public. Stakeholder theory has essentially developed into a foundation for knowledge that firms may use to protect their relationships with various stakeholders through the use of social and environmental reporting. Reporting on sustainability is increasingly being recognised as a viable strategic option for businesses looking to increase stakeholder participation and lessen the impact of information imbalance. It is common knowledge that businesses that take into account the needs of their stakeholders typically demonstrate a higher level of performance compared to those that do not do so⁵⁹.

According to the stakeholder theory, a company owes a duty of care to all of the numerous groups that it interacts with, including but not limited to its customers, suppliers, the government, its employees, and the broader public. As a result, a wide variety of stakeholders considers the reporting of a company's efforts toward sustainability to be an important issue. According to the theory of stakeholders, the actions that companies conduct toward their different stakeholders including their employees, the communities in which they operate, their suppliers, the environment, and their shareholders are essential to the companies' ability to continue operating. The company's relationships with the communities in which it operates can be strengthened through the use of integrated reporting. Additionally, active stakeholder interactions can help businesses improve their energy preservation programmes and waste management systems. This is because active stakeholder engagements have the potential to build valued managerial abilities⁵⁹.

In addition, the stakeholder theory emphasises that the stakeholders have a right to information, including information regarding the environment in which the business operates, information regarding the activities of the organisation, and information that focuses specifically on how the activities of the business affect the stakeholders. It encompasses the responsibilities that a company has toward society in addition to the social impacts that its operations have. The principle of stakeholders veers dangerously close to accountability, not just to society but also to the stakeholders. The general public presumes that they have the legal right to demand that companies disclose the social impact of their operations in their reports⁵⁹.

According to the stakeholder theory, society is made up of a variety of stakeholders, each of whom possesses an unequal amount of power to influence how a company conducts its daily operations. However, as effectively managing the interests of stakeholders is essential to the continued viability of an organisation, the theory outlines the relationship between stakeholders and the information they gather. When it comes to ensuring that businesses manage, measure, and report on their sustainability plans, stakeholders play an extremely important role. Therefore, the focus of a company should not just be on maximising profits but also on the creation of value that is sustainable. In a similar vein, stakeholder theory is predicated on the assumption that it will be simpler for a corporation to fulfil its business objectives the stronger its relationships are with other parties²⁷.

The idea makes a contribution to the corporate world by supplying additional business considerations for why firms should work toward sustainable development. The continuity of a company's ties with its various stakeholders is a crucial factor in determining the company's long-term viability. A corporation is required to take into account and engage meaningfully with

a variety of stakeholders, including shareholders, suppliers, the government, customers, and host communities.

This theory relates to the study since sustainability reporting is the incorporation of environmental, societal and economical aspects of an organization to reporting and communication of vital information to a wider stakeholder base of the organization. This vital information has proved to be a useful tool for promoting firm performance

2.2.2 Legitimacy Theory

The concept of organisational legitimacy served as the foundation for the development of legitimacy theory⁶⁰. According to the legitimacy theory, organisations should make it a priority to confirm that their practices are consistent with the standards established by the societies in which they are located. According to this idea, external stakeholders demand that the company fulfil all of the requirements that will make its activities acknowledged as transparent. These requirements should be in compliance with the law and the fundamental economic principles⁶¹. The central tenet of the theory is the presumption that accounting for sustainable development and the associated role of management accounting in sustainable development are utilised as communication mechanisms to either inform or manipulate the perception of the entity's actions⁶¹. This is the assumption that underpins the theory. It is possible to identify the following as the goals of this theory: describing the relationship that exists between a company and the community; explaining the motivations that companies have for social and environmental disclosures; presenting the various legitimacy strategies that companies can use; and determining the effects that social and environmental disclosures have on the public and society.

The legitimacy theory is a conceptual framework that can be thought of as being founded on the existence of social and exchangeable ties between an organisation and the community. Its goal is to explain why corporations may engage in social and environmental disclosures, how they do that, as well as what influence environmental disclosure has on the public and the community. It may aid in forecasting management's responses to events or crises. The way in which a firm interacts with the community might provide some insight into the nature of the connection between the two parties, such as whether it is beneficial or harmful. In this regard, legitimacy theory can be defined as logical reasoning presented in the form of a set of general principles by which environmental disclosure practises can be explained or may be predicated.

In other words, legitimacy theory can be thought of as a way to justify environmental disclosure practises. Since the goal of legitimacy theory is to explain why businesses choose to disclose information about their social and environmental impacts, it is possible that this theory can assist in explaining these motivations for every corporation (whatever its activities). In a society in which economic activity almost often causes damage to the environment, regulation is considered as offering a potential solution⁶¹. It is necessary for environmental reporting to be governed by regulation in order for it to become more comprehensive, widespread, and helpful. Not just when management was shocked into taking action by legitimacy threatening events, but also on a day-to-day basis, stakeholders had the right to be informed about the environmental repercussions of a company's operations. There is a possibility that legislation is required to fulfil the requirements of the right to know.

This theory was relevant to this study since it described the relationships between a corporate organization and the community. It explains companies' motivation for social and environmental disclosures, presents how companies can employ legitimacy strategies and determines the impact

of social and environmental disclosures on the public and society which can be readily applied to the Nigerian situation.

2.2.3 Agency Theory

Agency theory concentrated solely on the advantageous features of the agency relationship as they pertained to business enterprises⁶². It demonstrates the structural contractual relationship that exists between the owner and manager, in which the manager is tasked with making decisions for the purpose of self-maximization in light of the fact that the separation of ownership and control results in uncertainty and imperfect monitoring. In addition, the agency theory proposes that managers (agents) may behave and make decisions in an opportunistic manner, which may be in direct opposition to the objectives of the company's owners and, as a result, lead to the destruction of the wealth of shareholders¹¹. The fact that there is a disparity in the amount of information available could lead to agents pursuing an interest that is likely to be to the principal's detriment. Therefore, there is a large increase in the amount of risk that investors perceive due to the lack of acceptable public information provided by corporations¹¹. This results in the market placing a lower value on the shares or demanding higher returns from companies that do not disclose relevant information.

Reporting on sustainability helps reduce information asymmetry and the risks that investors perceive, boosts market efficiency, and lowers the cost of financing for firm¹¹. When considering this theory, one can determine that one of its flaws is that it ignores other shareholders in order to concentrate solely on the relationship that exists between the owners of the company and the management of that company. The topic of what will happen to other stakeholders, including as the government, customers, and suppliers, as well as the community in which the company is

based, then becomes an issue to consider. On the other hand, reporting on sustainability helps to reduce the knowledge gaps that exist between the principal and the agent¹¹.

2.3 Review of Empirical Studies

There are number of studies on sustainability reporting and financial performance, empirical results of some of these studies are presented below:

A study examined Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria. The findings demonstrated a statistically significant and favourably sustainable positive effect of profit reporting on ROA. In addition, the study comes to the conclusion that the sustainability reporting procedures of banks in Nigeria have significant effects on the financial performances of deposit money banks in Nigeria⁶³. This was one of the study's main findings.

In a similar vein, another study investigated sustainability reporting and financial performance in a number of countries. The findings, which were deduced from the empirical results and demonstrated, on the one hand, that ESG positively affect the operational, financial, and market performance in the manufacturing sector, were similar to those of the first study. On the other hand, environmental, social, and governance factors have a deleterious impact on the operational, financial, and market performance of the banking industry⁶⁴. The findings demonstrated that the reporting of profits had a materially beneficial and long-term favourable influence on ROA. Furthermore, the study's findings indicate that the sustainability reporting procedures of Nigerian banks have a significant influence on the financial performances of Nigerian deposit money banks⁶³.

Following this study, another investigated the connection between sustainability reporting and financial performance in a variety of countries. The empirical data indicated that ESG has a favourable impact on operational, financial, and market performance in the manufacturing industry⁶³. On the other hand, however, the ESG have a detrimental impact on the operational, financial, and market performance of the banking sector.

The views of the relationship between corporate sustainability disclosure and firm financial performance in mining companies that are listed on the Johannesburg Stock Exchange (JSE) show that there is a negative relationship between environmental disclosure and return on investment⁶⁵. This was found in the research conducted on these companies. On the other hand, the findings of the research show that there is a favourable correlation between social disclosure and return on investment. According to the findings of the study, increased corporate reporting of social issues leads to improved financial performance for the company as a whole, which is manifested as a higher return on investment. In addition, the research suggests the implementation of corporate social disclosure because this will inspire businesses to act responsibly toward their communities while also providing financial advantages.

Another study looked at the relationship between reporting on corporate sustainability and financial performance in Romania. The results showed that reporting on corporate sustainability provided benefits to financial performance, increased effectiveness, and created value through the process of designing and implementing corporate social responsibility standards⁶⁶. The research comes to the further conclusion that managers of the organisations that were examined were convinced that the general public is more likely to trust those who are transparent and clearly transmit information of interest regarding their social responsibility initiatives and programmes.

Another empirical study looked into the influence that sustainability reporting has on the overall corporate performance of a number of Nigerian enterprises that were quoted in the stock market. According to the findings of this study, the Economic Performance disclosure (ECN), Environmental Performance disclosure (ENV), and Social Performance disclosure (SOC) made public by selected quoted companies in Nigeria do not have a substantial impact on the return on assets (ROA)⁶⁷.

In addition, a study that was conducted not too long ago investigated the elements that influence financial performance through sustainability reporting in Indonesia⁶⁸. The study's findings indicate that the effects of sustainability reporting as a mediator on the relationship between these metrics and financial performance are significant. Additionally, it was discovered that neither the board's size nor its sustainability are significant. The second and third results indicate that size and leverage have a favourable impact on the reporting of sustainability. The final finding demonstrates that financial performance can be significantly improved by the implementation of sustainability reporting practices.

The impact of sustainability reporting on Jordanian Islamic banks' financial performance was the subject of another study, which was published in another body of research⁶⁹. The results of this research indicate that there is an effect that can be considered statistically significant between the dimensions of sustainability and the financial performance of Jordanian Islamic banks as assessed by ROA and EPS. However, according to the return on equity metric, there was no statistically significant effect of the factors of sustainability on the financial performance of those institutions.

Another recent study utilised a multi-dimensional approach in order to investigate the relationship between sustainable reporting and the profitability of publicly traded companies in Nigeria⁷⁰. Results indicate that economic disclosure and social disclosure have a positive effect on return on equity of the selected firms while environmental and corporate governance disclosure have a negative effect on return on equity, all of the predictor variables have a positive and insignificant effect on earnings per share of the firms, and economic, social, and environmental disclosure have a positive effect on return on investment while corporate governance disclosure has a negative effect on return on investment.

Another study compared Shariah-compliant and non-compliant Indonesian companies in terms of their financial performance and sustainability disclosures⁷¹. The findings indicate that public disclosure of a company's sustainability performance improves the financial performance of the company. In addition, it was discovered that companies that share information on their sustainable practises had greater earnings on assets and equity, which is unequivocally supportive of the thesis that information asymmetry exists.

Another study looked at financial performance as well as the quality of disclosure on sustainable practises based on the Global Reporting Initiative (GRI)⁷². The purpose of the study was to investigate the disclosure practises of manufacturing businesses that were listed on the Indonesian Stock Exchange during the years 2011 and 2013. According to the findings, both leverage and profitability have a considerable beneficial impact on the value of the company. In addition, one of the findings of the study was that the pace of increase in a company's revenues acted as a moderating variable in the relationship between the quality of corporate sustainability disclosure and firm value⁷².

In a publication titled "Sustainability Reporting and Financial Performance of Listed Industrial Goods Sector in Nigeria"⁷³. The authors examine the relationship between the two concepts. This study's objective is to investigate the ways in which sustainability reporting influences the financial performance of publicly traded industrial goods businesses in Nigeria. During the ten-year span beginning in 2011 and ending in 2020. In this study, time-series analysis and cross-sectional analysis were employed on a selection of companies listed on the Nigerian Stock Exchange that produce industrial goods. This study made use of research that was conducted after the fact. Data were acquired from secondary sources based in Nigeria for example. The data underwent statistical examination by means of the Pearson correlation coefficient as well as multiple regression analysis with the assistance of the statistical programme E-View 9.0. At a 5% level of significance, the outcomes of this study indicated that sustainability reporting (as evaluated by economic, environmental, and social performance indices) has a positive significant effect on return on assets, return on equity, and earnings per share. At a 5% level of significance, the outcomes of this study indicated that sustainability reporting (as evaluated by economic, environmental, and social performance indices) has a positive significant effect on return on assets, return on equity, and earnings per share. This was shown to be the case when the significance level was set at 0.05. The research suggests, among other things, that a standardised Sustainability Index be implemented, since doing so will help to put pressure on businesses to pay greater attention to their environment and take sustainable development issues more seriously. This is because the index will help to measure how well companies are doing in terms of sustainability.

According to the conclusions of a different study on the subject of sustainability reporting and the financial performance of Nigerian Stock Exchange-listed deposit money banks⁷⁴. The authors

conducted research to determine how the disclosure of sustainable practises affects the financial performance of deposit money banks in Nigeria. The ex-post facto study methodology was chosen, and the population included all of the Deposit Money Banks (DMBs) in Nigeria. Judgmental sampling was performed on 11 of the DMBs that were listed on the population's list. The study was carried out over a ten-year period (2009-2018), during which time panel regression analysis was utilised to assess the information acquired from the sampled banks' financial reports. It was discovered that DMBs in Nigeria did not consider sustainability reporting to be an important component of annual financial statements, that DMBs considered governance to be synonymous with sustainability reporting, that LNSIZE had a positive and significant effect on dividend per share and profit before tax of Nigerian deposit money banks, and that among the sustainability variables, only governance reporting had a significant effect on financial statements. According to the study, therefore, sustainability reporting does not have a substantial impact on the financial performance of deposit money institutions in Nigeria. It was suggested that although while the GRI framework is voluntary, regulatory organisations like the CBN should make it mandatory for DMBs to adopt it in order to ensure accurate reporting on sustainability.

In a study titled "The Effect of Sustainability Information Disclosure on Financial and Market Performance: Empirical Evidence from Indonesia and Malaysia"⁷⁵. The authors looked at how the disclosure of sustainability information affected financial performance. The objective of this study is to examine the impact that disclosing sustainability information has on financial performance and market performance. This study collects the participation of 21 mining sector businesses in Indonesia and 18 enterprises in Malaysia through the use of purposive sampling. For the purpose of verifying the provided hypotheses, regression analysis with WarpPLS is

carried out. The findings indicate that environmental and social disclosure has a meaningful impact on the price-earnings ratio, return on assets, return on equity, and Tobin'Q in Indonesia and Malaysia. The overall financial and market performance of Indonesia and Malaysia are very similar to one another and do not differ much from one another. The publication of high-quality information regarding sustainability helps to further improve financial performance and builds trust among stakeholders and regulators in decision making, both of which contribute to a growth in the value of the corporation.

Evidence from Jordan demonstrates the impact that disclosure of corporate social responsibility has on market performance⁷⁶. The study makes use of pooled data sets and employs a quantitative technique. The data sets were acquired by using a content analysis approach to the annual reports for the years 2014 to 2019. The research sample comprises of 42 publicly traded businesses. A multiple regression model was used in the research in order to determine the nature of the connection that exists between the independent variable CSR and the dependent variable, which was the firm's performance as determined by Tobin's Q. In addition to this, the research included five control variables in order to control the hypothesised association that existed between CSR and Firm Performance. According to the findings, there is a correlation that is not only negative but also substantial between CSR and the market performance of corporations as evaluated by Tobin's Q. The findings contradict the idea that there is a business case for CSR and point in the opposite direction; thus, the higher the CSR, the lower the value of Tobin's Q will be. These results lend credence to the concept of the institutional theory and offer the first shreds of evidence pointing to legitimacy-seeking behaviour on the part of Jordanian businesses. The findings, on the other hand, point to a lesser level of awareness of

CSR among investors and market players, which lends credence to the notion that investors and market players have distinct perspectives towards CSR.

The correlation between the disclosure of environmental and social impacts and the economic success of Jordanian companies⁷⁷. Using a panel data set consisting of 1,705 firm-year observations of companies that are listed on the Amman Stock Exchange, the purpose of this study is to investigate this problem within the context of a developing country such as Jordan. In order to analyse the data, fixed effect regression combined with robust standard errors was utilised. The findings indicate that a positive correlation exists between social and governance disclosures and financial performance; however, this association does not exist between environmental disclosures and financial performance. It is interesting to note that when all of the sustainability disclosures are analysed together, a very strong and significant positive connection can be observed between them. According to the findings of this study, the many aspects of sustainability disclosures should be complementary to one another in order to improve the financial performance of businesses.

In a separate study that was connected to this topic, researchers looked at corporate governance and environmental sustainability disclosure in non-financial firms that were quoted in Nigeria⁷⁸. The purpose of this study was to evaluate the effect that corporate governance has on the disclosure of environmental sustainability information by non-financial companies that are quoted in Nigeria. The research design for the study was an ex-post facto research design. As of the 31st of December in the year 2020, the population of quoted non-financial companies in Nigeria was 109. The selection of a sample of 72 non-financial enterprises that had been operational for a period of nine years, from 2012 to 2020, was carried out with the assistance of stratified and purposive sampling methods. The data were taken from the published annual

reports of the non-financial corporations that were used as a sample and validated by the certification of external auditors and the Nigerian Stock Exchange. The data underwent both descriptive and multiple regression analysis before being interpreted.

According to the findings of the research, the combined effect of corporate governance (CG) had a substantial influence on environmental sustainability disclosure (END) (Adj. R² = 0.1783, F (6, 641) = 170.58, = 0.00). The effects that were split apart were quite different. END is positively and significantly affected by Board Independence (BOI), Nomination Committee (NOC), and Sustainability Responsibility Committee (SRC) (BOI= 0.0031, t-test= 5.28, = 0.001; NOC= 0.1391, t-test= 3.50, = 0.008; SRC= 0.6165, t-test= 6.68, = 0.000). Risk Committee (RIC) and Remuneration Committee (REC) both have a positive and insignificant effect on END (RIC = 0.0519, ttest = 1.61, = 0.147; REC = 0.0083, t-test = 0.020, = 0.849), whereas Board Meetings has a negative and insignificant effect on END (BOM = -0.0016, t-test = -0.27, = 0.792). According to the findings of the study, improved corporate governance led to increased environmental sustainability disclosure among Nigerian non-financial companies that were publicly traded. According to the findings of the study, management should implement effective corporate governance frameworks, particularly a sustainability responsibility committee, in order to facilitate enhanced environmental sustainability practises and the disclosure of these practises.

In a book titled "Corporate Sustainability Reporting and Financial Performance"⁷⁹. The authors state that. This study was conducted with the intention of determining the extent to which Romanian managers have access to corporate sustainability reporting instruments and the part these instruments play in improving the overall financial performance of organisations. According to the findings of this study, corporate social reporting indicators can be incorporated into the reporting of a company's financial performance. This has the potential to transform the

concept of sustainability into a value that is more tangible for all parties involved. In addition, the empirical findings contribute to a better understanding of corporate social responsibility practises; despite the fact that these practises do not have a direct financial impact, they do appear to have a certain level of financial significance when other financial factors are controlled

In a separate but related study on the sustainability reporting and financial performance of listed companies in Nigeria's industrial goods sector⁸⁰. This study's objective is to investigate the ways in which sustainability reporting influences the financial performance of publicly traded industrial goods businesses in Nigeria. During the ten-year span beginning in 2011 and ending in 2020. In this study, time-series analysis and cross-sectional analysis were employed on a selection of companies listed on the Nigerian Stock Exchange that produce industrial goods. This study made use of research that was conducted after the fact. Data were acquired from secondary sources such as fact books and financial statements of enterprises based in Nigeria for example. The data underwent statistical examination by means of the Pearson correlation coefficient as well as multiple regression analysis with the assistance of the statistical programme E-View 9.0. The reports of this study indicated that, at a 5% level of significance, sustainability reporting (as evaluated by economic, environmental, and social performance indices) has a positive significant effect on return on assets, return on equity, and earnings per share. This was demonstrated when the significance threshold was set to 0.05. The study recommends, among other things, the implementation of a standardised Sustainability Index, since this will assist to put pressure on corporations to pay more attention to the environment and take sustainable development issues more seriously. This is because the index will help to measure how well companies are doing in terms of sustainability.

A study was conducted to determine the impact that sustainability reporting has on the performance of companies⁸¹. The goal of this study is to look into the impact of sustainability reporting on overall business success. The total asset, return on asset, return on equity, and net interest margin were used as control variables in this study. This demographic consists of financial industry, primarily banking sector, companies that were listed on the Indonesia Stock Exchange between 2016 and 2019. The manner of sampling is defined by the use of purposive sampling. The final sample for this study consists of 85 different businesses. The use of multiple regression analysis allowed for the testing of hypotheses in this study. The findings of this study indicate that reporting on sustainability has a favourable influence on the performance of companies.

According to the findings of yet another study on sustainability reporting and financial performance: evidence from Australia's energy companies⁸². This investigation, which is grounded on the idea of stakeholders, investigates the connection between the sustainability reporting methods of Australia's power companies and the financial success of those companies. The return on assets is used to evaluate the performance of the companies, descriptive statistics and multiple regression are used to test hypotheses, and this paper makes use of the GRI G4 sector-specific guidelines to investigate the level of disclosure on sustainability that is provided by Australia's electricity companies. The results of the regression analysis, which relied on secondary data gathered from companies' annual reports, websites, corporate social responsibility (CSR) reports, or standalone sustainability reports, reveal that the sustainability reports have a connection with the success of the companies. Further investigation finds that the economic and social performance disclosures contained within sustainability reports are the only ones that have a substantial impact on the performance of the companies. This paper examines

the connection between the adoption of sustainability reporting and the financial performance of electricity companies within Australia that provide essential services to society and have a significant influence on sustainable development. While previous research on the association between sustainability reporting and financial success was primarily based on foreign data, this study investigates the relationship between the adoption of sustainability reporting and the financial performance of Australian power providers.

Additionally, a study on corporate sustainability reporting and the financial performance of Nigerian listed manufacturing businesses was done⁸³. The goal of this study was to look into the impact of corporate sustainability reporting on the economic results of publicly traded industrial companies in Nigeria. The return on assets was used as the dependent variable in the study, while disclosures regarding economics, society, the environment, and governance were used as the independent variables. The correlation research methodology was chosen for this study because it not only describes the statistical relationship that exists between the variables but also estimates the impacts that independent variables have on the variable that is being studied. The annual reports and accounts of the thirty-one (31) chosen Nigerian listed manufacturing enterprises served as the primary sources of data for this study. The hypotheses were examined through the lens of generalized least squares (GLS) in this study. The findings indicate that economic and environmental disclosures have a positive and significant impact on the financial performance of Nigerian listed industrial enterprises. This conclusion was reached based on the findings from the research. During the time period under consideration, the environmental disclosures had the greatest impact, while the social disclosures had the least impact, but a significant negative impact nonetheless. Based on the findings, It is recommended that Nigerian manufacturing enterprises make it a policy to report environmental elements of their operations

because doing so will result in excellent financial performance. This is due to the fact that the revelation will result in greater environmental standards.

In a different study on Environmental accounting and profitability of selected quoted oil and gas companies in Nigeria (2012-2017), the researchers looked at the years 2012-2017⁸⁴. The purpose of this study was to investigate the connection between environmental accounting and the profitability of certain publicly traded oil and gas companies in Nigeria over the course of the recent years 2012-2017. In particular, it investigated the link between oil and gas companies in Nigeria that are publicly traded and their environmental expenditures and their net profits. In the course of the research, an explanatory, historical, and correlational approach was taken, and secondary sources were mined for information. The annual reports and accounts of the companies, which are available on their websites, as well as the Nigerian Stock Exchange were utilised to compile the data (various years). The years 2012–2017 were covered by the data that was collected. The annual reports include annual financial statements, annual sustainability reports, as well as Annual Reports of global tax payment to nations by quoted oil firms, annual returns submitted at the Nigerian Stock Exchange for the years under study. Additionally, the annual reports contain information regarding the global tax payment made by the quoted oil firms. Both the analysis of the data and the verification of the hypothesis made use of regression. The findings of the research indicate that there is no meaningful connection between the amount of money spent on environmental protection and the amount of money made by the oil and gas companies in Nigeria that were investigated for the study. Accordingly, the research suggests, among other things, that the management of oil and gas companies should direct their efforts toward engaging in adequate environmental spending and the disclosure of such spending as a means of increasing the trust of stakeholders and demonstrating more transparency in their

operations. This, in turn, may lead to the achievement of better financial performance, which may be measured in terms of its profitability.

In a research on the environmental reporting practises of publicly traded companies in Nigeria that are sensitive to the environment, and analysing their financial performance⁸⁵. Environmental reporting practises and financial performance of environmentally sensitive companies that are publicly traded in Nigeria The purpose of this study was to contribute to the ongoing discussion by investigating the impact of environmental disclosure practises on the financial performance of environmentally sensitive companies that are publicly traded in Nigeria. The return on assets was utilised as a proxy for the firm's financial success, while the green reporting index was utilised to evaluate environmental disclosure procedures. The green reporting index is a product of environmental reporting quality. The data regarding the return on assets were retrieved as a ratio of earnings before taxes divided by total assets. On the other hand, the data regarding the quality and quantity of environmental reporting were extracted through content analysis from the annual reports and accounts of the companies. For the purpose of analysing the data, both descriptive statistics (such as mean and standard deviation) and inferential statistics (such as correlation and regression) were utilised. The findings of the correlation analysis demonstrated that environmental reporting practises and financial performance have a correlation that is both positive and significant. The regression analysis found that environmental reporting has a positive and statistically significant impact on financial performance. As an outcome of this, the findings of the study came to the conclusion that environmental disclosure policies are critical factors to take into account when determining the financial success of corporations. Accordingly, one of the recommendations that came out of the study was that companies that are

environmentally conscious should maintain and improve the reporting of their environmentally friendly activities because these activities improve financial performance.

The impact of social and environmental disclosure on the financial performance of publicly traded consumer goods producing companies in Nigeria was studied⁸⁶. The goal of this study was to look into the impact of social and environmental disclosure on the profitability of Nigerian consumer products companies. A multiple regression analysis was used to conduct the study, and the sample consisted of 16 out of a total of 20 companies in the consumer goods sector. According to the findings of the study, social and environmental disclosure had a significant impact on return on assets, whereas the size of the firm and its length of existence did not have a significant bearing on the impact of social and environmental disclosure on ROA. Additionally, the effect of social and environmental disclosure on earnings per share (EPS) was insignificant, but firm size and age were significant controls in the effect of social and environmental disclosure on EPS. According to the findings of the study, the disclosure of social and environmental information has a meaningful effect on the financial performance of manufacturing enterprises in Nigeria. It was thought that managers should make sure that information about their social practises is well communicated to stakeholders in an understandable manner. This would allow stakeholders to comprehend, value, and process the information in order to make meaningful decisions about the firm. Additionally, it was thought that disclosure should be country-specific; each country should design the benchmark, rules, and guidelines befitting their environment for such to be impactful.

In a work titled "Sustainability Accounting and Performance of Insurance Companies in Nigeria"⁸⁷. The author discusses the topic of insurance companies in Nigeria. In order to evaluate the amount of disclosures of sustainability practise among Nigerian insurance firms and identify

the issues that are militating against nondisclosures, the methodology comprises of reviewing the existing literature on firms' disclosures. The major finding suggested that there had been a significant amount of social disclosure, but there had been less environmental disclosure worldwide and in Nigeria. The lack of proper planning, insufficient resources, uncertain governance policies, and absence of individual accountability are some of the challenges associated with the sustainability reporting. It is strongly suggested that insurance companies fully adopt both the GRI-based reporting guidelines as well as the sustainability reporting guidelines issued by the NSE on a larger scale in order to satisfy the disclosure provisions of the environmental reporting. Insurance companies should appoint Chief Sustainable Officers, and accountability should be enforced through the effective use of a bookkeeping system to monitor social and environmental expenditures.

To analyse the impact of environmental disclosure and audit on the financial performance of Nigerian listed oil and gas firm⁸⁸. The scope of this study assessed the influence of environmental disclosure and auditing on the financial performance of oil and gas companies listed on the Nigerian Stock Exchange between 2011 and 2020. This study used an ex-post facto research approach, with 11 enterprises picked at random from the 13 oil and gas companies listed on the Nigeria Stock Exchange. Panel data regression was used to analyse the effect of environmental disclosure and environmental audit on financial performance and the result of the analysis showed that environmental disclosure has a significant effect on returns on assets (ROA), Profits After Tax (PAT) and returns on equity (ROE) of listed oil and gas companies in Nigeria and environmental Audit has no significant effect on returns on assets (ROA) and Profits After Tax (PAT), but it significantly affects the returns on equity (ROE of listed oil and gas companies in Nigeria) (ROE of listed oil and gas companies in Nigeria). Following this, the

conclusion was reached that environmental disclosure as well as auditing leads to an improvement in the financial performance of the chosen oil and gas companies. According to the findings of the study, the oil and gas industries should develop and implement policies that are friendly to the environment in order to increase their profitability.

Another study on environmental accounting disclosure and the financial sustainability of listed firms in the Nigerian manufacturing sector was carried⁸⁹. The purpose of this study was to investigate the impact that environmental accounting disclosures have on the long-term financial viability of publicly traded Nigerian manufacturing companies. To fulfil the study's goal, an ex-post facto research design based on annual reports from ten publicly traded manufacturing enterprises was used. Multiple regression analysis was used to collect data. According to the findings, environmental accounting disclosures have a minor but favourable impact on the financial sustainability of Nigerian listed industrial enterprises (Adj. R2 = 0.0468, F- statistics = 1.9721, P-value = 0.0899). With the introduction of the moderating effect of firm size, environmental accounting disclosures showed insignificant but positive effect on financial sustainability of listed manufacturing firms in Nigeria (Adj. R2 = 0.0489, F- statistics = 1.8487, P-value = 0.0981). According to the findings of the study, environmental accounting disclosures do not have a positive but insignificant effect on a company's ability to remain financially sustainable. It has been suggested that the profession of accounting formulate guidelines for the reporting of environmental accounting information by commercial enterprises. At the level of the firm, there ought to be disclosures of environmental accounting information that are made voluntarily.

Environmental Conservation, Sustainable Development, and the Financial Performance of Oil and Gas Companies Listed in Nigeria⁹⁰. As a result, the purpose of this study was to analyse the

influence that environmental conservation, sustainability, and financial performance have had on listed oil and gas businesses in Nigeria over the course of the year 2011-2020. The study used an ex-post facto research design for its investigation, and the data were collected from the oil and gas businesses that were listed on the Nigerian Stock Exchange as of the 31st of December 2020. Out of the total of 13 oil and gas companies listed on the Nigeria stock exchange, a sample of 11 oil and gas companies was chosen to represent the sector. Environmental accounting disclosure was evaluated based on environmental conservation and environmental sustainability, whereas financial performance was evaluated based on return on assets, return on equity, and profit after taxation. The influence of environmental conservation and environmental sustainability on financial performance was investigated using panel data regression. The analysis found that environmental sustainability has a significant impact on the financial performance of Nigerian listed oil and gas companies, with profitability values of 0.0014 and 0.0440, respectively. This suggests that a company's environmental sustainability is strongly related to its returns on equity. There was no significant relationship found between environmental conservation and financial performance. This suggests that alternative hypotheses should be accepted while the null hypothesis should be rejected as a result of this evidence. As a result of this finding, the research came to the conclusion that oil and gas producing firms should make the protection of the environment a priority in order to improve their current and future performance and increase the operational profitability of their business.

Regarding the impact that green accounting has on the bottom lines of oil and gas businesses in Nigeria⁹¹. The purpose of the study was to investigate the impact that green accounting will have on the financial performance of oil and gas firms between the years 2010 and 2020. The particular goals were to investigate the influence of environmental cost accounting and green

management accounting on the financial performance of oil and gas firms in Nigeria. These companies operate in an industry that is highly regulated. In this particular study, a quantitative approach was utilised, and an ex post facto research methodology was chosen for the research design. The information was gleaned from the annual reports and accounts of the respective companies for the years 2010 through 2020. Regression analysis, conducted with the assistance of e-view 9.0, was utilised to assess the hypotheses. According to the findings, environmental cost accounting has a considerable impact on the financial performance of oil and gas businesses. In addition, the research came to the conclusion that the financial performance of oil and gas companies is significantly impacted by green management accounting.

The purpose of this study is to investigate the relationship between environmental accounting and the performance of enterprises in the listed financial services sector in Nigeria⁹². The purpose of this study was to evaluate the connection between environmental accounting and the performance of companies in the financial services sector that are quoted in Nigeria during the period of 2010 to 2019. In this study, the performance proxy of return on asset was regressed against environmental accounting (the explanatory variable), as well as business size (intervening variable). Out of the twenty-two banks that were listed, only ten were chosen at random to participate in the study. The researchers used secondary data obtained from the annual financial statements that the sampled banks had published, and they performed multiple regression analysis using the OLS method with the assistance of E-view. According to the findings of the research, environmental accounting has a positive and insignificant relationship with return on asset (the chosen measure of performance).

On the other hand, the firm size intervening variable had a negative and insignificant effect on return on asset of deposit money banks in Nigeria. The study came to the conclusion that the

practice of environmental reporting and accounting is inadequate among Nigerian deposit money institutions. This finding does not come as a surprise given that there is a lack of solid regulation in the country pertaining to the practice of environmental accounting. According to the findings of the study, regulatory authorities should establish a legal framework and standard requirement that can improve the practise of environmental accounting. Additionally, it should be mandatory for deposit money banks to disclose the environmental expenditure and environmental cost that has been charged to their income statement in the form of notes to the account. This recommendation was made in light of the fact that regulatory authorities should set out a legal framework and standard requirement.

According to the findings of a research that looked at the impact of environmental disclosure on the performance of several ICT companies in Nigeria⁹³. In this study, return on assets (ROA) was used as a measure of performance. Environmental disclosure (ED), entity size, and entity age were all used as explanatory variables, and entity age was also used as a control variable. The purpose of this study was to test quoted ICT companies on the Nigeria exchange group to determine the effect that environmental disclosure has on performance. By utilising the multiple regression analysis that was carried out on e-view and sampling six different entities with the aid of secondary data that covered the period from 2011 to 2020 (ten years), The above regression output showed that the coefficient of determination (R-squared) value was 0.72, which indicates that the combined effect of variations in the independent variables accounts for 72% of the changes in the dependent variable. Additionally, the R-squared value of approximately 58% implies that the model is good and suitable to be used in testing our hypotheses. The model displayed an F-statistic of 0.04, which is statistically significant at the 5% level. It also displayed a Durbin-Watson statistic of approximately 2.00, which indicated that there was no

autocorrelation among the independent variables. However, the model's variables did not show statistical significance on their own. As a result, we suggested that the entity should focus more on maximising the wealth of its shareholders, that all relevant stakeholders should be taken into account whenever economic activities are carried out (due to the fact that each of these groups contributes significantly to the success of the entity), and that the government should foster an environment that is conducive to the success of businesses.

In a related work on environmental accounting disclosure policies and financial performance among Nigeria's publicly traded cement industries⁹⁴. The purpose of this study was to investigate the effect that environmental accounting disclosure has on the economic performance of publicly traded cement businesses in Nigeria. The research design used in this study was called *expo facto*. The data were collected from the annual reports and accounts of three different cement businesses that were traded on the Nigerian Stock Exchange between the years 2011 and 2019. Methods of approximated panel regression and descriptive statistics were utilised in this study. The findings of the study indicated that environmental accounting disclosure has a favourable and significant impact on the financial performance of firms, specifically with regard to Nigeria's listed cement companies. According to the findings of the study, environmental accounting has a large beneficial influence on returns on equity and returns on assets, respectively. As a result, this study suggests that important stakeholders, such as government agencies and regulatory bodies such as the financial reporting council among others, should put in place a workable monitoring mechanism to ensure that firms in the Nigerian cement industry engage in better environmental accounting disclosure because it plays a key role on their performance and, by extension, their ability to survive in the long run.

In a separate but related study on company characteristics and the quality of environmental disclosure in listed oil and gas businesses in Nigeria⁹⁵. The researchers looked at the companies. The overarching purpose of this research is to evaluate the corporate features of Nigerian oil and gas businesses from 2004 to 2019, as well as the quality of their environmental disclosures both before and after the introduction of IFRS. Square of the Greatest Increment In order to establish the extent of the influence that company characteristics have on the quality of environmental disclosure, a regression analysis was carried out. According to the data, the leverage ratio has a significant positive link with the quality of environmental disclosure prior to the implementation of IFRS. On the other hand, firm size, return on assets, and age have no significant relationship with environmental disclosure quality. On the other hand, in the period after the adoption of IFRS, firm size and firm age have a positive and significant relationship with environmental disclosure quality; however, leverage ratio and return on asset do not have a significant relationship among companies operating in the oil and gas industry in Nigeria. Following the implementation of IFRS in Nigeria's oil and gas industry, the overall results indicate that the contribution of profitability, leverage, firm age, and firm size to environmental disclosure quality has decreased. This was the case despite the fact that all of these factors had previously been significant. As a result, it is advised that firms be provided incentives that would cause them to grow; this is due to the fact that firm size has a positive and significant association with the quality of environmental disclosure following the introduction of IFRS in Nigeria. The greater the size of the company, the higher the quality of the environmental disclosure. After the adoption of IFRS, the age of a firm has a positive and significant association with the quality of environmental disclosure. As a result, the ongoing existence of firms should also be supported.

A study analysed the environmental accounting disclosure practices of publicly traded multinational corporations in Nigeria⁹⁶. This study was carried out by first determining the level of compliance, and then investigating the effect of environmental disclosure on financial performance with a concentration on multinational corporations. This was done in response to the continued environmental abuse that has been seen in the Nigerian business space as a result of the absence of a legal framework for sustainability reporting. Secondary data were gathered from the companies' published annual reports between the years 2011 and 2020 for the purpose of this study. Using descriptive statistics and panel regression analysis, the gathered data (including the Environmental disclosure index, return on asset, and earnings per share) were studied. The oil and gas industry was found to have the lowest degree of compliance out of the three different sectors that were evaluated during the compliance level assessment. In addition, the findings demonstrated that environmental accounting disclosure had an effect that was both significant and positive on earnings per share (EAPS), but that it had an effect that was both negative and minor on return on asset (RETA). According to the findings of the study, the degree to which a company is responsive to environmental accounting disclosure has an impact on how the company is valued. According to the findings of the study, multinational corporations and other Nigerian businesses should make an effort to disclose their environmental-related activities, even though doing so is not required by law. This is due to the fact that previous research has demonstrated that such disclosure can have a positive impact on earnings per share for companies.

In a report titled "Board Characteristics and Environmental Disclosure of Publicly Traded Oil and Gas Companies in Nigeria"⁹⁷. The authors looked at these topics. This study investigated the relationship between board characteristics and environmental disclosure of quoted oil and gas

firms in Nigeria: The moderating role of firm size with its specific objectives such as determining the relationship between board independence and environmental disclosure. The ex-post facto research strategy was chosen for this study, and the population and sample size consisted of the 12 oil and gas businesses that are listed on the Nigerian Stock Exchange (NSE). In this study, secondary data were utilised, and data analysis was performed using both descriptive and inferential statistics, as well as the Pearson Correlation Coefficient Statistical tool, in addition to the assistance of the Statistical Package for the Social Sciences version 23.0, in order to test the null hypotheses. The outcomes of the study indicate that a negative association exists between board independence and environmental disclosure⁹⁷.

The results of the study reveal, moreover, that the size of the company has a substantial moderating role in the relationship between board qualities and environmental disclosure. The research suggests, on the basis of its findings, that independence should be evaluated by taking into consideration all of the relevant factors that have the potential to compromise independence, and that the classification of directors as independent or not independent in the integrated report should be done on the basis of evaluation. In conclusion, an increase in total assets is necessary since the size of the firm was found to be a moderator variable in the relationship between board features and environmental disclosure.

The goal of this research is to examine the influence of sustainability reporting on the financial performance of Nigerian publicly traded oil and gas firms⁹⁸. This study looks into the impact of sustainability reporting on the overall financial performance of Nigerian publicly traded oil and gas firms. The oil and gas companies in Nigeria that are included in the study all have public stock listings. It was decided to employ the census sampling technique, and a filter was applied.

In order for a company to be chosen, it must have been listed on or before January 1, 2009, and it must continue to be listed until December 31, 2019.

Additionally, the company is required to provide its annual reports during the time period that is pertinent to the study. On the basis of these, five companies that did not fulfil the requirements set forth were eliminated from consideration. In order to get an accurate picture of a company's overall profitability, this study employs the Return on Asset metric. In order to acquire the necessary data, secondary sources were utilised. Both the company's annual reports and separate sustainability reports were combed through to obtain the relevant information for this study. On the other hand, the information concerning the company's financial performance was obtained from the annual reports of the company. The statistical software STATA 13 was used to perform analyses on the data collected for this investigation. According to the findings of the regression analysis, economic sustainability has a positive effect that is insignificant on ROA, but environmental sustainability has a positive effect that is substantial on ROA, and social sustainability has a positive effect that is insignificant on ROA. This study finds, therefore, that sustainability reporting does have a major effect on the financial performance of listed oil and gas corporations in Nigeria. This conclusion is based on the findings, which show that sustainability reporting does have this effect. Accordingly, one of the recommendations made by this study is that publicly traded oil and gas companies in Nigeria should place a greater emphasis on reporting the sustainability initiatives they engage in because doing so has the potential to improve their financial performance. To make it easier for people to comply with regulations, those who determine policy and organisations that set standards ought to support the publication of industry-specific reporting criteria.

In a separate investigation into the relationship between environmental accounting disclosure and the financial performance of publicly traded information and communication technology companies in Nigeria⁹⁹. This study looked at the impacts of environmental accounting disclosure and the financial performance of four (4) listed information and communications technology firms in Nigeria. Previous studies had not been able to comprehensively examine listed information and communications technology firms in Nigeria, which is what prompted this study to fill the gap that had been left unfilled. For this study, secondary data were gathered from the yearly financial reports that were released in the Nigerian stock exchange between the years 2010 and 2020.

These data were then analysed using a multi-regression approach. Return on assets (ROA) and earnings per share (EPS) were calculated using the financial performance of Nigerian information and communications technology companies as proxies (EPS). When using return on asset, it was discovered that there was a positive association between the variables, however earnings per share revealed a negative relationship between the variables. At 5% significance, the co-efficients of EPS and ROA were 0.26 and (-1.000), respectively, while the P-values of EPS and ROA were 0.832 and 0, respectively. Furthermore, while using return on asset, it was discovered that there was a positive association between the variables. In order for non-disclosure environmental accounting organisations to see an improvement in their financial performance, it was suggested that they should consider disclosure to be obligatory and treat it as such.

According to the findings of a study conducted in Nigeria on the topic of environmental disclosure and the financial performance of listed oil and gas businesses¹⁰⁰. The purpose of this research is to conduct a literature review on the influence of environmental disclosure on the

financial performance of publicly traded oil and gas firms in Nigeria, with the end goal of determining the possible reasons that explain for the contradictory findings. According to the findings of the review, there are both good and negative consequences. This indicates that the disclosure of environmental information will have an impact on the financial performance of oil and gas businesses in Nigeria. As a result, information concerning the environment should be disclosed in annual reports by companies. There are no definitive accounting standards in Nigeria; rather, there are guidelines to follow in order to ensure uniformity in reporting environmental issues. This could be the cause of the differences in the results. Environmental disclosure in Nigeria is voluntary. When presenting environmental information. To guarantee uniformity in reporting environmental issues.

In the empirical study entitled "The Effect of Quality Environmental Information Disclosure on Firm's Performance of Listed Brewery Firms in Nigeria" ¹⁰¹. It was found that quality environmental information disclosure had a positive impact on company profits. The purpose of the study was to investigate the impact that the disclosure of high-quality environmental information has on the financial performance of listed breweries in Nigeria. The primary impetus behind this study was the requirement to demonstrate the impact of environmental disclosure in aggregated variables on the overall performance of brewing companies in Nigeria. The primary purpose of this study was to investigate the impact that the disclosure of high-quality environmental information had on the overall performance of listed brewing companies in Nigeria. For the purposes of this study, an ex-post facto research design was chosen. The annual reports of the brewery companies that were quoted on the Nigerian Stock Exchange served as the source for the secondary data that was collected. In order to examine the disclosure of environmental information, both the Content Index and the Disclosure Index were utilised. The

years 2008 through 2019 are covered by this data. To investigate the influence of the Environmental disclosure index on the ratio of return on assets to return on equity as well as the net profit margin, a panel least square regression test was carried out with the assistance of reviews 10.0 software.

According to the findings, the disclosure of environmental information has a significant impact on the return on asset for publicly traded brewing companies in Nigeria. In addition, the findings demonstrated that the disclosure of environmental information does not have a significant impact on the return on equity of listed brewing companies in Nigeria. Last but not least, the findings demonstrated that the disclosure of environmental information has a significant impact on the net profit margin of listed brewery companies in Nigeria. As a result of the findings, the research suggests that there should be mandatory disclosure practices for brewery companies, which should be enforced by the government. This would enable brewery companies to assume responsibility for the disclosure of environmental performance data in annual reports.

In a paper titled "Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria¹⁰²," the authors found that the country of Nigeria had 102. This research investigates the relevance of sustainability reporting to the evaluation of the operational efficiency of publicly traded deposit money banks in Nigeria. To be more specific, the study focuses on the economic, environmental, and social dimensions of sustainability reporting by employing "Return on Assets," "Return on Equity," and "Earnings per Share" as proxies for the financial performance of Deposit Money Banks in Nigeria from the years 2012-2018. The study's sample was limited to seventeen deposit money banks out of the twenty-one banks that were quoted on the Nigerian Stock Exchange as of December 2018. The necessary information was gleaned from the audited annual financial statements and "sustainability reports" of the various Deposit Money Banks that

were chosen for the time period in question. It was determined to conduct an in-depth analysis of the three key areas of impact: profit (economic), people (social), and planet (environmental).

The descriptive and least squares regression analyses were chosen for the study in consideration of the sustainability reporting practises of the banks in comparison to the proxies for performance that were chosen. According to the study's findings, the sustainability reporting practises of Nigerian banks have a substantial impact on the financial performances of Deposit Money Banks in Nigeria. According to the study's findings, enabling legislation should be enacted to mandate enhanced sustainability practises among all deposit money banks in Nigeria, as well as to facilitate meaningful evaluation and measurement of earnings, social, and environmental impacts in all areas of bank operations in Nigeria. Furthermore, the report recommends that enabling legislation be enacted to mandate increased sustainability practises among all deposit money banks in Nigeria.

In a study on "Reporting on Sustainability and the Financial Performance of Companies Listed in Nigeria That Produce Consumer Goods"¹⁰³. In this study, the influence that sustainability reporting has on the overall financial performance of 26 publicly traded consumer goods companies in Nigeria is analysed. The correlational research design was chosen for the study, and secondary data were gathered from the annual reports and accounts of the companies over a time span of ten years (2009-2018). In addition to diagnostic checks and post estimation tests being performed on the data, multiple regression techniques were used to conduct the analysis of the data. According to the findings, social performance has a sizeable and favourable impact on financial performance. In a similar vein, the findings point to the fact that financial performance is significantly improved when environmental performance is improved. On the other hand, the findings indicate that financial performance is significantly impacted in a negative way by

economic performance. According to the findings of the study, sustainability reporting is critically crucial to the financial success of corporations. The report makes a number of recommendations, one of which is that management should publish more actions related to social and environmental performance and less activities related to economic performance.

To find the relationship between reporting on sustainability and the financial performance of African Banks. This study investigated the connection between reporting on sustainable practises and the financial performance of banks in Africa¹⁰⁴. This study adopted both accounting-based measures of firm performance (such as return on assets) and market-based measures of firm performance (such as Tobin's Q), in contrast to earlier research that focused solely on accounting-based measures of performance. The study relied on secondary data that was gathered from the audited financial statements of listed African banks over a ten-year period beginning in 2010 and ending in 2020. Notably, a quantitative content study was performed on the financial statements of 20 listed banks (taken from Ghana, Nigeria, and South Africa) in order to measure the level of sustainability content present in those statements. The framework for reporting on sustainability that had been developed by the global reporting initiative served as its compass throughout. The purpose of the content analysis is to determine and categorise the degree to which companies report on the economic, governance, social, and environmental aspects of sustainability. In addition, the statistics from the financial statements were helpful in the computation of a performance measure for the banks (namely, the return on assets and Tobin's Q). In terms of the analysis of the data, the research made use of a panel fixed effect regression model to evaluate the association between sustainability reporting and the performance of businesses. According to the findings, there is a significant positive association between economic, social, and governance reporting of sustainability content (in the financial

statement) and Tobin's Q and return on assets (ROA). In addition, the findings of the study suggest that the reportage of environmental sustainability content by banks has a significant positive effect on ROA. On the other hand, it does not have a major impact on Tobin's Q.

In a study titled "Corporate Sustainability Reporting and Financial Performance of Oil and Gas Industry in NIGERIA (2007-2016)"¹¹. The researchers looked at the oil and gas industry in Nigeria over the course of 11 years (from 2007 to 2016). (2017 - 2017). Recent years have seen an increase in the awareness that the actions of most organisations may have negative implicational effects on the ecosystems, societies, and environments of the future, which has contributed to the rise in the importance of questions pertaining to the sustainability of corporations on a global scale. As a result, businesses are being forced to broaden the scope of their strategic policies and information reporting in order to incorporate practices for sustainability reporting. This is being done in order to satisfy the environmental and social requirements of stakeholders both present and in the future. In light of this, the purpose of this study was to investigate the impact that sustainability reporting has on the financial performance of publicly traded oil and gas companies in Nigeria. The primary purpose of this research was to investigate the impact that reporting on corporate sustainability has on the Return on Assets, Return on Equity, and Return on Capital Employed of oil and gas companies that are traded on the Nigeria Stock Exchange. The fifteen oil and gas companies that were listed on the Nigeria Stock Exchange (NSE) as of the 31st of December, 2016, made up the study's population. The study was carried out in Nigeria. The following businesses are included in this list: Anino International, Beco Petroleum Product, Capital Oil, Caverton Offshore Support Group, Conoil Plc, Eterna Plc, Forte Oil (AP), Japaul Oil, Mobil Oil Nigeria, Mrs Oil (Formerly Texaco, Chevron), Oando Plc (Formerly Unipetrol), Rak Unity Petroleum, Seplat Petroleum

Development, Total Nigeria, and Navitus Energy. Between 2007 and 2016, the sample consisted of ten of the fifteen oil and gas companies that were listed on the Nigerian Stock Exchange. Secondary data were gathered for the study through the financial ratios and accounts of the individual companies, as well as through content analysis. In the process of analysing the data that was collected, three different multiple regression models were used. The investigation revealed that social sustainability reporting has a detrimental impact on all three performance proxies; however, the effect of social sustainability reporting on return on equity was the only one that was statistically significant. Additionally, environmental sustainability demonstrated an overall positive effect that was insignificant when compared to the three financial performance measures.

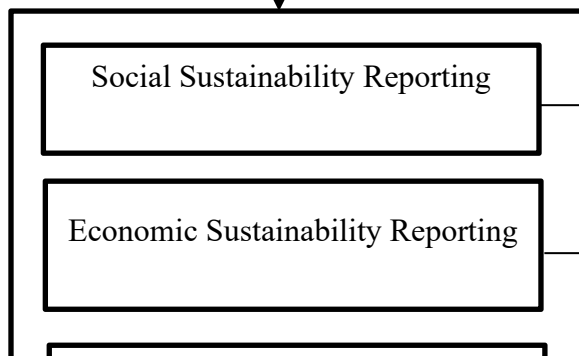
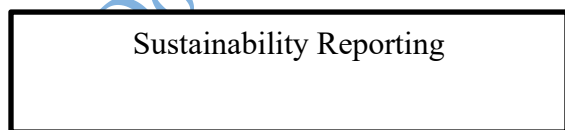
In a separate study called "Indicators of Sustainability Reporting and Performance of Non-Financial Companies in Nigeria"¹⁰⁵. The researchers looked at the data from those companies. This study investigated the performance of non-financial companies in Nigeria as well as the sustainability reporting indicators used by those companies. The researchers examined the relationship between the three performance indicators—Return on Asset (ROA), Return on Equity (ROE), and Net Profit Margin (NPM)—and the impact that sustainability reporting indicators had on each of them simultaneously. In this particular study, an ex-post facto design was utilised. A total of 64 of the 168 non-financial companies that are listed on the Nigerian Stock Exchange were investigated, and secondary data was obtained from the annual financial statements of those enterprises, as presented in the fact book. The data were examined by employing the regression model known as the ordinary least squares (OLS). The statistical method that was used to evaluate the hypotheses was called the p-value, which stands for the probability value. According to the findings of this research, sustainability reporting indicators

had a positive impact on the Return on Asset (ROA), Return on Equity (ROE), and Net Profit Margin (NPM) of the non-financial companies that were investigated. However, this positive impact was not statistically significant. Therefore, businesses are strongly encouraged to align their sustainability disclosure goals with other performance and shareholder profit maximisation goals of the company.

2.4 Conceptual Framework

Conceptual model consists of concepts that are placed within a logical and sequential design. It is a model that explores the use of drawings and diagrams to explain the interrelationships between variables¹⁰⁶. Figure 2.4 shows the conceptual model for the study:

Independent Variable



Dependent Variables

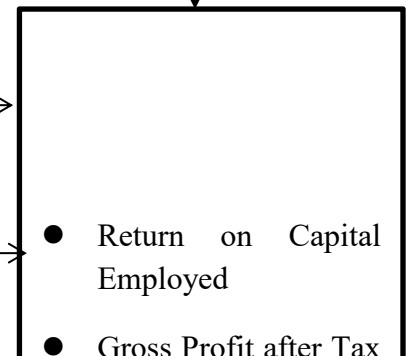
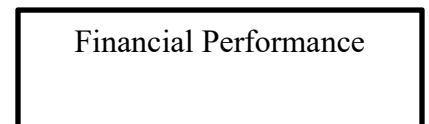




Figure 2.1: Conceptual Model

Source: Researcher, 2022

The diagram in figure 2.1 shows the individual and joint effect of the independent variables (sustainability reporting) on the dependent variable (financial performance) for the study. Sustainability Reporting was studied in the areas of social sustainability reporting, economic sustainability reporting, environmental sustainability reporting and employee health & safety sustainability reporting. The dependent variable financial performance was studied in two ways return on capital employed and gross profit after tax margin.

2.5 Summary of Gaps in Literature Reviewed

By conducting a literature review on the topics of firm performance proxies and corporate sustainability dimensions, this chapter investigates the conceptualization of both dependent (firm performance proxies) and independent (corporate sustainability dimensions) variables by focusing on the relationships that exist between the two categories of variables. The studies were analysed according to their topics, scopes, methodologies, and outcomes, which served as the basis for determining where the research gap lies.

The analysis of the empirical research reveals that the findings of the majority of these investigations are either equivocal or conflicting, with some of the studies revealing positive associations^{107,108}. Others have shown either a negative influence or none at all when it comes to the relationship between sustainability reporting and financial performance^{109,110}.

Previous research has shown that the relationship between corporate sustainability and firm performance is based on empirical and theoretical arguments. These arguments range from those that suggest that sustainability practise reduces organisational profits to those that suggest that it could be deployed for competitive advantage. The vast majority of the earlier studies were conducted in rich countries, while studies conducted in poor countries like Nigeria received a significantly smaller amount of attention than they deserved. This study is therefore justified by assessing the impact of two of the three major dimensions of corporate sustainability (environmental, and social) and firm's performance (using two different performance indicators) in all of the listed deposit money banks on the Nigerian Stock Exchange. Specifically, this study looks at the relationship between these two factors. It is anticipated that the outcome will contribute toward resolving the contradictions that have been found in previous studies, particularly those that pertain to the Nigerian setting. This area of study is far from being established empirically, thus there is a need for additional research since this lack of convergence, when added to the mixed results that have been noticed, is an indicator that more research is required.

Endnotes

1. G.A.Rahmanda& I.K. Sandhi. *Integrated Reporting Elements Analysis of Mining and Manufacture Companies in Indonesia*. **Journal of Research in Business, Economics, and Education**. 2020 Jun 30;2(3):475-81.
2. H.Alzoubi, G. Ahmed, A. Al-Gasaymeh, &B. Kurdi. *Empirical study on sustainable supply chain strategies and its impact on competitive priorities: The mediating role of supply chain collaboration*. *Management Science Letters*. 2020;10(3):703-8.
3. B.K. Dhar, I.Harymawan&S.M. Sarkar. *Impact of corporate social responsibility on financial expert CEOs' turnover in heavily polluting companies in Bangladesh*. *Corporate Social Responsibility and Environmental Management*. 2022 May 1.
4. N. G. Iheduru& C. U. Okoro. "Sustainable Reporting and Profitability of Quoted Firms in Nigeria: A Multi-Dimensional Panel Data Study".*Australian Finance & Banking Review; Vol. 3, No. 1; (2019)*.
5. M. Peršić, S. Janković, & D. Krivačić. *Sustainability accounting: upgrading corporate social responsibility*. In *The dynamics of corporate social responsibility 2017* (pp. 285-303). Springer, Cham.

6. V. Shoaf, E.K. Jermakowicz & B.J. Epstein. *Toward Sustainability and Integrated Reporting*. *Review of Business*. 2018 Jan 1;38(1).
7. G. Nigri, & M. Del Baldo. *Sustainability reporting and performance measurement systems: How do small-and medium-sized benefit corporations manage integration?*. *Sustainability*. 2018 Nov 29;10(12):4499.
8. S. Mahmud, T. Biswas, & N. Islam. *Sustainability reporting practices and implications of banking sector of Bangladesh according to global reporting initiative (GRI) reporting framework: An empirical evaluation*. **International Journal of Business and Management Invention**. 2017;6(3):01-14.
9. M.M. Ajmal, M. Khan, M. Hussain, & P. Helo. *Conceptualizing and incorporating social sustainability in the business world*. **International Journal of Sustainable Development & World Ecology**. 2018 May 19;25(4):327-39.
10. B.P. Lamsal. *Impact of Corporate Governance on Social Information Disclosure*. **Madhyabindu Journal**. 2021 Dec 31;6(1):1-9.
11. A.F. Ihimekpen. *Sustainability Reporting And Financial Performance Of Listed Non-Financial Companies In Nigeria*. Thesis Submitted To The Department Of Accounting, School Of Post Graduate Studies, Igbinedion University, Okada, Okada, Edo State, Nigeria.
12. V. Tibiletti, P.L. Marchini, K. Furlotti, & A. Medioli. *Does corporate governance matter in corporate social responsibility disclosure? Evidence from Italy in the "era of sustainability"*. *Corporate Social Responsibility and Environmental Management*. 2021 Mar;28(2):896-907.
13. W. Sroka, & R. Szántó. *Corporate social responsibility and business ethics in controversial sectors: Analysis of research results*. **Journal of Entrepreneurship, Management and Innovation**. 2018;14(3):111-26.
14. I. Myroshnychenko, I. Makarenko, D. Smolennikov, & A. B. Uriak. *The approach to managing corporate social and environmental responsibility in manufacturing*. **TEM Journal**. 2019 Aug 1;8(3):740..
15. E.D. Pedro, J. Leitão, & H. Alves. *Bridging intellectual capital, sustainable development and quality of life in higher education institutions*. *Sustainability*. 2020 Jan 8;12(2):479.
16. V. Meseguer-Sánchez, E. Abad-Segura, L.J Belmonte-Ureña, & V. Molina-Moreno. *Examining the research evolution on the socio-economic and environmental dimensions*

on university social responsibility. **International Journal of Environmental Research and Public Health**. 2020 Jul;17(13):4729.

17. M.K. Shad, F.W. Lai, C.L. Fatt, J.J. Klemeš, & A .Bokhari. *Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework*. **Journal of Cleaner production**. 2019 Jan 20;208:415-25.
18. N. Dalevska, V. Khobta, A. Kwilinski, & S. Kravchenko. *A model for estimating social and economic indicators of sustainable development*. *Entrepreneurship and sustainability issues*. 2019 Jun 1;6(4):1839.
19. A.J. van Niekerk. *Inclusive economic sustainability: SDGs and global inequality*. *Sustainability*. 12(13):2020, 5427.
20. R.B. Deswanto, & S.V. Siregar. *The associations between environmental disclosures with financial performance, environmental performance, and firm value*. **Social Responsibility Journal**. 2018 Mar 5.
21. D. Agustia. *Innovation, environmental management accounting, future performance: Evidence in Indonesia*. **Journal of Security and Sustainability Issues**.9(3): 2020, 1005-15.
22. E. Truant, L. Corazza, & S.D. Scagnelli. *Sustainability and risk disclosure: An exploratory study on sustainability reports*. *Sustainability*. 9(4): 2017, 636.
23. R. Torelli, F. Balluchi&K. Furlotti. *The materiality assessment and stakeholder engagement: A content analysis of sustainability reports*. *Corporate Social Responsibility and Environmental Management*. 27(2): 2020, 470-84.
24. D. Krivačić, &S. Janković. *Journal of Environmental Accounting and Management*. **Journal of Environmental Accounting and Management**. 5(4): 2017, 327-41.
25. A. Susanto, & M. Meiryani. *The Impact of Environmental Accounting Information System Alignment on Firm Performance And Environmental Performance:A Case Studyof Small And Medium Enterprises of Indonesia*. **International Journal of energy economics and policy** 9(2): 2019, 229.
26. D. Krivačić&S. Janković. *Journal of Environmental Accounting and Management*. **Journal of Environmental Accounting and Management**. 5(4): 2017, 327-41.

27. F. Rizzi, C. Pellegrini, M. Battaglia. *The structuring of social finance: Emerging approaches for supporting environmentally and socially impactful projects*. **Journal of Cleaner Production**170: 2018, 805-17.
28. A.H. Reilly & N. Larya. *External communication about sustainability: corporate social responsibility reports and social media activity*. *Environmental Communication*. 2018 Jul 4;12(5):621-37.
29. S. Schaltegger, & R. Burritt. *Contemporary environmental accounting: concepts and practice*. issues Routledge; 2017 Sep 8.
30. D. Krivačić. *Sustainability reporting quality: the analysis of companies in Croatia*. **Journal of accounting and management**. 7(1): 2017, 1-4.
31. N. J. Nwaiwu& N. O. Oluka “*Environmental Cost Disclosure and Financial Performance of Oil and Gas in Nigeria*”.**International Journal of Advanced Academic Research | Financial Management** | ISSN: 2488-9849 Vol. 4, Issue 2 (February 2018), (2018).
32. O. A. Yahaya. “*Environmental Reporting Practices and Financial Performance of Listed Environmentally-Sensitive Firms in Nigeria*.”**Savanna: A Journal of Environmental and Social Sciences**, 24(2), 2018 pp. 403 – 412.
33. T. Kliestik, K. Valaskova, G. Lazaroiu, M. Kovacova, & J. Vrbka. “*Remaining financially healthy and competitive: The role of financial predictors*”. **Journal of Competitiveness**. 12(1): 2020,74.
34. J. Dyduch& J. Krasodomska. *Determinants of corporate social responsibility disclosure: An empirical study of Polish listed companies*. *Sustainability*. 9(11):2017, 1934.
35. S.K. Herath &N. Albarqi. “*Financial reporting quality: A literature review*”. **International Journal of Business Management and Commerce**. 2017 Mar;2(2):1-4.
36. R.V. Jordão. *Performance measurement, intellectual capital and financial sustainability*. **Journal of Intellectual Capital**. 2017 Jul 10.
37. M. Jankalová, J. Kurotová. *Sustainability assessment using economic value added*. *Sustainability*. 2019 Dec 31;12(1):318.
38. E. Nizam, A. Ng, G. Dewandaru, R. Nagayev&M.A. Nkoba. “*The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector*”. **Journal of Multinational Financial Management**. 2019 Mar 1;49:35-53.

39. O. Okolie, & A. Igaga. *Original Paper Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria*. **International Business & Economics Studies** ISSN 2640-9852 (Print) ISSN 2640-9860 (Online) Vol. 2, No. 2, 2020
40. N. Amahalu. “*Effect of sustainability reporting on corporate performance of quoted oil and gas firms in Nigeria*”. **Journal of Global Accounting**. 2019 Sep 1;6(2).
41. Q. Xu, Y. Lu, H. Lin, & B. Li. *Does corporate environmental responsibility (CER) affect corporate financial performance? Evidence from the global public construction firms*. **Journal of Cleaner Production**. 315: 2021, 128131.
42. O. J. Ngozika *Effect of Creative Accounting On Stakeholders’ wealth Of Quoted Banks In Nigeria*. **International Journal of Financial and Business Studies (IJFABS)** <https://ijfabs.org/journals/> ISSN: Online-2811-1664; Print-2811-1656
43. T. Hovardas Social sustainability as social learning: Insights from multi-stakeholder environmental governance. *Sustainability*. 13(14):2021, 7744.
44. S. Schaltegger, R. L. Burritt & K. Christ *Environmental management accounting: development, context, contribution and outlook*. In *Handbook of Accounting and Sustainability*, Edward Elgar Publishing, 2022, pp. 260-278.
45. A. Khatter, L. White, J. Pyke & M. McGrath *Barriers and drivers of environmental sustainability: Australian hotels*. **International Journal of Contemporary Hospitality Management**. 2021 Jun 10.
46. M. A. Camilleri *Theoretical insights on integrated reporting: The inclusion of non-financial capitals in corporate disclosures*. **Corporate Communications: An International Journal**. 2018.
47. M. L. García *Business Sustainability and financial performance*. **Journal of Management** Print ISSN: 0120-4645 / E-ISSN: 2256-5078 / Short name: *cuad.adm*. Pages: e4010835 / Vol: 38 / Issue: 72 / Jan. - Apr. 2022
48. A. A. Jan, F.W. Lai & M. Tahir *Developing an Islamic Corporate Governance framework to examine sustainability performance in Islamic Banks and Financial Institutions*. **Journal of Cleaner Production**. 315:128099, 2021.
49. Z. Allam, A. Sharifi, S. E. Bibri, D. S. Jones & J. Krogstie *The metaverse as a virtual form of smart cities: opportunities and challenges for environmental, economic, and social sustainability in urban futures*. *Smart Cities*. 8;5(3):2022 ,771-801.

50. K. A. Muhindi & D. Ngaba *Effect of firm size on financial performance on banks: Case of commercial banks in Kenya*. **International Academic Journal of Economics and Finance**. 3(1): 2018, 175-90.
51. K. I. Nageri & A. A. Salami *Capital Structure and Profitability of Listed Deposit Money Banks in Nigeria*. *Gusau Journal of Accounting and Finance*. 3(1): 2022, 18-.
52. T. T. Siueia, J. Wang & T. G. Deladem *Corporate Social Responsibility and financial performance: A comparative study in the Sub-Saharan Africa banking sector*. **Journal of Cleaner Production**. 226: 2019, 658-68.
53. G. Nigri & M. Del Baldo *Sustainability reporting and performance measurement systems: How do small-and medium-sized benefit corporations manage integration?*. *Sustainability*. 10(12): 2018, 4499.
54. U. Uwuigbe, O. Teddy, O. R. Uwuigbe, O. Emmanuel, O. Asiriwa, G. A. Eytomi, & O. S. Taiwo. *Sustainability reporting and firm performance: A bi-directional approach*. **Academy of Strategic Management Journal**. 17(3): 2018, 1-6.
55. L. Moratis *Signalling responsibility? Applying signalling theory to the ISO 26000 standard for social responsibility*. *Sustainability*. (11): 2018, 4172.
56. K. Singh, M. Misra & J. Yadav *Corporate social responsibility and financial inclusion: Evaluating the moderating effect of income*. *Managerial and Decision Economics*. (5): 2021, 1263-74.
57. H. Y. Ching, F. Gerab & T. Q. Toste *The Quality of Sustainability Reports and Corporate Financial Performance: Evidence From Brazilian Listed Companies*. *SAGE Open* April-June 2017: 1-9.
58. S. D. Dmytriiev, R. E. Freeman & J. Hörisch *The relationship between stakeholder theory and corporate social responsibility: Differences, similarities, and implications for social issues in management*. **Journal of Management Studies**. 58(6): 2021, 1441-70.
59. C. Carmo & M. Miguéis *Voluntary sustainability disclosures in non-listed companies: An exploratory study on motives and practices*. *Sustainability*. 14(12): 2022, 7365.
60. H. Y. Ching, F. Gerab & T. Q. Toste *The Quality of Sustainability Reports and Corporate Financial Performance: Evidence From Brazilian Listed Companies*. *SAGE Open* April-June 2017: 1-9.
61. C. Gulluscio *Legitimacy Theory*. In *Encyclopedia of Sustainable Management* pp. 1-7, 2020. Cham: Springer International Publishing.

62. J. Amis, J. Barney, J. T. Mahoney & H. Wang *From the editors—Why we need a theory of stakeholder governance—and why this is a hard problem*. *Academy of Management Review*. 45(3): 2020, 499-503.
63. O. A. Okolie & A. C. Igaga. “Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria”. **International Business & Economics Studies** ISSN 26409852 (Print) ISSN 2640-9860 (Online) Vol. 2, No. 2, 2020.
64. J. N. Nnamani, U. L. Onyekwelu & O. K. Ugwu “Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector”. **European Journal of Business and Innovation Research**, 5(1), 2017, 1-15.
65. Wasara & Ganda. “The relationship between Corporate Sustainability Disclosure and Firm Financial Performance in Johannesburg Stock Exchange (JSE) Listed Mining Companies”: DOI:10.3390/SU11164496.2019.
66. I. Oncioiu, A. Petrescu, F. R. Bilcan, M. Petrescu, D. Popescu & E. Anghel. “Corporate Sustainability Reporting and Financial Performance”. *Sustainability*. 2020, 4297.
67. A. I. Asuquo, E. T. Dada & U. R. Onyeogaziri, “The Effect of Sustainability Reporting on Corporate Performance of Selected Quoted Brewery Firms in Nigeria”. **International Journal of Business & Law Research** 6(3): 1-10, 2018.
68. L. L. Fuadah, R. H. Safitri, & H. Yuliani. “Factors Influencing Financial Performance Through Sustainability Reporting in Indonesia”. **Sriwijaya International Journal of Dynamic Economics and Business**. 3 (1), 2019, 53-72.
69. A. Ali & Z. Hamdan “The Impact of Sustainability on the Financial Performance of Jordanian Islamic Banks”. **International Journal of Economics and Finance**; Vol. 9, No. 1;(2017).
70. N. G. Iheduru & C. U. Okoro. “Sustainable Reporting and Profitability of Quoted Firms in Nigeria”: *A Multi-Dimensional Panel Data Study*. *Australian Finance & Banking Review*; Vol. 3, No. 1; 2019.
71. M. A. Khattak, M. Ali, A. K. Burki *Sustainability-disclosures and financial performance: Shariah compliant vs Non-Shariah-compliant Indonesian firms*. **Journal of Islamic Monetary Economics and Finance**. 6(4):789-810, 2020.
72. W. Utami “Financial Performance and the Quality of Sustainability Disclosure Based on Global Reporting Initiative: Value Relevances Study in Indonesia Stock

Exchange. "Mediterranean Journal of Social Sciences MCSER Publishing, Rome-Italy Vol 6 No 5 S5.(2015).

73. I. Alhassan, K. A. Islam & M. S. Haque *Sustainability Reporting and Financial Performance of Listed Industrial Goods Sector in Nigeria.* **International Journal of Accounting & Finance Review.** 2021 Dec 31;9(1):46-56.
74. T. A. Olafusi, R. A. Olorunwa, A. F. Festus & A. T. Ajibade *Sustainability Reporting And Financial Performance Of Deposit Money Banks Listed On Nigerian Stock Exchange.* **Academy of Accounting and Financial Studies Journal.** 2022;26(4):1-7.
75. P. Hardiningsih *The Effect of Sustainability Information Disclosure on Financial and Market Performance: Empirical Evidence from Indonesia and Malaysia.* 670216917. 2020.
76. O. Zraqat, Q. Zureigat, H. A. Al-Rawashdeh, S. M. Okour, L. F. Hussien & A. A. Al-Bawab *The Effect of Corporate Social Responsibility Disclosure on Market Performance: Evidence from Jordan.* **The Journal of Asian Finance, Economics and Business.** 8(8): 2021, 453-63.
77. M. Azzam, A. AlQudah, A. Abu Haija & M. Shakhathreh. *The association between sustainability disclosures and the financial performance of Jordanian firms.* *Cogent Business & Management.* 7(1):2020, 1859437
78. P. J. Oyekale, S. A. Olaoye, A. N. Nwaobia *Corporate Governance and Environmental Sustainability Disclosure in Non-financial Companies Quoted in Nigeria.* **Journal of Finance and Accounting.** 10(2): 2022, 121.
79. I. Oncioiu, A. G. Petrescu, F. R. Bilcan, M. Petrescu, D. M. Popescu & E. Anghel *Corporate sustainability reporting and financial performance.* *Sustainability.* 12(10): 2020, 4297.
80. I. Alhassan, K. A. Islam & M. S. Haque *Sustainability Reporting and Financial Performance of Listed Industrial Goods Sector in Nigeria.* **International Journal of Accounting & Finance Review.** 2021 Dec 31;9(1):46-56
81. A. Felita & F. Faisal. *The Effect of Sustainability Reporting on Company Performance.* **Diponegoro Journal of Accounting.** 2021 Oct 19;10(4).
82. M. Mamun. *Sustainability reporting and financial performance: evidence from australia's electricity companies.* *Corporate Governance.* 2022(1):15-21.

83. E. O. Onuh *Corporate Sustainability Reporting and Financial Performance of Listed Manufacturing Companies in Nigeria*. **IOSR Journal of Business and Management (IOSR-JBM)** e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, Issue 8. Ser. II (August 2021), PP 08-17 www.iosrjournals.org
84. N. Nkwoji *Environmental accounting and profitability of selected quoted oil and gas companies in Nigeria (2012-2017)*. **Journal of Accounting and Financial Management**. 2021;7(3):22-39
85. O. A. Yahaya *Environmental reporting practices and financial performance of listed environmentally-sensitive firms in Nigeria*. **Savanna A Journal of the Environmental & Social Sciences**. 2018 May 20;24(2):403-12.
86. E. M. Emuebie, S. A. Olaoye, G. O. Ogundajo *Effect of Social and Environmental Disclosure on the Performance of Listed Consumer Goods Producing Companies in Nigeria*. **International Journal of Applied Economics, Finance and Accounting**. 2021 Oct 28;11(1):35-47
87. S. Sani, I. M. Barde & J. M. Kurawa *sustainability accounting and performance of insurance companies in Nigeria*. **UMYU Journal of Accounting and Finance Research** VOL. 3 NO. 1 Jane, 2022
88. M. Erinoso & G. Oyedokun. *Environmental Disclosure, Audit and Financial Performance of Listed Oil and Gas Companies in Nigeria*. **African Economic and Management Review**, 2(3), 2022, 1–10. <https://doi.org/10.53790/aemr.v2i3.66>
89. T. P. Ogan, S. A. Akinbowale *Environmental Accounting Disclosure And Financial Sustainability In Listed Nigerian Manufacturing Firms*. **Indonesian Journal Of Business And Economics**. 2021 Jun 28;4(1).
90. G. E. Oyedokun & O. M. Erinoso *Environmental Conservation, Sustainability and Financial Performance of listed Oil and Gas Companies in Nigeria*. **International Journal of Research and Innovation in Social Science (IJRISS) |Volume VI, Issue VIII**, August 2022, ISSN 2454-6186
91. N. C. Benson *Effect of Green Accounting On Financial Performance Of Oil And Gas Companies In Nigeria*. Volume 23, Issue 12, December - 2021 **Journal of University of Shanghai for Science and Technology** ISSN: 1007-6735
92. L. M. Etale & H. L. Tiemo *Environmental Accounting and Performance of Listed Financial Services Sector Firms in Nigeria*. **IOSR Journal of Economics and Finance**

(IOSR-JEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925. Volume 12, Issue 4 Ser. VII (Jul. –Aug. 2021), PP 52-58

93. O. L. Owei *Effect of Environmental Disclosure on Performance of Selected Ict Entities in Nigeria*. **IOSR Journal of Business and Management (IOSR-JBM)** e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, Issue 8. Ser. IV, 2021, pp 15-20
94. J. K. Olowookere, A. A. Taiwo & A. O. Onifade *Environmental accounting disclosure practices and financial performance of listed cement companies in Nigeria*. **Gusau Journal of Accounting and Finance**. 2021 Apr 21;2(2):12
95. F. Olurankinse & A. I. Mamidu *Corporate Characteristics and Environmental Disclosure Quality In Listed Oil And Gas Companies In Nigeria*. **IOSR Journal of Business and Management (IOSR-JBM)** e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, Issue 11. Ser. IV (November. 2021), PP 16-28
96. O. E. Igbekoyi & F. T. Solanke, S. A. Adeusi, M. E. Alade & W. H. Agbaje *Environmental Accounting Disclosure and Financial Performance of Listed Multinational Firms in Nigeria*. **Global Journal of Management and Business Research**. 21(D2): 2021, 17-28.
97. T. C. Ndalu, E. A. Ibanichuka & C. O. Ofurum *Board Characteristics and Environmental Disclosure of Quoted Oil and Gas Firms in Nigeria: The Moderating Role of Firm Size*. **International Journal of Innovative Finance and Economics Research** 10(4): 2022, 1-14.
98. Y. K. Ibrahim, A. N. Mohammed, S. E. Agbi, N. A. Kaoje & U. F. Abdulkarim *Sustainability Reporting And Financial Performance Of Listed Oil And Gas Firms In Nigeria*. **Gusau Journal of Accounting and Finance**. 2(3): 2021, 17.
99. F.T. Solanke, O.E. Igbekoyi, N.O. Olaniyan. A.O. Efuntade, & N. Nweze Godwin. *Environmental Accounting Disclosure and Financial Performance of Listed Information and Communication Technology Firms in Nigeria*. **Fuoye Journal of Accounting and Management**; Volume 4, Number 1; 2021; 4(1): 69-80.
100. S.P. Joyce. *Environmental Disclosure and Financial Performance of Listed Oil and Gas Companies in Nigeria: A Review on Literature*. **IOSR Journal of Business and Management (IOSR-JBM)** e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 22, Issue 9. Ser. III (September 2020), PP 58-66

101. S.I. Agu, M.U. Ani, & N.A. Jideofor. *Empirical Study of the Effect of Quality Environmental Information Disclosure on Firm's Performance of Listed Brewery Firms in Nigeria.* **A Journal of Environmental and Social Sciences**, 24(2), May, 2018
102. O. Okolie, & A. Igaga. *Original Paper Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria.* **International Business & Economics Studies** ISSN 2640-9852 (Print) ISSN 2640-9860 (Online) Vol. 2, No. 2, 2020
103. M. M. Umar, L. O. Mustapha, & O. A. Yahaya. *Sustainability Reporting and Financial Performance of Listed Consumer Goods Firms in Nigeria.* **Journal of Advance Research in Business Management and Accounting**, (2021), 7(3), 1–8. <https://doi.org/10.53555/nbma.v7i3.939>
104. E. Attah-Botchwey, M.G. Soku, & D.M. Awadzie. *Sustainability Reporting and the Financial Performance of Banks in Africa.* **Journal of Emerging Trends in Economics and Management Sciences**. 2021 Aug 1;12(4):112-28.
105. T.P. Ogiriki & O.K. Igo. *Indicators of Sustainability Reporting and Performance of Non-Financial Companies in Nigeria.* **International journal of multidisciplinary research and analysis** ISSN(print): 2643-9840, ISSN(online): 2643-9875 Volume 05 Issue 05 May 2022 DOI: 10.47191/ijmra/v5-i5-01, Impact Factor: 6.261 Page No. 890-897
106. S. Hughes., T.E. Davis & S.N. Imenda, *Demystifying Theoretical and Conceptual Frameworks: A Guide for Students and Advisors of Educational Research.* **Journal of the Social Sciences**. DOI: 10.31901 or 24566756.2019 or 58.1-3.2188. 58(1-3), 2019, 24-35.
107. E. Amacha & D.O. Dastane. *Sustainability practices as determinants of financial performance: A case of Malaysian corporations.* **The Journal of Asian Finance, Economics and Business**. 4(2): 2017, 55-68.
108. N.P. Andania & I.P. Yadnya. *The Effect of Sustainability Report Disclosure on Banking Company Financial Performance in Indonesia Stock Exchange.* **American Journal of Humanities and Social Sciences Research**. 4(1): 2020, 60-7.
109. J.A. vungu. *Effect of Sustainability Reporting On Financial Performance Of Listed Oil And Gas Firms In Nigeria.*
110. N.O. Dibia & J.C Onwuchekwa. *Determinants of environmental disclosures in Nigeria: A case study of oil and gas companies.* **International Journal of Finance and Accounting**. 4(3): 2015, 145-52.

Do Not Copy, Lead City University, Nigeria

Chapter Three

Methodology

This section presents the research design, population, sample size, sampling techniques, research instrument, validity and reliability of research instrument, method of data collecting, and method of data analysis that have been proposed for this study.

3.1 Research Design

A research design can be thought of as a blueprint or guide that specifies and organises all of the procedures involved in doing the research. As the plan that sees a study through from its birth to its conclusion, research design is a crucial part of the research procedure. Because this study relied extensively on secondary data, the researchers have applied a qualitative research design known as Expost facto (content analysis was used to collect and evaluate secondary data). In addition, analytical research designs were employed to examine the data, including the Pooled Ordinary Least Square (POLS) regression analysis, the robust least square regression analysis, the spearman rank correlation matrix result, and the descriptive statistics.

3.2 Population of the Study

Population in a research work encapsulates all the cases of individuals or things, elements, social or cultural entities that fit specific research methods¹. The population of the study therefore include thirty-seven (37) deposit money banks in the Nigeria Exchange Group.

3.3 Sample and Sampling Techniques

In carrying out a research work, it is almost impossible to include the whole population in a research enquiry, smaller and manageable units are therefore, extracted proportionally to form various subgroups². These subgroups can therefore be categorized as sample size, as it is a manageable proportion of the entire population. The sample size for this study contained ten (10) deposit money banks out of the thirty-seven (37) deposit money banks listed by the Central Bank of Nigeria as at June 2021. These banks were chosen based on their category of banking licence and the year they were listed. Out of the thirty-seven (37), only (7) of the banks with international authorization was chosen purposively for this research. The remaining three banks with national authorization were also chosen purposively based on their listed year. The period of observation span from 2010 to 2021. In order to ensure there is no bias selection of sampling materials, this study therefore adopted Purposive sampling techniques.

Table 4.1: Sample Deposit Money Banks².

S/No	Name of Bank	Categorization of Banking Licence	Year Founded (listed)
1.	Fidelity Bank PLC	International Authorization	1988 (2005)
2.	Access Bank PLC	International Authorization	1989 (1998)
3.	Guaranty Trust Bank PLC	International Authorization	1990 (2004)
4.	United Bank of Africa PLC	International Authorization	1949 (1970)
5.	Zenith Bank PLC	International Authorization	1990 (2004)
6.	First City Monumental Bank PLC	International Authorization	1982 (2004)
7.	Union Bank PLC	International Authorization	1917 (1971)
8.	Stanbic IBTC Bank PLC	National Authorization	1989 (2005)
9.	Sterling Bank PLC	National Authorization	1960 (1992)
10.	Wema Bank PLC	National Authorization	1945 (1990)

3.4 Description of Research Instrument

In the process of data collection, research instruments are largely indispensable because they serve as statistical tools in gathering both primary and secondary data³. Secondary sources are extensively used for this study. Information on environmental, social, economic, and employee health and safety reporting variables was obtained from the sampled bank's annual reports and accounts. From the banks' annual financial reports and accounts, data showing performance was compiled and indicators such return on capital employed, gross profit after tax margin, and tax

margin. For this reason, content analysis was used as the study's primary method of data collection and analysis.

3.5 Validity and Reliability of Research Instrument

Unlike a quantitative research design whose validity and reliability can be determined through a wide range of statistical tools, the validity and reliability of the research instrument of this study will be determined for trustworthiness and rigour, as the research instruments were thoroughly checked to ensure that the findings posited by it are valid and reliable.

3.6 Method of Data Collection

The method of data collection involves the process taken to extract the information from its source/s. This study relied on the collection of secondary data, therefore content analysis was adopted as its method of data collection, as secondary data was extracted from already published annual reports and financial statements of the quoted deposit money banks.

3.7 Method of Data Analysis

A research project's method of data analysis elucidates the processes that can be used to understand and analyse the information obtained throughout the course of the study. Pre-regression analyses were performed on the dataset, which included descriptive statistics analyses, correlation analyses, and the test for normality of residuals, in order to evaluate the association between sustainability reporting and financial performance of quoted deposit money banks in Nigeria. Descriptive statistics were used to analyse the range of values in the data, including the mean, median, and standard deviation. In order to assess the closeness of the relationship between the variables and to look for collinearity, a correlation analysis was implemented. This

study used regression analyses as a method of data analysis to determine whether or not sustainability reporting had an impact on business performance and, if so, what kind of impact it had. There were, however, diagnostic checks applied to the regression analysis, including tests for multicollinearity, heteroscedasticity, and fixed and random effect. We used the robust least square regression estimator and the least square dummy variable regression estimator to account for heteroscedasticity and the company fixed effect, both of which were detected in the fixed effect model using the Hausman specification test.

3.8 Model Specification

The study specified two econometric models to determine the effects of sustainability reporting on the financial performance of money deposit banks listed on the Nigerian Exchange Group³.

$$\text{Financial Performance} = F(\text{Environmental Sustainability Reporting, Social Sustainability Reporting, Economic Sustainability Reporting, Employee Health \& Safety Sustainability Reporting}) \quad (1)$$

Where financial performance measures are; Return on Capital Employed and Gross Profit after Tax Margin. Hence,

- i. *Return on Capital Employed Model* $ROCE = F(\text{Environmental Sustainability Reporting, Social Sustainability Reporting, Economic Sustainability Reporting, Employee Health \& Safety Sustainability Reporting}) \quad (2)$

- ii. *Gross Profit after Tax Margin Model* $GPTM = F(\text{Environmental Sustainability Reporting, Social Sustainability Reporting, Economic Sustainability Reporting, Employee Health \& Safety Sustainability Reporting}) \quad (3)$

Furthermore, the two econometric models to test the stated hypotheses shown below as^{2,3}:

$$\text{Model 1: } ROCE_{it} = \alpha + \beta_1 envdit + \beta_2 csrdit + \beta_3 hsedit + \beta_4 epsit + \beta_5 lnsizet + \epsilon_{it}$$

(4)

$$\text{Model 2: } GPTM_{it} = \alpha + \beta_1 envdit + \beta_2 csrdit + \beta_3 hsedit + \beta_4 epsit + \beta_5 lnsizet + \epsilon_{it}$$

(5)

Where:

ROCE = Return on Capital Employed

GPTM = Gross Profit after Tax Margin

SIZE = Size of firm (taken as natural log of total assets - LNSIZE)

ENVVD = Environmental Sustainability Reporting

CSRVD = Social Responsibility Reporting

HSEVD = Employee Health & Safety Reporting

EAPSD = Economic Sustainability Reporting

α = Model intercept

β_1, \dots, β_5 = Coefficient to be estimated, where $\beta_1, \dots, \beta_5 > 0$

it = Cross Section of listed companies with time variant

ϵ = stochastic error term

Operationalization of Variables

$$ROCE = \frac{\text{Earnings before interest and Tax}}{\text{total asset}} - \text{Current Liabilities}$$

$$GPTM = \frac{\text{gross profit}}{\text{revenue}}$$

Environmental Sustainability Reporting= Content Analysis based on the Global Reporting Initiative³.

Social Sustainability Reporting: Content Analysis based on the Global Reporting Initiative³.

Employee Health and Safety Sustainability Reporting: Content Analysis based on the Global Reporting Initiative³.

Economic Sustainability Reporting: Content Analysis based on the Global Reporting Initiative³.

Endnotes

- ¹. O. C. James. *Methodology and Practice in Research*. International Journal of Research Methodology. Osla Press. (9) 2018.
- ². T.A Olafusi, RA Olorunwa, AF Festus &AT Ajibade. *Sustainability Reporting And Financial Performance Of Deposit Money Banks Listed On Nigerian Stock Exchange*. Academy of Accounting and Financial Studies Journal.26(4): 2022, 1-7.
- ³. A.F Ihimekpen. *Sustainability Reporting and Financial Performance Of Listed Non-Financial Companies In Nigeria*.Ph.D In Accounting Thesis, Igbinedion University, Okada, Okada, Edo State, Nigeria. 2021.
- ⁴. CBN, *List of Deposit Money Banks*, June 30, 2021.

Do Not Copy, Lead City University, Nigeria

Chapter Four

Results and Discussion of Findings

This chapter presents a detailed empirical analysis of the data gathered specifically for this study.

4.1 Presentation of Data

Using economic sustainability reporting, environmental sustainability reporting, social responsibility reporting, and employee health and safety reporting as measures of sustainability reporting for money deposit banks listed on the Nigerian Exchange Group market from 2010 to 2021, this study analysed the impact of sustainability reporting on financial performance. Return on capital employed and gross profit after tax margin were used to evaluate business performance across two dimensions in this analysis. Further, a pre regression analysis was done, which included descriptive statistics, a correlation matrix, and a data normality analysis, to determine the environmental, social, economic, and health and safety sustainability reporting that could affect business performance. In order to gain some understanding of the selected money deposit banks used in this study, Table 4.1 displayed the mean (average), maximum, minimum and sum for each of the variables of interest.

Table 4.1 Descriptive Statistics by Bank

Variable	Observation	Mean	S.D	Min	Max
ROCE	120	0.6050	0.709	0	3.0900
LNSIZE	120	15.064	0.912	12.529	16.482
GPTM	120	10.877	1.056	0	13.668
CSRD	120	0.4010	0.496	0	0.9800
HSED	120	0.2980	0.493	0	1.0100
ENVD	120	0.4850	0.900	0	1.0000
EAPS	120	0.9260	0.300	0	1.0300

Source: Researcher, 2022

ROCE ranges from a mean of 0.605 to a maximum of 3.09 and a minimum of 0.00. With a standard deviation of only 0.709, it's possible to make quite accurate predictions about the numbers being examined. GPTM ranges from 13.668 to 0.00 with a mean of 10.877 and a standard deviation of 1.056. In this scenario, attempting to anticipate a data series is more problematic. The standard deviation of LNSIZE is 0.912, with mean, maximum, and minimum values of 15.064, 16.482, and 12.529, respectively. For CSRD, a mean of 0.401, a maximum of 0.98, a minimum of 0.00, and a standard deviation of 0.502. The range of HSED is from 0.00 to 1.01, with a mean of 0.298 and a standard deviation of 0.493. ENVD has a mean of 0.485, a maximum of 1.00, and a minimum of 0.00, with a standard deviation of 0.9 indicating that most values are concentrated close to the mean. In addition, the range of values for EAPS is from 0.00 to 1.03, with a mean value of 0.926. There is a significant amount of evidence towards the mean, as indicated by the standard deviation of 0.299. Descriptive analysis shows that the range of values for four of the explanatory variables is roughly between 1.00 and 0.00 (CSRD, HSED,

ENVD, and EAPS). This is because dummy values of 0 and 1 are allocated for the lack and presence of the proxies, reflecting the category or qualitative nature of the variables.

4.1.1 Multicollinearity Analysis

Pairwise correlation coefficients and variance inflation factors were used to identify the presence of multicollinearity among the variables (VIF). The VIF simply looked at whether the variables are multi-correlated, but the pairwise correlation coefficient shows the strength of association (non-casual effect) between them.

Table 4.2: Multicollinearity Analysis

S/n	Variables	Pairwise Correlations					
		-1	-2	-3	-4	-5	-6
1	ROCE	1					
2	GPTM	0.532*					
		0					
3	EBIT	0.310*	0.291*				
		0	0.003				
4	ENVD	0.125	0.160	-0.040	1		
		0.11	0.05				1.000
5	CSRD	0.079	0.131	-0.062	0.902*		
		0.29	0.169	0.511	0		
6	HSED	0.059	0.119	-0.079	0.521*		
		0.51	0.169	0.41	0		
7	EAPS	0.019	0.061	0.298*	0.149		

Sources: SPSS V.23

Table 4.1 displays a correlation matrix, which reveals that the highest positive association exists between CSR and ENVD ($r=0.902$, $p.05$) significant at 0.05. Other than the aforementioned positive and negative correlations, there are none between any of the explanatory factors. This means that there is a negligible chance of multicollinearity among our independent or explanatory variables. At the 5% level of significance or lower, a number of the correlation coefficients are found to be significant among the explained variables and between the explained and explanatory variables.

4.2. Presentation of Test of Hypotheses

HO1: Social sustainability reporting has no significant effect on the financial performance of deposit money banks in Nigeria.

To test this hypothesis, financial performance measures are; Return on Capital Employed, Gross Profit after Tax Margin

Table 4.3: Diagnostic Tests

	1	2	3	4
VARIABLES	OLS	FE	RE	FGLS
Multicollinearity Test estVIFMean	2.34			
Pesaran C D Test		CSD = -1.601 Prob. = 0.133		
Hausman Test			Chi2(5)=11.00 Prob>chi2=0.050	
Breusch-Pagan LM Test			Chi2(01)=217.00 Prob>chi2=0.00	
Modified Wald Test for Heteroskedasticity		chi2(10)= 480.10 Prob>chi2=.00		
Wooldridge Test for Autocorrelation		F(1,9)=13.832 Prob>chi2=0.00		AR(1) = .9120

Sources: SPSS V.23

The results of the Hausman test that were carried out in order to select the appropriate panel data estimator show a chi-square statistic of 11.00 and a prob-value of 0.050 respectively. As a result, the alternative hypothesis, which states that random effects are not independent of the explanatory variables, has been accepted. This means that the null hypothesis, which said that random (individual) effects are independent of explanatory variables, has been disproved. It can be deduced from this that the fixed effect estimator is superior to the random effect estimate when applied to the model presented in Table 4.3. Regardless of the results of the Breusch-Pagan LM test, the Hausman test has been validated as a fixed effect estimator and has been accepted. According to the results of the test for cross-sectional dependence and autocorrelation, the OLS

assumptions were not violated. The pesaran cd value was 1.60, and the prob-value was 0.133. In contrast, the results of the Modified Wald test for groupwise heteroskedasticity showed a chi-square of 480.10 and a prob-value of 0.00, which indicates the presence of heteroskedasticity. Heteroskedasticity indicates that the variance of the error terms is not constant over time, which in turn violates the assumption of homoskedasticity, which is that there is a constant variance of the error term. As a consequence of this, the Parks' Feasible Generalised Least Squares (FGLS) algorithm, which can deal with problems of this nature, is seen as a suitable estimator for the model.

Do Not Copy, Lead City University, Nigeria

Table 4.4: Results of Regression Estimate

Variables	Dependent Variable : Financial Performance (ROCE, GPTM)			
	1	2	3	4
	OLS	FE	RE	FGLS
LNSIZE	0.4732*** (0.070)6.72 (0.00)	0.4484*** (0.0814)5.5 1 (0.00)	0.4504*** (0.0774)5.82 (0.00)	0.2651*** (0.082) 3.28 (0.00)
CSRD	-0.1044 (0.2479)	-0.0963 (0.1640)	-0.0985 (0.1646)	-0.0601 (0.0836)
HSED	- 0.42(0.674)	- 0.59(0.558)	-0.60(0.550)	- 0.70(0.49)
ENVD	-0.0651 (0.1566)	0.3137*** (0.1164)	0.2871*** (0.1161)	0.349*** (0.0724)
EAPS	- 0.42(0.678)	2.70(0.00)	2.47(0.01)	3.23 (0.00)
Constant	0.2153 (0.2494)	0.1640*** (0.1679)	0.1401*** (0.1684)	0.0148*** (0.0876)
	0.86(0.389)	- 0.98(0.33)	-0.83(0.405)	2.78 (0.01)
	0.0546 (0.2070) -	0.5089*** (0.1456) -	0.4796*** (0.1454) - 3.030	0.4781*** (0.0979) -
	0.26 (0.792)	3.50 (0.00)	(0.00)	4.78 (0.00)
	6.0405*** (0.9957)	5.2267*** (1.1170)	5.2838*** (1.0773)	3.0202*** (1.1331)
	- 6.07(0.00)	- 4.68(0.00)	- 4.90(0.00)	- 2.67(0.01)
Observations	120	120	120	120
Number of banks	10	10	10	10
R-squared	0.2808	0.76	0.27	
Adj.R-Squared	0.2523	0.73	0.24	
F-Statistic	F(5,126)=9.84 Prob>F=0.00	F(5,116) = 8.97 Prob>F=0.00	Waldchi2(5)=47.1 Prob>chi2 =0.00	Waldchi2(5)=31.46 Prob>chi2 =0.00

Standard Errors in Parentheses * p<0.01, ** p<0.05, *p<0.1**

Source: SPSS Version 23

CSRD exhibit negative and insignificant effect on financial performance. CSRD would fall by 0.06 units if there is a unit increase in financial performance. The t-statistic is 0.70 and probability value of 0.49 as shown in Table 4.4 above. Since the probability value is about 49 percent extremely higher than 0.05 percent, it is statistically insignificant. The null hypothesis that says: Social disclosure has no significant effect on the financial performance of deposit money banks

in Nigeria would be accepted. This therefore achieved the first research objective. This finding is agreement with a work on corporate Social Responsibility Disclosure and Performance of Banks in Nigeria. The results of their study showed that the result of random effect model indicated that all the variable measures of corporate social responsibility disclosure used do not have significant effect on return on capital employed of the banks sampled¹. However, the findings of this study are in conflict with a related work on corporate social responsibility and financial performance: a focus on banks in a developing economy². The findings showed that weak positive effect of CSR on earning per share, market price per share, a strong positive impact on the return on assets, and a weak negative impact on return to equity. Also, the results indicated that CSR influences the corporate financial performance indices of the banks in the context of an emerging market in Nigeria. Also, a study on the effect of corporate social responsibility on financial performance in Nigeria opposes the findings of this research. It was reported that correlation results showed that whereas the relationship between corporate social responsibility and earning per share was positive but insignificant, it showed strong, positive and significant relationships with gross earning and profit after tax respectively. Similarly, corporate social responsibility expenditure was found to have insignificant effect on earnings per share, it has significant effect on gross earning and profit after tax of the banks in Nigeria³.

Hypothesis 2

H₀2: Economic sustainability reporting has no significant effect on Financial performance of deposit money banks in Nigeria.

From Table 4.4, EAPSexert significant effect on financial performance, a positive relation is observed between EAPS and financial performance (0.4781***). The result of the regression analysis shows that LNSIZE and EAPS exert significant effect on financial performance. A

positive relation is observed between LNSIZE, EAPS and financial performance. A percentage in LNSIZE would cause increase of 0.00265 percent in financial performance with t-statistic of 3.28 and prob-value of 0.00, which is significant at 1 percent. On the other hand, a unit increase in EAPS would cause also an increase of 0.48 units in financial performance. The t-statistic for EAPS is 4.80 with prob-value of 0.00. This indicates 1 percent significant level for EAPS on financial performance. Though the relationship is negative, it could be explained that EAPS is significant because of the importance given to economic sustainability deposit money banks in addition to the fact that it is the only variable widely reported by every bank. Besides the fact that the effect is significant, the coefficient is relatively higher compared with coefficients of other variables in the model. The null hypothesis that says: Economic disclosure has no significant effect on Financial performance of deposit money banks in Nigeria. We therefore reject the hypothesis and accept the alternative hypothesis that Economic disclosure significant effect on Financial performance of deposit money banks in Nigeria based on our results and therefore achieved the second objective. These findings corroborate a similar research titled “Financial Assets and Performance of Deposit Money Banks in Nigeria: Evidence from 2012-2018” which showed that there is positive and significant relationship between cash equivalents and return on investment of deposit money bank. It also indicated that there is positive and significant cash equivalents and return on equity of deposit money bank and those financial assets have significant relationship with performance of deposit money banks in Nigeria⁴.

Hypothesis Three

H₀₃: Environmental sustainability reporting has no significant effect on Financial performance of deposit money banks in Nigeria.

From Table 4.4 ENVVD exhibit positive significant effect on financial performance (0.0148***). A unit increase in ENVVD would lead to increase of about 0.0148 units in financial performance. The t-statistic is 2.78 and prob-value of 0.01 which is than 0.05 the significant level. Hence, we reject the null hypothesis “Environmental disclosure has no significant effect on Financial performance of deposit money banks in Nigeria” and thereby achieve the third objective of the study. This result is partially consistent with findings on a work which revealed that the effect of environmental sustainability disclosure differed across different measures of firm performance⁵.

Hypothesis Four

H₀₄: Employee Health & Safety Reporting has no significant positive limitation among deposit money banks in Nigeria.

From the Table 4.4, HSED exhibit a positive and significant effect on financial performance. HSED has a t-statistic of 3.23 and prob-value of 0.00 which is significant at 0.05 indicating statistical significance. The null hypothesis that says:Employee Health & Safety Reporting has no significant positive limitation among deposit money banks in Nigeria would be rejected. Hence, the fourth study objective achieved. These findingscorroborate the findings of a study on Impact of workplace environment on employee performance: mediating role of employee health which suggested that Physical and Behavioural Environmental Factors are positively affecting EH and EH is positivity affecting Employee performance. According to the study's findings, employee health mediates the relationship between workplace environment characteristics and employee performance, which leads to financial performance⁶.

4.3 Discussion of Findings

Corporate Social Sustainability Reporting analysis from hypothesis one revealed that the effect of social sustainability reporting among selected deposit money banks in Nigeria was negative

and insignificant effect on financial performance measures of return on capital employed and gross profit after tax margin. The result was consistent with a study on Sustainability disclosure: Impact of its extent and quality on value of listed firms in Nigeria which suggest a positive non-significant association between extent of sustainability disclosure and firm market value. It was discovered that the quality of sustainability disclosure was negatively associated to market value. Variations in the value effect of the extent and quality of sustainability disclosure were also discovered across the economic, social, and environmental elements of sustainability⁷. However, the result of this study opposes a findings that environmental and social sustainability disclosure positively impacts the ROA/ROE in the long run but not in the short run. Further, the environment and social disclosure positively moderate the positive influence of environment/social performance on ROA/ROE in the shorter run but not in the longer run⁸.

Result from hypothesis two shows that Economic Sustainability Reporting documented a statistically significant positive effect of economic sustainability on performance measures of return on capital employed and earnings before interest and tax margin which agrees with a work on the effect of disclosure of economic, social, environmental performance sustainability on financial performance and its implications on company value with the triple bottom line approach, which noted that economic performance has a positive effect on financial performance, social performance has a positive effect on financial performance, and environmental performance has a positive effect on financial performances⁹. However, the result was inconsistent with the study on the effect of sustainability report on financial performance with good corporate governance quality as a moderating variable. The results of this study indicate that social and environment performance disclosure has positive significant effect on

financial performance, but economic performance disclosure has negative significant effect on financial performance¹⁰.

Further, result from hypothesis three implies that Environmental Sustainability Reporting also showed positive significant effect on both performance measures of return on capital employed and gross profit after tax margin. The result suggested that reporting environmental sustainability activities significantly improve firm performance during the period under consideration. The result complemented the findings in a study on concept of environmental sustainability awareness strategies in pre-construction stage which revealed a negative significant effect which he linked to high costs associated with environmental sustainability reporting activities that would invariably lower the performance of the firm¹¹. Furthermore, the outcome of this study was inconsistent with the findings in a work titled “Voluntary environmental disclosure quality and firm value: Further evidence” which revealed that companies which provided environmental sustainability performance incurred more expenses hence, would financially perform below expectation in the long run¹². The findings supported a work which revealed that the effect of environmental sustainability disclosure differed across different measures of firm performance¹³. The result was also in support of the argument that firms which did not carry out environmental sustainability responsibilities were likely to be surrounded with demonstrations and protests (like those prevalent in the Niger Delta Area of Nigeria) and that would go a long way in hindering a free work environment which could consequently affect performance.

Finally, Hypothesis four on the context of employee health and safety sustainability reporting shows that employee health and safety sustainability disclosure affects firm performance positively and significantly. The outcome is in line to a study that of posited that the relationship between firms’ profitability and employee health and safety information disclosure is positive.

Also, the findings supported a related work on organizational motivation, employee job satisfaction and organizational performance¹⁴. Which indicated that remuneration and job performance had a positive effect on financial performance dimensions such as return on assets, turnover growth rate and profitability while job environment and job autonomy had a positive effect on non-financial performance dimensions, such as customer service, employee productivity and service quality.

Do Not Copy, Lead City University, Nigeria

Endnotes

- ¹ NS Agubata, NO Udezo & O Igbru. *Corporate Social Responsibility Disclosure And Performance Of Banks In Nigeria*. **International Journal of Business & Law Research** 9(4):179-186, Oct.-Dec., 2021
- ² EC Nwude, SN Udeh & CA Nwude. **Corporate Social Responsibility And Financial Performance: A Focus On Banks In A Developing Economy**.
- ³ J Itoya, C Owuze, P.A Akhator & I.C Igbokwe. *Effect of Corporate Social Responsibility on Financial Performance in Nigeria*. **European Scientific Journal, ESJ**, 18 (19), 2022, 173. <https://doi.org/10.19044/esj.2022.v18n19p173>.
- ⁴ TO Imo. *Financial Assets and Performance of Deposit Money Banks in Nigeria: Evidence from 2012-2018*. **International Journal of Innovative Finance and Economics Research** 9(2): 2021, 63-72.
- ⁵ AO Okolie & C A Igaga. **Sustainability reporting and financial performance of deposit money banks in Nigeria**. *International Business & Economics Studies*. 2020;2(2):68-87.
- ⁶ I Hafeez, Z Yingjun, S Hafeez, R Mansoor & KU Rehman. *Impact of workplace environment on employee performance: mediating role of employee health*. *Business, Management and Economics Engineering*. 17(2):2019,173-93
- ⁷ NG Nwaigwe, GN Ofoegbu, NO Dibia, & CV Nwaogwugwu. *Sustainability disclosure: Impact of its extent and quality on value of listed firms in Nigeria*. *Cogent Business & Management*. 9(1):2022 ,2079393.
- ⁸ V Sehgal & N Garg, J Singh. *Impact of Environmental and Social Reporting and Performance on Financial Performance of a Firm: An Indian Study*. *Paradigm*. 2022 Oct 10:09718907221126429.
- ⁹ J Dura, G Chandrarin & E Subiyantoro. *The Effect Of Disclosure Of Economic, Social, Environmental Performance Sustainability On Financial Performance And Its Implications On Company Value With The Triple Bottom Line Approach*. **Nveo-Natural Volatiles & Essential Oils Journal** Nveo. 2021, 3642-58.
- ¹⁰ SV Clarissa & NK Rasmini. *The effect of sustainability report on financial performance with good corporate governance quality as a moderating variable*. **International Journal of Sciences: Basic and Applied Research**. 40(2): 2018, 139-49.

¹¹. MA Omardin, NZ Abidin &WD Ali. *Concept of Environmental Sustainability Awareness Strategies in Pre-Construction Stage*. **Journal of Tropical Resources and Sustainable Science (JTRSS)**.3(1):2015,103-16.

¹². M Plumlee, D Brown, RM Hayes &RS Marshall. *Voluntary environmental disclosure quality and firm value: Further evidence*. **Journal of accounting and public policy**. 34(4): 2015, 336-61.

¹³. M Malik, M A Mamun& A. Amin. *Peer pressure, CSR spending, and long-term financial performance*. **Asia-Pacific Journal of Accounting & Economics**. 26(3): 2019, 241-60.

¹⁴. K Pang &CS Lu. *Organizational motivation, employee job satisfaction and organizational performance: An empirical study of container shipping companies in Taiwan*. *Maritime Business Review*. 2018 Apr 18.

Do Not Copy, Lead City University, Nigeria

Chapter Five

Conclusion

This chapter gives an overview of the outcome of the study by presenting its findings and conclusion, making recommendations for policy action and future study.

5.1 Summary of Findings

This study examined the impact of sustainability reporting on the financial performance of Nigerian deposit money banks that are publicly traded. This study covered a ten-year span extending from 2010 to 2021. Environmental sustainability reporting, social sustainability reporting, employee health and safety sustainability reporting, and economic sustainability reporting were the independent variables used to examine the effect of sustainability reporting on organisations' financial performance. Return on invested capital and gross profit margin after taxes are utilised as metrics of firm success. The following result was determined by regression analysis:

- i. Social sustainability reporting does not have significant effect across all the measures of firm performance. The t-statistic is 0.70 and prob-value of 0.49. Since the probability value is about 49 percent, it is extremely higher than 0.05.
- ii. Economic sustainability reporting had a positive significant effect across all the measures of firm performance. An increase in economic sustainability disclosure would cause an increase of 0.48 units in financial performance. The t-statistic is 4.80 with prob-value of 0.00.

- iii. Environmental sustainability reporting had a positive significant effect on the performance measure (Return on Capital Employed, Gross Profit after Tax) during the period under investigation.
- iv. Employee health and safety sustainability reporting was revealed to positively impact the performance measure (Return on Capital Employed, Gross Profit after Tax) during the period under investigation.

5.2 Conclusion

This study assessed the impact of sustainability reporting on the financial performance of Nigerian deposit money banks between 2010 and 2021. Two accounting performance metrics (Return on Capital Employed and Gross Profit after Tax) were used as dependent variables in this study. Specifically, the data indicate that social sustainability reporting has no substantial impact on return on capital employed and gross profit margin after taxes. Moreover, economic sustainability is observed to have a positive impact on the two-performance metrics (Return on Capital Employed and Earnings before Interest and Tax), indicating that the primary objective of a business, which is to maximise and increase its market value over the long term, was attained. The influence of environmental sustainability reporting on financial performance indicators was viewed as significant and beneficial. The findings suggested an increase in investor confidence and advantages for stakeholders. Finally, it was determined that employee health and safety sustainability reporting favourably affects performance measurements.

5.3 Recommendations

In this study, the researchers discovered that the sustainability reporting proxy had a positive and statistically significant effect on the dependent variable (financial performance). The result was commendable because it may provide shareholders the chance to profit from their investment. Nonetheless, the analysis concluded that social responsibility reporting regulations had insignificant on corporate performance during the period under consideration. Consequently, few basic recommendations were made.

- i. Policies that would maintain reporting on environmental issues (such as required disclosure on environmental matters) should be supported because they have been proved to be advantageous to the health and survival of the banks.
- ii. Social sustainability aims should be pursued in order to reduce the possibility of incurring losses. The banks should meet the specific demands of their clients, as doing so will go a long way toward boosting the possibility that policies on social sustainability participation will be approved, and thereby reducing corporate losses. Attempting to consistently connect the company's goals with those of its stakeholders would also boost the likelihood that CSR initiatives will generate profits for all parties.
- iii. Economic sustainability reporting was found to be profitable; therefore, it is recommended that banks focus on policies that increase economic reporting if they wish to improve both return on capital employed and earnings before interest and taxes as performance indicators.
- iv. For the variable of employee health and safety reporting, it is recommended that banks might need to focus on providing the needs of their employees since it gave positive returns on capital which was profitable for stakeholders and all investors

5.4 Contribution to Knowledge

This work makes conceptual, empirical, and theoretical contributions to the body of existing knowledge. It makes a contribution to the study on a conceptual level by giving more and improved clarity on helpful concepts and constructs related to the investigation. This study, in comparison to previous studies, provided a more in-depth and comprehensive understanding of the issues that were investigated in the study itself. Example was in the application of robust statistical and econometric analysis. Other performance measures such as gross profit after tax margin and Return on Capital Employed was explored as against accounting performance measures commonly used. Both legitimacy and stewardship theory played a significant role in this research project as theoretical frameworks.

Empirically, this study contributes to the growing body of empirical literature by reporting the significant relationship between social, economic, environmental and employee health & safety disclosures and financial performance (Return on Capital Employed, Gross Profit after Tax) of deposit money banks in Nigeria. This is something that previous empirical studies did not consider, so this study helps to bridge the gap that exists in empirical literature. The findings of this study will be useful to users of the financial statements as it would provide them with adequate information on a firm's interaction, contribution and investments within its environment to the various stakeholders.

5.5 Suggestions for Further Studies

Areas to look at in further studies are discussed as follows:

- i. In terms of the study population and the sector, the study was made up of only money deposit banks for the period 2010 to 2021 which were considered as the sample size and

period scope. In subsequent research, one possibility would be to investigate sustainability reporting on financial performance in nonfinancial sector such as health, oil and gas

- ii. The study concentrated on only accounting performance ratios. Future research should consider the above limitations and apply different research approaches to address them.

Bibliography

Book

United Nations General Assembly. "World summit outcome Resolution A/60/1; adopted by the General Assembly on 15 September, 2005.

Conference Proceeding

Asaolu T.O, Agboola A.A, Ayoola T.J & Salawu, M. K.. "Sustainability reporting in the Nigerian Oil and Gas Sector". *Proceedings of the Environmental Management Conference*. Federal University of Agriculture, Abeokuta, Nigeria. 2011.

Dissertation

Ihimekpen A.F. Sustainability Reporting And Financial Performance Of Listed Non-Financial Companies In Nigeria. Ph.D In Accounting Thesis, Igbinedion University, Okada, Okada, Edo State, Nigeria, 2021.

Journal

Agu SI, Ani MU & Jidefor NA. *Empirical Study of The Effect of Quality Environmental Information Disclosure on Firm's Performance of Listed Brewery Firms in Nigeria*. **Journal of Environmental and Social Sciences**, 24(2), 2018.

Agubata NS, Udezo NO, Igbru O. *Corporate Social Responsibility Disclosure And Performance Of Banks In Nigeria*. **International Journal of Business & Law Research** 9(4): 2021, 179-186.

Agustia D. *Innovation, environmental management accounting, future performance: Evidence in Indonesia*. **Journal of Security and Sustainability Issues**. 9(3): 2020, 1005-15.

Ajmal MM, Khan M, Hussain M, Helo P. *Conceptualizing and incorporating social sustainability in the business world*. **International Journal of Sustainable Development & World Ecology**. 25(4): 2018, 327-39

Alhassan I, Islam KA, Haque MS. *Sustainability Reporting and Financial Performance of Listed Industrial Goods Sector in Nigeria*. **International Journal of Accounting & Finance Review**. 9(1):2021 ,46-56.

- Ali Abdelfattah Hamdan Zyadat. “*The Impact of Sustainability on the Financial Performance of J Jordanian Islamic Banks*”. **International Journal of Economics and Finance**; Vol. 9, No. 1;2017.
- Allam Z, Sharifi A, Bibri SE, Jones DS &Krogstie J. *The Metaverse as a Virtual Form of Smart Cities: Opportunities and Challenges For Environmental, Economic, And Social Sustainability In Urban Futures*. *Smart Cities*. 5(3): 2022, 771-801.
- Alzoubi H, Ahmed G, Al-Gasaymeh A, Kurdi B. *Empirical study on sustainable supply chain strategies and its impact on competitive priorities: The mediating role of supply chain collaboration*. *Management Science Letters*. 10(3): 2020, 703-8.
- Amacha E, Dastane DO. *Sustainability practices as determinants of financial performance: A case of Malaysian corporations*. **The Journal of Asian Finance, Economics and Business**. 2017;4(2):55-68.
- Amahalu N. *Effect of sustainability reporting on corporate performance of quoted oil and gas firms in Nigeria*. **Journal of Global Accounting**. 6(2) 2019.
- Amis J, Barney J, Mahoney JT, Wang H. From the editors—Why we need a theory of stakeholder governance—And why this is a hard problem. *Academy of Management Review*. 45(3):2020, 499-503.
- Andania NP, Yadnya IP. *The Effect of Sustainability Report Disclosure on Banking Company Financial Performance in Indonesia Stock Exchange*. **American Journal of Humanities and Social Sciences Research**.4(1): 2020, 60-7.
- Asuquo A. I., Dada E. T. and Onyeogaziri U. R.,”*The Effect of Sustainability Reporting on Corporate Performance of Selected Quoted Brewery Firms in Nigeria*”. **International Journal of Business & Law Research**6(3): 2018,1-10.
- Attah-Botchwey E, Soku MG, Awadzie DM. *Sustainability Reporting and the Financial Performance of Banks in Africa*. **Journal of Emerging Trends in Economics and Management Sciences**. 12(4): 2021, 112-28.
- Azzam M, AlQudah A, Abu Haija A, Shakhathreh M. *The association between sustainability disclosures and the financial performance of Jordanian firms*. *Cogent Business & Management*. 2020 Jan 1;7(1):1859437
- Benson NC. *Effect Of Green Accounting On Financial Performance Of Oil And Gas Companies In Nigeria*. Volume 23, Issue 12, December – 2021**Journal of University of Shanghai for Science and Technology** ISSN: 1007-6735
- Camilleri MA. Theoretical insights on integrated reporting: *The inclusion of non-financial capitals in corporate disclosures*. *Corporate Communications: An International Journal*. 2018 Aug 14.
- Carmo C, Miguéis M. Voluntary sustainability disclosures in non-listed companies: An exploratory study on motives and practices. *Sustainability*. 14(12):2022, 7365.

- Ching H. Y., Gerab F, and Toste T. Q. .*The Quality of Sustainability Reports and Corporate Financial Performance: Evidence From Brazilian Listed Companies*. SAGE Open April-June 2017: 1–9 © The Author(s) 2017 DOI: 10.1177/2158244017712027. 2017.
- Clarissa SV, Rasmini NK. *The effect of sustainability report on financial performance with good corporate governance quality as a moderating variable*. **International Journal of Sciences: Basic and Applied Research**. 40(2): 2018, 139-49.
- Dalevska N., Khobta V, Kwilinski A, Kravchenko S. *A model for estimating social and economic indicators of sustainable development*. *Entrepreneurship and sustainability issues*. 6(4): 2019, 1839.
- Deswanto R.B, Siregar SV. *The associations between environmental disclosures with financial performance, environmental performance, and firm value*.**Social Responsibility Journal**. 2018.
- Dhar B.K, Harymawan I, Sarkar S.M. *Impact of corporate social responsibility on financial expert CEOs' turnover in heavily polluting companies in Bangladesh*. *Corporate Social Responsibility and Environmental Management*. 2022 May 1.
- Dibia NO, Onwuchekwa JC. *Determinants of environmental disclosures in Nigeria: A case study of oil and gas companies*. **International Journal of Finance and Accounting**. 4(3): 2015, 145-52.
- Dmytriyeu SD, Freeman RE, Hörisch J. The relationship between stakeholder theory and corporate social responsibility: Differences, similarities, and implications for social issues in management. *Journal of Management Studies*. 58(6): 2021, 1441-70.
- Dura J, Chandrarin G, Subiyantoro E. *The Effect Of Disclosure Of Economic, Social, Environmental Performance Sustainability On Financial Performance And Its Implications On Company Value With The Triple Bottom Line Approach*. **Nveo-Natural Volatiles & Essential Oils Journal**| Nveo. 2021, 3642-58.
- Dyduch J, Krasodomska J. *Determinants of corporate social responsibility disclosure: An empirical study of Polish listed companies*. *Sustainability*. 2017 Oct 25;9(11):1934.
- Emuebie EM, Olaoye SA, Ogundajo GO. *Effect of Social and Environmental Disclosure on the Performance of Listed Consumer Goods Producing Companies in Nigeria*. **International Journal of Applied Economics, Finance and Accounting**. 2021 Oct 28;11(1):35-47
- Erinoso, M., & Oyedokun, G. Environmental Disclosure, Audit and Financial Performance of Listed Oil and Gas Companies in Nigeria. *African Economic and Management Review*, 2(3), 2022, 1–10.
- Etale LM, Tiemo HL. *Environmental Accounting and Performance of Listed Financial Services Sector Firms in Nigeria*.**IOSR Journal of Economics and Finance (IOSR-JEF)** e-ISSN: 2321-5933, p-ISSN: 2321-5925. Volume 12, Issue 4 Ser. VII (Jul. –Aug. 2021), PP 52-58

- Felita A, Faisal F. *the effect of sustainability reporting on company performance*. **Diponegoro Journal of Accounting**. 10(4) 2021.
- Fuadah L. L., Safitri R. H., and Yuliani H.. “*Factors Influencing Financial Performance Through Sustainability Reporting in Indonesia*”. **Sriwijaya International Journal of Dynamic Economics and Business**. 3 (1), 2019, 53-72 Research 6(3):1-10, July-Sept., 2018 (2019).
- García ML. *Business Sustainability and financial performance*. **Journal of Management** Print ISSN: 0120-4645 / E-ISSN: 2256-5078 / Short name: cuad.adm. Pages: e4010835 / Vol: 38 / Issue: 72 / Jan. - Apr. 2022
- Gulluscio C. Legitimacy Theory. *In Encyclopedia of Sustainable Management* pp. 1-7, 2020. Cham: Springer International Publishing.
- Hafeez I, Yingjun Z, Hafeez S, Mansoor R, Rehman KU. *Impact of workplace environment on employee performance: mediating role of employee health*. *Business, Management and Economics Engineering*. 17(2): 2019, 173-93.
- Hardiningsih P. *The effect of sustainability information disclosure on financial and market performance: empirical evidence from Indonesia and Malaysia*. 2020, 670216917.
- Herath SK, Albarqi N. Financial reporting quality: A literature review. **International Journal of Business Management and Commerce**. 2(2): 2017, 1-4.
- Hossain M, Rowe Q. “*Corporate social and environmental reporting practices: A case of listed companies in Bangladesh*”. **Sustainability Accounting, Management and Policy Journal**, 8 (2), 2017, 138-165. DOI 10.1108/SAMPJ-04-2015-0027
- Houqe Z and Karim. “The value relevance of corporate donations”. **Pacific Basin Finance Journal**. doi.org/10.1016/j.pacfin.2019.03.
- Hovardas T. Social sustainability as social learning: *Insights from multi-stakeholder environmental governance*. *Sustainability*. 2021 Jul 12;13(14):7744.
- Hughes., T.E. Davis & S.N. Imenda, *Demystifying Theoretical and Conceptual Frameworks: A Guide for Students and Advisors of Educational Research*. **Journal of the Social Sciences**. DOI: 10.31901 or 24566756.2019 or 58.1-3.2188. 58(1-3), 2019, 24-35.
- Ibrahim YK, Mohammed AN, Agbi SE, Kaoje NA, Abdulkarim UF. *Sustainability Reporting And Financial Performance Of Listed Oil And Gas Firms In Nigeria*. **Gusau Journal of Accounting and Finance**. 2(3): 2021, 17.
- Igbekoyi OE, Solanke FT, ADEUSI SA, Alade ME, Agbaje WH. *Environmental Accounting Disclosure and Financial Performance of Listed Multinational Firms in Nigeria*. **Global Journal of Management and Business Research**. 21(D2): 2021, 17-28.
- Iheduru N. G. and Okoro C. U. “*Sustainable Reporting and Profitability of Quoted Firms in Nigeria*”: *A Multi-Dimensional Panel Data Study*. *Australian Finance & Banking Review*; Vol. 3, No. 1; 2019.

- Imo TO. *Financial Assets and Performance of Deposit Money Banks in Nigeria: Evidence from 2012-2018*. **International Journal of Innovative Finance and Economics Research** 9(2): 2021, 63-72.
- Itoya J, Owuze C, Akhator P.A & Igbokwe I.C. *Effect of Corporate Social Responsibility on Financial Performance in Nigeria*. **European Scientific Journal, ESJ**, 18 (19), 2022, 173.
- James O. C Methodology and practice in research. *International Journal of Research Methodology*. Osla Press. 2018, (9).
- Jan AA, Lai FW, Tahir M. *Developing an Islamic Corporate Governance framework to examine sustainability performance in Islamic Banks and Financial Institutions*. **Journal of Cleaner Production**. 315: 2021, 128099.
- Jankalová M, Kurotová J. Sustainability assessment using economic value added. *Sustainability*. 12(1): 2019, 318.
- Jordão RV. *Performance Measurement, Intellectual Capital and Financial Sustainability*. **Journal of Intellectual Capital**. 2017.
- Joyce SP. *Environmental Disclosure and Financial Performance of Listed Oil and Gas Companies in Nigeria: A Review on Literature*. **IOSR Journal of Business and Management (IOSR-JBM)** e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 22, Issue 9. Ser. II, 2020, pp 58-66
- Khattak MA, Ali M, Burki AK. *Sustainability-disclosures and financial performance: Shariah compliant vs Non-Shariah-compliant Indonesian firms*. **Journal of Islamic Monetary Economics and Finance**. 6(4): 2020, 789-810.
- Khatter A, White L, Pyke J, McGrath M. *Barriers and drivers of environmental sustainability: Australian hotels*. **International Journal of Contemporary Hospitality Management**. 2021.
- Kilic, Uyar and Karaman. "What impacts sustainability reporting in the global aviation industry?" *An institutional perspective*. *Transport Policy*, 79, 2019,54–65.
- Kliestik T, Valaskova K, Lazaroiu G, Kovacova M, Vrbka J. *Remaining financially healthy and competitive: The role of financial predictors*. **Journal of Competitiveness**. 12(1):2020 ,74.
- KPMG - Survey of Corporate Responsibility Reporting: (2017)
- Krivačić D, Janković S. **Journal of Environmental Accounting and Management**. **Journal of Environmental Accounting and Management**. 5(4): 2017, 327-41.
- Krivačić D. Sustainability reporting quality: the analysis of companies in Croatia. **Journal of accounting and management**. 7(1): 2017, 1-4.

- Lamond. D. "Corporate Social Responsibility: Making Trade work for the Poor", *Management Decision*, Vol. (45)8, 2007, pp. 1200-1207.
- Lamsal BP. *Impact of Corporate Governance on Social Information Disclosure*. **Madhyabindu Journal**.6(1): 2021, 1-9.
- Lourenco I.C. Branco, M. C., Curto, J. D., & Eugenio, T. "How does the market value corporate sustainability performance?" **Journal of Business Ethics**, 10(8), 2012, 417-428.
- Mahmud S, Biswas T, Islam N. *Sustainability reporting practices and implications of banking sector of Bangladesh according to global reporting initiative (GRI) reporting framework: An empirical evaluation*. **International Journal of Business and Management Invention**. 6(3):2017, 01-14.
- Malik M, Al Mamun M, Amin A. *Peer pressure, CSR spending, and long-term financial performance*. **Asia-Pacific Journal of Accounting & Economics**. 2019 May 4;26(3):241-60.
- Mamun M. *Sustainability Reporting and Financial Performance: Evidence from Australia's Electricity Companies*. *Corporate Governance*. (1): 2022, 15-21.
- Margolis J.D, & Walsh J.P. "Misery loves companies: rethinking social initiatives by business". *Administrative Science Quarterly*, 48(2), 268-305.
- Meseguer-Sánchez V, Abad-Segura E, Belmonte-Ureña LJ, Molina-Moreno V. *Examining the research evolution on the socio-economic and environmental dimensions on university social responsibility*. **International Journal of Environmental Research and Public Health**. 2020 Jul;17(13):4729.
- Moratis L. Signalling responsibility? Applying signalling theory to the ISO 26000 standard for social responsibility. *Sustainability*. 2018 Nov 13;10(11):4172.
- Muhindi KA, Ngaba D. *Effect of firm size on financial performance on banks: Case of commercial banks in Kenya*. **International Academic Journal of Economics and Finance**. 2018;3(1):175-90.
- Myroshnychenko I, Makarenko I, Smolennikov D, Buriak A. *The approach to managing corporate social and environmental responsibility in manufacturing*. **TEM Journal**. 2019 Aug 1;8(3):740.
- Nageri KI, Salami AA. *Capital Structure and Profitability of Listed Deposit Money Banks in Nigeria*. **Gusau Journal of Accounting and Finance**. 2022 Oct 26;3(1):18-.
- Ndalu TC, Ibanichuka EA, Ofurum CO. *Board Characteristics and Environmental Disclosure of Quoted Oil and Gas Firms in Nigeria: The Moderating Role of Firm Size*. **International Journal of Innovative Finance and Economics Research** 10(4):1-14, Oct.-Dec., 2022
- Ngozika OJ. *Effect Of Creative Accounting On Stakeholders' wealth of Quoted Banks in Nigeria*. **International Journal of Financial and Business Studies (IJFABS)** <https://ijfabs.org/journals/> ISSN: Online-2811-1664; Print-2811-1656

- Nigri G, Del Baldo M. *Sustainability reporting and performance measurement systems: How do small-and medium-sized benefit corporations manage integration?*. Sustainability. 2018 Nov 29;10(12):44-99.
- Nizam E, Ng A, Dewandaru G, Nagayev R, Nkoba MA. The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector. **Journal of Multinational Financial Management**. 1(49), 2019, 35-53.
- Nkwoji N. *Environmental accounting and profitability of selected quoted oil and gas companies in Nigeria (2012-2017)*. **Journal of Accounting and Financial Management**. 7(3): 2021, 22-39
- Nnamani J.N., Onyekwelu, U.L, &Ugwu, O.K. "Effect of sustainability accounting and reporting on Financial performance of firms in Nigeria brewery sector". **European Journal of Business and Innovation Research**. 5(1), 2017, 1-15.
- Nwaigwe NG, Ofoegbu GN, Dibia NO, Nwaogwugwu CV. *Sustainability disclosure: Impact of its extent and quality on value of listed firms in Nigeria*. Cogent Business & Management. 9(1): 2022, 2079393.
- Nwaiwu N.J and Oluka N.O "Environmental Cost Disclosure and Financial Performance of Oil and Gas in Nigeria". **International Journal of Advanced Academic Research | Financial Management**, 4(2), 2018.
- Nwobu, O "The relationship between corporate sustainability reporting and profitability and shareholders fund in Nigerian banks". **Journal of Accounting and Management**, 5(3), 2015, 1-12.
- Nwude EC, Udeh SN, Nwude CA. **Corporate Social Responsibility and Financial Performance: A Focus on Banks in a Developing Economy**.
- Ogan TP, Akinbowale SA. *Environmental Accounting Disclosure and Financial Sustainability In Listed Nigerian Manufacturing Firms*. **Indonesian Journal of Business And Economics**. 28;4(1) 2021.
- Ogiriki T.P, Igo OK. *Indicators of Sustainability Reporting and Performance of Non-Financial Companies in Nigeria*. **International Journal of Multidisciplinary Research and Analysis**, 5(5), 2022, 890-897.
- Okolie A.O, Igaga C.A. Sustainability reporting and financial performance of deposit money banks in Nigeria. **International Business and Economics Studies**. 2(2): 2020, 68-87.
- Okolie O, Igaga A. Original Paper *Sustainability Reporting and Financial Performance of Deposit Money Banks in Nigeria*. **International Business and Economics Studies**, 2(2), 2020.
- Olafusi TA, Olorunwa RA, Festus AF, Ajibade AT. *Sustainability Reporting And Financial Performance Of Deposit Money Banks Listed On Nigerian Stock Exchange*. **Academy of Accounting and Financial Studies Journal**. 26(4): 2022, 1-7.

- Olowookere JK, Taiwo AA, Onifade AO. *Environmental accounting disclosure practices and financial performance of listed cement companies in Nigeria*. **Gusau Journal of Accounting and Finance**. 2(2):2021, 12.
- Olurankinse F, Mamidu AI. *Corporate Characteristics and Environmental Disclosure Quality In Listed Oil And Gas Companies In Nigeria*. **IOSR Journal of Business and Management (IOSR-JBM)**, 23(11), 2021, 16-28.
- Omardin MA, Abidin NZ, Ali WD. *Concept of Environmental Sustainability Awareness Strategies in Pre-Construction Stage*. **Journal of Tropical Resources and Sustainable Science**, 3(1): 2015, 103-16.
- Oncioiu I, Petrescu, A.G, Bilcan FR, Petrescu M, Popescu DM, Anghel E. *Corporate sustainability reporting and financial performance*. *Sustainability*. 12(10), 2020,4297.
- Onuh EO. *Corporate Sustainability Reporting and Financial Performance of Listed Manufacturing Companies in Nigeria*. **IOSR Journal of Business and Management**, 23(8). 2021, 08-17.
- Owei OL. *Effect of Environmental Disclosure on Performance of Selected Ict Entities in Nigeria*. **IOSR Journal of Business and Management (IOSR-JBM)** e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 23, Issue 8. Ser. IV 2021, pp15-20
- Oyedokun GE, Erinoso OM. *Environmental Conservation, Sustainability and Financial Performance of listed Oil and Gas Companies in Nigeria*. **International Journal of Research and Innovation in Social Science (IJRISS)** |Volume VI, Issue VIII, August 2022|ISSN 2454-6186
- Oyekale PJ, Olaoye SA, Nwaobia AN. *Corporate Governance and Environmental Sustainability Disclosure in Non-financial Companies Quoted in Nigeria*. **Journal of Finance and Accounting**. 10(2): 2022, 121.
- Pang K, Lu CS. *Organizational motivation, employee job satisfaction and organizational performance: An empirical study of container shipping companies in Taiwan*. **Maritime Business Review**. 2018.
- Pedro ED, Leitão J, Alves H. *Bridging intellectual capital, sustainable development and quality of life in higher education institutions*. *Sustainability*. 12(2):2020, 479.
- Peršić M, Janković S, Krivačić D. *Sustainability accounting: upgrading corporate social responsibility*. In *The dynamics of corporate social responsibility 2017*, pp. 285-303. Springer, Cham.
- Plumlee M, Brown D, Hayes RM, Marshal RSl. *Voluntary Environmental Disclosure Quality and Firm Value: Further evidence*. **Journal of Accounting and Public Policy**. 1;34(4): 2015, 336-61.

- Rahmanda G.A, Sandhi I.K *Integrated Reporting Elements Analysis of Mining and Manufacture Companies in Indonesia*. **Journal of Research in Business, Economics, and Education**. 2(3): 2020, 475-81.
- Rashid. “*The influence of corporate governance practices on corporate social responsibility reporting*”. **Social Responsibility Journal**, 14 (1) 2018, 20-39. DOI 10.1108/SRJ-05-2016-0080 (2017)
- Reilly AH, Larya N. External communication about sustainability: corporate social responsibility reports and social media activity. *Environmental Communication*. 12(5):2018,621-37.
- Rizzi F, Pellegrini C, Battaglia M. *The structuring of social finance: Emerging approaches for supporting environmentally and socially impactful projects*. **Journal of Cleaner Production**. 170: 2018, 805-17.
- Sani S, Barde IM, Kurawa JM. *sustainability accounting and performance of insurance companies in Nigeria*. **UMYU Journal of Accounting and Finance Research** VOL. 3 NO. 1 Jane, 2022
- Schaltegger S, Burritt R. *Contemporary environmental accounting: issues, concepts and practice*. Routledge; 2017.
- Schaltegger S, Burritt RL, Christ K. *Environmental management accounting: development, context, contribution and outlook*. In *Handbook of Accounting and Sustainability 2022*, pp. 260-278. Edward Elgar Publishing.
- Sehgal V, Garg N, Singh J. *Impact of Environmental and Social Reporting and Performance on Financial Performance of a Firm: An Indian Study*. *Paradigm*. 2022 10:09718907221126429.
- Shad MK, Lai FW, Fatt CL, Klemeš JJ, Bokhari A. *Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework*. **Journal of Cleaner production**. 2019 Jan 20;208:415-25.
- Shoaf V, Jermakowicz EK, Epstein BJ. *Toward Sustainability and Integrated Reporting*. *Review of Business*.38(1) 2018.
- Singh K, Misra M, Yadav J. *Corporate social responsibility and financial inclusion: Evaluating the moderating effect of income*. *Managerial and Decision Economics*. 42(5): 2021, 1263-74.
- Siueia TT, Wang J, Deladem TG. *Corporate Social Responsibility and financial performance: A comparative study in the Sub-Saharan Africa banking sector*. **Journal of Cleaner Production**. 226: 2019, 658-68.
- Solanke FT, Igbekoyi OE, Olaniyan NO. Efuntade, AO and Nweze Godwin N (2021) *Environmental Accounting Disclosure and Financial Performance of Listed Information and Communication Technology Firms in Nigeria*. **Fuoye Journal of Accounting and Management**; Volume 4, Number 1;4(1): 2021, 69-80.

- Sroka W, Szántó R. *Corporate social responsibility and business ethics in controversial sectors: Analysis of research results*. **Journal of Entrepreneurship, Management and Innovation**. 14(3): 2018, 111-26.
- Susanto A, Meiryani M. *The impact of environmental accounting information system alignment on firm performance and environmental performance: A case of small and medium enterprises s of Indonesia*. **International Journal of energy economics and policy**. 9(2): 2019, 229.
- Tibiletti V, Marchini PL, Furlotti K, Medioli A. *Does corporate governance matter in corporate social responsibility disclosure? Evidence from Italy in the “era of sustainability”*. *Corporate Social Responsibility and Environmental Management*. 28(2): 2021, 896-907.
- Torelli R, Balluchi F, Furlotti K. *The materiality assessment and stakeholder engagement: A content analysis of sustainability reports*. *Corporate Social Responsibility and Environmental Management*. (2): 2020, 470-84.
- Truant E, Corazza L, Scagnelli SD. *Sustainability and risk disclosure: An exploratory study on sustainability reports*. *Sustainability*. 9(4): 2017, 636.
- Ullah M.H, and Rahman M.A “*Corporate social responsibility reporting practices in banking companies in Bangladesh*”. **Journal of Financial Reporting and Accounting**, 13(2), 200-225. doi:10.1108/jfra-05-2013-0038
- Umar, M. M. ., Mustapha, L. O. ., & Yahaya, O. A. *Sustainability Reporting and Financial Performance of Listed Consumer Goods Firms in Nigeria*. **Journal of Advance Research in Business Management and Accounting**, 7(3), 2021, 1–8.
- Utami W. *Financial Performance and the Quality of Sustainability Disclosure Based on Global Reporting Initiative: Value Relevances Study in Indonesia Stock Exchange*. **Mediterranean Journal of Social Sciences MC SER Publishing, Rome-Italy**, 6(5).2015.
- Uwuigbe U, Teddy O, Uwuigbe OR, Emmanuel O, Asiriwa O, Eyitomi GA, Taiwo OS. *Sustainability reporting and firm performance: A bi-directional approach*. **Academy of Strategic Management Journal**.;17(3): 2018, 1-6.
- Van Niekerk AJ. *Inclusive economic sustainability: SDGs and global inequality*. *Sustainability*. 12(13): 2020, 5427.
- Vungu JA. *Effect Of Sustainability Reporting On Financial Performance Of Listed Oil And Gas Firms In Nigeria*.
- Wasara& Ganda. “*The relationship between Corporate Sustainability Disclosure and Firm Financial Performance in Joahannesburg Stock Exchange (JSE) Listed Mining Companies*” 2019.

:DOI:10.3390/SU11164496. Xu Q, Lu Y, Lin H, Li B. *Does corporate environmental responsibility (CER) affect corporate financial performance? Evidence from the global public construction firms.* **Journal of Cleaner Production.** 315:128131.

Yahaya O.A “*Environmental Reporting Practices and Financial Performance of Listed Environmentally-Sensitive Firms in Nigeria*”*Savanna: A Journal of Environmental and Social Sciences*, 24(2), 2018 pp. 403 – 412.

Zraqat O, Zureigat Q, Al-Rawashdeh HA, Okour SM, Hussien LF, Al-Bawab AA. *The effect of corporate social responsibility disclosure on market performance: Evidence from Jordan.* **The Journal of Asian Finance, Economics and Business.** 8(8): 2021, 453-63.

Internet

Clean Air Solution conducted by Camfil USA, 2017, accessed from <https://catalog.camfil.us>, posted on August 16, 2017 by Camfilusa

IUCN/UNEP/WWF.”*Caring for the Earth: A Strategy for Sustainable Living*: 1991.

PricewaterhouseCoopers. “Corporate sustainability definition and challenges.” Retrieved July 2, 2019, from <http://www.csrequest.net> (2016)

Appendix

Summary statistics: mean, sd, min, max, sum by categories of: exchange sector (ExchangeSector) Banking sector |
 roce gptm eitm envd csrd hsed eaps eayd

Fidelity	5.44324220.489372.979056.015625	.585		12.210263-3.84867
	11.8330368.78711105.1466.0418665.1942111			04.56788733.55668
	-16.0562-306.7095-538.4056	0	.4	1 - .39-130.3173
	29.159178.2017203.046	.125	1	1 25.3654.2032
	206.8432778.596113.2041	.625	23.4	40 83.99-150.0981
GTB	.44659429.6902313.15581	.02	.74	.98 .2992-5.44996
	6.88530417.8321319.16595.0989743.1726149.14142142.05124771.11984 -21.8134			4.687-41.4723 0 .2 0 -4.37-373.3333
	12.544476.353461.4282	.5	1	1 7.74154.6311
	22.32971484.512657.7906	1	37	49 14.96-272.498
Access	-2.19630522.10862-19.4499	0	.86	11.9855-36.26056
	13.7343224.49348152.7409	0.1142481		03.576001144.3317
	-54.3955-40.6991-629.2969	0	.6	1 -6.06-605.7547
	5.271368.144362.7453	0	1	1 6.8327.789
	-43.9261442.1723-388.998	0	17.2	20 39.71-725.2113
UBA	6.59603127.7096910.71263.0820313.71125			.93753.2751575.694964
	8.98624515.863313.38109.1952899.2454588.24282158.52729517.0403 -44.1613-			26.1228-69.875 0 0 0 -3.23-61.644
	26.516592.972937.3408	.75	1	1 57.63148.7767
	1048.7694405.8411703.30713.125		113.8	150520.75905.4992
Zenith	-1.88317542.58702-.5043051	.025.7533333		1.3501667-.6625935
	12.1722110.9179431.64695.1098921.1443473			01.44012272.19888
	-35.208713.1654-121.1086	0	.6	1 -4.66-227.1019
	26.625862.332673.7746	.5	1	1 7292.9857
	-52.99052555.221-30.2583	1.5	45.2	60 21.01-39.75561
FCMB	1.35948729.7905811.5254.01875	.665	.975-.143783836.34475	
	11.6917718.0086516.1006.0827705.2142967.15811392.520458223.9205 -52.5591-			14.7981-21.8157 0 .2 0 -9.86-195.4037
	31.77471.444454.6786	.375	1	1 6.71341.316
	53.021161.833449.4906	.75	26.6	39 -5.321344.756
Union	5.23758532.7629410.6912.14375	.726		12.3393942.540735
	25.7037226.9507640.57215.2521217.1812527			04.3248432.94681

-179.9173-197.5784-344.1751	0	.4	1	-7.32-125.8742
53.9594 63.47255.5785	.625	1	1	22.83186.0029
518.52093243.5311058.42814.375		72.6	100	231.6251.5328

Stanbic IBTC	3.1107272.08735357.59151.015625	.6775.93670895.31253219.31525			
	24.4258163.81335645.0393.0416007.1841676.24504178.830644387.5592	-58.196-516.8097-624.4804	0	0	0 -20.23-684.7388
	187.1324 46.0835655.464	.125	1	1	43.583266.745
	245.7474164.90094549.729	1.25	54.2		74419.691525.905

Sterling	.549557614.0646983.80933	0	.64		1.20675-9.881552
	8.38946351.050411168.621	0.1706699			0.359967135.94792
	-22.7876-186.0624-1466.617	0	.4	1	.45-194.7213
	16.160164.21167029.232	0	.8	1	.8820.4067
	21.9823562.58773352.373	0	25.6	40	8.27-395.2621

Wema	-.969380133.73806-1.347432.0016667.7013333.9933333.0105517-12.10586	20.2401627.0906268.02554.0204124.1514966.0816497.716304994.09458	-118.6015-166.2416-511.5227	0	.4	0	-3.89-710.95
	89.5447 100194.4973	.25	1	1	1.07103.75		
	-140.56014892.018-195.3776	.25	105.2	149	1.53-1731.138		

Total	2.57851327.0112715.45911.0444257.7037838.97564281.83795.9830981	17.2988135.93923	347.54.1465325.1941966.15426015.671869149.0725				
	-179.9173-516.8097-1466.617	0	0	0	-20.23-710.95		
	187.1324 1007029.232	.75	1	1	57.633266.745		
	1879.73619691.2111269.6932.875		520.8		7211336.19713.7292		

.swilkroceretagptmeitmenvdcsrdhsedeaps

Shapiro-WilkWtestfornormaldata

Variable	Obs	W	V	z	Prob>z
roce	729	0.65619162.66412.4440			0.00000
gptm	729	0.55301211.48013.0850			0.00000
eitm	729	0.08861431.20214.8260			0.00000
envd	740	0.83374	79.73610.7080		0.00000
csrd	740	0.97586	11.578	5.9890	0.00000
hsed	739	0.89647	49.592	9.5460	0.00000
eaps	727	0.50717232.58713.3160			0.00000
	726	0.19508379.40314.5110			0.00000

.spearmanrocegptmeitmenvdcsrcdhsedeapseayd,stats(rhoobsp)

Pairwise Correlations							
S/n	Variables	-1	-2	-3	-4	-5	-6
1	ROCE	1					
2	GPTM	0.532*					
		0					
3	EBIT	0.310*	0.291*				
		0	0.003				
4	ENVD	0.125	0.160	-0.040	1		
		0.11	0.05				1.000
5	CSRD	0.079	0.131	-0.062	0.902*		
		0.29	0.169	0.511	0		
6	HSED	0.059	0.119	-0.079	0.521*		
		0.51	0.169	0.41	0		
7	EAPS	0.019	0.061	0.298*	0.149		

.xtsetcroidyear

panelvariable:croid(stronglybalanced)timev
variable:year,2010to2019

delta:1unit

.regroceenvdcsrcdhsedeapseayd

Source	SS	df	MS	Number of obs =	724
-----F(5,718)					= 90.83
Model	84311.5712	5	16862.3142	Prob > F	= 0.0000
Residual	133296.814	718	185.650159	R-squared	= 0.3874
-----AdjR-squared=0.3832					Total 217608.385
					723300.979786
					Root MSE = 13.625

roce	Coef.	Std. Err.	t	P > t	[95% Conf. Interval]
envd	4.0045113	6.03663	1.110	.267	-3.07046411.07949
csrd	7.4341323	.094209	2.400	.017	1.359354 13.50891
hsed	-2.5282723	.676431	-0.690	.492	-9.7461114.689567
eaps	.7693916	.0912161	8.430	.000	.5903095.9484738

```

    eayd | .0615104.003425117.960.000          .0547861.0682348
    _cons | -1.8587593.253954          -0.570.568          -8.2471614.529644

```

.vif

Variable	VIF	1/VIF
csrd	1.380.727009	
hsed	1.280.782535	
envd	1.100.908902	
eaps	1.050.955742	
eayd	1.020.983309	
MeanVIF	1.16	

.hetttest

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
 Ho: Constant variance
 Variables: fitted values of roce
 chi2(1) = 2.94
 Prob > chi2 = 0.0866

.xtregroce envd csrd hsedeapseyd, fe

Fixed-effects (within) regression Number of obs = 724
 Group variable: croid Number of groups = 74
 R-sq: Obs per group:
 within = 0.4343 min = 8
 between = 0.1189 avg = 9.8
 overall = 0.3249 max = 10
 F(5, 645) = 99.03
 corr(u_i, Xb) = -0.1083 Prob > F = 0.0000

roce	Coef.	Std. Err.	tP > t	[95% Conf. Interval]
envd	-7.632687	4.62721	-1.020.307	-22.286847.021482

csrd		-13.99754	4.12434	-3.390.001	-22.0963-5.898786
hsed		13.804984.707552	2.930.003	4.56100623.04896	
eaps		.9533053	.147914	6.440.000	.66285421.243756
eayd		.0574073.003038718.890.000			.0514404.0633741
_cons		-2.5249914.590417	-0.550.582		-11.538966.488975

sigma_u|9.2813147

sigma_e|11.493562

Do Not Copy, Lead City University, Nigeria

rho|.39470732(fractionofvarianceduetou_i)

Ftestthatalu_i=0:F(73,645)=4.99 Prob>F=0.0000

.estimatestorefe

.xtregroceenvdcsrdhsedeapseyd,re

Random-effectsGLSregression Numberofobs = 724

Groupvariable:croid Numberofgroups= 74

R-sq: Obspergroup:
within=0.4274 min= 8
between=0.2441 avg= 9.8
overall=0.3688 max= 10

Waldchi2(5) = 498.79

corr(u_i,X)=0(assumed) Prob>chi2 = 0.0000

roce	Coef.	Std.Err.	zP> z	[95%Conf.Interval]
envd	.91738655	.128244	0.180.858	-9.13378810.96856
csrd	-5.1300983	.591318	-1.430.153	-12.168951.908756
hsed	7.9250764	.181467	1.900.058	-.2704497 16.1206
eaps	.8755643	.117781	7.430.000	.64471781.106411
eyayd	.0588305	.003039719	.350.000	.0528727.0647882
_cons	-3.2688763	.981987	-0.820.412	-11.073434.535676

sigma_u|6.6274052

sigma_e|11.493562

rho|.24952499(fractionofvarianceduetou_i)

.estimatestorere

.xttest0

BreuschandPaganLagrangianmultipliertestforrandomeffects

roce[croid,t]=Xb+u[croid]+e[croid,t]

Estimatedresults:

	Var	sd=sqrt(Var)
roce	300.9798	17.34877
e	132.102	11.49356
u	43.9225	6.627405

Test:Var(u)=0

chibar2(01)=199.62Prob
>chibar2=0.0000

.hausmanfere

----Coefficients----

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
envd	-7.63268	.9173865	-8.550066	5.42156
csrd	-13.99754	-5.130098	-8.867443	2.027959
hsed	13.80498	7.925076	5.879908	2.162492
eaps	.9533053	.8755643	.077741	.0894773
eayd	.0574073	.0588305	-.0014232	.

b=consistentunderHoandHa;obtainedfromxtreg

B=inconsistentunderHa,efficientunderHo;obtainedfromxtreg

Test:Ho:differenceincoefficientsnotsystematic

chi2(5)=(b-B)'[(V_b-V_B)^(-1)](b-B)=
31.77

Prob>chi2= 0.0000

(V_b-V_Bisnotpositivedefinite)

.regroceenvdcsrdhsedeapseaydi.croid

Source	SS	df	MS	Numberofobs=	724
--------	----	----	----	--------------	-----

```

-----+-----F(78,645) = 12.85
Model|132402.624 781697.46953Prob>F =0.0000
Residual|85205.7619 645132.101956R-squared = 0.6084
-----+-----AdjR-
squared=0.5611Total|217608.385
723300.979786RootMSE =11.494

```

roce	Coef.	Std.Err.	tP> t	[95%Conf.Interval]
envd	-7.632687	4.62721	-1.020	307 -22.286847.021482
csrd	-13.99754	4.12434	-3.390	.001 -22.0963-5.898786
hsed	13.804984	7.07552	2.930	.003 4.56100623.04896
eaps	.9533053	.147914	6.440	.000 .66285421.243756
eyad	.0574073	0.003038718	890	.000 .0514404.0633741
c				
roid				
2	5.1767455	7.737013	0.900	.367 -6.08873316.44222
3	-21.157355	7.44493	-3.680	.000 -32.43752-9.877185
4	9.5410365	7.728775	1.670	.096 -1.70826620.79034
5	3.307541	5.59505	0.590	.555 -7.67917114.29425
6	5.8175695	7.752126	1.010	.312 -5.47758517.11272
7	12.443815	7.723983	2.170	.030 1.203915 23.6837
8	16.481886	7.757622	2.440	.015 3.21228229.75147
9	7.8400215	7.440039	1.440	.150 -2.84230418.52235
10	11.701985	7.768965	2.030	.043 .3737593 23.0302
11	18.616795	7.741853	3.240	.001 7.34180929.89177
12	-3.3089915	7.72236	-0.570	.567 -14.643648.025654
13	4.9340025	7.745923	0.860	.391 -6.34897316.21698
14	42.36375	7.669028	7.470	.000 31.2317253.49568
15	3.9141815	7.557621	0.700	.482 -6.999034 14.8274
16	9.2089255	7.991109	1.540	.125 -2.55550720.97336
17	16.372	5.75595	2.840	.005 5.06933127.67466
18	15.439325	7.707507	2.710	.007 4.23178326.64686
19	16.167455	7.670503	2.850	.004 5.03256927.30232
20	8.4172635	7.787569	1.450	.146 -2.94748919.78202
21	-7.1021135	7.794594	-1.230	.221 -18.480664.276435
22	6.2535015	7.724023	1.090	.275 -4.98646917.49347
23	4.519307	5.54445	0.820	.415 -6.36804615.40666
24	-6.4309316	7.123449	-1.050	.294 -18.455235.593372
25	12.755925	7.709875	2.230	.026 1.5437323.96811
26	-14.661095	7.776392	-2.540	.011 -26.0039-3.318289
27	10.567335	7.856845	1.800	.072 -.933453122.06812
28	6.201119	5.73182	1.080	.280 -5.054162 17.4564

29	5.6359625.709987	0.990.324	-5.57644616.84837
30	-3.5010655.863286-0.600.551		-15.01458.012368
31	8.6490235.769521	1.500.134	-2.68028919.97834
32	- .51467585.774839	-0.090.929	-11.8544310.82508
33	3.2620685.749342	0.570.571	-8.0276214.55176
34	3.5006275.531385	0.630.527	-7.36106914.36232
35	11.961037.196734	1.660.097	-2.17082326.09289
36	6.2682875.871682	1.070.286	-5.26163417.79821
37	.7810018 5.82304	0.130.893	-10.653412.21541
38	5.3019255.726608	0.930.355	-5.94312216.54697
39	13.389527.035978	1.900.057	-.426671627.20571
40	.35133035.775924	0.060.952	-10.9905611.69322
41	-10.715795.751679	-1.860.063	-22.01007.5784862
42	1.3238665.579722	0.240.813	-9.63274812.28048
43	-2.8968365.838154-0.500.620		-14.360928.567248
44	18.406165.673272	3.240.001	7.26584729.54647
45	11.189755.705963	1.960.050	-.014754622.39426
46	4.6053175.946106	0.770.439	-7.07074716.28138
47	7.5678995.888226	1.290.199	-3.99450919.13031
48	-3.8972275.654154	-0.690.491	-157.205546
49	20.639277.772146	2.660.008	5.3775135.90104
50	1.42754 5.79774	0.250.806	-9.95718512.81227
51	5.117915.823781	0.880.380	-6.3179516.55377
52	6.1383565.979812	1.030.305	-5.60389417.88061
53	15.740435.516329	2.850.004	4.90829926.57256
54	1.6512145.730208	0.290.773	-9.60090312.90333
55	4.3509185.860019	0.740.458	-7.156115.85794
56	-16.94715.820113	-2.910.004	-28.37575-5.518439
57	11.659775.503277	2.120.034	.853269722.46627
58	8.618391 5.68032	1.520.130	-2.53576119.77254
59	3.6113346.107538	0.590.555	-8.38172515.60439
60	12.917835.843397	2.210.027	1.4434524.39221
61	1.6040845.776915	0.280.781	-9.73974712.94791

62		3.7760555.726057		0.660.510		-7.4679115.02002
63		1.0859885.888378		0.180.854		-10.4767212.64869
64		-2.59235.752002		-0.450.652		-13.887218.702611
65		-7.9022275.166926		-1.530.127		-18.04826 2.2438
66		-9.5522095.786622		-1.650.099		-20.91511.810684
67		7.7404185.852591		1.320.186		-3.75201519.23285
68		7.5645065.673737		1.330.183		-3.5767218.70573
69		5.5998955.902679		0.950.343		-5.99089417.19068
70		10.175.773049		1.760.079		-1.1662421.50624
71		12.58378 5.73866		2.190.029		1.31506323.85249
72		11.814735.868594		2.010.045		.290873423.33859
73		5.0517295.811007		0.870.385		-6.35904716.46251
74		9.9873555.757406		1.730.083		-1.31816821.29288
_cons		-8.0507496.032183		-1.330.182		-19.895843.794339

ROA

.regretaenvdcsrdhsedeapseayd

Source	SS	df	MS	Number of obs =	724
				F(5,718)	= 87.03
Model	81255.6304	516251.1261	Prob > F	=	0.0000
Residual	134079.676	718186.740496	R-squared	=	0.3773
				Adj R-squared =	0.3730
Total	215335.307		Root MSE	=	13.665

reta	Coef.	Std. Err.	tP > t	[95% Conf. Interval]
envd		3.9273593.614229		1.090.278 -3.16836211.02308
csrd		7.209943.103282		2.320.020 1.11734913.30253
hsed		-1.7829933.687211		-0.480.629 -9.0219965.456011
eaps		.7788697.0914836		8.510.000 .5992625.9584769
eyayd		.0597956.003435117.410.000		.0530515.0665397
_cons		-2.4322843.263496		-0.750.456 -8.8394183.974851

.vif

Variable	VIF	1/VIF
csrd		1.380.727009
hsed		1.280.782535

```

envd |      1.100.908902
eaps |      1.050.955742
eayd |      1.020.983309

```

```

-----+-----
MeanVIF |      1.16

```

```
.hetttest
```

```

Breusch-Pagan/Cook-
WeisbergttestforheteroskedasticityHo:Constantvariance

```

```
Variables:fittedvaluesofreta
```

```

chi2(1)      =      3.66
Prob>chi2=0.0556

```

```
.xtregretaenvdcsrdhsedeapseyd,fe
```

```

Fixed-effects(within)regression      Numberofobs      =      724
Groupvariable:croid                  Numberofgroups=      74

```

```

R-sq:                                Obspergroup:
within=0.4239                          min=      8
between=0.1126                          avg=      9.8
overall=0.3137                          max=     10

```

```

F(5,645)      =      94.93
corr(u_i,Xb)=-0.1138                    Prob>F      =      0.0000

```

124

```

-----+-----
reta |      Coef.Std.Err.      tP>|t|      [95%Conf.Interval]
-----+-----
envd | -7.8698797.471016      -1.050.293      -22.540336.800572
csrd | -14.147874.128924      -3.430.001      -22.25562-6.040111
hsed | 15.627924.712784      3.320.001      6.3736724.88218
eaps | .9540427.1480784      6.440.000      .66326881.244817
eayd | .0556651      .00304218.300.000      .0496916.0616386
_cons | -4.1779884.595519      -0.910.364      -13.201974.845997

```

```
-----+-----
sigma_u|9.3382533
sigma_e|11.506337
rho|.3971014(fractionofvarianceduetou_i)
-----
```

```
Ftestthatalu_i=0:F(73,645)=5.04 Prob>F=0.0000
```

```
.estimatestorefe
```

```
.xtregretavndcsrdhsedeapseyd,re
```

```
Random-effectsGLSregression Numberofobs = 724
```

```
Groupvariable:croid Numberofgroups= 74
```

```
R-sq: Obspergroup:
within=0.4169 min= 8
between=0.2353 avg= 9.8
overall=0.3580 max= 10
```

```
Waldchi2(5) = 477.45
```

```
corr(u_i,X)=0(assumed) Prob>chi2 = 0.0000
```

```
-----+-----
```

reta	Coef.Std.Err.	zP> z	[95%Conf.Interval]
envd	.76470385.145236	0.150.882	-9.31977410.84918
csrd	-5.4025373.599616	-1.500.133	-12.457661.652582
hsed	9.3238964.190718	2.220.026	1.1102417.53755
eaps	.8816229.1181058	7.460.000	.65013971.113106
eyayd	.0571045.003044218.760.000		.0511381 .063071
_cons	-4.4366143.992268	-1.110.266	-12.261323.388089

```
-----+-----
```

```
sigma_u|6.6662165
sigma_e|11.506337
rho|.2513(fractionofvarianceduetou_i)
-----
```

```
.estimatestorere
```

```
.xtttest0
```

```
BreuschandPaganLagrangianmultipliertestforrandomeffects
```

```
reta[croid,t]=Xb+u[croid]+e[croid,t]
```

```
Estimatedresults:
```

	Var	sd=sqrt(Var)
reta	297.8358	17.25792
e	132.3958	11.50634
u	44.43844	6.666216

Test:Var(u)=0

chibar2(01)=202.79Prob
>chibar2=0.0000

.hausmanfere

----Coefficients----

	(b)	(B)	(b-B)	sqrt(diag(V_b-V_B))
	fe	re	Difference	S.E.
envd	-7.869879	.7647038	-8.634582	5.416883
csrd	-14.14787	-5.402537	-8.745331	2.022567
hsed	15.62792	9.323896	6.304027	2.155973
eaps	.9540427	.8816229	.0724198	.0893209
eayd	.0556651	.0571045	-.0014394	.

b=consistentunderHoandHa;obtainedfromxtreg

B=inconsistentunderHa,efficientunderHo;obtainedfromxtreg

125

Test:Ho:differenceincoefficientsnotsystematic

chi2(5)=(b-B)'[(V_b-V_B)^(-1)](b-B)=
32.50

Prob>chi2= 0.0000

(V_b-V_Bisnotpositivedefinite)

.regretavndcsrdhsedeapseaydi.croid

Source	SS	df	MS	Numberofobs=	724
				F(78,645)	= 12.58
Model	129940.025	78	1665.89776	Prob>F	=0.0000
Residual	85395.2815	645	132.395785	R-squared	=0.6034
				AdjR-	
				squared=0.5555	Total 215335.307
				723297.835832	RootMSE =11.506

reta	Coef. Std. Err.	tP> t	[95%Conf.Interval]
envd	-7.8698797.471016	-1.050.293	-22.540336.800572
csrd	-14.147874.128924	-3.430.001	-22.25562-6.040111
hsed	15.627924.712784	3.320.001	6.3736724.88218
eaps	.9540427.1480784	6.440.000	.66326881.244817
eayd	.0556651 .00304218.300.000		.0496916.0616386
roid			
2	3.899234 5.74339	0.680.497	-7.37876615.17723
3	-22.944875.750878	-3.990.000	-34.23757-11.65216
4	8.1446765.735143	1.420.156	-3.1171319.40648
5	2.3802225.601269	0.420.671	-8.61870213.37915
6	4.5774495.758519	0.790.427	-6.7302615.88516
7	11.234515.730346	1.960.050	-.0178722 22.4869
8	15.387426.765133	2.270.023	2.10307728.67177
9	6.622295.446086	1.220.224	-4.07190817.31649
10	10.48675.775377	1.820.070	-.854111321.82751
11	17.615865.748235	3.060.002	6.32834828.90338
12	-4.5884625.778652	-0.790.427	-15.935716.758781
13	3.825679 5.75231	0.670.506	-7.46983715.12119
14	41.143315.675329	7.250.000	29.9989652.28767
15	2.6667215.563798	0.480.632	-8.25862413.59207
16	8.186785.997768	1.360.173	-3.59072919.96429
17	15.155055.762348	2.630.009	3.8398226.47028
18	14.269535.713851	2.500.013	3.04953725.48953
19	14.939615.676806	2.630.009	3.79235426.08686
20	7.4629235.794002	1.290.198	-3.91446118.84031
21	-8.1557555.801035	-1.410.160	-19.54695 3.23544
22	5.011855.730385	0.870.382	-6.24061316.26431
23	3.293755.550613	0.590.553	-7.605704 14.1932
24	-7.8026126.130255	-1.270.204	-19.840284.235056
25	11.534575.716222	2.020.044	.30991822.75922
26	-15.944615.782812	-2.760.006	-27.30002 -4.5892
27	9.1183685.863355	1.560.120	-2.395220.63194
28	4.9920115.738191	0.870.385	-6.27578 16.2598
29	4.4323665.716333	0.780.438	-6.79250515.65724
30	-4.8113045.869803	-0.820.413	-16.337536.714927
31	7.395635.775934	1.280.201	-3.94627518.73754
32	-3.6347285.781258	-0.630.530	-14.987097.717631
33	1.9822365.755733	0.340.731	-9.32000113.28447
34	2.2781945.537533	0.410.681	-8.59557613.15196

35	10.865337.204733	1.510.132	-3.282233	25.0129
36	5.021075.878209	0.850.393	-6.52166716.56381	
37	-.52804015.829513	-0.090.928	-11.9751610.91908	
38	4.0464655.732973	0.710.481	-7.2110815.30401	
39	14.290097.043799	2.030.043	.45853928.12163	
40	-.94123365.782344	-0.160.871	-12.2957310.41326	
41	-12.095435.758072	-2.100.036	-23.40226-.7886009	
42	.05287215.585924	0.010.992	-10.9159211.02167	
43	-4.773635.844643	-0.820.414	-16.250466.703197	
44	17.1535.679578	3.020.003	6.000305	28.3057
45	10.135925.712306	1.770.076	-1.08103721.35289	
46	3.2824095.952715	0.550.582	-8.40663314.97145	
47	6.3718945.894771	1.080.280	-5.20336517.94715	
48	-5.1383925.660439	-0.910.364	-16.253515.976722	
49	19.588017.780784	2.520.012	4.30928734.86674	
50	.12280865.804185	0.020.983	-11.2745711.52019	
51	3.9261565.830254	0.670.501	-7.52241515.37473	

126

52	4.8821415.986459	0.820.415	-6.87316116.63744	
53	14.50175 5.52246	2.630.009	3.6575825.34592	
54	.44626295.736578	0.080.938	-10.8183611.71089	
55	3.4381835.866532	0.590.558	-8.08162614.95799	
56	-16.851345.826582-2.890.004		-28.2927-5.409977	
57	10.452885.509394	1.900.058	-.365636121.27139	
58	7.2805945.686634	1.280.201	-3.88595618.44715	
59	1.9112816.114327	0.310.755	-10.0951113.91767	
60	11.653445.849892	1.990.047	.166302223.14057	
61	.30059375.783336	0.050.959	-11.0558511.65703	
62	2.5181355.732422	0.440.661	-8.738328	13.7746
63	-.19213775.894923	-0.030.974	-11.767711.38342	
64	-3.8737225.758395	-0.670.501	-15.181197.433744	
65	-9.1679095.172669	-1.770.077	-19.32521.9893963	
66	-10.863255.793054	-1.880.061	-22.23877.5122712	
67	6.5493985.859096	1.120.264	-4.95580918.05461	
68	6.2728035.680043	1.100.270	-4.88080717.42641	
69	4.705513 5.90924	0.800.426	-6.89815916.30918	
70	8.9753555.779466	1.550.121	-2.373485	20.3242
71	11.695975.745039	2.040.042	.4147276	22.9772
72	10.591335.875117	1.800.072	-.9453373	22.128
73	3.6682425.817466	0.630.529	-7.755218	15.0917

145

```

74 | 8.769425.763805          1.520.129          -2.54866920.08751
|
_cons | -8.5060826.038888      -1.410.159          -20.364343.352172

```

GPTM

reggptmenvdcsrcdhsedeapseayd

```

Source |          SS          df          MS      Number of obs =          724
-----+-----F(5,718) =          3.14
Model | 20034.8742          54006.97484 Prob>F = 0.0082
Residual | 916552.3          7181276.53524 R-squared = 0.0214
-----+-----AdjR-
squared=0.0146 Total | 936587.174
              7231295.41795 RootMSE = 35.729

```

```

gptm |          Coef. Std. Err.          tP>|t|          [95%Conf. Interval]
-----+-----
envd | 21.272469 449588          2.250.025          2.72033439.82458
csrd | 16.37702          8.11369          2.020.044          .44762832.30641
hsed | 2.1926999 640402          0.230.820          -16.7340521.11944
eaps | -.1128313 2391884          -0.470.637          -.5824236          .356761
eayd | -.0102903 0089813          -1.150.252          -.027923.0073424
_cons | 12.488488 532577          1.460.144          -4.26330529.24026

```

.vif

```

Variable |          VIF          1/VIF
-----+-----
csrd | 1.380.727009
hsed | 1.280.782535
envd | 1.100.908902
eaps | 1.050.955742
eayd | 1.020.983309
-----+-----
MeanVIF |          1.16

```

.hettest

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
H0: Constant variance
Variables: fitted values of gptm

chi2(1) =17.61

Prob>chi2=0.0000

.xtreggptmenvdcsrcdhsedeapseayd,fe

Fixed-effects(within)regression Numberofobs = 724

Groupvariable:croid Numberofgroups= 74

R-sq: Obspergroup:

within=0.0272	min=	8
between=0.1287	avg=	9.8
overall=0.0043	max=	10

127

F(5,645) = 3.60

corr(u_i,Xb)=-0.3978 Prob>F = 0.0032

gptm	Coef.	Std. Err.	tP> t	[95%Conf.Interval]
envd	8.4330219	.57322	0.430.667	-30.0019146.86795
csrd	-39.4848910	.81732	-3.650.000	-60.7263-18.24348
hsed	16.3063112	.34696	1.320.187	-7.93878640.55141
eaps	.4072452	.3879487	1.050.294	-.3545498 1.16904
eyayd	-.0180376	.0079698	-2.260.024	-.0336874-.0023877
_cons	37.6398412	.03974	3.130.002	13.9980161.28166

sigma_u|24.510754

sigma_e|30.145306

rho|.39799303(fractionofvarianceduetou_i)

Ftestthatallu_i=0:F(73,645)=4.98 Prob>F=0.0000

.estimatestorefe

.xtreggptmenvdcsrcdhsedeapseayd,re

Random-effectsGLSregression Numberofobs = 724

Groupvariable:croid Numberofgroups= 74

R-sq: Obspergroup:

```

within=0.0197          min=      8
between=0.0116        avg=      9.8
overall=0.0015        max=     10

```

```

Waldchi2(5)          =      7.77
corr(u_i,X)=0(assumed)  Prob>chi2          =      0.1695

```

```

-----+-----
      gptm|      Coef. Std. Err.      zP>|z|      [95%Conf.Interval]
-----+-----
      envd| 18.8213613.72659      1.370.170      -8.08226745.72498
      csrd| -15.928629.489556      -1.680.093      -34.527812.670566
      hsed| 12.7814511.03503      1.160.247      -8.84682134.40972
      eaps|.1831377.3130011      0.590.558      -.4303332.7966086
      eayd| -.0156413.0079467      -1.970.049      -.0312166-.000066
      _cons| 24.3543810.55927      2.310.021      3.65860145.05016
-----+-----
      sigma_u| 18.472094
      sigma_e| 30.145306
      rho|.27298383(fractionofvarianceduetou_i)
-----+-----

```

```
.estimatestorere
```

```
.xttest0
```

```
BreuschandPaganLagrangianmultiplientestforrandomeffects
```

```
gptm[croid,t]=Xb+u[croid]+e[croid,t]
```

```
Estimatedresults:
```

```

      |      Var      sd=sqrt(Var)
-----+-----
      gptm| 1295.418      35.99191
      e| 908.7395      30.14531
      u| 341.2182      18.47209

```

```
Test:Var(u)=0
```

```

      chibar2(01)=184.65Prob
>chibar2=0.0000

```

```
.hausmanfere
```

Note: the rank of the difference variance matrix (4) does not equal the number of coefficients being tested (5); be sure this is what you expect, or there may be problems computing the test. Examine the output of your estimators for anything unexpected and possibly consider scaling your variables so that the coefficients are on a similar scale.

```

-----Coefficients-----
      |      (b)      (B)      (b-B)      sqrt(diag(V_b-V_B))
      |      fe      re      Difference      S.E.
-----+-----
  envd |      8.43302      18.82136      -10.38834      13.95319
  csrd | -39.48489      -15.92862      -23.55627      5.192559
  hsed | 16.30631      12.78145      3.524865      5.53855
  eaps | .4072452      .1831377      .2241075      .229204
  eayd | -.0180376      -.0156413      -.0023963      .0006057
-----+-----

```

b=consistent under Ho and Ha; obtained from xtreg

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

Test: Ho: difference in coefficients not systematic

$$\chi^2(4) = (b-B)' [(V_b - V_B)^{-1}] (b-B) = 24.25$$

Prob > chi2 = 0.0001

(V_b - V_B is not positive definite)

.reggptmenvdcsrcrdhsedeapseaydi.croid

```

Source |      SS      df      MS      Number of obs =      724
-----+-----
Model | 350450.21      784492.95141 Prob > F      = 0.0000
Residual | 586136.964      645908.739479 R-squared      = 0.3742
-----+-----
AdjR-squared = 0.2985 Total | 936587.174
                        7231295.41795 Root MSE      = 30.145
-----+-----

```

```

-----+-----
      |      Coef. Std. Err.      tP > |t|      [95% Conf. Interval]
-----+-----
  envd | 8.4330219 5.7322      0.430.667      -30.0019146 8.6795
  csrd | -39.4848910 8.1732      -3.650.000      -60.7263 -18.24348
-----+-----

```

hsed 16.3063112.34696	1.320.187	-7.93878640.55141	
eaps .4072452.3879487	1.050.294	-.3545498	1.16904
eyad -.0180376.0079698	-2.260.024	-.0336874-	.0023877
roic			
2 68.5367515.04703	4.550.000	38.9896698.08384	
3 36.7768815.06665	2.440.015	7.191266	66.3625
4 61.260815.02543	4.080.000	31.7561490.76547	
5 55.8970714.67469	3.810.000	27.0811384.71301	
6 71.9219415.08667	4.770.000	42.29702101.5469	
7 97.1146315.01286	6.470.000	67.63465126.5946	
8 90.0676717.72389	5.080.000	55.26418124.8712	
9 71.3860414.26813	5.000.000	43.3684599.40364	
10 80.3191515.13084	5.310.000	50.6075110.0308	
11 76.5082315.05973	5.080.000	46.93621106.0802	
12 65.6631515.13942	4.340.000	35.9346695.39165	
13 61.97289	15.0704	4.110.000	32.3799291.56587
14 98.8040114.86872	6.650.000	69.60706	128.001
15 55.6389314.57652	3.820.000	27.01576	84.2621
16 93.3536715.71348	5.940.000	62.49793124.2094	
17 79.05837	15.0967	5.240.000	49.41375
18 100.042314.96965	6.680.000	70.64721129.4375	
19 68.5620714.87259	4.610.000	39.3575397.76662	
20 52.4784215.17963	3.460.001	22.6709582.28588	
21 64.6963615.19806	4.260.000	34.8527194.54001	
22 97.6432315.01296	6.500.000	68.16305127.1234	
23 62.8989614.54198	4.330.000	34.34361	91.4543
24 -32.2134116.06058	-2.010.045	-63.75075-	.6760806
25 91.4296714.97586	6.110.000	62.02235	120.837
26 36.0720115.15032	2.380.018	6.32210865.82191	
27 86.1223315.36133	5.610.000	55.95808116.2866	
28 65.2003115.03341	4.340.000	35.6799794.72066	
29 81.912614.97615	5.470.000	52.5047111.3205	
30 63.4987515.37822	4.130.000	33.3013393.69618	
31 86.90406	15.1323	5.740.000	57.18955116.6186
32 39.0185415.14624	2.580.010	9.27663668.76044	
33 68.7715115.07937	4.560.000	39.1609298.38209	
34 75.0534214.50771	5.170.000	46.56537103.5415	
35 70.5782918.87559	3.740.000	33.51326107.6433	
36 95.6155115.40024	6.210.000	65.37484125.8562	
37 42.8442815.27267	2.810.005	12.8541272.83443	

38	79.5264715.01974	5.290.000	50.03297	109.02
39	54.0070718.45396	2.930.004	17.7699890.24417	
40	75.1987715.14909	4.960.000	45.45128104.9463	
41	72.11662	15.0855	4.780.000	42.49399101.7392
42	48.0743314.63449	3.290.001	19.3373276.81133	
43	16.2860315.31231	1.060.288	-13.7819646.35402	
44	75.6956114.87985	5.090.000	46.47681104.9144	
45	87.47536	14.9656	5.850.000	58.08819116.8625
46	58.1683315.59544	3.730.000	27.54435	88.7923
47	104.653515.44364	6.780.000	74.3276134.9794	
48	77.2241114.82971	5.210.000	48.10376106.3445	
49	91.6887120.38478	4.500.000	51.66016131.7173	
50	46.740215.20631	3.070.002	16.8803576.60005	
51	48.6684415.27461	3.190.002	18.67448	78.66241
52	67.2654215.68385	4.290.000	36.4678598.06299	
53	105.197114.46822	7.270.000	76.78656133.6076	
54	90.5544215.02919	6.030.000	61.04238120.0665	
55	83.4569715.36965	5.430.000	53.27637113.6376	
56	63.0268815.26499	4.130.000	33.0518193.00196	
57	106.785814.43399	7.400.000	78.44251135.1291	
58	72.7280714.89834	4.880.000	43.47297101.9832	
59	50.5288816.01885	3.150.002	19.0734981.98427	
60	77.4614815.32606	5.050.000	47.36648107.5565	
61	66.2081515.15169	4.370.000	36.4555595.96074	
62	63.81324	15.0183	4.250.000	34.3225893.30391
63	90.1806715.44403	5.840.000	59.85401120.5073	
64	51.0437915.08635	3.380.001	21.419580.66807	
65	48.706213.55181	3.590.000	22.095275.31719	
66	107.993515.17715	7.120.000	78.19091137.7961	
67	98.9745815.35017	6.450.000	68.83223129.1169	
68	107.767414.88107	7.240.000	78.54621136.9886	
69	76.2751615.48154	4.930.000	45.87484106.6755	
70	76.280515.14155	5.040.000	46.54782106.0132	
71	79.8678815.05135	5.310.000	50.31231109.4235	
72	104.448915.39215	6.790.000	74.22416134.6737	
73		68.8615.24111	4.520.000	38.9318298.78817
74	90.1385715.10052	5.970.000	60.48645119.7907	
_cons	-33.6600415.82121	-2.130.034	-64.72733-2.592751	

.regeitmenvdcsrdhsedeapseayd

Source	SS	df	MS	Number of obs =	724
				F(5, 718)	= 57.57
Model	25164865.8	55032973.17	Prob > F	=	0.0000
Residual	62765711.5	71887417.4255	R-squared	=	0.2862
				AdjR-squared	= 0.2812
Total	87930577.4	723121619.056	Root MSE	=	295.66

Variable	Coef.	Std. Err.	tP > t	[95% Conf. Interval]
envd	24.5997978	19797	0.310.753	-128.9242178.1238
csrd	-56.5911367	14304	-0.840.400	-188.411375.22902
hsed	19.86852	79.777	0.250.803	-136.7556176.4926
eaps	-.6907711	979351	-0.350.727	-4.5767783.195236
eayd	1.250969	074322716.830	0.000	1.1050531.396885
_cons	34.6187170	60944	0.490.624	-104.0069173.2444

.vif

Variable	VIF	1/VIF
csrd	1.380.727009	
hsed	1.280.782535	
envd	1.100.908902	
eaps	1.050.955742	
eayd	1.020.983309	
Mean VIF	1.16	

.hettest

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
 Ho: Constant variance

Variables: fitted values of eitm

chi2(1) = 381.25

Prob>chi2=0.0000

.testparmi.croid

(1)2.croid=0(2)3.croid=0(3)4.croid=0(4)5.croid=0(5)6.croid=0(6)7.croid=0(7)8.croid=0(8)9.croid=0

(9)10.croid=0(10)11.croid=0(11)12.croid=0(12)13.croid=0(13)14.croid=0(14)15.croid=0(15)16.croid=0(16)17.croid=0(17)18.croid=0(18)19.croid=0(19)20.croid=0(20)21.croid=0(21)22.croid=0(22)23.croid=0(23)24.croid=0(24)25.croid=0(25)26.croid=0(26)27.croid=0(27)28.croid=0(28)29.croid=0(29)30.croid=0(30)31.croid=0(31)32.croid=0(32)33.croid=0(33)34.croid=0(34)35.croid=0(35)36.croid=0(36)37.croid=0(37)38.croid=0(38)39.croid=0(39)40.croid=0(40)41.croid=0(41)42.croid=0(42)43.croid=0(43)44.croid=0(44)45.croid=0(45)46.croid=0(46)47.croid=0(47)48.croid=0(48)49.croid=0(49)50.croid=0(50)51.croid=0(51)52.croid=0(52)53.croid=0(53)54.croid=0(54)55.croid=0(55)56.croid=0(56)57.croid=0(57)58.croid=0(58)59.croid=0(59)60.croid=0(60)61.croid=0(61)62.croid=0(62)63.croid=0(63)64.croid=0(64)65.croid=0(65)66.croid=0

(66)67.croid=0(67)68.croid=0(68)69.croid=0(69)70.croid=0(70)71.croid=0(71)72.croid=0(72)73.croid=0(73)74.croid=0

F(73, 645)=0.47Prob>F=1.0000

.estimatestableroceretagptmeitm,stats(chi2dfNr2)setp

Variable	roce	reta	gptm	eitm
envd	-7.6326799-7.8698786		8.433019710.545225	
	7.4627209	7.4710158	19.57322	2.604509
	-1.02	-1.05	0.43	4.05
	0.3068	0.2926	0.6667	0.0001
csrd	-13.997541-14.147868-39.4848887.5418804 4.12434		4.1289243	10.8173162.2363641
	-3.39	-3.43	-3.65	3.37
	0.0007	0.0007	0.0003	0.0008
hsed	13.804984	15.627923	16.306313-2.6175369	
	4.7075517	4.7127841	12.3469642.6640356	
	2.93	3.32	1.32	-0.98
	0.0035	0.0010	0.1871	0.3262
eaps	.95330534	.95404274	.40724516.35071606	
	.14791398	.14807838	.38794868.06620844	
	6.44	6.44	1.05	5.30
	0.0000	0.0000	0.2942	0.0000
eday	.05740725	.05566511-.01803757.22643471		
	.00303865	.00304203	.00796977.00429958	
	18.89	18.30	-2.26	52.66
	0.0000	0.0000	0.0240	0.0000
roic				
roid				
2	5.1767452	3.8992338	68.536747	
	5.737013	5.7433898	15.047034	
	0.90	0.68	4.55	
	0.3672	0.4974	0.0000	
3	-21.157352-22.944866		36.776881	
	5.7444932	5.7508783	15.066653	
	-3.68	-3.99	2.44	
	0.0002	0.0001	0.0149	
4	9.5410362	8.1446765	61.260802	
	5.7287754	5.7351429	15.025428	
	1.67	1.42	4.08	
	0.0963	0.1561	0.0001	
5	3.3075413	2.380222	55.897071	
	5.5950498	5.6012688	14.674693	

	0.59	0.42	3.81
	0.5546	0.6710	0.0002
6	5.817569	4.5774486	71.921944
	5.7521257	5.7585193	15.086672
	1.01	0.79	4.77
	0.3122	0.4270	0.0000
7	12.443807	11.234513	97.11463
	5.7239832	5.7303455	15.01286
	2.17	1.96	6.47
	0.0301	0.0504	0.0000
8	16.481877	15.387422	90.067665
	6.7576216	6.7651328	17.723886
	2.44	2.27	5.08
	0.0150	0.0233	0.0000
9	7.840021	6.6222905	71.386043
	5.4400388	5.4460855	14.268131
	1.44	1.22	5.00
	0.1500	0.2244	0.0000
10	11.70198	10.486701	80.319146
	5.768965	5.7753773	15.130838
	2.03	1.82	5.31
	0.0429	0.0699	0.0000
11	18.616791	17.615862	76.508229
	5.7418529	5.748235	15.059728
	3.24	3.06	5.08
	0.0012	0.0023	0.0000
12	-3.3089907	-4.588462	65.663154
	5.7722363	5.7786522	15.139418
	-0.57	-0.79	4.34
	0.5667	0.4275	0.0000
13	4.9340017	3.8256787	61.972894
	5.745923	5.7523097	15.070403
	0.86	0.67	4.11
	0.3908	0.5062	0.0000
14	42.363697	41.143314	98.804013
	5.6690283	5.6753295	14.868724
	7.47	7.25	6.65
	0.0000	0.0000	0.0000
15	3.9141814	2.6667209	55.63893
	5.5576209	5.5637983	14.576525
	0.70	0.48	3.82
	0.4815	0.6319	0.0001

16	9.2089253	8.1867801	93.353672
	5.9911085	5.9977677	15.713476
	1.54	1.36	5.94
	0.1248	0.1727	0.0000
17	16.371995	15.155048	79.058373
	5.7559503	5.7623482	15.096703
	2.84	2.63	5.24
	0.0046	0.0087	0.0000
18	15.439323	14.269533	100.04234
	5.7075074	5.7138513	14.969647
	2.71	2.50	6.68
	0.0070	0.0128	0.0000
19	16.167445	14.939606	68.562071
	5.6705028	5.6768057	14.872591
	2.85	2.63	4.61
	0.0045	0.0087	0.0000
20	8.4172634	7.4629234	52.478419
	5.787569	5.7940019	15.179632
	1.45	1.29	3.46
	0.1463	0.1982	0.0006
21	-7.1021127	-8.155755	64.69636
	5.7945943	5.801035	15.198058
	-1.23	-1.41	4.26
	0.2208	0.1602	0.0000
22	6.2535011	5.0118501	97.643235
	5.7240226	5.7303849	15.012963
	1.09	0.87	6.50
	0.2750	0.3821	0.0000
23	4.5193065	3.2937504	62.898957
	5.5444504	5.5506131	14.541981
	0.82	0.59	4.33
	0.4153	0.5531	0.0000
24	-6.4309306-7.8026116-		
	32.213413 6.1234488		6.130255
		16.060578	
	-1.05	-1.27	-2.01
	0.2940	0.2035	0.0453
25	12.755919	11.534569	91.429669
	5.7098751	5.7162217	14.975857
	2.23	2.02	6.11
	0.0258	0.0440	0.0000
26	-14.661093-15.944611		36.072007

	5.7763916	5.7828122	15.150316
	-2.54	-2.76	2.38
	0.0114	0.0060	0.0176
27	10.567332	9.1183684	86.12233
	5.8568447	5.8633547	15.361329
	1.80	1.56	5.61
	0.0717	0.1204	0.0000
28	6.2011187	4.9920113	65.200314
	5.7318199	5.7381909	15.033414
	1.08	0.87	4.34
	0.2797	0.3846	0.0000
29	5.6359624	4.4323659	81.912597
	5.7099867	5.7163334	14.97615
	0.99	0.78	5.47
	0.3240	0.4384	0.0000
30	-3.5010654-4.8113037		63.498751
	5.8632856	5.8698027	15.378222
	-0.60	-0.82	4.13
	0.5506	0.4127	0.0000
31	8.6490231	7.3956302	86.904061
	5.7695209	5.7759337	15.132296
	1.50	1.28	5.74
	0.1343	0.2009	0.0000
32	-.51467575-3.6347281		39.018539
	5.774839	5.7812578	15.146244
	-0.09	-0.63	2.58
	0.9290	0.5298	0.0102
33	3.262068	1.9822356	68.771506
	5.7493422	5.7557327	15.079371
	0.57	0.34	4.56
	0.5707	0.7307	0.0000
34	3.5006272	2.2781937	75.053424
	5.5313847	5.5375329	14.507712
	0.63	0.41	5.17
	0.5270	0.6809	0.0000
35	11.961035	10.865333	70.578293
	7.1967342	7.2047335	18.87559

	1.66	1.51	3.74
	0.0970	0.1320	0.0002
36	6.2682872	5.0210703	95.615509
	5.8716824	5.8782088	15.400245
	1.07	0.85	6.21
	0.2861	0.3933	0.0000
37	.78100184 - .52804013		42.844276
	5.8230404	5.8295127	15.272667
	0.13	-0.09	2.81
	0.8933	0.9279	0.0052
38	5.3019247	4.0464655	79.526469
	5.7266079	5.7329731	15.019744
	0.93	0.71	5.29
	0.3549	0.4806	0.0000
39	13.389518	14.290086	54.007073
	7.0359784	7.043799	18.45396
	1.90	2.03	2.93
	0.0575	0.0429	0.0035
40	.35133035	-.9412336	75.198774
	5.775924	5.782344	15.14909
	0.06	-0.16	4.96
	0.9515	0.8707	0.0000
41	-10.715791-12.095432		72.116618
	5.7516791	5.7580722	15.0855
	-1.86	-2.10	4.78
	0.0629	0.0361	0.0000
42	1.3238664	.05287209	48.074327
	5.5797224	5.5859243	14.634492
	0.24	0.01	3.29
	0.8125	0.9925	0.0011
43	-2.8968361-4.7736296		16.28603
	5.838154	5.8446432	15.312307
	-0.50	-0.82	1.06
	0.6199	0.4144	0.2879
44	18.40616	17.153001	75.695613
	5.6732718	5.6795777	14.879854
	3.24	3.02	5.09
	0.0012	0.0026	0.0000
45	11.189753	10.135924	87.475364

	5.7059634	5.7123057	14.965597
	1.96	1.77	5.85
	0.0503	0.0765	0.0000
46	4.6053169	3.2824087	58.168326
	5.9461061	5.9527153	15.595443
	0.77	0.55	3.73
	0.4389	0.5815	0.0002
47	7.5678991	6.3718944	104.65348
	5.8882263	5.8947711	15.443636
	1.29	1.08	6.78
	0.1992	0.2801	0.0000
48	-3.8972273	-5.138392	77.224111
	5.6541545	5.6604391	14.829713
	-0.69	-0.91	5.21
	0.4909	0.3643	0.0000
49	20.639274	19.588014	91.688708
	7.7721456	7.7807845	20.384779
	2.66	2.52	4.50
	0.0081	0.0121	0.0000
50	1.4275401	.12280862	46.740203
	5.7977403	5.8041846	15.20631
	0.25	0.02	3.07
	0.8056	0.9831	0.0022
51	5.1179102	3.9261561	48.668445
	5.823781	5.8302542	15.274609
	0.88	0.67	3.19
	0.3798	0.5009	0.0015
52	6.1383562	4.8821411	67.265418
	5.9798122	5.9864589	15.683848
	1.03	0.82	4.29
	0.3050	0.4151	0.0000
53	15.740431	14.501752	105.19707
	5.516329	5.5224604	14.468224
	2.85	2.63	7.27
	0.0045	0.0088	0.0000

54	1.6512139. 446262859 0.554422 5.7302084	5.7365776	15.029187
	0.29	0.08	6.03
	0.7733	0.9380	0.0000
55	4.3509183	3.4381827	83.456974
	5.8600187	5.8665321	15.369653
	0.74	0.59	5.43
	0.4581	0.5580	0.0000
56	-16.947096 -16.851338		63.026881
	5.8201131	5.8265822	15.264989
	-2.91	-2.89	4.13
	0.0037	0.0040	0.0000
57	11.659772	10.452878	106.7858
	5.5032768	5.5093938	14.433991
	2.12	1.90	7.40
	0.0345	0.0582	0.0000
58	8.6183914	7.2805945	72.728071
	5.6803198	5.6866335	14.898339
	1.52	1.28	4.88
	0.1297	0.2009	0.0000
59	3.6113343	1.9112808	50.52888
	6.1075382	6.1143268	16.018847
	0.59	0.31	3.15
	0.5545	0.7547	0.0017
60	12.917829	11.653435	77.461477
	5.8433971	5.8498921	15.326058
	2.21	1.99	5.05
	0.0274	0.0468	0.0000
61	1.6040837	.30059371	66.208147
	5.7769146	5.7833357	15.151688
	0.28	0.05	4.37
	0.7814	0.9586	0.0000
62	3.7760553	2.518135	63.813243
	5.7260574	5.732422	15.0183

	0.66	0.44	4.25
	0.5098	0.6606	0.0000
63	1.085988-.19213772		90.180671
	5.888378	5.894923	15.444034
	0.18	-0.03	5.84
	0.8537	0.9740	0.0000
64	-2.5923002-3.8737217		51.043789
	5.7520018	5.7583952	15.086347
	-0.45	-0.67	3.38
	0.6524	0.5014	0.0008
65	-7.9022274-9.1679089		48.706199
	5.1669261	5.1726691	13.55181
	-1.53	-1.77	3.59
	0.1267	0.0768	0.0004
66	-9.5522089-10.863251		107.9935
	5.7866217	5.7930536	15.177148
	-1.65	-1.88	7.12
	0.0993	0.0612	0.0000
67	7.7404183	6.5493982	98.974582
	5.8525913	5.8590965	15.350173
	1.32	1.12	6.45
	0.1864	0.2641	0.0000
68	7.5645063	6.2728025	107.76741
	5.673737	5.6800434	14.881074
	1.33	1.10	7.24
	0.1829	0.2698	0.0000
69	5.5998951	4.7055128	76.275157
	5.9026794	5.9092403	15.481544
	0.95	0.80	4.93
	0.3431	0.4262	0.0000
70	10.170001	8.9753554	76.2805
	5.7730491	5.7794659	15.14155
	1.76	1.55	5.04
	0.0786	0.1209	0.0000
71	12.583776	11.695966	79.867883
	5.7386603	5.7450389	15.051355

		2.19	2.04	5.31	
		0.0287	0.0422	0.0000	1.814731 10.591329 104.44893
		5.8685943	5.8751173	15.392145	
		2.01	1.80	6.79	
		0.0445	0.0719	0.0000	
73		5.0517289	3.6682418	68.859996	
		5.8110068	5.8174658	15.241105	
		0.87	0.63	4.52	
		0.3850	0.5286	0.0000	
74		9.9873552	8.7694202	90.138571	
		5.7574059	5.7638054	15.100521	
		1.73	1.52	5.97	
		0.0833	0.1286	0.0000	
_cons		-8.0507493	-8.5060822		
		33.6600424	5.662835	6.0	
		321829			
			6.03888		
78					
			15.8212		
06					
			2.36300		
7					
		-1.33	-1.41	-2.13	1.93
		0.1825	0.1594	0.0338	0.0537

chi2					
df					
N		724	724	724	723
r2		.60844449	.60343112	.37417789	.80948612

Biodata

A. Personal Data

Full Name: Adedolapo Esther Ajayi
Address: 22b, Ranch Avenue, kolapoIshola GRA, Akobo, Ibadan.
E-mail: ajayidlp32@gmail.com
Phone No: +2348106879183
Date of Birth: October 23, 1996
Place of Birth: Ojo LG, Lagos State
Nationality: Nigerian
Next of Kin: David Ajayi
22b, Ranch Avenue, Kolapo Ishola GRA Akobo Ibadan.

B. Educational Background

Educational Institutions Attended with Dates and Qualifications

- MSc. in Accounting – Lead University, Ibadan (in view)
- BSc Accounting – ESEP le Berger University, Benin 2016
- S.S.C.E – Saint Saviour’s High School, Igando. Lagos 2013

C. Working Experience with Dates

- Morgan Hunt Konsultancy Ltd (Business Development Manager) Dec 2020 – Till Date
- Sterling Bank Plc (Retail Manager) Mar 2019 – Aug 2020
- Ministry of Information, Culture & Tourism Ibadan Oyo State(NYSC) Batch ‘B’ 2018

D. Membership of Academic and Professional Bodies

- i. Associate, Association of Forensic Accounting Researchers (AFAR)

Do Not Copy, Lead City University, Nigeria

The University Compliance Certification

This is to certify that this thesis written by Adedolapo Esther AJAYI with the matriculation number LCU/PG/002011 in the Department of Management and Accounting, Faculty of Management and Social Sciences, Lead City University, Ibadan, Oyo State, Nigeria is in full compliance with the approved University Format and Style.

Signature

Date

Do Not Copy, Lead City University, Nigeria

Ajayi_Adedolapo_E_1-5.docx LCU LIBRARY

ORIGINALITY REPORT

11 %	11 %	4 %	1 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	iuokada.edu.ng Internet Source	7 %
2	www.researchgate.net Internet Source	2 %
3	www.scholink.org Internet Source	2 %
4	www.abacademies.org Internet Source	1 %

Exclude quotes On
Exclude bibliography On
Exclude matches < 1%

