Environmental Disclosure, Financial Reporting Quality and Financial Performance of Quoted Manufacturing Companies in Nigeria

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Certification Page

This is to certify that Jadesola A. Adepoju with matriculation number LCU/PG/002442 carried out this research work titled "Environmental Disclosure, Financial Reporting Quality and Financial Performance of Quoted Manufacturing Companies" in the Department of Management and Accounting, Faculty of Management and Social Science, Lead City University, Ibadan, Oyo state, for the award of Doctor of Philosophy Degree (Ph .D) in Accounting and this has not been previously submitted.

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Dedication Page

This work is dedicated to the Almighty God.

Acknowledgement

My deepest gratitude goes to the Almighty God, the Creator of heavens and earth, the one and only Sustainer whose unconditional love, guidance and infinite mercies kept me all through the period of inception and completion of this program. My sincere appreciation goes to Lead City University, headed by the Vice-Chancellor in person of Prof, Adeyemo Kabiru Aderemi who am also delighted to be his supervisee and all the staff of post graduate school headed by Prof. A .Oredin, the library unit of the institution and other staff members for the possibility given to me to undergo this programme. Writing this research work, I sincerely appreciate the effort of the head of the department Dr. T.M Akinbo, and all members of staff at the Department of Management and Accounting for the show of love and their great contribution to the success of this research work. I say a big thank you all.

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Abstract

The study was designed to determine the relationship between Environmental Disclosure, Financial Reporting Quality and Financial Performance of Manufacturing Companies in Nigeria. The specific objectives Centre on the evaluation of the extent of Environmental disclosure practices among Manufacturing Companies in Nigeria; analyses of the determinants of environmental disclosure in financial reports, examining the effects of environmental disclosure on the financial performance of manufacturing companies in Nigeria, determining the influence of financial reporting quality on the financial performance of manufacturing companies in Nigeria, identify the dynamic relationship among environmental disclosure, financial report quality and financial performance of companies. This study adopt ex-post facto design because the study rely on secondary data on environmental accounting disclosure and financial performance of listed 43 manufacturing companies in Nigeria as data was extracted from their published annual reports between the period of 2017-2023. This work is been anchor on Stakeholder Theory which demands that managers should develop and run their enterprises in a way that is consistent with the demands of the theory i.e., stakeholder's value rather than shareholder's value maximization. This study used panel data to explore the relationship between environmental Disclosure, financial reports and financial performance of manufacturing companies. The motivations for using panel data is the ability to control for unobservable firm heterogeneity The use of manufacturing companies in this work is because manufacturing companies are prone to environment issues that affect the business. Multiple regression was adopted for the data analysis with the best unbiased, efficient and adopts a less complex technique in analyzing data. The findings shows that environmental transparency improved significantly, with disclosure scores increasing from 1.00 in 2017, more significant upward trend is observed from 2020, with scores climbing to 1.12, 1.21, and peaking at 1.24 in 2022.The work was able to identify that Profitable companies are likely to disclose more environmental information to enhance their reputation and meet growing stakeholder expectations for corporate social responsibility (CSR),also Firm Size (FS) had a positive coefficient which shows that larger companies are more likely to engage in environmental disclosure, but the effect is minimal. And that larger firms tend to face greater scrutiny from regulators and stakeholders, which may push them to be more transparent about their environmental impact. Regression analysis further examined the determinants of environmental disclosure in financial reports, focusing on leverage, return on assets (ROA), More so, the study found a positive and significant relationship between financial reporting quality (FRQ) and firm performance. The study also underscores the dynamic relationships between environmental disclosure, financial reporting quality, and financial performance and this highlights the importance of integrating environmental practices within corporate governance frameworks to achieve long-term sustainability and enhanced financial performance. This study also touches on regulatory influences, further research could investigate the direct impact of specific Nigerian regulations or international environmental reporting standards on the quality and extent of environmental issues disclosures. This would help assess the effectiveness of policy interventions and guide future regulatory developments.

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Chapter One
Introduction

1.1 Background to the Study

Financial performance is a critical consideration for every profit-making company. It is the bottom line for assessing the goals of the companies. it refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives are being met. It is the process of measuring the results of a company's policies and operations in financial terms. It is used to measure company's overall financial health and balance over a given period of time.

Financial performance has attracted considerable academic and professional discourse because the overall financial performance of various firms including banks, among other institutions, determines to a large extent the economic performance of Nigeria. The market- based measures of financial performance (price to earnings ratio, earnings yield and dividend yield) are considered as proxies for banks financial performance. Financial performance refers to the degree to which financial objectives are being met. It is the process of measuring the results of a company's policies and operations in financial terms[1]. It is used to measure company's overall financial health and balance over a given period of time, in every organizational context, performance and production are measured to determine the capability and growth of a business enterprise within a given period of time. Across several scholarly discourses, financial performance has been discussed as a critical priority in all economic decision making relating to public and private companies to recognize the difficult location and areas. It is based on many decisions such as executive compensation, stock prices, stock risk, decision related to investment and many other cases[2]. The

performance of companies depends on administrative decisions which are implemented within the company and is proven by the ability of managers to manage a business and maximize the owner's wealth. In more extensive sense, it refers to the degree to which financial objective being or has been accomplished. It is the process of measuring company's policies and operation in monetary terms. It is used to measure company's overall financial health over a given period of time. Financial performance of a firm is reflected in its corporate success. It involves the use of organization assets to generate revenue. Financial performance enables management to give account of their stewardship to shareholders on firm profitability, value and firm growth[3].

The performance of an organization is now being judged not only on the basis of its financial results, but also with regards to its contribution to protect and improve environment. Thus, environmental Disclosure has become an important variable in the models used by the investors and creditors to determine the risk associated with their investment. As a result, accounting of environmental issues and the disclosure of such issues with their associated cost in the annual reports or by other medium has become an important part of corporate accounting and reporting system.

The nature of a company activities defines the risk attached to such business and risk constitute a significant factor in the profitability of the firm's operation. Higher financial risks constitute enormous treats to firm's profitability, though they are likely to attract huge amount of profits. With the aids of the financial performance, stakeholders were able and thus encourage them to make decision, Analysing financial ratios during a specific time is the best way to assess the financial performance of companies[4].

Environmental issues have increasingly drawn the attention of the world at different levels, and corporate social and environmental responsibility has become a major contemporary focus of business, government and community attention globally[5]. However, the increase has largely influenced business to engage in environmental management and practice including environmental reporting, Environmental accounting and reporting has become one of the major issues that organisations grapple with on a daily basis. The turn of events in corporate sustainability and growth has brought about demands for Stakeholder based accounting and reporting. The success of every corporate organisation is dependent mostly on its operational environment as no business can survive without the environment. The role of the environment and its proven immense contribution to the continued success of corporate organisations, have necessitated the concept of environmental accounting as part of corporate accounting system.[4]Environmental accounting describes the effort of accounting standard setters, professional organizations and governmental agencies to get corporations to participate proactively in cleaning and sustaining the environment and to describe fully, their environmental activities in either their annual reports or stand-alone environmental disclosure[6].

Environmentally-sensitive manufacturing companies are whose operations have significant influence on their environment. They are essentially manufacturing company. A vivid understanding of environmental disclosure is critical for the company's stakeholders, such as management, investor, creditors, accountants and auditors. Nigerian companies have been under increasingly pressure to disclose information on their environmental practices for years. Environmental disclosure is about company's disclosing information in respect of their environmental

management practices. The proposition is that disclosing information regarding a company's environmental practices may be beneficial to the company's reputation and by extension help to improve the company's financial performance[7]. Environmental issues have increasingly drawn the attention of the world at different levels, and corporate social and environmental responsibility has become a major contemporary focus of business, government and community attention globally. As a result interest in corporate disclosure of environmental information has grown in recent years. However, attention on environmental disclosure has been confined to the companies of developed countries, while the developing countries suffer from environmental disclosure practice in corporations. Among the largest consumers of natural and social resources, business organizations have come under increased pressure to justify the nature and scale of their consumption[8].

It is well recognized that environmental performance of the manufacturing companies on the natural environment are very high. In addition to the environmental issues that affects that result from normal operation of the manufacturing company's activities, the effects maybe the result of occasional events. During the last four decades, the manufacturing companies have witnessed several critical environmental incidents. The occurrence of environmental incidents as a result of activities of manufacturing companies have contributed to the increase of environmental awareness and put the accounting sector under societal pressure to reduce its impact on the environment[9]. However, the increase has largely influenced business to engage in environmental management and practice including environmental reporting, The obvious difference between environmental information disclosure and financial information disclosure lies in that financial information is mandatory disclosure items which have more obvious relationship with financial performance, while

environmental information is largely voluntary disclosure items which have great uncertainty about the relationship with financial performance, Disclosures are cornerstone of transparency that can decrease corruption and mismanagement[10].

Disclosures communicate information to various stakeholders who have access to and are willing to receive such information. Manufacturing companies make financial disclosures to shareholders and these disclosures are also important to other stakeholders. Companies make non-financial disclosures to stakeholders, and these are also important to shareholders. What is important is weather these disclosure are relevant to the stakeholders, and increase the quality of information shared with them. Sharing high-quality information with stakeholders can increase the trustworthiness of business; otherwise stakeholders' can become vulnerable in that relationship with the company. The trustworthiness earned by companies can translate into product sales, lower cost of capital, and so forth, resulting in benefits to firms[11].

Most of the manufacturing companies in Nigeria are silent on environmental information disclosure. Accounting for environment helps in accurate assessment of costs and benefits of environmental preservation measures of companies. Environmental accounting is an inclusive aspect of sustainability accounting and reporting, thus, generates reports that provide environmental information to help make internal management decisions and external use by stakeholders. Environment is the condition of a particular geographical area especially as affected by various human activities. It is the status (positive or negative) stands of the social, economic and health of the host community in which the economic activity of manufacturing or production takes place[12].

The performance of an organization can however be judged not only on the basis of its financial results, but also with regards to its contribution to protect and improve its environment. Thus, environmental Disclosure has become an important variable in the models used by the investors and creditors to determine the risk that is associated with their investment. As a result, accounting of environmental issues and the disclosure of such issues with their associated cost in the annual reports or by other medium has become an important part of corporate accounting and reporting system[13].

Environmental disclosure practice has grown significantly over the last years, especially in developed countries[14]. However, environmental disclosure is still weak and evolving in developing in countries including Nigeria. According to a survey made by price water house coopers (PWC) in 2019 revealed that most investors are dissatisfied with current environmental reporting practice and are seeking improved sustainability disclosures, in regard to this companies have a pressing need to provide more reliable information about their environmental disclosure in their annual reports. Companies are very conscious of involvement of controversial events that may damage the company's reputation and goodwill in the market, and on the other hand negatively affect the financial, market performance and sustainable growth of the company. The understanding that being socially and environmentally responsible can facilitate long-term growth goals, raise productivity and optimize both stakeholders and shareholders' value has made sustainability issue a major problem for business of all size or age to preserve capital for future generations[15].

There is the increased expectation of all companies to be more transparent in how they threat the environment, handle their corporate governance issues, treat their

employees and communities, corporations have become more sensitive to issues and stakeholder concerns, and are striving to become better corporate citizens. Whether the motivation is concern for society and environment, government regulation, stakeholder pressures or economic profit, the result is that managers must make significant changes to manage their social, economic and environmental impact more effectively. Base on researches it was explained that manufacturing company were the only organizations with resources, technology, global reach and ultimately, the motivation to achieve sustainability. In response to their sustainable development policies and practices, many companies claim that they recognize their social and environmental responsibilities in addition to their economic responsibilities and seek to manage and account for these activities in an appropriate manner. Statistics from the Global Reporting Initiative (GRI) reflect the trend in reporting and as noted by Peiyuan, Xubiao and Ningdi, the number of enterprises writing sustainability reports based on GRI framework worldwide increased. The number of sustainability reports registered on the GRI Reports list increased by 22 percent.

Environmental accounting describes the effort of accounting standard setters, professional organizations and governmental agencies to get corporations to participate proactively in cleaning and sustaining the environment and to describe fully, their environmental activities in either their annual reports or stand alone environmental disclosure. Environmental accounting is seen by corporate managers and environmental advocates alike as a necessary complement to improved environmental decision-making in organizations[16]. Although environmental regulation, pressure group activity, and consumer awareness is weak in developing countries like Nigeria, some corporations in these countries are becoming conscious of their

international market and are making appreciable effort as regards environmental practices. The result of sampled industries in Nigeria shows that few companies are becoming environmental friendly. Therefore, an understanding of the basis of this reporting system and how it affects corporate performance is very crucial in determining the essence of its application. It provided the justification for this study whether the quality of reporting reflected on the performance of manufacturing companies in Nigeria[17].

Hence, this study will focus only on the environmental information presented by the selected quoted manufacturing companies operating in different sectors in Nigeria using their annual reports. The study will ascertain the extent of disclosure (mandatory or voluntary) of information in annual reports of such manufacturing companies to assess the need for specific regulatory framework (including accounting guidelines, principles and standards) in the area of Environmental Accounting Reporting (EAR). Another importance of this research is based on reforms which have been made in Nigeria has shown recent developments in the Nigerian manufacturing industry have led to debates about the best practice to manage the sector and to address the effects of manufacturing project upon communities. All these reforms have strong disclosure implications which can be addressed by environmental disclosure[18]. In recent years, there has been a global shift towards environmental sustainability, driven by concerns over climate change, resource depletion, and environmental degradation. As a result, stakeholders including investors, regulators, and consumers are increasingly interested in the environmental practices of companies. Nigeria, like many other countries, has been developing regulations and guidelines related to environmental reporting and sustainability. These

regulations aim to promote transparency, accountability, and responsible business practices among manufacturing companies, thereby contributing to environmental protection and sustainable development. Environmental disclosure refers to the extent to which companies communicate information about their environmental policies, initiatives, performance, and impacts to stakeholders. While some companies may voluntarily disclose environmental information as part of their corporate social responsibility efforts, others may be required to disclose such information to comply with regulatory requirements. Financial reporting quality reflects the accuracy, reliability, and transparency of financial information disclosed by companies in their financial statements. High-quality financial reporting is essential for decision-making by investors, creditors, and other stakeholders, as it provides insights into a company's financial health, performance, and prospects. Financial performance measures the effectiveness of a company in generating profits and creating value for its shareholders. Key indicators of financial performance include profitability, liquidity, solvency, and market valuation. While there is a growing body of literature examining the relationship between environmental disclosure, financial reporting quality, and financial performance in various contexts, there is limited research focusing specifically on manufacturing companies in Nigeria. Understanding how environmental disclosure practices and financial reporting quality influence the financial performance of manufacturing companies in Nigeria is essential for addressing this gap in the literature and informing policy, practice, and research in the region. Overall, the background of the study underscores the importance of examining the interplay between environmental disclosure, financial reporting quality, and financial performance within the context of manufacturing companies in Nigeria. By exploring this relationship, the study aims to contribute to the broader understanding

of corporate sustainability, governance, and performance in emerging markets like Nigeria.

1.2 Statement of the Problem

Environmental Disclosure and Quality Reporting in this era of global industrialization have become of a great concern in other to ensure a quality environment. The identification, measurement and allocation of environment costs and integration of these cost into business and encompasses the way of communicating such information to company's stakeholders is been referred to as Environmental Accounting. It is a comprehensive approach to ensure that good corporate governance which includes transparency in its societal activities. Problem People all over the world express considerable concern about the damage to the environment by manufacturing companies and its effects on their lives. There have been calls for firms to engage in activities on a sustainable and responsible manner[19]. Also, the increasing awareness that companies should be held responsible for the consequential social impact of their activities on the host communities and other stakeholders has put pressure on companies to reassure the public of their good behavior. As a result, companies no longer lay all emphasis on the maximization of shareholders wealth alone but now embrace activities that tend to maximize the benefits accruable to all stakeholders. Companies are now conscious that involvement in controversial events that may damage the company's credibility and reputation in the market, might negatively affect both the financial and market performance and the sustainable growth of the company. This, to a larger extent, means that companies are made to respond positively to issues of sustainability, making it clear that sustainable development is an important concept to the future fortunes of nations and individuals. The realization that being socially and environmentally responsible can

facilitate long-term growth goals, raise productivity and optimize shareholder value has made sustainability issue a major concern for businesses of all sizes to preserve capital for future[20]. . Manufacturing companies make financial disclosures to shareholders and these disclosures are also important to other stakeholders. Companies make non-financial disclosures to stakeholders, and these are also important to shareholders. What is important is weather these disclosure are relevant to the stakeholders, and increase the quality of information shared with them. Sharing high-quality information with stakeholders can increase the trustworthiness of business; otherwise stakeholders can become vulnerable in that relationship with the company. The trustworthiness earned by companies can translate into product sales, lower cost of capital, and so forth, resulting in benefits to firms.

This consciousness has led an increasing number of firms to provide sustainability reports in addition to the traditional reporting framework. It is worthy to note here that while some countries of the world have made regulations for sustainability reports others are providing information about sustainability issues on a voluntary basis[21]. Some extant studies focused on the determinants which influenced sustainability disclosures in firms[22]. Others focused on the value relevance of sustainability disclosures while some examined the link between sustainability disclosures and firm performance which was closely related to this present study[23]. Furthermore, Sustainability disclosures and market value of firms in emerging economy. European Journal of Accounting, Auditing and Finance Research), documented the positive effect of different measures of sustainability and social and environmental disclosures on financial performance of firms established a negative insignificant effect of environmental disclosures on performance. Specifically, the

results showed that environmental information disclosure led to a decrease in both financial reporting and market proxies for financial performance while sustainability disclosures and market value of firms in emerging economy, documented a positive effect of environmental information disclosure on both financial reporting and market base proxies for manufacturing performance[24].

However, the value of the practice is still unknown. Previous studies have focused on the effect of firms' characteristics and level of Environmental disclosure but this study employs a different approach of, considering themes of environmental disclosure and their effect on profitability. The extent to which environmental disclosure leads to improved financial performance among listed companies still remains contentious. This study therefore seeks to determine the environmental disclosure, financial reporting quality and financial performance of quoted manufacturing companies in Nigeria.

1.3 Justification of the study

The justification for studying the relationship between environmental disclosure, financial reporting quality, and financial performance of quoted manufacturing companies in Nigeria lies in several key factors:

Sustainability Concerns: In recent years, there has been a growing global emphasis on environmental sustainability. Investors, regulators, and consumers are increasingly interested in the environmental practices of companies, including manufacturing firms. Understanding how these practices impact financial reporting quality and financial performance is crucial for both stakeholders and the companies themselves.

Regulatory Environment: Nigeria, like many other countries, has been developing regulations and guidelines related to environmental reporting and sustainability.

Exploring the relationship between environmental disclosure and financial reporting quality can help policymakers evaluate the effectiveness of existing regulations and identify areas for improvement.

Investor Decision Making: Investors are becoming more conscious of environmental issues and may use environmental disclosure as one of the factors in their investment decision-making process. Analyzing how environmental disclosure influences financial performance can provide valuable insights for investors seeking to integrate environmental factors into their investment strategies.

Competitive Advantage: Companies that effectively manage their environmental impact may gain a competitive advantage in the market. Understanding the relationship between environmental disclosure, financial reporting quality, and financial performance can help manufacturing companies identify opportunities to enhance their environmental practices and potentially improve their financial performance.

Stakeholder Trust and Reputation: Transparent environmental disclosure can enhance stakeholder trust and contribute to a positive corporate reputation. Conversely, poor environmental performance or inadequate disclosure can lead to reputational damage and loss of trust among stakeholders. Exploring the link between environmental disclosure, financial reporting quality, and financial performance can shed light on the importance of transparency and accountability in building stakeholder trust.

Long-Term Viability: Environmental sustainability is increasingly recognized as a critical factor for long-term business success. Companies that effectively manage their environmental risks and opportunities are better positioned to adapt to changing market conditions and regulatory requirements. Understanding the relationship

between environmental disclosure, financial reporting quality, and financial performance can help companies assess their long-term viability and resilience.

Overall, studying the relationship between environmental disclosure, financial reporting quality, and financial performance of manufacturing companies in Nigeria can provide valuable insights into the intersection of environmental sustainability and corporate financial management, benefiting various stakeholders including investors, policymakers, and the companies themselves.

1.4 Aim and Objectives of the Study

The aim of this study is to determine the relationship between Environmental Disclosure and Financial Report Quality and Financial Performance of Manufacturing Companies in Nigeria.

The objectives are to:

i. evaluate the extent of Environmental disclosure practice among Manufacturing Companies in Nigeria;
ii. analyses the determinants of environmental disclosure in financial reports
iii. examine the effects of environmental disclosure on financial performance of manufacturing companies in Nigeria.
iv. determine the influence of financial reporting quality on the financial performance of manufacturing companies in Nigeria
v. Identify the dynamic relationship among environmental disclosure, financial report quality and financial performance of companies.

1.5 Research Questions

This study aims to answer the following questions:

i. What is the extent of environmental disclosure practice in the manufacturing companies in Nigeria?

ii. What are the determinants of environmental disclosure in financial reporting in manufacturing companies in Nigeria?

iii. Does environmental disclosure has any effects on the financial performance of manufacturing companies in Nigeria?

iv. What is the effect of financial report quality on the financial performance of manufacturing companies in Nigeria.

v. Is there any dynamic relationship among environmental disclosure, financial report quality and financial performance of companies.

1.6 Hypotheses

Ho_1: Environmental disclosure are not Practice among Manufacturing Companies in Nigeria

Ho_2: There is no determinants of environmental disclosure in financial reports

Ho_3: Environmental disclosure has no effect on the financial performance of Nigerian companies

$H0_4$: Financial reporting quality has no effect on the financial performance of Nigerian companies

$H0_5$: There is no relationship between environmental disclosure, financial reporting quality and financial performance of manufacturing companies

1.7 Significance of the Study

This study is very essential to distinct classes of people in the area of business. First, this study will allow companies and their stakeholders to measure companies' adherence to the standard set forth in their statement of environmental principle and their various goals and objective on environmental disclosure. Also, it will enlighten the government on the implication of dangerous activities of some manufacturing firms; thereby help the government to design more sustainable and friendly local global system. In addition, the study will allow the various customers and stakeholders to harness the power in information needed to hold the company accountable. Most importantly, it will be of immense benefit to the general public as the study will expose the activities of manufacturing companies and the various checks that are put-in to ameliorate Environmental Disclosure and also how expenses incurred on environmental issues affected the company financial performance which will have effects on shareholder either positively or negatively

Finally, the student, both the undergraduate and post-graduate students of Accountancy, Business Administration, Banking and finance etc are in better position to benefit not just per-academic exercise but at least to be able to understand environmental issues, financial report and the relationship as per disclosure.

1.8 Scope of the Study

This study will focus on Environmental Disclosure and financial reporting quality of listed companies in the manufacturing sector in Nigeria covering a period of 2017-2023. The selection of this period is due to the fact that environmental issues were given rapt attention by Financial Report Analysts. The manufacturing sector was selected for the purpose of this study because of the environmental effects which some of their operations have on the environment. Also manufacturing companies are

more prone to environmental regulations and are confronted with more social responsibilities, environmental protection and statutorily obliged to comply with various enactments.

1.9 Limitation of the study

While investigating the relationship between environmental disclosure, financial reporting quality, and financial performance of quoted manufacturing companies in Nigeria offers valuable insights, it's essential to acknowledge the limitations of such a study. Some of these limitations include:

Data Availability and Reliability: Availability of comprehensive and reliable data on environmental disclosure, financial reporting quality, and financial performance may be limited, especially for manufacturing companies in Nigeria. This could potentially affect the robustness and generalizability of the findings.

Sample Size and Representation: The study may be constrained by the sample size of manufacturing companies included, which may not fully represent the diversity of the manufacturing sector in Nigeria. Additionally, the sample selection process may introduce biases that could impact the validity of the results.

Measurement Challenges: Assessing environmental disclosure, financial reporting quality, and financial performance involves using various metrics and methodologies, which may be subject to interpretation and measurement errors. Differences in measurement approaches across studies could make comparisons challenging.

Endogeneity and Causality: Establishing causality between environmental disclosure, financial reporting quality, and financial performance can be complex. Factors such as reverse causality, where financial performance influences environmental disclosure, may confound the results.

External Factors and Contextual Differences: The study may not fully account for external factors and contextual differences that could influence the relationship between environmental disclosure, financial reporting quality, and financial performance. Factors such as regulatory environment, industry characteristics, and economic conditions may vary over time and across regions, affecting the study's generalizability.

Quality of Environmental Disclosure: Assessing the quality of environmental disclosure can be subjective and may vary across companies. Differences in disclosure practices, disclosure standards, and disclosure materiality thresholds could impact the comparability and reliability of the findings.

Cross-sectional Nature of the Study: Cross-sectional studies provide insights into relationships at a specific point in time but may not capture dynamics and changes over time. Longitudinal studies could offer a more comprehensive understanding of the relationship between environmental disclosure, financial reporting quality, and financial performance.

Limitations of Financial Performance Metrics: Financial performance metrics such as profitability and market valuation may not fully capture the broader impacts of environmental disclosure and sustainability initiatives on a company's long-term value creation and resilience.

Addressing these limitations requires careful consideration of research methodologies, robust data collection strategies, and rigorous analytical techniques. Researchers should also acknowledge the inherent complexities and nuances associated with studying the relationship between environmental disclosure, financial reporting quality, and financial performance in the context of manufacturing companies in Nigeria

1.10 Operational Definition of Terms

Capital Environmental Investments: These are investments or propose expenditure made to prevent or reduce future environmental damage or conserve resources which are intended to be used on continuing basis.

Corporate Environmental Reporting: This is the process by which a corporation communicates information activities to a variety of stakeholders including employees, Local Communities, shareholders, customers, government and environmental groups

Environmental Accounting: This involves the identification, measurement and allocation of environmental costs and integration of these costs into business and encompasses the way of communicating such information to company stakeholders.

Environmental Disclosure: Environmental disclosure refers to the communication of information by companies regarding their environmental policies, practices, performance, and impacts. It involves the disclosure of data, narratives, and other forms of communication through various channels such as corporate reports, websites, and regulatory filings

Environmental Expenditure: These are costs of steps taken by a company or on its behalf by others to prevent, reduce or repair damage to the environment which results from its operating activities or to deal with the conservation of renewable and non- renewable resources.

Environmental issues: These are described as harmful effects of human activities on the bio-physical environment. These wastes include industrial waste and emissions (water and air).

Environmental Liability: These are legal or contractual obligation and company's management commitments to prevent, reduce or repair environmental damage which results from past transactions or events.

Environmental Policies: These are statements of financial intentions indicating that companies will undertake certain measures to curb environmental pollution and other such damages

Environmental Reporting: This is the production of narrative and numerical information on environmental impact or footprint for the accounting period under review. These reports can be found in a range of media including annual reports, stand-alone report and on company's websites

Financial performance: This is the financial proceeds from the activities of a company for a particular period of time that determines the progressiveness of the companies,

Financial Report: This is the document used to communicate financial information useful for making investment, credit and other business decisions. Such information includes general purpose, financial statements such as income statements, balance sheet, equity reports, cash flow reports and notes to the statement.

Financial Reporting Quality: Financial reporting quality refers to the reliability, transparency, and relevance of financial information presented in a company's financial statements. It reflects the degree to which financial reports accurately represent a company's financial position, performance, and cash flows. High-quality financial reporting is essential for decision-making by investors, creditors, regulators, and other stakeholders, as it provides reliable information for assessing a company's financial health and prospects.

Financial Reporting System (FRS): This is the presenting of financial data of a company's position, operating performance and funds flow for an accounting period.

Financial statement: It is a summary report that shows how a firm has used the funds entrusted to it by its stockholders, shareholders and lenders and also its current financial position.

Tobin's Q : Is a ratio that compares the market value of a company to the replacement cost of its assets. It's a concept used in financial economics to assess whether a company's stock is overvalued or undervalued.

Market share: This refers to the portion or percentage of total sales within a market that a particular company or product controls. It's a measure of a company's dominance within a specific industry or market segment relative to its competitors.

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Chapter Two

Literature Review

This chapter addresses a review of literature pointing out areas of agreement and disagreement of the scholars. Hence, a gap in knowledge is created where this study is interested to fill. This chapter is classified into the following headings:

2.1 Conceptual Review

2.2 Theoretical Review

2.3 Empirical Review

2.4 Conceptual Model

2.5 Summary of the Gap

2.1 Conceptual Review

2.1.1 Concepts of Environmental Disclosure

The concept of environmental disclosure reporting gained greater publicity right from the United National conference on environmental and development (UNCED) held in Rio de Janeiro in June 1992. Environmental disclosure is an environmental management strategy to communicate with stakeholders. Environmental disclosure is as well commonly regarded as corporation social responsibility reporting[1]. It can also be defined as the provision of public and private information, financial and non-financial information, and quantitative and non-quantitative information regarding to the organization's management of environmental issues. This information is provided in the annual report or in any other form, most of the time a separate environmental report is issued[2]. This separate environmental report

is often referred to as Environmental policy report. Helpful is the World Business Council for Sustainable Development in which has provided this definition of Environment policy reports, public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions. In short, such reports attempt to describe the company's contribution toward sustainable development[3].

An international survey of environmental reporting on the 100 largest companies by revenue from a sample of 2200 firms in 22 countries. They concluded that, nowadays, environmental reporting is widely adopted by organizations, as the 80 percent of the world's largest company's issues stand-alone reports. The Association of Chartered and Certified Accountants (ACCA), described environmental disclosures as a mixture of narratives, including objectives, explanations and numerical data, such as the amount of pollution, resources consumed for a specific accounting period on the environmental effect of a company. Environmental Disclosure is a formal statement that defines the environmental burden and efforts of an organization, including the objectives of the company, environmental policies and impacts regularly reported and released to the public[4].

There are two primary form of environmental disclosures. These are: Mandatory and Voluntary Disclosures. However, environmental disclosure is still voluntarily reported without any regulatory or legislative requirement in many countries including Nigeria[5]. This differentiates it from Corporate Social Responsibility (CSR). Environmental accounting, in terms of moral, economic, legal, ethical and discretionary standards is best defined as the achievement or perception of the achievement of the desired ends of society[6]. Environmental performance is an

asset that produces future rewards. It is the product of a competitive mechanism through which businesses signal to constituents their main characteristics with regards to their social standing.

Environmental accounting disclosure rankings are significant indicators of the organisational effectiveness of the company, signalling to the public the viability and social responsiveness of the company, creating a favourable economic, social and political situation for businesses, creating a better reputation, improving access to capital markets and attracting investors. Favourable environmental accounting disclosure is essentially a signal that affects the behaviour of the corporate audiences and /or stakeholders of the same company and the expectations of the importance of earnings to the determination of stock returns[7].

According to the primary purpose of environmental disclosure is to examine and incorporate in the firm annual reports issues that bother on environmental hazard that are not taken cognizance of in traditional or conventional accounting function that stakeholders can use for decision making. Disclosure of corporate environmental activities stressed the necessity for a close monitoring of natural resources and the corporation's harmful effect on the society it operate. Environmental effects caused by activities of firms especially those in the manufacturing, oil and gas and banking include pollutions like noise, waste, hazardous emission, spillages, degradation[8]. In recent years, then, a belief has arisen in businesses and in society that reporting has a wider role than that expressed in the traditional 'stockholder/shareholder' perspective.

Importantly, one need not hold to the 'deep green' end of the argument to hold these views: there are strategic reasons why a wider view of accountability may be held and, accordingly, why initiatives such as environmental reporting may be

supported; environmental consequences of an organisation's inputs and outputs. Inputs include the measurement of key environmental resources such as energy, water, inventories (especially if any of these are scarce or threatened), land use, etc. Outputs include the efficiency of internal processes (possibly including a 'mass balance' or 'yield' calculation) and the impact of outputs. These might include the proportion of product recyclability, tones of carbon or other gases produced by company activities, any waste or pollution[9].

These measures can apply directly (narrowly) or indirectly (more broadly). A direct environmental accounting measures those within the reporting entity whereas an indirect measure will also report on the forward and backward supply chains which the company has incurred in bringing the products from their origins to the market. For example, a company can directly report on the environmental impact of its own company: its branches and main office. But to produce a full environmental report, a company would also need to include the environmental consequences of those activities it facilitates through its business loans. Where a company claims to report on its environmental impacts, it rarely includes these indirect measures because it is hard to measure environmental impacts outside the reporting company and there is a dispute about whether such measures should be included in the company's report (the company may say it is for the other company to report on its own impacts)[10].

A research shows that more and more organizations decide to report environmental information to their stakeholders. In the early 1990s, concluded that, despite the majority of the companies in France, Germany, the Netherlands, Sweden and Switzerland disclose environmental information; the level of this information is low. Nevertheless, a study performed to the 250 largest Fortune 500 companies (this

data represents companies from France, Germany, Italy, Japan, the Netherlands, South Korea, Switzerland, the UK and the US) during the years 1998 to 2001, concluded that environmental reporting has increased considerably within those countries. The author also concluded that environmental reporting is applied more in the industrial sectors than in the financial sectors. The level of environmental disclosure is also depending on country specific legislation and the reporting culture of the country. The companies make more environmental disclosures in such regulated countries, especially in the USA, Canada and the UK either because environmental reporting is mandatory or because society or stakeholders demand reporting[11]. Besides the mandatory requirements to disclose environmental information, there are a variety of reasons why organizations decide to, voluntarily, disclose this information.

2.1.2 Determinants of Environmental Disclosure

The environmental reporting or sometimes known as "Green reporting" is one of the voluntary social reporting included the financial statements[12]. The main determinant of environmental reporting includes:

2.1.2.1 Company Size.

A positive association between size and voluntary social responsibility disposure. In support of the positive relation that firstly, the cost of accounting and generating certain information is greater for small firms than large firms. Small companies may not be able to afford such costs from their resources base. Larger companies might have sufficient resources to afford the cost of producing information for the user of annual report. Secondly, it believes that agency cost is higher for large company because shareholders are widespread and in that way, disclosing more

information reduce the potential agency cost. Additionally, these firms might publish more information in their reports to supply information relevant to different users[13].

Also, large companies may tend to disclose more information than smaller companies in their annual reports due to their competitive cost advantage. Hence, small companies disclose less information than large companies suggest those firms which are more visible in the public eyes are lightly to voluntarily disclose information to enhance their corporate reputations[14].

2.1.2.2 Financial Leverage

Agency theory to assert the political transfers of wealth from bondholders to shareholders can take place in highly leverage firms. The proportion of outside capital tends to be higher for large firms as the potential benefits of voluntary disclosure increase with shareholder debt holder-manager conflicts[15].

2.1.2.3 Profitability

More profitable firms are more likely to disclose more while less profitable firms tends to be more secretive. Profitable firms may be more inclined to disclose more information is other to screen themselves from led profitable firms. However, there is certain ambiguity in theoretical and empirical studies regarding the sign of profitability in relation to disclosure and therefore the relationship between disclosure and profitability is non-monotonic. This is because les profitable firms may disclose more information to explain the reasons for the negative performance and reassure the market about future growth. Companies also disclose bad news at an early opportunity in order to mitigate the risk of legal liability, severe devaluation of share capital and loss reputation[16].

2.1.2.4 Effective Tax Rates

Another measure of political visibility is the effective tax. The taxation system provides the most direct means by which wealth transfer can be made from companies to the government. Income tax can b reviewed as one of the components of political cost borne by a company. This suggests that a company that is liable to pay relatively higher levels of taxation may be seen to be presently subject to high levels of political cost. A company which is subjected to high taxation burden may be motivated to employ techniques that reduce these costs. This shows that companies with higher effective tax rate more likely to disclose more voluntary information than company with lower effective tax rates an effort to reduce political cost[17].

2.1.2.5 Industrial Membership

Each industry has different characteristics from each other, which may relate to competition growth and risk and specific culture to historical factors. These may provide scope of differential disclosure. Limitation and tradition can ensure that new entrants to an industry are likely to follow accounting methods used by industry leaders. Moreover, different industries have a different property cost, which gives incentive for companies belonging to the same industry to disclose more or less information than companies belonging to another industry[18].

2.1.2.6 Audit Firm

Auditors play a major role in opportunities behaviors by agents, thereby reducing the agency cost born by principles and agents. Auditors incur cost from entering contracts with audit and so will influence clients to disclose so much information as possible in their annual reposts. Auditors with high reputation are less

to be associated with client to disclose low level of information in their published annual reports[19].

2.1.2.7 Profitability

The relationship between profitability and environmental disclosure is mixed. Profitability is significant and positively associated with environmental disclosure. There is no significant association exists between profitability and its level of environmental disclosure. If company achieves a high margin of profit the managerial groups are motivated to disclose more information in order to show off good reputation to the customers, shareholders, investors and other stakeholders. On the other hand, if the profitability is low or the company suffers loss, they may disclose less information in order to cover the reasons for such losses or declining profits. Profitability is measured as return on revenues, return on total assets and return on equity[20].

2.1.3 Corporate Environmental Disclosures

Corporate environmental disclosures can be defined as an umbrella term that describes various means by which companies disclose information on their environmental activities to users. Corporate environment disclosure as the reporting by corporate environment disclosure as the reporting by corporation on the social impact of corporate activities, the effectiveness of corporate social programs, as a way corporation's discharging of its social responsibility and the stewardship of its social[21].

Corporate environmental disclosures is the process by which a corporation communicates information regarding the range of its environmental activities to a variety of stakeholder including employees, local communities, shareholders,

costumers, government and environmental groups. Really, the objective of financial reporting is to provide information which should be comprehensible to those who have a reasonable understanding of business and economic activities and are willing to study the information with reasonable diligence. Against this backdrop, corporate reports which disclose the performance and position of companies without significant environmental cost disclosure will be showing a distorted view of the business[22]. Corporate environmental disclosure serves many different purposes for different stakeholders, which include the following: it permits investors to harness the power of the capital markets to promote and ensure environmentally-superior business practices; it empowers people with the information they need to hold on corporation's accountable and invites shareholders more fully into the process of corporate goal setting; it allows companies and their stakeholders to measure companies adherence to the standards set forth in their statements of environmental principle, and their various goals and objectives; it will allow society to understand the false implications of corporate activity thereby to design where sustainable local and global systems; as an internal driver of change, it helps illuminate weaknesses and opportunities and set new goals[23].

The main reason for incorporating environmental information within the annual reports is to increase stakeholders' awareness of the company's activities, performance and interactions with the environment. It is hoped that stakeholders might use the information to assist their decision making process. Among the means of disclosing environmental information include newsletters, press release, magazine and corporate booklets but the usage of annual reports has grown and this practice has grown with the introduction of "stand¬alone" environmental reports[24].

Disclosure entails the release of a set of information relating to a company's past, current and future environmental management activities, performance and financial implications. It also comprises information about the implications resulting from corporate environmental management decision and actions. They may include issues such as expenditures or operating costs for pollution control equipment and facilities, future estimates of expenditures or operating costs for pollution control equipment and facilities. These may also include sites restoration cost, financing for pollution control equipment or facilities present or potential litigation, air, water, or solid waste releases; description of pollution control processes or facilities, compliance status of facilities; among others[25]. By environmental disclosure, we mean all the information that the company communicates to its stakeholders about its environmental concerns.

In line with the global best practices on environmental reporting such as the Global reporting initiative (GRI) sustainability reporting guideline GSI (2006-2011), Greenhouse Gas (GHG) protocol developed by World Business Council for sustainability Development and World Resource Institute, the environmental index with which a company will be classified as environmentally responsible include:

i. Environmental pollution and control policy;
ii. Compliance with environmental laws and Regulation;
iii. Material recycling and conservation of resources (Biodiversity);
iv. Waste management;
v. Environmental impact assessment (on product or Services);
vi. Environmental audit;
vii. Award receive e.g. ISO14001 or penalty;

viii. Environmental research and development;

ix. Air emission information, and

x. Energy policy.

In recent times, there is a growing demand on firms to give reports on the impact of their activities as it affects the environment by voluntary and mandatory disclosures. The increase in global awareness and the campaign for sustainable economic development is redirecting the attention of firms towards environment sensitivity. In Nigeria in particular, environmental regulation is relatively new in terms of enforceable regulatory standards except with the establishment of new regulatory authorities such as the Federal environmental protection Agency (FEPA) and the National Environmental standards and Regulations Enforcement Agency (NESREA). Environmental reports is considered a sort of small world where many crucial points in the relationship between a company and its stakeholders meet together[26].

According to him, there are three categories of environmental disclosures:

1 **Involuntary Disclosure** – the disclosure of information about a company's environmental activities without its permission and against its will. Examples of involuntary disclosures are environmental campaigns, press and media exposes and court investigations.

2 **Mandatory Disclosure** – the disclosure of information about a company's environmental activities that is required by law.

3 **Voluntary Disclosure** – the disclosure of information on a voluntary basis. There are two types of voluntary disclosures: confidential and non-confidential.

Confidential voluntary disclosures are those required by banks, insurers, customers and joint venture partners that are not publicly available. Non-confidential voluntary environmental disclosures are practically any environmental information the company voluntarily makes available to the general public. Given the history of environmental regulation in Nigeria, it is understandable that sustainable business practice is new. However, some firms had established a culture of being environmentally friendly even before the existence of regulation in Nigeria. This was in keeping with the global sustainable movement which had changed the nature of the market form producer oriented to green consumer oriented. Such voluntary and discretionary disclosure is as a result of many companies especially those with a high public profile or perceived environmental impact have felt increasingly obliged to report externally to stakeholders on their environmental performance[27].

2.1.4 Concept and Principles of Environmental Accounting

Environmental accounting covers information relating to all aspects of the environment. It includes environment - related expenditure, environmental benefits of products and details regarding sustainable operations. According to the world conservative union consumption of natural capital - the depletion of natural capital - forests, in particular - is accounted for as income. Thus the accounts of a country which harvests trees very quickly will show quite high income for a few years, but nothing will show the destruction of a productive asset, the forest. Whereas in accordance with conventional business accounting principles, the gradual depletion of physical capital-machines and other equipment – are treated as depletion rather than income. However, most experts on environmental accounting agree that the depletion of natural capital should be accounted for in the same way as other productive assets[28].

Environmental accounting is an inclusive field of accounting. It provides reports for both internal use, generating environmental information to help make management decisions on pricing, controlling overhead and capital budgeting, and external use, disclosing environmental information of interest to the public and to the financial community. Environmental Accounting enables organizations to track their environmental data and other greenhouse gas (GHG) emissions against reduction targets, and facilitates environmental reporting to provide sustainability related data that is comprehensive, auditable, and timely to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection in Nigeria[29]. The consciousness and need to protect the environment will make for environmental costs to be identified, accurately measured and reported. The term environmental cost does not only refer to costs paid to comply with regulatory standards, costs which have been incurred in order to reduce or eliminate releases of hazardous substances but all other costs associated with corporate processes which reduce adverse effect on the environment.

Environmental costs 'as costs associated with the creation, detection, remediation and prevention of environmental degradation'. Green Accounting or Environmental Accounting is defined as: 'Identifying and measuring the costs of environmental materials and activities and using this information for environmental management decisions. The purpose is to recognize and seek to mitigate the negative environmental effects of activities and systems'[30]. Environmental Accounting as 'The generation, analysis and use of monetarized environmentally related information in order to improve corporate environmental and economic performance' In his opinion

Environmental Accounting does not only focus on internal and external environmental accounting but links environmental and financial performance more visibly. Environmental accounting assists in getting environmental sustainability embedded within an organization's culture and operations. The aim is to provide decision makers with the information that enable the organization to reduce costs and business risks and to add value[31].

Companies are expected to engage in environmental accounting to:

i. reassure consumers that they take their responsibilities seriously
ii. comply with national guidelines
iii. comply with financial reporting requirements
iv. express the company's environmental concerns and communicate them to a range of stakeholders. In other to understand the rationale behind environmental reporting, and the basis on which it is suggested that such reporting operates, it is necessary therefore to consider the principles upon which environmental reporting operates[32].

There are three basic principles of environmental reporting as identified and it includes:

i. ***Sustainability*:** Sustainability is concerned with the effect which action taken in the present has upon the options available in the future. If resources are utilized in the present then they are no longer available for use in the future, and this is of particular concern if the resources are finite in quantity. Thus, raw materials of an extractive nature, such as coal, iron or oil are finite in quantity and once used, are not available for future use. At some point in the future therefore, alternatives will be needed to fulfill the functions currently provided by these resources. These may be at some points in the relatively

distant future but of more immediate concern is the fact that as resources become depleted, then the cost of acquiring the remaining resources tends to increase and hence the operational costs of organisations tends to increase. The principle of sustainability in environmental reporting therefore implies that society must not use resources more than it can regenerate. This can be defined in terms of carrying capacity of the ecosystem and described with input- output model of resource consumption[33].

ii. ***Accountability*:** Accountability is concerned with an organization recognizing that its actions affect the external environment and therefore assuming responsibility for the effect of its actions. This principle therefore implies a quantification of the effects of actions taken, both internal to the organization and external. More specifically, the principle implies the reporting of those quantifications to all parties affected by those actions. This implies a reporting to external stakeholders of the effects of actions taken by the organization and how they are affecting those stakeholders. The principle therefore implies recognition that the organization is part of a wider societal network and has responsibility to that entire network rather than just to the owners of the organization. Accountability therefore necessitates the developments of appropriate measures of environmental performance and reporting of the actions of the firm. This necessitates costs on the part of the organization in developing, recording and reporting such performance and to be of value, the benefit must exceed the cost. Benefit must be determined by the usefulness of the measure selected to the decision-making process and by the way in which they facilitate resource allocation, both within the organization and with other stakeholders[34].

iii. ***Transparency*:** Transparency as a principle in environmental reporting, means that the external impact of the actions of the organization can be ascertained from organisations reporting and pertinent fact are not disguised within that reporting. Thus, all the effects of the actions of the organization, including external impact, should be apparent to all from using the information provided by the organization's reporting mechanisms. Transparency is of particular importance to external users of such information as these users lack the background details and knowledge available to internal users of such information. Transparency therefore can be seen to follow from the other two principles and equally can be seen to be a part of the process of recognition of responsibility on the part of the organization for the external effect of its actions[35].

The vast extent of environmental accounting and its focus on both external and internal users provides a basis to divide it into environmental, financial accounting and environmental management accounting. Environmental, financial accounting provides general-purpose financial information on the organisation, for external users such as creditors, customers, potential investors and shareholders. Environmental management accounting is a set of methods and techniques which can be used to collect and provide information for administration in the area of the business's mutual relationship with the environment[36]. Environmental Accounting is designed to provide information for the assessment of company's behaviour towards its environment and the economic consequence of such action. Therefore the system of environmental accounting provides both Financial Information in monetary units, and non-financial information in physical units.

Environmental accounting is therefore said to cover all information relating to the environment. It includes environment related expenditure, environmental benefits of products and details regarding sustainable operations. Environmental accounting covers the whole accounting field. Reports generated by environment accounting serve both the internal and external uses of information. The information also helps management take pricing decisions, control overheads and in capital budgeting. It provides information that is of concern to the public and the financial community[37]. According to United Nations Expert Working Group, environmental accounting involves the identification, collection, analysis and use of two types of information for decision making;

i. Physical Information on the use, flow of energy, water, material and so on
ii. Monetary information on environmental-related expenses, income including savings[38].

In the real sense, environmental accounting requires that the existing accounting system should be adjusted to incorporate a more integrated environmental accounting practice that links both the conventional, physical and monetary information system. In an effort to protect the environment relevant costs ought to be identified, measured and reported. Environmental costs are costs attributable to the creating, discovering, treating and preventing environmental degradation. Ideally, environmental cost includes all costs about organisational activities that impact the environment[39].

Environmental accounting aids in ensuring that every corporate culture embodies environmental sustainability. Companies are expected to engage in environmental accounting and reporting so as to reassure the stakeholders of their:

i. Commitment to environmental responsibilities,

ii. compliance with national environmental laws and guidelines,

iii. Compliance with requirements of financial reporting,

iv. Demonstration of environmental concerns and

v. Communication of the same to a broad range of stakeholders[40].

Environmental accounting is therefore said to cover all information relating to the environment whether positive or negative.

2.1.5 Reasons for Reporting of Environmental Activities by Entities

Investors see social and environmental information as critical in making investment decisions and hence demand adequate disclosure of such information. Not only that the ethical investment movement formed by ethical investors require firms to develop an environmentally friendly attitude towards their host communities. Therefore, by upholding a friendly image, companies may be successful in attracting fund from green individuals and groups[41].

Environmental accounting and reporting enhance the quality of decision-making. It enables companies to establish targets for the reduction of the leading environmental indicators such as greenhouse gas emissions, energy usage, resource usage. Through environmental accounting and reporting companies realise the necessity for changing unsustainable consumptions, unfavourable productions patterns thereby protecting and managing available natural resources. This accounting information is necessary for accountability, comparability and probity. Unavailability of such information could be tantamount to being bias, non transparent, fraudulent and liable to risk. The condition could dissuade patronages from consumers, suppliers, investors, surrounding communities and possible sanction from the government who

is becoming conscious of organisation's contribution to sustainable development. Environmental accountability includes heightened public scrutiny of both the entity's environmental performance and its public disclosure of that performance. These elements of corporate environmental responsibility jointly impact the company's profitability and the value of its common equity[42].

Environmental Reporting is critical because they provide environmental performance information and influence capital markets. Companies can increase their image of being known to the outside world through environmental accounting and reporting. Such companies are said to be enlightened. Companies disclose environmental information in their annual report, in other to enhance their visibility and send specific signals and messages to indicate that the businesses are aware of environmental issues. Companies may benefit from providing more details to the public through a reduction in their cost of capital and an increase in the pure cash flows accruing to their shareholders, consequently increasing their values[43]. Environmental reporting benefits the companies in the sense that it reveals social and ecological values of the companies, thereby decreasing the pressure from the pressure group, build corporate image and show the companies' social responsibility[44]. More of the benefits of Environmental Accounting and Reporting include avoidance of any penalty or fines payable as a result of environmental offences as prescribed by Environmental Protection Agency in the countries where such legislation exists, it acts as an internal agent of change. It helps companies to illuminate weaknesses, opportunities and set a new goal[45].

Environmental Accounting and Reporting provides insight on environmental impacts and associated financial effects. This knowledge will help in realising

organisational accountability, increasing environmental transparency, and ensuring effective and efficient management of natural resources which link environmental accounting with financial accounting[46]. Sometimes some critical issues arising between the entity and its stakeholders are settled through environmental reports. The environmental management system provides the quantitative data on environmental performance for inclusion in environmental reporting. By this, the report informs the interested parties about the achievements made by managers and encourages and motivates the employees to strive for greater achievements[47].

2.1.6 Environmental Disclosure in Developed Countries

The developed countries have possessed a high proportion of studies of environmental and social disclosure over the last decades, where research has been conducted in developed countries regarding environmental disclosure. This aimed to measure the disclosure of environmental information and increase the rate of information disclosure in annual reports. As well as this, examining the stock market reaction in terms of discloses of pollution and expenditures of control pollution, it can also be concluded that disclosure is very different between companies in terms of expenditures. It is worth stating that the industrialized countries such as Western Europe, the USA, Canada, and Australia are mainly in the areas of environmental disclosure. These studies have focused on comparing differences in environmental disclosure in developed countries through the companies operating in those countries[48]. The following comments in recent studies on social and environmental disclosure respectively: Although environmental disclosure has been the subject of substantial academic research for more than two decades, the environmental disclosure literature is dominated by empirical studies in the industrialized countries

of Western Europe, the USA and Australia. Even international comparative studies of environmental disclosure have focused on analyses of the differences and similarities of environmental disclosure practices in these countries only mentioned that the first studies in Australia about environmental disclosure were by Deegan and Gordon. The findings of this study of environmental disclosure were positive but there was only 7% of the sample provided by firms. Also it concluded that environmental disclosure evolved only between 1980 and 1991. Moreover, environmental disclosure was positive with sensitive industries. In general, Australian firms tend to environmentally disclose and provide environmental information[49]. Further, firms increased the level of environmental disclosure, because of the surge of environmentalism. The researchers indicated disclosure correlated with increases in social concern about environments and relationships between firm's environmental performances with kinds of industry. In Canada manufacturing firms tend to increase disclosure of environmental information whenever events affecting the environment have increased. In another study indicated that the size of firms is the dominant factor determining the extent of social and environmental disclosure practices in the oil and gas industry, while in the UK, states that there are differences between sectors in terms of determinants which affect disclosure decisions and there is a positive relationship between the size of the firms and the quality of environmental information[50].

2.1.7 Environmental Disclosures in Under-Developing Countries

The developed countries have conducted most of the studies of social and environmental disclosure over the past two decades, while developing countries have had a handful of studies, in particular on the countries with emerging economies[51]. The studies have been conducted in India[52] and in Malaysia and Singapore[53], in

Korea[54]. it can been said that most of these studies conducted in east Asia have concluded that environmental disclosure is inadequate as compared to developed countries and the reactions are bad toward these environmental laws.

In the context of Africa, there are few studies that have been conducted on social and environmental disclosure, examined 115 firms in South Africa. This study concluded that average disclosure was a half-page. This conclusion was in 63% of the total enterprises. In another study in Uganda, it was noted that the level of disclosure was low. In addition, environmental disclosure has been conducted in MNCs in Nigeria. The finding was that although there are consumer concerns about environmental disclosure, there were a quarter of companies interested to environmentally disclose from 22 firms in the sample study between 1994 and 1995[55].

In comparison, social and environmental research examining the Arab regions remains scant, but there some attempts. For example, the social and environmental disclosure in 68 firms in nine countries of Arabia's Middle East namely: Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Syria, and United Arab Emirates. In addition, the effects of some characteristics of firms on levels of environmental disclosure listed in markets in Qatar. The social and environmental disclosure in 60 firms in the Egyptian industry sector, while in Libya and Tunisia, examined the relationship between levels of disclosure and environmental performance through the local companies' industrial and financial sectors in Libya & Tunisia respectively. The findings of these studies suggest that the levels of disclosure are low and that this has a negative effect on environmental performance. Moreover, there are other factors that have affected environmental disclosure such as political and economic systems that have been influenced by the period of colonialism[56].

2.1.8 Environmental Disclosure in Nigeria

Nigeria, being one of the world largest producers of crude oil to some extent, has experienced some rapid economic and technological development that has, in turn brought about higher levels of education, better standards of living and greater affluence amongst Nigerians. This better economic position has also meant higher levels of education amongst its people. Consequently, of late, there appears to be increased public concern and awareness for corporate social environmental impact. This could also be due to the prominent role played by the non-governmental organizations (NGOs), such as the Green Alliance Nigeria, and the Federal Environmental Protection Agency (FEPA) of Nigeria, in lobbying for the preservation and conservation of the environment. The intense media scrutiny and coverage of environmental problems – including cases of open continuous gas flaring, environmental degradation in the Niger-Delta regions, burning, indiscriminate land and hill clearing, and toxic waste dumping- have also contributed to public concern for the detrimental effects of business operations on our natural environment. Due to this change in public concern and awareness on environmental issues, it may be the case then that companies in Nigeria must respond to such changes by providing environmental disclosures within the annual reports[57].

2.1.9 Global Institutional Framework on Environmental Disclosure

The quest for sustainability has caused an emergence of many global institutions enunciating varying norms that guide human interactions with the environment. These standards are influencing business corporations to understand that their strategic position in the society has the power to influence behavior and alter the state of physical, social and economic environment. At various national levels are

government regulations, pressure groups and green consumer pressure. These developments are reawakening corporate attention to strategic and competitive role of environmental responsibility to corporate survival[58].

Several reporting standards exist as guidelines for reporting sustainability. They include:

- Global reporting initiative sustainability reporting guideline developed by Global reporting initiative in 2006;
    i. Oil and Gas industry Guidance on voluntary sustainability Reporting developed by American petroleum initiative (API) and the international petroleum industry Environmental conservation Association (IPIECA);
    ii. Organization for Economic Cooperation and Development Guidelines for multinational Enterprises developed by organization for Economic cooperation and Development (OECD);
    iii. Environmental management (ISO 14001, EMAS);
    iv. Greenhouse Gas protocol developed by world Business Council for sustainable Development (WBCSD) and World Resources Institute (WRI); and Global Compact and United Nation norm developed by the United Nations among others[59].

2.1.10 International Accounting Standards on Environmental Issues

The professional Accounting bodies were typically slow in formulating accounting standards as regards environmental issues. The survey of current activities and development in environmental accounting and auditing carried out by the Federation of European Accountants (FEE) reported that none of the accounting

standard-setting bodies reviewed was involved at the time of setting standards in relation to environmental accounting matters[60]. At present, a global environmental accounting standard is under consideration by the international According Standard Committee. The emergence of International Institution such as World Bank, United Nations and International Federation of Accountants (IFAC) to come out with environmental guidance document has added pressure on the international Accounting standards committee to come out with an environmental standard[61].

Currently, IASB has completed 'core' set of standards including all new standards that are particularly relevant to environmental issues. Specifically, the contents of these standards are as follows; IAS 36 deals on impairment of assets, IAS 37 and IFRS 12 on provisions, contingent liabilities and contingent asset, IASS 8 on intangible assets.

2.1.11 Institutional Framework and Regulation on Environmental Disclosures in Nigeria

Environmental regulation in Nigeria existed as winder dressing before 1988. However, this changed as a result of an attempt in 1997 by a foreign company, acting through an agent, to dump toxic wastes in the Niger Delta region, this event shocked the Federal Government of Nigeria and highlighted the porous nature of environmental regulation in the country, this gave rise to the promulgation of Decree no, if of 1988 by the former Federal Military Government of Nigeria. This decree made it a criminal offence for anyone to carry or dump any harmful waste within the entire land mass and waters of the Federal Republic of Nigeria[62].

The episode gave rise to the need for an agency to oversee environmental protection; hence Decree 58 of 1988 gave birth to Institutions and authority who have established various statutes, regulations, standards on the environment. Nigeria has regulations prohibiting and controlling pollution of water, air and land. These represent the efforts made by successive administration to ameliorate the environmental problems in the country[63].

2.1.11.1 Federal Environmental Protection Agency (FEPA)

In line with the increasing consciousness of the Government of Nigeria to protect the environment, it established this regulatory authority. The FEPA was responsible for protection of the environmental, biological diversity, conservation and environmental technology and research. FEPA was later absorbed by the Ministry of Environment which took over all its functions. The Federal ministry of environment is also saddled with the responsibility for the sustainable development of Nigeria's natural resources and the development of operation of procedure for conducting environmental assessment of all development projects. To ensure that the Federal ministry of Environment is empowered to manage environmental issues, the Environmental Impact Assessment (EIA) Act was passed in 1992 under FEPA. The EIA Act, 1992 empowers the regulatory institution to ensure the implementation of mitigation measures and follow-up programmes such as the elimination, reduction or control of the adverse environmental effects of any project. Also responsible for the restitution of any damage caused by such effects, through replacement, restoration, compensation or any other means[64].

2.1.11.2 National Environmental Standards and Regulations Enforcement Agency (NESREA)

In a bid to ensure more responsibility for the environment, the Federal Government established National Environmental standards and Regulations Enforcement Agency (NESREA) in 2007. The agency has mandated all the companies whose activities have an impact on the environment to register with it as a means of compliance with her environmental regulations[65]. NESREA regulations provide a mandatory guideline to be followed by all companies in virtually all sectors of the Nigerian economy and these include:

i. National Environmental (pollution Abatement in Mining and processing of coal, ores and industrial mineral(s) regulation 2009;
ii. National Environmental (sanitation and waste-control) Regulation, 2009.
iii. National Environment (Pollution Abatement in Chemicals, Pharmaceuticals, soaps and Detergent Manufacturing industries) Regulations, 2009.
iv. National Environmental (Pollution Abatement in Food Beverages and Tobacco Sector) Regulators, 2009.
v. National Environmental (Pollution Abatement in Food Beverages are Tobacco Sector) Regulations, 2009.
vi. The National Environmental (Wetland, River Banks and Lake Shores protection) Regulation, 2009.
vii. The National Environmental (Watershed, Hilly, Mountainous and catchment Area) Regulations, 2009.
viii. National Environmental (ozone Layer protection) Regulations, 2009.
ix. National Environmental (Access to General Resources and Benefit Sharing) Regulations, 2009.
x. National Environmental (Noise standards and control) Regulations, 2009.

xi. National Environmental (permitting and licensing systems) Regulations, 2009[66].

Regulations in NESREA are ongoing. Since the adoption of these eleven (11) regulations others are still going through the pruning processes (Critiques, and expert review) for onward presentation to stakeholders. With this moving towards a 'green economy'. This study seeks to ascertain how effectively companies have complied with the provision of these bodies.

2.1.11.3 Accounting Standards for Environmental Disclosure in Nigeria.

In Nigeria no statements of Accounting Standards (SAS) require specific disclosures or the provision of detailed environmental information. SAS 23 on provisions, contingent liabilities and contingent Assets also having the requirements of the IAS 37 is the closest to environmental disclosure. SAS 23 states that: "Contingent liabilities be provided for in the accounts. If it is probable that a transfer of economic benefit will be required to settle that obligation and the account of obligation can be measured with sufficient reliability, a disclosure shall be made in financial statement"[67]. SAS 23 jointly with SAS 2 on information to be disclosed in Financial statement are indicative requirements for provision for specific disclosure of definite environmental liabilities and contingent environmental liabilities in the notes to the annual reports. SAS 23 became effective in Nigeria only in 2006. Since SAS 2 refers to contingent liabilities under general provisions for liabilities; there should be deliberate reporting on environmental issues disclosure.

2.2.1 Financial Reporting Quality

Financial reporting provides a variety of information and stakeholders are increasingly paying more attention to environmental issues related to financial performance. Thus, plenty of researchers have focused on the relationship between financial performance and environmental disclosure and have reported mixed results. A linkage between environmental management practices and improved future financial performance and discover a significant positive financial return for strong environmental management while significant negative financial returns for weak environmental management. Firms with a higher pollution propensity and greater media coverage of their environmental performance are more likely to disclose general environmental information in Canadian manufacturing firms[68]. There is a significant positive relationship between environmental management practices and measures of firm performance.

Financial reporting quality as the exact manner in which it shows information regard business activity and its anticipated cash flow, intending to inform the shareholder about a company's operations. Financial reporting quality as the faithfulness of information conveyed in the financial reporting process. Financial reporting is also defined as the degree to which financial statements provide us with information that is fair and authentic about the financial position and performance of an enterprise[69]. It can be deduced from the above definition that for a financial statement to be regarded as possessing a high-quality attribute, it must be able to provide genuine authentic information about the economic performance of the firm.

Financial reporting is defined as the faithfulness of information conveyed in both the financial and non-financial reporting process. The financial statement of firms at the end of a financial year should have some element of truth in it. This is

termed quality to increase the confidence of users. The firm's economic performance (measured by profitability) is important in the decision to be made in environmental disclosure. However, the results on company profitability and environmental accounting seem to be mixed used multiple regression analysis of 14 randomly selected companies quoted on the Nigerian Stock Exchange and show that environmental accounting had a positive relationship with net profit margin, dividend per share, and a negative relationship with return on capital employed and earnings per share[70]. The effect of voluntary environmental disclosure on a firm's financial performance in French organizations and results demonstrated that there is no relationship between environmental disclosure and financial performance. A positive relationship between environmental performance and financial performance during the pre-financial crisis period (2001-2007) and no association between environmental and financial performances in the financial crisis period (2008-2010) in Australia. Environmental and social costs significantly affect net profit margin, return on capital employed, and earnings per share of manufacturing companies[71].

The impact of environmental disclosure on financial performance among the top 100 market capitalization companies in Malaysia for the year 2011. Return on assets (ROA), profit margin, return on equity (ROE), and also Earnings per share (EPS) used to measure financial performance. The results revealed that there is a significant relationship between profit margin and total environmental disclosure whereas ROA, EPS, and ROE could not show any significant relationship on total environmental disclosures; positive relationship between profitability measured by ROA and environmental accounting disclosure, leverage, and liquidity where the leverage and liquidity are the control variables. There exists a relationship between

environmental accounting disclosures and earnings per share and return on equity in food and beverage companies in Nigeria and critical and positive relationship between environmental accounting disclosure and earnings per share return on assets, net profit margin, firm's age, and audit firm type[72].

The main focus of financial reporting is to provide high-quality financial information concerning economic entities which are considered useful for economic decision making. Providing high quality financial information is important because it will positively influence users of accounting information such as investors, capital providers and other stakeholders in making investment, credit, and similar resource allocation decisions thereby enhancing overall stock market efficiency[73].

According to IASB, financial reporting quality is a broader concept that does not only refer to financial information, but also to disclosures, and other non-financial information useful for decision making included in the report. The essential principle of assessing the financial reporting quality is related to the quality of disclosed information in a company‘s financial reports. These qualitative characteristics determine the decision usefulness of financial information in financial reports. To achieve high-quality reporting, accounting information contained in financial reports must be relevant, faithfully represented, comparable, verifiable, timely, and understandable. Accounting information prepared with due cognisance of high quality accounting standards is expected to assist investors’ optimal investment decision which will consequently reflect on the firm’s market value. For the purpose of this study one fundamental quality (Relevance) and one enhancing quality (timeliness) are considered as proxies for financial reporting quality[74].

Relevance of accounting information released to the general public by firms directly or indirectly has a major influence on investors' perceptions of the value of the business, and both individual and institutional investors attach great importance to information in the selection of portfolios of equity securities, bonds and other investments[75]. Accounting Theory and Conceptual Frameworks explicitly stated that for information to be useful, it must be relevant to the decision-making needs of users. Information has the quality of relevance when it influences the economic decisions of users by helping them to evaluate past, present or future events or confirming, or correcting, their past evaluations. Literarily, value relevance is the ability of financial statements accounting information to capture information that is capable of influencing share value in the stock market. Barth, Beaver & Landsman, 2001 posit that value relevance concept is all about how much of an entity's market value can be described by accounting information disclosed. Test of value relevance is one approach to operationalise stated criteria of relevance and faithful representation (qualitative characteristics of accounting information) by the standards setters. Also, value relevance is one of the desirable attributes (or measures) of accounting quality[76].

Generally, etymology of value relevance study has been traced to seminal work through which they argued that newly released useful accounting information will affect efficient capital market. To enhance the relevance of financial reporting, accounting information must be provided in a timely basis. For accounting information to be timely, the accumulation and summarization of accounting information and its publication should be as rapid as possible to assure the availability of current information in the hands of the users. This also implies that, financial

statements should be presented at frequent intervals, to reveal changes in the firm's situation, which may in turn affect the users' predictions and decisions[77].

Extreme lapses in financial reporting have given rise to high profile scandals that resulted not only in investors' losses but also in reduced confidence in the financial system. The Enron and Worldcom accounting scandals in the United States, the defunct Oceanic Bank, Spring Bank, Intercontinental bank, Afribank, Bank PHB among others, the arrest of some banks Chief Executives by the Economic and Financial Crimes Commission (EFCC) and the Cadbury crisis all relate to deception and accounting information failures in financial reporting. Banks' reports to the CBN and investors often were inaccurate, incomplete and late, depriving the CBN of the right information to effectively supervise the industry and depriving investors of information required in making informed investment decisions. Extant studies relating to the subject matter in Nigeria use primary data and were carried out in capital extensive industries like the manufacturing sector as such nature of industry, choice of accounting policies and regulatory requirements disparities necessitate a new study on the subject. The aim of this study is to empirically investigate the effect of financial reporting quality on the financial performance of quoted banks in Nigeria[78].

2.2.2 Methods of Measuring the Quality of Financial Reporting

Financial reporting quality can be accessed directly or indirectly. Directly, it can be measured using the Accruals model, the Value relevance model, using specific elements in the annual report, and by operation ling the qualitative Characteristics. Accruals Model focuses on the quality of earnings measured, and the major assumption it holds is that managers use discretionary accruals to manage earnings. Earnings management is assumed to negatively affect the quality of financial report

by reducing it decision usefulness. The main merit of this model is that it uses accruals to measure earnings management and is calculated based on the information present in the financial statement[79]. This model called the Jones model, in this modified Jones model, accounts receivables were taken into consideration by this model. Estimating normal accruals in the first stage is similar to the model. The modified Jones reasons that all changes in credit sales in the event period result from earnings management.

The modified Dechow and Dichev's (2002) model is specified as:

$$\Delta WCt = CF0\ t\text{-}1 + CFO1 + CFOt\ +1 + \Delta Salest + PPEt + \varepsilon$$

Where:

ΔWC = Working capital in year t, i.e. Accounts receivables + ΔInventory –Accounts payable – Taxes payable + other assets (net)

CF0 t-1 = cash flows from operations in year t-1

CFO1 = Cash flow from operation in year t;

CFOt +1 = Cash flows from operation in year t+1

Salest = Sales in year t less sales in year t-1;

PPEt = Gross property, plants, and equipment in year t

This measure of earning quality capotes the extent to which accrual maps into cash flow realization in the past, present, and future cash flows. The higher the absolute residual for each sample firm, the lower the quality. In which the concluded that the Modified Jones model could detect earnings management better than other models.

2.2.3 Financial Reporting Regulations and Regulators in Nigeria

There are various financial reporting regulations and regulators in Nigeria. The Regulatory Bodies are thus:

1. The Corporate Affair Commission (CAC)
2. The Nigeria Accounting Standard Boards (NASB) now Financial Reporting Council of Nigeria(FRCN)
3. The National Insurance Commission (NAICOM)
4. The Central Bank of Nigeria (CBN)
5. The Security and Exchange Commission (SEC)
6. The Nigeria Stock Exchange Commission (SEC)
7. Institute of Chartered Accountants of Nigeria (ICAN)
8. Nigeria Deposit Insurance Corporation (NDIC)

Other regulators include:

i. The Companies and Allied Matters Act 1990 as Amended
ii. The Banks and other Financial Institutions Act (BOFIA 1991)
iii. The Insurance Act of 2003
iv. Investment and Security Act of 1999
v. Companies Income Tax Act 2004 (as amended)
vi. Petroleum Profit Tax Act 2004
vii. Pension Reform Act 2004, and
viii. Federal Inland Revenue Service (Establishment) Act 2007

The practice of accountancy profession globally is governed by sets of rules and guideline, which the rules and guidelines are also however, compiled into

standard. There are two sets of standards governing the accounting practice in Nigeria. They include:

a. International Standards - International Accounting Standards (IAS)
b. Local Standards – Statement of Accounting Standards (SAS)

Unveiling the need for IFRS, the minister of commerce and industry noted that the search for global accounting standards as captured by the IFRS was as a result of the collapse of US energy giant, Enron when accounting profession came wider scrutiny and led to global questioning of accounts experience, integrity and existence of standards in the world of business. The minister also advised that all other public interest entities are expected to mandatorily adopt IFRS for statutory purposes by January 1st 2013, while small and medium sized entities (SMSs) shall mandatorily adopt the system on January 1st 2014. This need a better understanding and appreciation of the risks involved and would necessitate that financial statements prepared in Nigeria irrespective of the sector use global financial reporting benchmarks[80].

2.2.4 Elements of Financial Statements/Reports (IAS 1 Article 10)

The financial position of an enterprise is primarily provided in the:

1. **Statement of Financial Position Formally Balance Sheet**: The element of this statement includes:

i. **Asset:** An asset is a resource controlled by the enterprise as a result of past events from which future economic benefits are expected to flow to the enterprise.

ii. **Liability:** A liability is a present obligation of the enterprise arising from the past events, the settlement of which is expected to result in an outflow from the enterprise' resources, i.e., assets.

iii. **Equity**: Equity is the residual interest in the assets of the enterprise after deducting all the liabilities under the Historical Cost Accounting model. Equity is also known as owner's equity. Under the units of constant purchasing power model equity is the constant real value of shareholders′ equity.

2. Statement of Comprehensive Income (IFRS) Formally Trading Profit and Loss Account (SAS):

The financial performance of an enterprise is primarily provided in the Statement of Comprehensive Income (income statement or profit and loss account). The elements of an income statement or the elements that measure the financial performance are as follows:

i. **Revenues:** increases in economic benefit during an accounting period in the form of inflows or enhancements of assets, or decrease of liabilities that result in increases in equity. However, it does not include the contributions made by the equity participants, i.e., proprietor, partners and shareholders.

ii. **Expenses:** decreases in economic benefits during an accounting period in the form of outflows, or depletions of assets or incurrence of liabilities that result in decreases in equity.

iii. Revenues and expenses are measured in nominal monetary units under the Historical Cost Accounting model and in units of constant purchasing power (inflation-adjusted) under the Units of Constant Purchasing Power model.

A Statement of Comprehensive Income separate statements comprising an Income Statement and separately a Statement of Comprehensive Income, which reconciles Profit or Loss on the Income statement to total comprehensive income.

3. Statement of Changes in Equity Requirements Of IFRS
4. Statement of Cash Flows or Cash Flow Statement
5. Notes to the Financial Statements including a summary of the significant accounting policies.

Comparative information is required for the prior reporting period (IAS 1.36). An entity preparing IFRS accounts for the first time must apply IFRS in full for the current and comparative period although there are transitional exemptions. On 6 September 2007, the IASB issued a revised IAS 1 Presentation of Financial Statements. The main changes from the previous version are to require that an entity must present all non-owner changes in equity (that is, 'comprehensive income') either in one Statement of comprehensive income or in two statements (a separate income statement and a statement of comprehensive income). Components of comprehensive income may not be presented in the Statement of changes in equity.

Present a statement of financial position (balance sheet) as at the beginning of the earliest comparative period in a complete set of financial statements when the entity applies the new standard. Present a statement of cash flow, make necessary disclosure by the way of a note. The revised IAS 1 is effective for annual periods beginning on or after 1 January 2009. Early adoption is permitted[81].

2.2.5 Recognition of Elements of Financial Statements/Reports

An item is recognized in the financial statements when, it's probable future economic benefit will flow to or from an entity. The resource can be reliably measured otherwise the stable measuring unit assumption is applied under.

The Historical Cost Accounting model: i.e. it is assumed that the monetary unit of account (the functional currency) is perfectly stable (zero inflation or deflation); it is simply assumed that there is no inflation or deflation ever, and items are stated at their original nominal Historical Cost from any prior date: 1 month, 1 year, 10 or 100 or 200 or more years before; i.e. the stable measuring unit assumption is applied to items such as issued share capital, retained earnings, capital reserves, all other items in shareholders´ equity, all items in the Statement of Comprehensive Income (except salaries, wages, rentals, etc., which are inflation-adjusted annually), etc.

The Capital Maintenance in Units of Constant Purchasing Power (CMUCPP) model, all constant real value non-monetary items are measured in units of constant purchasing power in terms of a daily index at all levels of inflation and deflation; i.e. all items in the Statement of Comprehensive Income, all items in shareholders´ equity, Accounts Receivables, Accounts Payables, all non-monetary payables, all non-monetary receivables, provisions, etc[82].

2.2.6 Measurement of the Elements of Financial Statements/Reports

Measurement is the process of determining the monetary amounts at which the elements of the financial statements are to be recognized and carried in the balance sheet and income statement. This involves the selection of the particular basis of

measurement[83]. A number of different measurement bases are employed to different degrees and in varying combinations in financial statements. They include the following:

a. **Historical cost:** Assets are recorded at the amount of cash or cash equivalents paid or the fair value of the consideration given to acquire them at the time of their acquisition. Liabilities are recorded at the amount of proceeds received in exchange for the obligation, or in some circumstances (for example, income taxes), at the amounts of cash or cash equivalents expected to be paid to satisfy the liability in the normal course of business.
b. **Current cost:** Assets are carried at the amount of cash or cash equivalents that would have to be paid if the same or an equivalent asset was acquired currently. Liabilities are carried at the undiscounted amount of cash or cash equivalents that would be required to settle the obligation currently.
c. **Realisable (settlement) value**: Assets are carried at the amount of cash or cash equivalents that could currently be obtained by selling the asset in an orderly disposal. Assets are carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business. Liabilities are carried at the present discounted value of the future net cash outflows that are expected to be required to settle the liabilities in the normal course of business[84].

The measurement basis most commonly adopted by entities in preparing their financial statements is historical cost. This is usually combined with other measurement bases. For example, inventories are usually carried at the lower of cost and net realisable value, marketable securities may be carried at market value and

pension liabilities are carried at their present value. Furthermore, some entities use the current cost basis as a response to the inability of the historical cost accounting model to deal with the effects of changing prices of non-monetary assets.

2.2.7 Global Reporting Initiative (GRI) Sustainability Reporting Guideline

The GRI reporting framework is intended to serve as a generally accepted framework for reporting on an organization's economic, environmental, and social performance. It is designed to be used by organizations of any size, sector or location. The environmental dimension of sustainability concerns an organization impacts on living and non-living natural systems, including ecosystems, land, air and water. It provides a concise disclosure with reference to environmental aspects such as materials, energy, water, Biodiversity, Emission, Effluent, and waste products and services, compliance, Transport and overall which covers total environmental protection expenditures and investments by type[85].

Sustainability Accounting Standard Board exclaimed that sustainability accounting is to evaluate the environmental, social and governance performance of companies through an account of their management of various forms of non-financial capital associated with sustainability–environmental, human and social – and corporate governance issues, which they rely upon for sustained, long-term value creation[86].

Ultimately, the goal of sustainability accounting and disclosure is to inform development of an integrated business strategy for corporate management and assess sustainability risks and opportunities inherent to investment decisions. Sustainability accounting and disclosure is intended as a complement to financial accounting, such that financial information and sustainability information can be evaluated side by side

and provide a complete view of a corporation's performance and value creation, both financial and non-financial, and across all forms of capital[87].

2.3.1 Financial Performance

Financial performance of a firm is reflected in its corporate success. It involves the use of organization assets to generate revenue. Financial performance enables management to give account of their stewardship to shareholders on firm profitability, value and firm growth[88]. Financial performance is the extent to which organization objectives and policies have been achieved in monetary term. Company is assumed to be performing if it is able to meet its obligations as at when due. In accounting literature, financial performance of firms has been measured as firm growth, size of the firm, firm's profitability or market share. Firm's size is often measured as Total Assets; profitability as Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin, Earnings Per Share, Gross Profit Margin or Profit After Tax.

Financial performance is commonly used as an indicator of a firm's financial health over a given period of time. The financial performance of a firm can be defined or measured in various different ways including profitability, gauge return, market share growth, return on investment, return on equity and liquidity. Financial performance was measured by the development of revenues and profits[89]. Revenue development can be seen as a growth indicator of the firm and also as a competitive strategy for consecutive firms. A firm can, by being environmentally sustainable, differentiate its products and thus increase its revenue. Similarly, a firm can save costs on resources, regulatory costs, capital and labour and therewith increase its profits[90].

In this study, financial performance will be measured by, Net Profit Margin (NPM), Return on Assets (ROA) and Return on Equity (ROE).

2.3.1 Net Profit Margin (NPM)

Net Profit Margin (NPM) is basically one of the ratios used to demonstrate a company's ability to generate net income. Net profit margin is the ratio between net income and sales. This ratio is one of the important ratios for operational managers, because this ratio is able to reflect the sales pricing strategy that the company will apply. This ratio is also able to control the operating expenses. To calculate your net profit margin, divide your net income by your total sales revenue. The result is your **net** profit margin. You can multiply this number by 100 to get a percentage.

Net Profit Margin (NPM) = (Net Profits ÷ Net Sales) x 100

2.3.3 Return on Asset (ROA)

Return on assets (ROA) is a ratio that describes the assets measured by sales volume. The greater this ratio will be better for the company. This means that the rate of return will be greater[91]. The greater the ROA, the higher the profits generated by the company, so that investors will buy more shares of the company. It was stated that return on assets shows the number of profits earned relative to the level of investment in total assets. To calculate ROA the following formula can be used.

Return on Assets = Net Income ÷ Total Assets

The higher this ratio means the company is more effective in utilizing the assets to generate net income. Thus the higher ROA means the company's performance more effective because the rate of return will be greater. This will further increase the company's attractiveness to investors. Increased attractiveness of the

company causes the company increasingly in demand by investors because it can provide great benefits (return) for investors. In other words, ROA will have an effect on stock returns that will be accepted by investors.

Financial sector is the backbone of the economy of any country. It facilitates the achievement of sustained economic growth through providing efficient monetary intermediation. It promotes investment by mobilizing savings and efficiently channelling resources to productive business opportunities. Banks occupy strategic and important position in the economic activities of Nigeria by the intermediary role, accepting deposits, processing payments, issuing bank drafts and cheques, granting loans and overdrafts, brokering insurance contracts, loan syndication, giving vital investment advice, providing financial services to individual business men and various organizations in order to lubricate and sustain the economic growth of the country. Therefore, banks financial performance has attracted considerable academic and professional discourse because the overall financial performance of various firms including banks, among other institutions, determines to a large extent the economic performance of Nigeria. The market- based measures of financial performance (price to earnings ratio, earnings yield and dividend yield) are considered as proxies for banks financial performance[92].

Financial performance is a factor that enables company management to flexibly report on its social and environmental responsibilities. Companies that have high profits can allocate their expenses to many aspects, including involvement in environmental issues. Very profitable companies are more trusted by the public to increase stakeholder accountability expectations. When companies are more involved in social activities, they will have more information to disclose. The measurement of

corporate environmental aspects, such as the greenhouse effect, tends to significantly increase company spending. Environmental disclosure also entails high costs, including the costs of identifying, measuring, and reporting this information[93]. Therefore, only companies with high financial performance are willing to bear these costs. Financial performance, which is often represented by profitability, affects corporate social responsibility. If the company makes a profit, the company will allocate its funds for CSR activities. The allocations of funds for CSR activities will certainly make the company have a CSR program and will make disclosures. Environmental programs are part of the CSR program. Profitability is one of the characteristics of a company that significantly causes companies to disclose their social and environmental responsibility initiatives[94].

Financial performance in broader sense refers to the degree in which financial objectives have been accomplished. It measures how well a company has fared in monetary terms and its overall financial health for a particular period. Financial performance is a subjective measure of how well a firm utilizes its assets from its business operation to generate profit[95]. However, financial performance is used to predict the financial well-being of a company, over a period of time. This can be measured in different ways such as: Return on Capital Employed (ROCE), Return on Asset (ROA), Return on Equity (ROE) and Markets Share Growth.

Financial performance consists of the financial health of an organization and is merely used to compare firms from one industry to the other. Financial performance is usually measured using financial ratios. Financial measures are influenced by non-financial measures. Performance can be divided into financial and non-financial performance. Financial performance is the “degree to which financial objectives are

met", that is assessing a firm's policies and operations in monetary terms[96]. The three most important decisions in a firm are: investment, financing, and dividend decisions, and are all related to firm performance.

2.3.4 Concepts of Capital

A financial concept of capital is adopted by most entities in preparing their financial statements. Under a financial concept of capital, such as invested money or invested purchasing power, capital is synonymous with the net assets or equity of the entity. Under a physical concept of capital, such as operating capability, capital is regarded as the productive capacity of the entity based on, for example, units of output per day[97]. The concepts of capital in paragraph 102 give rise to the following three concepts of capital maintenance during low inflation and deflation: The concepts of capital in paragraph 102 give rise to the following three concepts of capital during low inflation and deflation:

1. Physical capital maintenance: optional during low inflation and deflation. Current Cost Accounting model prescribed by IFRS.
2. Financial capital maintenance in nominal monetary units authorized by IFRS but not prescribed optional during low inflation and deflation. It is impossible to maintain the real value of financial capital constant with measurement in nominal monetary units per se during inflation and deflation[98].
3. Financial capital maintenance in units of constant purchasing power authorized by IFRS but not prescribed optional during low inflation and deflation. Capital Maintenance in Units of Constant Purchasing Power is prescribed during hyperinflation in IAS 29 i.e. the restatement of Historical

Cost or Current Cost period-end financial statements in terms of the period-end monthly published Consumer Price Index.

Only financial capital maintenance in units of constant purchasing power in terms of a daily index per se can automatically maintain the real value of financial capital constant at all levels of inflation and deflation in all entities that at least break even in real value ceteris paribus for an indefinite period of time. This would happen whether these entities own revaluable fixed assets or not and without the requirement of more capital or additional retained profits to simply maintain the existing constant real value of existing shareholders´ equity constant. Financial capital maintenance in units of constant purchasing power requires the calculation and accounting of net monetary losses and gains from holding monetary items during low inflation and deflation. The calculation and accounting of net monetary losses and gains during low inflation and deflation have thus been authorized in IFRS since 1989.

The selection of the appropriate concept of capital by an entity should be based on the needs of the users of its financial statements. Thus, a financial concept of capital should be adopted if the users of financial statements are primarily concerned with the maintenance of nominal invested capital or the purchasing power of invested capital. If, however, the main concern of users is with the operating capability of the entity, a physical concept of capital should be used. The concept chosen indicates the goal to be attained in determining profit, even though there may be some measurement difficulties in making the concept operational[99].

2.3.3.1 Concepts of Capital Maintenance and the Determination of Profit

The concepts of capital give rise to the following two concepts of capital maintenance:

(a) Financial Capital Maintenance:

This concept a profit is earned only if the financial (or money) amount of the net assets at the end of the period exceeds the financial (or money) amount of net assets at the beginning of the period, after excluding any distributions to, and contributions from, owners during the period. Financial capital maintenance can be measured in either nominal monetary units or units of constant purchasing power.

Financial capital maintenance where capital is defined in terms of nominal monetary units, profit represents the increase in nominal money capital over the period. Thus, increases in the prices of assets held over the period, conventionally referred to as holding gains, are, conceptually, profits. They may not be recognised as such, however, until the assets are disposed of in an exchange transaction. When the concept of financial capital maintenance is defined in terms of constant purchasing power units, profit represents the increase in invested purchasing power over the period[100]. Thus, only that part of the increase in the prices of assets that exceeds the increase in the general level of prices is regarded as profit. The rest of the increase is treated as a capital maintenance adjustment and, hence, as part of equity.

(b) Physical Capital Maintenance.

A profit is earned only if the physical productive capacity (or operating capability) of the entity (or the resources or funds needed to achieve that capacity) at the end of the period exceeds the physical productive capacity at the beginning of the

period, after excluding any distributions to, and contributions from, owners during the period[101].

The concept of capital maintenance is concerned with how an entity defines the capital that it seeks to maintain. It provides the linkage between the concepts of capital and the concepts of profit because it provides the point of reference by which profit is measured; it is a prerequisite for distinguishing between an entity's return on capital and its return of capital; only inflows of assets in excess of amounts needed to maintain capital may be regarded as profit and therefore as a return on capital. Hence, profit is the residual amount that remains after expenses (including capital maintenance adjustments, where appropriate) have been deducted from income. If expenses exceed income the residual amount is a loss. The physical capital maintenance concept requires the adoption of the current cost basis of measurement. The financial capital maintenance concept, however, does not require the use of a particular basis of measurement. Selection of the basis under this concept is dependent on the type of financial capital that the entity is seeking to maintain.

The principal difference between the two concepts of capital maintenance is the treatment of the effects of changes in the prices of assets and liabilities of the entity. In general terms, an entity has maintained its capital if it has as much capital at the end of the period as it had at the beginning of the period. Any amount over and above that required to maintain the capital at the beginning of the period is profit. Physical capital maintenance when capital is defined in terms of the physical productive capacity, profit represents the increase in that capital over the period. All price changes affecting the assets and liabilities of the entity are viewed as changes in

the measurement of the physical productive capacity of the entity; hence, they are treated as capital maintenance adjustments that are part of equity and not as profit.

The selection of the measurement bases and concept of capital maintenance will determine the accounting model used in the preparation of the financial statements. Different accounting models exhibit different degrees of relevance and reliability and, as in other areas, management must seek a balance between relevance and reliability. This Framework is applicable to a range of accounting models and provides guidance on preparing and presenting the financial statements constructed under the chosen model. At the present time, it is not the intention of the Board of IASC to prescribe a particular model other than in exceptional circumstances, such as for those entities reporting in the currency of a hyperinflationary economy. This intention will, however, be reviewed in the light of world developments[102].

2.1.21 Environmental Disclosure, Financial Reporting Quality and Financial Performance

The link between the concept of Environmental Disclosure and Concept of Financial Performance connotes incorporation or non-incorporation of the environmental information in the annual reports of the companies whose activities are prone to causing environmental degradations which in turn informs the decisions of the stakeholders either positively or negatively[103]. The study concluded that firms which produce environmental disclosure have better financial performance than those that do not. In addition, US firms, and used the value of net income/total assets as their performance proxy. They found that high performance firms had higher disclosure of environmental policies and/or descriptions of environmental commitment compared to poor performing firms[104].

Environmental disclosure and financial reporting quality, as independent variables, may also interact to influence financial performance in manufacturing companies. High-quality financial reporting will enhance the credibility and usefulness of environmental disclosures, as stakeholders are more likely to depend mostly and act upon environmental information that is supported by accurate and reliable financial data comprehensive environmental disclosures can complement financial reporting by providing a more realistics view of a company's long-term sustainability and risk profile, potentially leading to improved financial performance.

The combined effect of environmental disclosure and financial reporting quality on financial performance is actually significant in manufacturing companies. These firms are often subject to stringent environmental regulations and intense public scrutiny due to their substantial environmental impact. Consequently, both comprehensive environmental disclosures and high-quality financial reporting are critical tool for maintaining legitimacy, managing risks, and fostering trust among stakeholders, which enhance financial performance of Companies at the long run

2.2 Theoretical Review

2.2.1 Stakeholders Theory

Stakeholder theory was first described by Freeman (1983) a professor at the University of Virginia, in his landmark book, "Strategic Management: A Stakeholder Approach." It suggests that shareholders are merely one of many stakeholders in a company. The theory argues that a firm should create value for all stakeholders, not just shareholders. Stakeholder theory is a further development on the concept of stakeholder and its relationship to any business corporation. Freeman (1984) offers a

traditional definition of a stakeholder thus, as "any group or individual who can affect or is affected by the achievement of the organization's objectives" Therefore, the general idea of Stakeholder theory is a redefinition of the organization. That is, what the organization should be and how it should be conceptualized.

The theory as noted by Friedman (2006) states that the organization itself should be thought of as grouping of stakeholders and the purpose of the organization should be to manage their interests, needs and viewpoints. This stakeholder management is thought to be fulfilled by the managers of a firm. The managers should on the one hand manage the corporation for the benefit of its stakeholders in order to ensure their rights and participation in decision making and on the other hand, the management must act as the stockholder's agent to ensure the survival of the firm to safeguard the long-term stakes of each group[105].

Stakeholders' theory takes account of a wider group of constituents rather than focusing on shareholders. Where there is an emphasis on stakeholders, the governance structure of the company may provide for some direct representation of the stakeholders groups. The main groups of stakeholders are: customers, employees, local communities, suppliers and distributors, shareholders, the media, general public, business partners, future generations, past generations (past founders) academics, competitors, NGOs, trade unions, competitors, regulators and governments.

For better decisions to be made, the Stakeholder theory further demands that managers should develop and run their enterprises in a way that is consistent with the demands of the theory i.e., stakeholder's value rather than shareholder's value maximization. A company has responsibility towards its stakeholders and each of these interest groups sees the role of the company in a slightly different ways. This

therefore means that a firm's value is influenced by the quality of its relationships with a range of internal and external stakeholders, and its ability to communicate its activities and performances effectively with its key stakeholders can be critical to its long-term success, viability and growth[106].

The long-run value of an enterprise cannot be maximized if the varied interests of its stakeholders (apart from owners/shareholders and managers) are ignored which indicates that the requisite trade-offs should be made. This was noted by Jensen (2000) when he propounded the enlightened Stakeholder theory which posited that the objective function of a firm should be to maximize its total long-run market value and a change in the market value is the scorecard by which the success of an enterprise is measured. The author further posited that none of the stakeholders is superior or ranks above others and that the value created by an enterprise gives managers a way to assess the trade-offs that must be made among the competing stakeholders. Value creation, therefore, allows principled decision making independent of personal preference of managers or owners and also provides an objective yardstick with performance that can be evaluated.

In addition, Equity theory gives support to Stakeholder theory. The theory posited that stakeholders do not only evaluate the size of the value created that is distributed to them but also consider the value appropriated to other stakeholders. Stakeholders also assume the presence of relative justice in the exchange process that the absence of relative justice in value appropriation can produce negative sentiments and behavioural responses (e.g. dissatisfaction and withdrawal of contributions towards value creation). Relative justice in value appropriation is a subjective concept which varies from one company to the other, hence, the need to examine whether

corporate bodies in modern times measure and control their behaviors and whether they are responding to stakeholders' interests in an effective way or not.

This concern was generated out of the context in which corporate organisations operate because a network of relationship connects a company to a greater number of interrelated individuals and constituencies, called stakeholders[107]. The relationship also influences the way a business is governed, its short and long-term survival and value creation. Specifically, this study argues that the satisfactions of the interests of critical stakeholders of a company during a period, in form of the economic value created that is distributed to them, do affect the value created in the period and period(s) following.

In Freeman (1984) originally detailed the Stakeholder Theory of organizational management and business ethics that addresses morals and values in managing an organization. Contrary to agency theory's view organizations of as a system of relationship between shareholders and management, stakeholders' theory view organizations as a system that accommodates not only the interest of the owners but also the interests of other groups within the environment which the organization operates[108]. The theory argued that since organizations cannot operate and exist in isolation without relating to its immediate environment then the interest of other stakeholders like employees, customers, suppliers and local community might be considered in the process of strategic decision making. Therefore, the main argument of the theory, Organizations should not only maximize the returns of shareholders alone, but also the expectations of stakeholders should be considered. Finally, the theory argued that for a firm to achieve effective performance in the market, cordial relationship must exist between the firm and the stakeholders and the firm board

should be large and diversified enough to accommodate the interest of other stakeholders[109].

2.2.2 Legitimacy Theory

Legitimacy theory is central to the social contract which can be implicit and explicit. It is a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values and definitions[110]. Legitimacy theory offers a powerful mechanism for understanding voluntary social environmental disclosure made by organizations and that this understanding would provide a vehicle for engaging a critical public debate.

The Legitimacy theory states that it is the moral obligation of companies to meet the expectation of the societal members and if company fulfills the expectation of the whole society then it would be treated as legitimate otherwise its legitimacy would be at risk[111]. So, organizations are expected to respond to the changing expectations of the society to maintain their legitimacy. First, the company can adopt those goals, value and operations which are consistent to existing legitimacy definition. Second, it can use the communication strategy to legitimize its present practice by influencing legitimacy definition. Finally, the company can use communication strategy to be known with those symbols (e.g. ISO 14000, ISO 9000 standards).

The Legitimacy theory argues that organizations seek to ensure that they operate within the bounds and norms of society. It is considered as a generalized perception or assumption that the actions of an entity are desirable, proper or appropriation within some socially constructed system of norms, values, beliefs and definitions and so organizations attempt to establish congruence between the social

values associated with or implied by their activities and the norms of acceptable behaviour in the larger social system of which they are part. The essence of legitimacy theory is to ensure that environmental information is disclosed as a way of legitimizing the operations of the firms[112]. This theory is the most appropriate to explain social and environmental disclosure since it entails conformity of an organization with the value of the society within which it functions.

2.2.3 Positive Accounting Theory

This theory suggests and explains why a firm makes voluntary social disclosure of environmental issues based on the original works of Watts et al (1986), The Positive Accounting theory has directly sought to establish evidence for the political cost hypothesis as an explanation for firms social disclosure. The theory posits that the disclosure of environmental issue is determined by the size and type of industry[113].

2.2.4. Institutional Theory

This theory provides explanation for the adaptation of a particular organizational practice within a specific organization field. These dimensions are explained below. A constrains process that forces one unit of population to resemble other units that face the same set of environmental conditions. It is the adaption of an institutional practice by an organization. Mimetic isomorphism refers to the companies' "Willingness to copy or imitate the organizational practice of other organization. Normative is morpheme comes from professionalism, which refers to the professional expectation to comply with some standards and to adopt institutional practices. There are two important sources to normative isomorphism; education and professional network. The normative groups include academics, environmental

consultants, industry association, trade association, government organization, professional organizations while interest groups include those parties who used the companies' environmental disclosures[114].

2.2.5 Political Economy Theory

It posits that accounting system acts as mechanisms used to create, distribute and mystify power. It is based upon economic theories of self- interest. Political economy suggests that environmental disclosures are pre-emptive and used to enforce an agenda to stave-off intervention. The emergence of pressure groups creates a threat to companies who may face increased government intervention in the form of regulatory action which then creates political costs. Companies are therefore predicted to counter possible political costs by resorting to government lobbying and providing social responsibility disclosures. Analyzing social disclosures using this framework would require greater emphasis on the interplay between the firm's social information content and external parties[115].

2.2.6 Social Contract Theory

It is developed on the proposition that there exists contract between business and wider society, whereby business agrees to perform various societal desired actions in return for approval of its objectives, other rewards and its ultimate survival[116].

For the furtherance of this study, the researcher will limit its conceptual framework to the Stakeholder's theory. Numerous views about Stakeholder's theory that are presented in the literature through key distinction can be drawn between the tenets of stakeholder theory and conventional input –output model of the firm which

see firms as converting investors, ,supplier and employee in outs into customers output[117]. In contrast, stakeholder theory argues that every legitimate person or group participating in the activities of a firm do so to obtain benefit and that the priority of the interest of all legitimate stakeholder is not self evident.

There are four central theses related to stakeholder theory: First, stakeholder theory is descriptive in that it offers a model of the corporation. Stakeholders' theory is instrumental in offering a framework of investigating the links between conventional firm performance and the practice of stake holder management. Although stake holder theory is descriptive and instrumental it is more fundamentally normative. Third, Stakeholders are identified by their interest and all stakeholder interest, are considered to be intrinsically valuable. Finally, Stakeholder theory is managerial, in that it recommends attitudes, structure and practices and require simultaneous attention is given to the interest of all legitimate stakeholder. Hence, the theory proposes that firms' performance is dependent on the relationship between the firms and all stakeholders[118].

2.3 Review of Empirical Studies

The association between the content of corporate environmental disclosure and corporate financial performance. The study was concerned with a lack of corporate social responsibility disclosures in annual reports due to their voluntary nature. The authors scored environmental disclosures in 20 pre-selected content categories along four dimensions; evidence, time, specificity, and theme. Proxies environmental performance by a performance index devised by the Council on Economic Priorities (CEP), a non-profit organization specializing in the analysis of corporate social activities. Forty firms were selected from the 50 firms that were

monitored by the CEP. Regression results indicated no association between environmental disclosure and environmental performance[119]. The content analysis technique examined the association between social sustainability reporting and characteristics of companies. Findings from the study suggest that a positive relationship exist between firms' financial leverage and the extent of voluntary disclosure. A study on the incentives of Australian firms to provide environmental information within their annual reports voluntarily. Using a political cost framework, hypotheses were developed which link the extent of environmental disclosures with a measure of the firm's perceived effects on the environment. A sample of 197 firms was obtained from Australian Graduate School of Management annual reports file for the year 1991. The results indicate that firms which operate in industries which are perceived as environmental damaging are significantly more likely to provide positive environmental information within their annual reports than are other firms[120].

Using a sample size of 252 listed companies in Indonesia, investigated the relationship between financial performance and environmental reporting. It concluded that that financial performance had no significant relationship with environmental performance. There are differences between sectors in terms of determinants which affect disclosure decisions and there is a positive relationship between the size of the firms and the quality of environmental information. Decision makers in firms, particularly in developed countries, play significant roles in voluntary environmental disclosure. Investors do not obtain some information if decision-makers believe that investors do not need to have information or this information is available in other sources[121]. Managerial decisions in companies with regard to environmental disclosure are subject to determinants. Some researchers noted in their studies that the

size of the company is one of the determinants of managerial decisions, and indicates a positive relationship between firm size and the level of environmental disclosure.

The firms increased the level of environmental disclosure, because of the surge of environmentalism. The researchers indicated disclosure correlated with increases in social concern about environments and relationships between firm's environmental performances with kinds of industry. The financial situation of the company influences the decision of environmental disclosure. This study found that when the company's financial situation is well, the company will be more likely to provide environmental information. Using a sample companies drawn from oil and gas sectors of the Nigerian stock exchange for 2008-2013 financial years, found that there is no significant relationship between profit and corporate environmental disclosures. He therefore concludes that voluntary stance of environmental reporting has often be used as a clinche for companies to under report their effects on the environment and this is responsible for the negligence of several corporate entities with regards to corporate social and environmental reporting[122].

The objective of this study is to investigate the Determinants of Environmental Disclosure in Nigeria. The specific objectives therefore, are to examine the effect of industry type, leverage and firm size on environmental disclosure on a sample size of 50 companies from both manufacturing and non-manufacturing sectors. The statistical method employed was the Binary logistic panel data regression. The study revealed that industry type, firm size has positive relationship, while leverage has no significant effect on environmental disclosure[123].

Environmental Accounting and Financial Performance of Oil and Gas Companies in Nigeria. The secondary data were made use in the study for the periods

2015, 2016 and 2017 with the total sampled 11 companies selected based on environmental information available in the annual reports. The data were analyzed using multiple regression analysis through the use of econometric model. The amount spent by each Oil company as their environmental costs (on air pollution, water pollution, staff welfare (medical expenses), community welfare and externalities were used as proxies for environmental accounting reporting while ROCE, NPM, DPS, and EPS were used as proxies for corporate performance. The result revealed that the explanatory variables, ROCE, NPM, EPS, and DPS have an insignificant relationship with ENVC with coefficients of .252, .011,.152 and .114 and P-values of .175, .950, .423 and .542 respectively. The 30.6% Adjusted R2 indicates the variation in ENVC margin and could be explained by variability in explanatory variables as well as control variables in the model[124].

Durbin Watson value of 1.683 affirmed that there is no first-order autocorrelation among the residuals in the model. The result is in agreement with the findings that financial performance has no significant relationship with environmental reporting. However, the result is contrary to the discoveries that found a significant relationship between environmental reporting and firm performance. The findings suggested that lack of environmental reporting and disclosure standards significantly affected the reporting and disclosure uniformity of environmental related information in financial statements, annual reports and accounts. It was discovered that environmentally friendly organizations' who voluntary disclosed their environmental activities enjoyed high level of competitiveness. It was concluded that, issues related to financial performance, managerial accounting, external and internal auditing, tax and financial accounting need to be studied further in order to deal with other

environmental issues effectively. This study thereby gave some recommendations among others that Government Environmental Agency should make environmental reporting in annual reports compulsory since most organizations hardly report their environmental activities in their reports and also Oil and Gas companies on their part should ensure that they comply with the environmental laws of the nation as it will go a long way in enhancing their performances[125].

Assessed the relationship between disclosure levels of environmental accounting information and financial performance. Data were collected from the firms listed in Vietnam Stock Exchange from 2013 to 2017, including the firms disclosed and the ones did not disclose the environmental accounting information. The study used two regression models to investigate the relationship between environmental accounting information and return on assets. The results indicated that there was a close relationship between disclosure level of environmental accounting information and financial performance. In addition, there was a difference in terms of financial performance between the firms that had not disclosed environmental accounting information and the ones that disclosed the environmental accounting information[126]. Conclusively, based on the quantitative and qualitative research methodology, the team assessed the impact of the level of disclosure of environmental accounting information on the financial performance of the business. The results indicate that the level of disclosure of environmental accounting information affects the financial performance of businesses both now and in the future. At the same time, the study also found the relative difference in financial performance between two groups of enterprises disclosing environmental accounting information and not disclosing environmental accounting information. However, it was recommended that the

Environmental Regulatory of Vietnam needs to raise awareness of corporate environmental responsibility and the benefits of disclosing detailed environmental accounting information to the financial performance of the business[127].

A study examined the relationship between corporate sustainability disclosure and return on investment. The sample of the study consisted of ten Johannesburg Stock Exchange (JSE) - listed mining companies, and the data was extracted from sustainability reports for a period of five years from 2010 to 2014. In this regard, data collection was undertaken by the adoption of a content analysis approach. A multi-regression analysis was used to analyze the relationship between environmental disclosure and return on investment. The same statistical mechanism was employed to determine the association involving social disclosure and return on investment. Results showed that there is a negative relationship between environmental disclosure and return on investment. On the other hand, the research revealed that there is also a positive association between social disclosure and return on investment. In conclusion, this implied that an increase in corporate reporting of social issues results in heightened financial performance through an increase in return on investment. The study recommended the adoption of corporate social disclosure as it would encourage firms to be socially responsible, while also generating financial benefits[128].

A study examined the Impact of Environmental Reporting on the Financial Performance of Fortune 500 firms from 2013 to 2017. It appraised financial performance by measuring three independent variables: reduction in greenhouse gas emissions, reduction in waste, and reduction in water consumption. While the target population comprised the top 100 CSR-reputed companies listed on Fortune 500, the sample size was determined to be 50 based on observations of 250 companies. The

collected data were analyzed using descriptive statistics, correlation, and regression analysis. Findings indicated that reduction in nominated variables such as greenhouse gas emissions and water consumption had a positive and significant impact on financial performance, whereas that in another variable, i.e., waste, had a negative and significant impact on financial performance. It was concluded that the multinational organization should involve in very many environmental or sustainability activities as this kind of events improve and increase the customer base that will eventually escalate the number of profits, thence firm's financial performance also improves. In addition, environmental reporting or sustainability reports increase the organization's visibility and publicity. Through practicing the resources to be environmentally friendly organizations are in a position to contribute to the community at large. Moreover, the positive relationship between environmental reporting and financial performance recommends that global companies' managers can use the environmental reporting to enhance the customer trust (stakeholder's positive attention), lessen reputational risks, and as such create long term shareholder value. Thereby, this study recommended that firms should adopt environment-friendly resources to attract stakeholders as well as save the planet. It also suggests that firms need to accord dedicated focus to environmental reporting to improve profitability[129].

The effect of environmental accounting disclosure on firm value of listed industrial goods companies in Nigeria from 2007- 2016. The ex-post facto research design was adopted in this study while the data were gathered through the individual sample company annual financial statement. Multiple regression was used to analyze the effect of environmental accounting disclosure on firm value. Environmental accounting disclosure was measured by non- financial indicators, financial indicators

and performance indicators while the firm value was measured by Tobin's Q. From the result, it is evident that non-financial indicators have a positive significant effect on firm value while performance indicators have a negative significant effect on firm value and the financial indicator has no significant effect on firm value of industrial goods companies in Nigeria. It was concluded that, the information content requirement by stakeholders helps in disclosing information about organizational financial performance and report on environmental accounting. Therefore, there is a need for corporate entities to improve on their environmental responsibility practices and disclose comprehensively their environmental risks, liabilities and impact on the environment[130]. The study suggested that sanctions be put in place to encourage disclosures most especially non-financial indicators because it has a direct influence on the firm value of the industrial goods companies in Nigeria. The relationship between environmental accounting and nonfinancial firm's performance listed in Pakistan stock exchange, Pakistan. Present study used regression analysis technique, using companies' annual data from 2006-2016. The empirical analysis showed a significant positive relationship between environmental accounting and firm's size. While earning per share and return on capital employed statistically turned out to be insignificant. Therefore, those companies, which have huge size, spend more resources for social welfare in term of environment pollution protection. On the Contrary, the limitation of this research is small sample size of listed companies in Pakistan stock exchange. Hence, outcomes cannot be generalized for entire population[131]. Based on the results, it is suggested that government must give some tax relief to those firms, which work for the environment protection and environmental reporting should be compulsory in Pakistan to have clean homeland.

In Summary, various studies on environmental disclosures were reviewed with different results, though some have similarities in their conclusions that environmental disclosure has effect on financial performance while some were entirely different. Over several years, a variety of papers have examined the relationship between environmental disclosure and the financial performance or profitability of the firm. Studies have produced mixed results. Some have found a positive correlation between the two variables; while some have found no correlation between environmental disclosure and profits[132]. Given the inconclusive results found to date, this study aims to further examine the effect of environmental disclosure on financial performance of quoted Oil and Gas companies in Nigeria by using E-view Econometric tool with focus on Ordinary Least Square to analyze the panel data extracted from the annual reports of the companies Oil and Gas in Nigeria for period of 10 years, covering 2010-2019

2.3.1 Review of Empirical Studies in Developed Countries

The large proportion of existing literature on environmental disclosure has focused on the relationship that exists between this phenomenon and financial performance. It examined the relationship between environmental performance and financial performance. The result shows that profitable firms are more environmentally responsible because they have superior financial performance. Similar result was reported and also found a positive relation between firms' performance, as measured by return on assets and environmental rating. In the same vein, a study examined the information content of pollution control disclosures. He found a positive performance between economic performances and environmental reported[133].

Empirical Review examined the impact of environmental accounting on performance of businesses in Istanbul Province. The study used primary data through the administration of structured questionnaire while multiple regression analysis was adopted to test the hypothesis. It was obtained that environmental accounting measured as Planning and Costing, responsibility and Image, environmental sustainability, certification and qualification and environmental consciousness significantly impacted on business performance. A research conducted a study on the impact of environmental accounting on profitability of oil and gas companies in Nigeria using secondary source of data, obtained from annual report and accounts of the selected companies; the result of the regression analysis carried out revealed an insignificant relationship between environmental cost and net profit of oil and gas companies listed on the Nigerian Stock Exchange[134]. Another study investigated how environmental disclosure impacted the return on asset using secondary data obtained from annual reports of twenty-six (26) food, tobacco and beverages producing firms quoted on the authors; licensee Online Academic Press, USA the Colombo Stock Exchange. The result of the regression analysis conducted revealed that return on asset was positive and significantly impacted by environmental accounting disclosure and firm size; but insignificantly influenced by liquidity. Empirically examined the impact of social and environmental disclosures on performance of non-financial firms in Nigeria, the study adopted ex post facto design and made use of data obtained from the NSE Factbook and published annual financial reports of the entire 112 non-financial firms quoted on NSE with data spanning from 2011-2018. The study found that social and environmental disclosures have significant positive impact on net-asset per share (firms' performance) over the years. The study opined that firms should have positive disposition towards social and environmentally friendly practices[135].

Study examined effect of non-financial information on shareholders' investment decision making explored the statistical test tool of OLS, using the variable of ROA and environmental disclosures as index for non-financial information and found that the level of firms' environmental disclosures influences its performance, and suggested corporate bodies should increase the volume of disclosures in their reports for investors' consumption. Also, discovered a significant positive between the level of environmental disclosure of firms and performance measured by ROA in his study on environmental disclosures and corporate performance in Japan[136]. Contrarily, social and environmental disclosures negatively related with firm's performance of firms. The study of non-financial disclosures and performance of manufacturing firms in India used the variable of environmental disclosures, corporate governance disclosure and firms Net Assets Per Share. The result of the regression model adopted revealed that firms' performance is positively and significantly affected by non-financial disclosures[137]. Also, used dummy variables and explored the test tool of regression model and found significant positive effect between corporate social responsibility disclosure (CSRD) and firms' performance. The study explored the use of dummy variable and applied the test tool of OLS and recommended that shareholders should look beyond the quantitative information in the companies report and its footnote. Much emphasis should also be placed also on qualitative information provided in the companies report for investment decision making. The study on corporate social reporting in Malaysia established simple regression model and found significant negative relationship between corporate social reporting and firms' performance. The study recommended on the relevance of quantitative information sufficed in the companies report[138].

A study conducted that environmental disclosure was measured against six accounting ratios to measure financial performance, the result shows that no long term association between pollution performance and financial performance in the pulp and paper industry. However, for very large firms with poor financial performance the pollution disclosure are more detailed. For the level of environmental disclosure in annual report and its determinants, a number of studies have been conducted in the developed countries, some of which include: the study carried out a content analysis of 150 annual reports from Netherland, Sweden, Switzerland, France, Germany and United Kingdom, the study revealed that higher level of customer related issues were disclosed and significant factors influencing social reporting patterns were found to company size, industry grouping and country of domicile[139]. In the same vein, examined the relation between corporate characteristics and environmental disclosures by taking a sample of 100k companies drawn from centre for social Environmental Accounting Research (CSEAR). The authors observed that the volume of disclosure is related to the turnover, capital employed, number of employees and profit, as larger and more profitable firms have disclosed more environmental information[140].

2.3.2 Review of Empirical Studies in Developing Countries

A study investigated environmental accounting and firm profitability in Nigeria using ordinary least square regression (OLS). With a sample of 50 listed companies and a cross-sectional research design, data were obtained from annual reports and accounts of the sampled firms. The research evidence showed that a significant relationship exist between environmental accounting and firm's profitability. However, the study revealed a negative relationship when moderated by

firm size. Also, the link between environmental costs accounting and reporting of firm financial performance of listed oil and gas firms in Nigeria. Proxied by cost of environmental remediation and pollution control, cost of environmental laws compliance and penalty, donations and charitable contributions. It was established that environmental performance influence business value positively. Data obtained from five (5) sampled oil and gas firms was analysed using multiple regression with a panel data model. The study also revealed that, environmental accounting provides organisation's an opportunity to reduce environmental and social costs and improve their performance[141]. In a similar vein, a study discovered that positive relationship exist between performance and environmental responsibility reporting in the oil and gas sector of Nigeria. Likewise, a study measured performance as return on asset and return on equity and the result of their regression analysis showed that the commitment of the Nigeria listed oil and gas companies to social and environmental sustainability significantly impact their financial performance. In the same vein, another study examined the impact of environmental and social costs on performance of Nigerian manufacturing companies. Results showed that environmental and social cost significantly affect earnings per share of manufacturing companies. However, reported a contrary finding in the same environment that is insignificant negative relationship exist between environmental accounting and earnings per share of Nigeria listed companies. While, established that environmental practices positively and significantly influence financial performance in developed countries[142].

The research disclosed that there is a significant positive relationship between company profitability and environmental accounting reporting. It examined the impact of environmental disclosure and corporate social responsibility accounting on

organizational financial performance of firms in Nigeria. The result showed no significant impact between environmental accounting disclosure and financial performance. A study assessed the effect of Environmental Disclosure on financial performance of listed firms at the Nairobi Securities Exchange, Kenya. Findings revealed that environmental disclosure has a positive significant effect on financial performance. Environmental accounting disclosure has significant effect on the performance of Nigeria listed firms. A study conducted, concluded that the disclosure of the environment information resulted in an improvement in the organization financial performance. Environmental accounting disclosure leads to an improvement in the organization's financial performance by improving the confidence of potential investors and creditors, thereby enhancing the image of the organization. Also, suggested that oil and gas producing companies should give preference to their environment so as to improve their future performance and profitability of their operations[143].

A study examined environmental accounting and reporting and found that like other developing countries Turkey has not seen environmental issues as a priority. In line with this, also examined environmental reporting practices in Turkish companies and reported that Turkish companies' reports were lower standard and prepared under much less seriously vis-a-visa multinational companies reports. In Malaysia, studied the practices in Malaysian companies and showed that 74 out of 362 companies in environmentally sensitive industries provide environmental information in their annual reports. In line with this, a study examined the extent and type of environmental disclosures in annual reports for the year 2000 by Malaysian

companies belonging to construction and industrial product industries and concluded that the extent of environmental disclosure was very low[144].

2.3.3 Review of Environmental Studies in Nigeria

In Nigeria, a large portion of the literature are based on the extent or level of environmental disclosures carried out a content analysis of 20 companies from 2002 to 2006 and the result shows that 35% of companies sampled provide some form of social disclosure in their annual reports, hence the level of disclosure is still very low. Contrary to this, Mammah, 2004 explained that there is a growing tendency of firms reporting information on social performance in their annual reports. In line with this revealed that environmental disclosure in annual reports is significant. A large proportion of firm disclosure is in the area of social works in form of community development and human resources environment comes third[145].

The product of environmental pollution on the society is increasingly alarming. It is so disturbing that nobody can claim to be undisturbed. This general concern has now placed an obligation on auditors and public managers who are seen to be working for some of these companies and are also seen to standing for public interest. The notion that the auditors are working for the public becomes controversial and very challenging as there seems to be no statutory environmental guidance and protection for them. Auditors are left to their fate. In the study revealed that sustainable business practices and corporate performance is significantly related. And sustainability may be a possible tool for corporate conflict resolution as evidenced in the reduction of fines, penalties and compensations paid to host communities of oil companies, and that Nigeria should develop a well-articulated environmental costing system in order

to guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity and eventually improve corporate performance[146].

The aim of this study is to examine the extent of environmental disclosures in quoted oil and gas and construction industries in Nigeria. A comparative analysis of the content of environmental information provided in the 2005-2009 annual reports of the sample firms was conducted to ascertain the degree of comprehensiveness of such disclosures and if there exists significant differences between both industries. Findings indicate that the oil and gas industry provided a better disclosure level but this difference was not significant. More so, both industries presented very scanty environmental information in their annual reports which was in agreement with the arguments of the study[147].

2.4 Conceptual Framework

Below is the conceptual model that shows the relationship among the variables of interest.

Environmental Disclosure

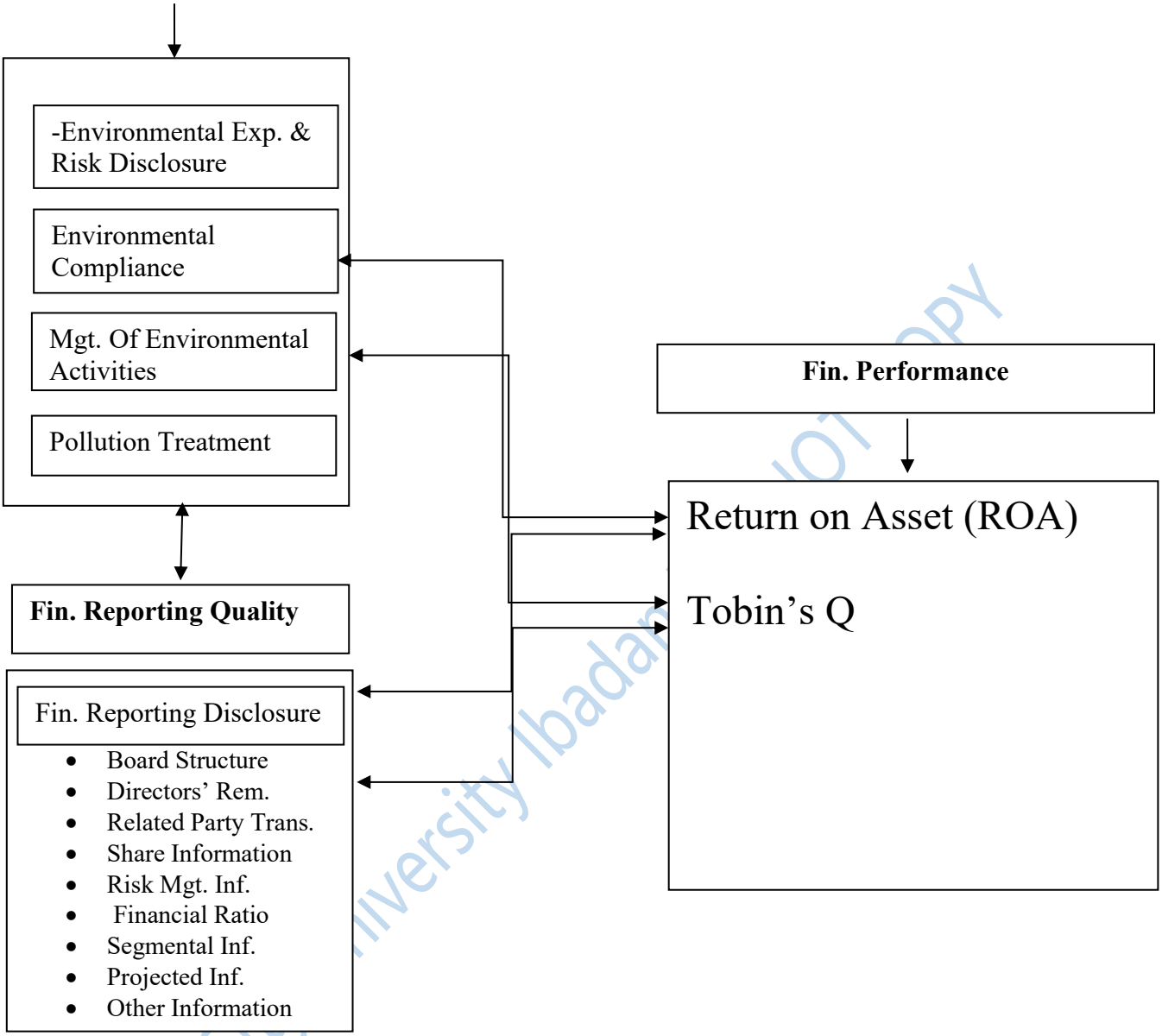

Fig.2.1: A schematic Diagram of Conceptual Framework of Environmental Disclosure and quality of financial reporting of Quoted Manufacturing Companies

Notes to the Diagram:

Environmental Expenses and Risk Disclosure

Environmental Compliance

Management of Environmental activities

Pollution Treatment

Directors Remuneration

Related Party Transaction

Risk Management Information

Segmental Information

Projected Information

Based on several prior studies conducted on Environmental Disclosure and Financial Reporting Quality and drawing on the theoretical background of these studies, a conceptual model that positions Environmental Disclosure and financial report quality as focal variables within the web of corporate continuity and that shows the relationship between the variables is proposed in figure 2.1 above.

The figure shows the control variables used to determine the extent of Environmental Disclosure in the various financial reports and the effect they have on the financial Report Quality of Quoted Manufacturing companies.

2.5 Summary of the Gap

Environmental accounting is used for internal organizations' decision-making processes and procedures which include descriptive qualitative and quantitative monetary information on material and energy consumption, the outflows, waste generated and monetary information on costs, savings and revenue on any activity with potential environmental impacts . The need to be globally relevant, as well as the negative consequences arising from the non-reporting of environmental impacts by corporate organisations, has resulted into increased academic debates and initiatives on this subject matter. These negative consequences include pressure on business activities from external forces such as the society, non-governmental organisations, government, consumers, human rights activists and environmentalists. Environmental accounting disclosure comprises various methods that organisations adopt in reporting their environmental impacts on stakeholders and measures they have adopted in preventing and cleaning-up these impacts. Environmental accounting disclosure could be in quantitative terms following the cost approach or qualitative terms following the descriptive approach. To the best of my knowledge, studies in Nigeria laid little emphasis on the relationship between environmental issues and financial reporting in a manufacturing company. Most studies are streamlined to social responsibility and environmental disclosure in oil and Petroleum Company. The empirical evidence has shown above in developed and some of the developing countries revealed the determinants of environmental disclosures in annual report and further investigated the impact of environmental disclosure on value of firms. This gap in knowledge in Nigeria is what this study intends to fill.

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Chapter Three

Methodology

This chapter explain the various methodologies that is been adopted in answering the research questions of the study. Some of the aspects discussed are; research design population, sample size, sampling technique, research instrument, method of data collection and method of data analysis.

3.1 Research Design

This study adopt ex-post facto design because the study rely on secondary data on environmental accounting disclosure and financial performance of listed manufacturing companies in Nigeria as data was extracted from published annual reports of manufacturing companies.

3.2 Population of the Study

The population of a study can be represented as a social phenomenon, geographical context or a cultural context. The population of the study are the 43 manufacturing Companies on the Nigerian stock exchange as at 31st December 2023.

3.3 Sample Size and Sample Technique

The sample size for this study are all the total population which are the 43 manufacturing Companies stated on the Nigerian stock exchange as at 31st December 2023.

Table 3.1: List of Quoted Manufacturing Companies

S/N	Company
1	A.G. Leventis Nigeria Plc.
2	African Paints (Nigeria) Plc.
3	Austin Laz & Company Plc.
4	Berger Paints Plc.
5	Beta Glass Plc.
6	Cadbury Nigeria Plc.
7	Cap Plc.
8	Cement Co. of North. Nig. Plc.
9	Champion Breweries Plc
10	Chellarams Plc.
11	Cutix Plc.
12	Dangote Cement Plc.
13	Dangote Flour Mills Plc.
14	Dangote Sugar Refinery Plc.
15	DN Tyre & Rubber Plc.
16	First Aluminium Nigeria Plc.
17	FlourMills Nigeria Plc.
18	Golden Guinea Breweries Plc.
19	Greif Nigeria Plc
20	Guinness Nigeria Plc.
21	Honeywell FlourMill Plc.

22	International Breweries Plc.
23	John Holt Plc.
24	Lafarge Africa Plc.
25	Mcnichols Plc
26	Meyer Plc
27	Multi-trex Integrated Plc
28	N. Nigeria FlourMills Plc.
29	Nascon Allied Industries Plc.
30	Nestle Nigeria Plc.
31	Nigerian Breweries Plc.
32	Nigerian Enamelware Plc.
33	P.Z. Cussons Nigeria Plc.
34	Paints and Coatings Manufactures Plc.
35	Portland Paints & Products Nigeria Plc.
36	Premier Paints Plc.
37	SCOA Nigeria Plc.
38	Transnational Corporation Plc
39	UACN Plc.
40	Unilever Nigeria Plc.
41	Union Dicon Salt Plc.
42	Vitafoam Nigeria Plc.
43	7-up Bottling Company Plc.

Source: Nigerian Stock Exchange (2023)

3.4 Description of Research Instrument

Research instruments are statistical tools that are adopted in gathering data, some of which include; questionnaire, focus group discussion (FGD), in- depth interview, content analysis among several others[2]. This study being an ex-post facto research will adopt content analysis as its research instrument. This study seeks to adopt content analysis as its research instrument because data was extracted from secondary sources, which include published annual reports of manufacturing companies listed on Nigerian stock exchange as at 31st December 2023.

3.5 Data Collection

This study relies heavily on secondary data and was extracted from the annual reports and account of the manufacturing companies for the years covered by the study.

This study used panel data to explore the relationship between environmental Disclosure, financial reports and corporate performance. The motivations for using panel data include the ability to control for unobservable firm heterogeneity. Panel data analysis had relative advantage over time series and cross sectional data in that there is increase in degree of freedom. This advantage would lead to more efficient estimation of the relationships among the variables. The data was obtained from audited annual reports and accounts of quoted manufacturing companies for the periods 2017 – 2023 reason be period when and these will be collected from the NSE, Lagos office.

3.6 Data Analysis

In most cases the method of data analysis a research work adopts largely thrives on which is most appropriate in showing the relationship between the two varaibles[3].

In analyzing the gathered data, multiple regression was adopted because it recognized as a method of data analysis with the best unbiased, efficient and adopts a less complex technique in analyzing data.

3.7 Model Specification

The functional equation depicts the relationship between the explanatory variables and financial performance as explained by the following regression model. This is adapted from[4].

FinPerf = F (EAD) ---------- equation (1)

To write it in a more explicit functional equation, it becomes;

ROA_i = (Sus, Cons, Audit, Env Disclosure) ----------equation (2)

PAT_i= (Sus, Cons, Audit, Env Disclosure) ----------equation (3)

$ROA_i = \beta 0 + \beta_1 Sus + \beta_2 Cons + \beta_3 Audit + \beta_4 Env\ Disclosure_i + \mu$ ---------- (4)

$ROE_i = \beta 0 + \beta_1 Sus + \beta_2 Cons + \beta_3 Audit + \beta_4 Env\ Disclosure_i + \mu$ ---------- (5)

$PAT_i = \beta 0 + \beta_1 Sus + \beta_2 Cons + \beta_3 Audit + \beta_4 Env\ Disclosure_i + \mu$ ---------- (6)

Where:

ROA= Returns on Asset (Proxy for Financial Performance)

PAT = Profit after Tax (Proxy for Financial Performance)

SUS = Environmental Sustainability

CONS = Environmental Conservation and Preservation

AUDIT = Environmental Audit

ENV DISCLOSURE = Environmental Disclosure

$_I$ = error term

B = constant

Model Specification

Trend of Environmental Disclosure

The descriptive statistical technique in the form of contents analysis was used to achieve this objective. The trend analysis of some variables of interest was carried out to ascertain the rate of changes (increase or decrease) over time using the following linear trend equation model:

$$\mathbf{Y_{it} = \alpha + \beta tv_{it} + £_{it}}$$

Where Y = Vector of the variables of interest; **α** is the intercept term or constant; β is the slope or co-efficient of the trend variables and tv is the trend variables.

Determinants of Environmental Disclosure

This objective was achieved through ordered probit regression analysis. This is due to the fact that the manufacturing companies may choose to disclose environmental practices or otherwise which will enable the dependent variable takes the values of zero (0) or one (1), the study will then employ logistic regression analysis which is specified as follows:

$$Y_i = \alpha_1 + \alpha_2 X_{2i} + \alpha_3 X_{3i} + \alpha_4 X_{4i} + \alpha_5 X_{5i} + \alpha_6 X_{6i} + \varepsilon_i \quad \text{.....1}$$

Where Y_i = 1, if there is environmental disclosure in financial report for the correspondence year and Y_i = 0, if otherwise. X_{2i} = Environmental Disclosure (ED), X_{3i} = firm size (FS),

X_{4i} = Leverage (LEV), X_{5i} = return on asset (ROA), X_{6i} = total asset (TASS) and ε_i is assumed to follow a standard normal distribution.

Effect of Environmental Disclosure on Financial Performance

The functional equation depicts the relationship between the explanatory variables and financial performance as explained by the following regression model. This is adapted from[4].

$$ROA_{it}/TQ = \acute{\alpha}_1 + \acute{\alpha}_2 EER_{it} + \acute{\alpha}_3 EC_{it} + \acute{\alpha}_4 MEA_{it} + \acute{\alpha}_5 PT_{it} + \acute{\alpha}_6 FS_{it} + \acute{\alpha}_7 LEV_{it} + \varepsilon_{it} \quad \text{.....3.2}$$

Where:

TQ= Tobin's Q

ROA= Returns on Asset (Proxy for Financial Performance)

EER = Environmental Expenses/Risk Disclosure

EC = Environmental Compliance

MEA = Management of Environmental Activities

PT = Pollution Treatment

FS= Firm size

LEV= Leverage

ε = error term

B = constant

Effect of Financial Reporting Quality on Financial Performance

This study employed model adapted from

$$ROA_{it}/TQ = \acute{\alpha}_1 + \acute{\alpha}_2 FRQ_{it} + \acute{\alpha}_3 FS_{it} + \acute{\alpha}_4 LEV_{it} + \varepsilon_{it} \quad \text{.....3.2}$$

Model of Dynamic Relationships among Environmental Disclosure, Financial Reporting Quality and Financial Performance

Also, this study is interested in the dynamic relationship among environmental disclosure, financial reporting quality and performance. The below Panel VAR model as specified will be used:

$$InED_{it}=\delta + \sum_{i=1}^{p} \theta_i InED_{it-i} + \sum_{i=1}^{p} \gamma_i InFRQ_{it-i} + \sum_{i=1}^{p} \vartheta_i InROA_{it-i} + \varepsilon_{it} \quad \text{.....4}$$

$$InFRQ_{it}=\partial + \sum_{i=1}^{p} \pi_i InFRQ_{it-i} + \sum_{i=1}^{p} \omega_i InED_{it-i} + \sum_{i=1}^{p} \tau_i InROA_{it-i} + \varepsilon_{it} \quad \text{.....5}$$

$$InROA_{it} = \alpha + \sum_{i=1}^{p} \rho_i InROA_{it-i} + \sum_{i=1}^{p} \varphi_i InFRQ_{it-i} + \sum_{i=1}^{p} \sigma_i InED_{it-i} + \varepsilon_{it} \quad \text{.....6}$$

Variables Measurements and Data Sources Chart

Table 3.2: Variables Measurements and Data Sources

	DETONATION	MEASUREMENTS	SOURCES
Environmental Disclosure Index	EDI	**Global Reporting Initiative Standard** Full compliance disclosure – 3 Part compliance disclosure - 2 Non-compliance disclosure - 1 Non-disclosure - 0	Audited Annual Reports
Financial Reporting Quality	FRQ	**Financial Reporting Quality Index** Full disclosure – 2 Part disclosure - 1	Audited Annual Reports
Return on Asset	ROA	Profit before interest and taxes divided by total assets	Audited Annual Reports
Tobin's Q	TOBINSQ	Total market value divided by Total Asset Value	Audited Annual Reports
Firm Size	FS	Natural log of market capitalisation	Audited Annual Reports
Financial Leverage	FINLEV	Ratio of long-term debt to book value of total assets	Audited Annual Reports

Source: Author's Computation, 2024

Endnotes

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Chapter Four

RESULTS AND DISCUSSION OF FINDINDS

4.1 Presentation of Data

The chapter reports the outcome of the analysis and interpretation as specified in chapter three of this study. This chapter comprises different sections that center on each research question and a priori expectation.

4.1.1 Research Questions

i. What is the extent of environmental disclosure practice in the manufacturing companies in Nigeria?

ii. What are the determinants of environmental disclosure in financial reporting in manufacturing companies in Nigeria?

iii. Does environmental disclosure has any effects on the financial performance of manufacturing companies in Nigeria?

iv. What is the effect of financial report quality on the financial performance of manufacturing companies in Nigeria?

v. Is there any dynamic relationship among environmental disclosure, financial report quality and financial performance of companies?

4.2. Discussion of Findings

4.2.1. What is the extent of Environmental Disclosure Practice in the Manufacturing Companies in Nigeria?

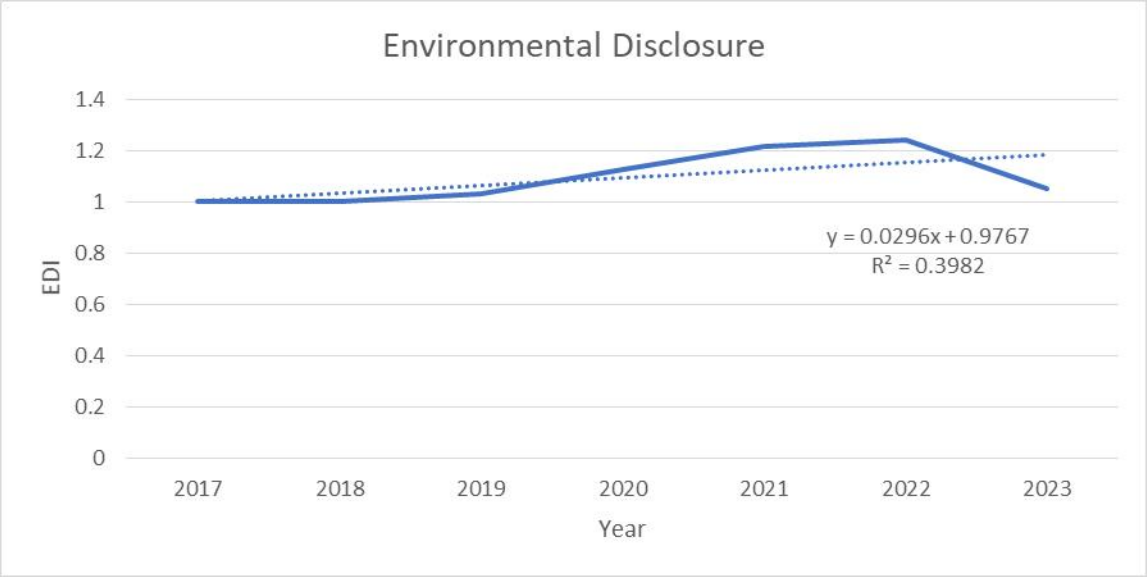


Fig. 4.1.1: The extent of Environmental Disclosure Practices among Manufacturing Companies in Nigeria;

The analysis of environmental disclosure trends among selected Nigerian companies from 2017 to 2023 reveals a general improvement in the reporting of environmental practices, despite some fluctuations within the sample periods.

The average environmental disclosure scores increased progressively from 2017 through 2022, suggesting a heightened awareness and commitment among companies toward transparency in environmental matters. The scores remained steady at 1.00 from 2017 to 2018, followed by a marginal rise to 1.02 in 2019. A more significant upward trend is observed from 2020, with scores climbing to 1.12, 1.21, and peaking at 1.24 in 2022. This upward trajectory underscores a consistent effort by companies to enhance their environmental disclosures during these years. The period of 2017–2019 shows minimal change, with scores hovering around 1.00. This suggests that environmental disclosure practices were relatively static, with limited progress in the comprehensiveness or quality of reporting within this period. The period of 2020–2022 marks a more robust increase in environmental disclosure, with scores rising significantly year-on-year. The peak score of

1.24 in 2022 indicates the highest level of environmental reporting observed during the period, reflecting improved corporate governance and a stronger focus on sustainability. In 2023, a notable decrease in the average score to 1.05 signals a setback in disclosure efforts. This drop suggests potential challenges faced by companies in maintaining the quality or consistency of their environmental reporting, possibly due to external economic pressures, regulatory changes, or shifting corporate priorities.

The firm-level analysis of environmental disclosure highlights varying degrees of commitment to environmental transparency among Nigerian companies.

High Environmental Disclosure: Companies like Dangote Cement PLC, Dangote Sugar Refinery PLC, and Guinness Nigeria PLC consistently exhibit the highest scores of 3. These firms are leaders in environmental reporting, indicating robust sustainability practices and a proactive approach to environmental accountability.

Moderate Environmental Disclosure: Firms such as Berger Paint, Cadbury Nigeria PLC, CAP PLC, UACN PLC, and Unilever Nigeria PLC have average scores of 2, demonstrating a moderate commitment to environmental disclosures. These companies are actively engaged in reporting but may have room for improvement to reach the highest standards.

Low to Minimal Environmental Disclosure: Companies including A.G. Leventis Nigeria PLC, Chellarams PLC, Honeywell Flour Mill, and International Breweries PLC have scores ranging from 0.33 to 0.67, reflecting limited environmental disclosures. These scores suggest either a basic reporting level or significant environmental transparency gaps.

Non-Disclosure or No Significant Reporting: Several firms, such as Austin Laz & Company PLC, Beta Glass PLC, Dangote Flour Mill PLC, Golden Guinea Breweries, Nigeria Enamelware PLC, and Union Dicon Salt PLC, have scores of 0, indicating no meaningful environmental disclosures. This lack of transparency suggests that these companies may not

be prioritizing environmental reporting, potentially reflecting weaker governance or regulatory compliance in sustainability practices.

The analysis of environmental disclosure trends among Nigerian manufacturing companies from 2017 to 2023 reveals important insights into the evolving nature of sustainability reporting within the sector. Despite the varied levels of disclosure, the findings underscore a growing awareness of the need for environmental transparency, though this progress is uneven across firms and time periods. From 2017 to 2022, there is a noticeable upward trend in environmental disclosure scores, indicating an increasing commitment by Nigerian manufacturing firms to improve the transparency of their environmental practices. This progression aligns with broader theoretical frameworks, such as legitimacy theory, which suggests that companies disclose environmental information to align with societal expectations and enhance their corporate legitimacy. As stakeholders—including regulators, investors, and consumers—place more importance on sustainability, companies are more likely to engage in environmental reporting to legitimize their operations and mitigate potential reputational risks.

The steady increase in environmental disclosure scores from 1.00 in 2017 to 1.24 in 2022 suggests that companies have become more responsive to these external pressures. The significant jump in disclosure scores during the period from 2020 to 2022 reflects a stronger focus on corporate governance and environmental accountability. The global emphasis on sustainability, particularly in light of climate change concerns, likely contributed to this trend. This period also coincides with heightened global regulatory demands for corporate social responsibility (CSR) reporting, pushing Nigerian firms to improve their practices.

The drop in the average environmental disclosure score to 1.05 in 2023 is indicative of a setback in the progress made by Nigerian firms. Theories such as stakeholder theory can help explain this fluctuation. While companies strive to meet the demands of various stakeholders,

external challenges—such as economic downturns, regulatory shifts, or shifting corporate priorities—can disrupt these efforts. The decline in 2023 could be attributed to economic pressures, such as the COVID-19 pandemic's lingering effects, which may have shifted corporate focus away from environmental disclosure to short-term financial survival.

The variation in environmental disclosure among different companies highlights the diverse levels of commitment to sustainability practices within the Nigerian manufacturing sector. This divergence can be understood through the lens of institutional theory, which posits that firms are influenced by industry norms, regulations, and competitive pressures. Companies that are industry leaders or operate in highly regulated sectors may feel greater pressure to conform to global sustainability standards, leading to more comprehensive disclosures.

Companies such as Dangote Cement PLC, Dangote Sugar Refinery PLC, and Guinness Nigeria PLC exhibit the highest levels of environmental disclosure with scores of 3. These firms have adopted robust sustainability reporting practices, likely driven by their industry leadership positions and the visibility they have in both domestic and international markets. Their proactive approach may be guided by the need to adhere to international sustainability standards and to maintain their reputations as responsible corporate citizens.

Firms like Berger Paint, Cadbury Nigeria PLC, and Unilever Nigeria PLC have moderate disclosure scores of 2. These companies demonstrate a commitment to environmental transparency but may not be fully integrated into best practices. According to resource-based theory, these firms may be constrained by limited resources or capabilities dedicated to comprehensive environmental reporting. While they are engaged in sustainability practices, there may be room for improvement in the depth and breadth of their disclosures.

Companies with scores ranging between 0.33 and 0.67, such as A.G. Leventis Nigeria PLC and Honeywell Flour Mill, reflect limited engagement in environmental reporting. These firms may be operating in less regulated sectors or facing fewer pressures from stakeholders

to enhance their sustainability disclosures. This minimal disclosure could also be a reflection of weaker corporate governance frameworks or the prioritization of other operational issues over sustainability.

A significant number of firms, including Austin Laz & Company PLC, Beta Glass PLC, and Union Dicon Salt PLC, scored 0, indicating no meaningful environmental disclosures. These companies may not perceive sustainability as a priority, potentially due to weaker governance structures or a lack of regulatory enforcement in the Nigerian context. The absence of environmental disclosures in these firms aligns with agency theory, where managers may prioritize short-term financial goals over long-term sustainability practices, especially in the absence of external accountability.

Table 1: Extent of Environmental Disclosure

NAME OF COMK8PANY	Environmental Disclosure
A.G LEVENTIS NIGERIA PLC	0.666667
AUSTIN LAZ &COMPANY PLC	0
BERGER PAINT	2
BETA GLASS PLC	0
CADBURY NIGERIA PLC	2
CAP PLC	2
CEMENT CO. OF NORTH NIG. PLC	1
CHAMPION BREWERIES	1
CHELLARAMS PLC	0.666667
CUTRIX PLC	1
DANGOTE CEMENT PLC	3
DANGOTE FLOUR MILL PLC	0
DANGOTE SUGAR REFINERY PLC	3
FLOURMILLS NIG. PLC	1
GOLDEN GUINEA BREWERIES	0
GREIF NIGERIA PLC	1

GUINNESS NIGERIA PLC	3
HONEYWELL FLOUR MILL	0.5
INTERNATIONAL BREWERIES PLC	0.571429
JOHN HOLT PLC	0.428571
LAFARGE AFRICA PLC	1
MONICHOLS PLC	0.333333
MEYER PLC	1
N,NIGERIA FLOURMILLS PLC	0
NASCON ALLIED INDUSTRIES PLC	1.428571
NESTLES NIGERIAL PLC	1
NIGERIA ENAMELWARE PLC	0
P.Z CUSSONS NIG. PLC	1
PORTLAND PAINTS & PRODUCTS NIG PLC	1
PREMIER PAINTS PLC	1
SCOA NIG. PLC	1
UACN PLC	2
UNILEVER NIG. PLC	2
UNION DICON SALT PLC	0
VITAFOAM NIG. PLC	1.428571
Grand Average	1.093458

4.2.2: What are the determinants of Environmental Disclosure of Manufacturing Companies in Nigeria?

The study adopts the ordered probit regression to examine the determinants of environmental disclosure (EDI) in financial reports. The independent variable of Leverage (LEV) with a Coefficient of -2.107544 indicates that higher leverage (i.e more debt) is associated with lower levels of environmental disclosure. Firms with higher debt levels are less likely to engage in environmental transparency. The z-Statistic (-4.398091) and p-value (0.0000) show that this result is highly significant, meaning the relationship between leverage and

environmental disclosure is statistically significant at the 1% level. Companies with high leverage may avoid additional disclosures that could potentially expose more financial risks.

The variable of Return on Assets (ROA) with a coefficient of (0.339364): A positive coefficient suggests that firms with better financial performance (higher profitability) tend to disclose more environmental information. This implies that more profitable firms are more willing to provide environmental disclosures. The z-Statistic (1.683582) and p-value (0.0923) indicate marginal significance at the 10% level, meaning the relationship is weak but noteworthy. Firms that are performing well financially may have more resources and incentives to focus on environmental disclosure.

The variable of Firm Size (FS) with the coefficient of 0.026413 shows that the positive coefficient reveals that larger firms are more likely to disclose environmental information, but the impact of firm size is small. The z-Statistic (0.821676) and p-value (0.4113) shows that the result is not statistically significant, indicating that firm size does not have a strong or consistent influence on environmental disclosure in this model.

Limit Points (Thresholds): These represent the cut-off points between different categories of environmental disclosure:

LIMIT_1 (C4): The Coefficient (-0.547972) and p-value (0.3240) show that the first threshold is not statistically significant, meaning that the boundary between the lowest level of disclosure and the next category does not significantly affect the likelihood of moving between categories.

LIMIT_2 (C5): The Coefficient of (0.793626) and p-value of (0.1523) indicates that the second threshold is also not significant, indicating that the likelihood of firms moving to a higher level of disclosure at this cut-off point is not statistically clear.

LIMIT_3 (C6): The result of the regression with the coefficient of (1.551096) and p-value of (0.0060) shows that the threshold is statistically significant at the 1% level, suggesting that

firms at the highest level of environmental disclosure are meaningfully different from those in lower categories.

This value of the Pseudo R-squared (0.061960) statistics indicates that the model explains about 6.2% of the variance in environmental disclosure. The LR statistic (32.29345) and p-value (0.000000): The likelihood ratio statistic is highly significant, meaning that the overall model fits the data better. This confirms that the variables used in the model are relevant to explaining environmental disclosure.

Table 4.3: The determinants of environmental disclosure in financial reports

Variable	Coefficient	z-Statistic	Prob.
LEV	-2.107544	-4.398091	0.0000
ROA	0.339364	1.683582	0.0923
FS	0.026413	0.821676	0.4113
	Limit Points		
LIMIT_1:C(4)	-0.547972	-0.986202	0.3240
LIMIT_2:C(5)	0.793626	1.431358	0.1523
LIMIT_3:C(6)	1.551096	2.750139	0.0060
Pseudo R-squared	0.061960		
LR statistic	32.29345		
Prob(LR statistic)	0.000000		

4.2.2.1. Descriptive Statistics

The Environmental Disclosure Index (EDI), which tracks the extent to which companies disclose environmental information, shows an average score of 1.09 on a 0-3 scale, indicating that many firms disclose a moderate level of environmental information. However, there is significant variation, with some firms providing minimal or no environmental disclosure. Half of the companies scored 1.0, while a few achieved the maximum score of 3.0, reflecting full transparency in environmental reporting. Jarque-Bera Probability (0.001) shows that the distribution is statistically significantly different from normal.

Interestingly, financial reporting quality (FRQ) is consistently high across the sample. The median score is 2.0, reflecting that the majority of firms adhere to strong financial reporting

standards, with little room for improvement. The minimal variability in FRQ suggests that firms across the board are meeting regulatory expectations in financial transparency. The distribution deviates significantly from normal.

The data on Return on Assets (ROA), a key measure of profitability, tells a more diverse story. On average, firms achieve a modest 3.9% return, but there is significant variability between companies. The median ROA is 6.6%, while the range stretches from a low of -9.25% to a high of 6.19%, suggesting that while some firms are highly profitable, others are grappling with significant losses. The distribution significantly deviates from normality.

Tobin's Q, a measure of a company's market valuation relative to its assets. The mean Tobin's Q is 101.81, driven by extreme outliers that inflate the average. However, the median value of 0.62 indicates that many companies are undervalued in the market. The enormous range of Tobin's Q values—from -23.55 to 2,793—highlights the vast disparity in how companies are perceived by investors, with a few enjoying stratospheric valuations while others struggle with market skepticism. Significant deviation from a normal distribution.

The average firm size (FS), based on the logarithm of total assets, stands at 16.81, with most firms clustered around a median value of 16.54. The smallest firms log a size of 10.96, while the largest top out at 22.35, reflecting a broad range of company scales. The slight negative skew in firm size distribution suggests that a few larger firms dominate the sample.

In terms of financial structure, the data on leverage (LEV)—the proportion of debt in a firm's capital structure—reveals that, on average, firms are moderately leveraged, with a mean ratio of 17.7%. However, the wide range of leverage ratios, from 0% to 245%, suggests that some firms rely heavily on debt, while others are entirely equity-financed. The leverage distribution is heavily skewed, with most firms maintaining low debt levels, while a few carry significant financial obligations.

Table 2: Descriptive Statistics

	EDI	FRQ	ROA	TOBINSQ	FS	LEV
Mean	1.093458	1.809302	0.039022	101.8096	16.81418	0.177300
Median	1.000000	2.000000	0.066203	0.623955	16.54365	0.086271
Maximum	3.000000	2.000000	6.193164	2793.145	22.34743	2.451464
Minimum	0.000000	1.000000	-9.248804	-23.55135	10.95583	0.000000
Std. Dev.	0.904166	0.393768	0.818170	397.0009	2.504108	0.301190
Skewness	0.579364	-1.574654	-5.071154	4.527677	-0.165482	4.233529
Kurtosis	2.631374	3.479535	94.39586	23.60368	2.450570	25.38027
Jarque-Bera	13.18362	90.90999	75047.62	4495.284	3.634133	5081.537
Probability	0.001372	0.000000	0.000000	0.000000	0.162502	0.000000
Observations	214	215	213	213	212	213

Correlation Analysis

This correlation analysis examines the relationships between Environmental Disclosure (EDI), Financial Reporting Quality (FRQ), Return on Assets (ROA), Tobin's Q (market valuation), Firm Size (FS), and Leverage (LEV).

Environmental Disclosure (EDI): EDI and FRQ (0.517, p = 0.0000): There is a moderate, positive, and statistically significant correlation between EDI and FRQ. This suggests that firms with better financial reporting quality also tend to disclose more about their environmental practices. EDI and ROA (0.075, p = 0.2772): The weak positive correlation between EDI and profitability (ROA) is not statistically significant, implying that environmental disclosure does not necessarily correlate with firm profitability. EDI and Tobin's Q (0.317, p = 0.0000): A moderate, positive, and statistically significant correlation

suggests that firms with higher environmental disclosure tend to have a higher market valuation relative to their assets. EDI and Firm Size (0.112, p = 0.1042): While there is a positive correlation between EDI and firm size, it is not statistically significant, indicating that larger firms do not necessarily disclose more environmental information. EDI and Leverage (-0.283, p = 0.0000): There is a negative and statistically significant correlation between EDI and leverage, suggesting that firms with lower debt levels tend to disclose more about their environmental activities.

FRQ and ROA (0.096, p = 0.1660): The weak positive correlation between FRQ and profitability is not statistically significant, indicating no clear relationship between financial reporting quality and profitability. FRQ and Tobin's Q (0.096, p = 0.1676): Similar to ROA, the relationship between FRQ and market valuation is weak and not statistically significant. FRQ and Firm Size (0.073, p = 0.2946): The weak positive correlation between FRQ and firm size is also not significant, implying no direct relationship between firm size and financial reporting quality. FRQ and Leverage (-0.350, p = 0.0000): There is a significant negative correlation, indicating that firms with higher financial reporting quality tend to have lower debt levels. ROA and Tobin's Q (-0.020, p = 0.7733): The negligible negative correlation between profitability and market valuation is not significant, indicating no relationship between ROA and Tobin's Q. ROA and Firm Size (0.035, p = 0.6131): A weak positive but non-significant correlation suggests that firm size does not significantly affect profitability. ROA and Leverage (0.073, p = 0.2901): The positive correlation between ROA and leverage is weak and not statistically significant, indicating no clear relationship between profitability and debt levels. Tobin's Q and Firm Size (-0.291, p = 0.0000): A significant negative correlation shows that smaller firms tend to have higher market valuations relative to their assets. Tobin's Q and Leverage (-0.061, p = 0.3757): The weak negative correlation between Tobin's Q and leverage is not statistically significant. FS and Leverage (-0.249, p =

0.0003): There is a significant negative correlation, indicating that larger firms tend to rely less on debt financing.

Table 3: Correlation Analysis

Correlation						
Probability	EDI	FRQ	ROA	TOBINSQ	FS	LEV
EDI	1.000000					

FRQ	0.516575	1.000000				
	0.0000	-----				
ROA	0.075322	0.095945	1.000000			
	0.2772	0.1660	-----			
TOBINSQ	0.317212	0.095584	-0.019996	1.000000		
	0.0000	0.1676	0.7733	-----		
FS	0.112432	0.072656	0.035094	-0.290565	1.000000	
	0.1042	0.2946	0.6131	0.0000	-----	
LEV	-0.283222	-0.349910	0.073338	-0.061444	-0.248622	1.000000
	0.0000	0.0000	0.2901	0.3757	0.0003	-----

Panel Unit Root Test

A panel unit root test was conducted on the variables using the Levin, Lin & Chu t-test and the Im, Pesaran, and Shin W-stat tests to determine their stationarity at level.

Leverage (LEV): Both tests confirm that leverage is stationary at level with strong significance. This suggests that the leverage data does not require differencing to achieve stationarity.

Firm Size (FS): Firm size is stationary at level based on both tests, indicating stability over time and confirming that no transformation is needed to ensure stationarity.

Tobin's Q shows strong evidence of stationarity at level, with both tests producing highly significant results. This suggests that Tobin's Q is stable and does not exhibit trends over time.

ROA is statioK8nary at level based on both tests. This implies that the firm's profitability, as measured by return on assets, remains constant over time without the need for further transformation.

FRQ is also confirmed as stationary at level, suggesting that the quality of financial reporting in the sample firms is consistent over time.

EDI is stationary at level, meaning that firms' environmental disclosure practices remain stable over time.

Table 4: Panel Unit Root Test

Variable	Levin, Lin & Chu t*		Im, Pesaran and Shin W-stat		Remarks
	Test statistics	P-value	Test statistics	P-value	
Lev	-12.2082	0.0000	-1.85749	0.0316	Stationary at level
FS	-4.2602	0.0000	3.3760	0.0000	Stationary at level
TOBINSQ	-549.611	0.0000	-69.3288	0.0000	Stationary at level
ROA	-3.29729	0.0000	-2.39602	0.0000	Stationary at level
FRQ	-4.36635	0.0000	-3.16497	0.0000	Stationary at level
EDI	-5.45325	0.0000	-3.78321	0.0000	Stationary at level

4.3. Does Environmental Disclosure has any effects on the Financial Performance of Manufacturing Companies in Nigeria?

Interpretation of the Effect of Environmental Disclosure on Financial Performance

This analysis investigates the relationship between Environmental Disclosure (EDI) and financial performance, utilizing two different models: Return on Assets (ROA), a measure of profitability, and Tobin's Q, a measure of market valuation.

For the ROA Model (Return on Assets). The study conducted the pre-estimation test to assess the best model to interpret the result of the Hausman Test with a p-value of 0.2731 indicates

that the random effects model is appropriate, as there is no significant difference between fixed and random effects. The Lagrange Multiplier Tests for Random Effects (22.7789, p = 0.0005) indicate the presence of random effects, confirming the choice of a random effects approach.

The Panel Heteroscedasticity Test: ROA Model (p = 0.3731) shows no significant heteroscedasticity, confirming that the variance of residuals is consistent across observations. The Serial Correlation Test: ROA Model (p = 0.9373) suggests no evidence of serial correlation, indicating that residuals are independent over time.

The variable of Firm Size (FS) with the coefficient value of 0.0172: The positive coefficient indicates that as firm size increases, ROA slightly increases. However, the effect is minimal, suggesting that firm size does not have a strong influence on profitability. More so, with the insignificant t-value, it was discovered that firm size does not have a statistically significant effect on the ROA, as the p-value is greater than 0.05. This reveals that variations in firm size do not significantly affect ROA in this model.

Leverage (LEV) with the coefficient value of 0.3153: This positive coefficient indicates that firms with higher levels of debt (leverage) tend to have higher ROA. It implies that leverage may facilitate greater operational efficiency or the ability to invest in profitable ventures. The leverage t-value (2.2243) and p-value (0.0278) shows that the result is statistically significant at the 5% level, indicating that leverage has a meaningful and positive effect on profitability. Higher leverage likely suggests that firms are effectively using debt to enhance their returns.

The result of the Environmental Disclosure (EDI) report a coefficient value of 0.0931: A positive coefficient indicates that firms that provide more comprehensive environmental disclosures are associated with better profitability. This suggests that transparency in environmental practices can lead to improved financial performance. The t-value of 2.4187 and p-value of 0.0170 shows that the result is statistically significant at the 5% level,

reinforcing the idea that companies that are more open about their environmental impact tend to perform better financially. The model explains approximately 11.8% of the variance in ROA. More so, after adjusting for the number of predictors, the model explains about 10.4% of the variance, confirming a modest explanatory power. The overall model is statistically significant, indicating that at least one of the predictors (FS, LEV, or EDI) has a relationship with ROA.

Tobin's Q Model

The study conducted the pre-estimation test to assess the best model to interpret. The result of the Hausman Test with a p-value of 0.1771)indicates that the random effects model is appropriate, as there is no significant difference between fixed and random effects. The Lagrange Multiplier Tests for Random Effects indicate the presence of random effects, confirming the choice of a random effects approach.

The Panel Heteroscedasticity Test with p-value greater than 0.05 shows no significant heteroscedasticity, confirming that the variance of residuals is consistent across observations. The Serial Correlation Test: Tobin's Q Model also indicates that there is no evidence of serial correlation, indicating that residuals are independent over time.

Firm Size (FS) with the Coefficient of -21.1013 shows that there is negative relationship between firm size and the tobinsq. The negative coefficient indicates that larger firms tend to have significantly lower Tobin's Q. This suggests that larger firms may be viewed less favorably in terms of market valuation. The result is statistically significant at the 5% level, indicating a strong negative relationship between firm size and market valuation. Larger firms may face diminishing returns in market perception compared to smaller, more agile firms.

Leverage (LEV) reports a coefficient value of 30.0922: A positive coefficient suggests that higher leverage is associated with a higher Tobin's Q, indicating that firms are perceived

positively by the market when they use debt effectively. The relationship is not statistically significant at 5% levels, implying that while leverage may positively influence market valuation, this effect is not strong enough to confirm a reliable relationship.

Environmental Disclosure (EDI) reports positive coefficient of 42.0646 and a significant t-value (2.6810) and p-value (0.0082). The large positive coefficient indicates that firms with higher environmental disclosures have significantly higher market valuations. This reflects that transparency in environmental practices may enhance investor confidence and market perception. This result is highly significant at the 1% level, underscoring the importance of environmental disclosure in positively influencing market valuation.

The model explains approximately 32.5% of the variance in Tobin's Q, suggesting a better fit than the ROA model, but still indicates that additional factors might be influencing market valuation. After adjusting for predictors, the model still explains about 31.1% of the variance, indicating a good level of explanatory power. The overall model is statistically significant, meaning that the independent variables collectively influence Tobin's Q.

Table 5: Effect of Environmental Disclosure on Financial Performance

	ROA Model			TOBINSQ Model		
	Coefficient	**t-value**	**p-value**	**Coefficient**	**t-value**	**p-value**
FS	0.0172	0.7513	0.4533	-21.1013	-2.4980	0.0133
LEV	0.3153	2.2243	0.0278	30.0922	1.5925	0.1128
EDI	0.0931	2.4187	0.0170	42.0646	2.6810	0.0082
C	-0.4080	-	0.3134	401.1241	2.4575	0.0148

		1.0106				
R-squared	0.1179			0.3253		
Adjusted R-squared	0.1036			0.3111		
F-statistic	11.5691			18.7880		
Prob(F-statistic)	0.0000			0.0000		
Hausman Test	3.8945(0.2731)			4.9284(0.1771)		
Lagrange Multiplier Tests for Random Effects	22.7789 (0.0005)			450.3664 (0.0000)		
Panel Heteroscedasticity test	69.7463(0.3731)			75.6883(0.2911)		
Serial Correlation Test	-0.0994(**0.9373)**			-0.1857(**0.8121)**		

4.2.4. What is the effect of Financial Report Quality on the Financial Performance of Manufacturing Companies in Nigeria?

The Effect of Financial Reporting Quality on Financial Performance

This regression model explores the relationship between financial reporting quality and financial performance measured by Return on Assets (ROA) and Tobin's Q with other control variables including Firm Size (FS) and Leverage (LEV). The study performed a pre-estimation test to determine the appropriate model among the pooled OLS, random effect, and fixed effect. The Lagrange Multiplier Tests for Random Effects were carried out to assess the robust difference between random effect and pooled OLS. For ROA, the Lagrange Multiplier test statistic is 4.1669 with a p-value of 0.0412, indicating that random effects are appropriate for this model. For Tobin's Q, the test statistic is 495.6268 with a p-value of 0.0000, again supporting the use of random effects. The Hausman Test: For ROA, the Hausman test statistic is 5.4230 with a p-value of 0.1433, suggesting that there is no significant difference between fixed and random effects models, hence random effects are appropriate. For Tobin's Q, the test statistic is 2.1974 with a p-value of 0.5325, further confirming the appropriateness of random effects.

Panel Heteroscedasticity Test: For ROA, the test statistic is 96.07709 with a p-value of 0.0900, indicating weak evidence of heteroscedasticity. For Tobin's Q, the test statistic is 23.0347 with a p-value of 0.4597, indicating no evidence of heteroscedasticity.

Serial Correlation Test: For ROA, the test statistic is -1.2996 with a p-value of 0.1937, suggesting no evidence of serial correlation. For Tobin's Q, the test statistic is -1.0823 with a p-value of 0.2791, indicating no serial correlation.

For the Return on Assets (ROA): The coefficient for firm size is 0.0191, but it is not statistically significant (p-value = 0.3999). This suggests that firm size does not have a significant impact on ROA in this model. The coefficient for leverage is 0.3724, but it is not statistically significant (p-value = 0.1549), indicating that leverage does not significantly

affect ROA. The variable of Financial Reporting Quality (FRQ) with coefficient value of 0.2908, which is statistically significant (t-value = 2.0326, p-value = 0.0434). This positive relationship suggests that improved financial reporting quality is associated with a higher return on assets, indicating that firms with better reporting practices tend to perform better financially.

Constant (_cons): The constant term is -0.8736, and it is marginally significant (p-value = 0.0698). This represents the expected value of ROA when all independent variables are zero.

The R-squared value of 0.1703 suggests that about 17.03% of the variation in ROA is explained by the explanatory variables. The F-statistic of 11.7924 is statistically significant (p-value = 0.0000), indicating that the overall model is significant.

For the Tobin's Q

The coefficient for firm size is -18.8975, but it is not statistically significant (p-value = 0.3163), suggesting that firm size does not significantly influence Tobin's Q.

The coefficient for leverage is 35.6795, which is statistically significant (t-value = 2.3299, p-value = 0.0208). This positive coefficient implies that higher leverage is associated with a higher Tobin's Q, suggesting that leveraged firms may have a better market valuation relative to their assets.

The coefficient for financial reporting quality is 68.3163, and it is statistically significant (t-value = 2.0430, p-value = 0.0423). This indicates that higher financial reporting quality is positively associated with Tobin's Q, meaning firms with better reporting quality tend to have better market performance. The constant term is 284.0578, but it is not statistically significant (p-value = 0.3535).

The R-squared value of 0.3247 indicates that approximately 32.47% of the variation in Tobin's Q is explained by the variables. The F-statistic of 17.7503 is highly significant (p-value = 0.0000), indicating that the overall model is significant.

Table 6: The Effect of Financial Reporting Quality on Financial Performance

	ROA			TOBINS Q		
	Coefficient	**t-value**	**p-value**	**Coefficient**	**t-value**	**p-value**
FS	0.0191	0.8435	0.3999	-18.8975	-1.0171	0.3163
LEV	0.3724	1.4277	0.1549	35.6795	2.3299	0.0208
FRQ	0.2908	2.0326	0.0434	68.3163	2.0430	0.0423
C	-0.8736	-1.8229	0.0698	284.0578	0.9407	0.3535
R-squared	0.1703			0.3247		
Adjusted R-squared	0.1541			0.3106		
F-statistic	11.7924			17.7503		
Prob(F-statistic)	0.0000			0.0000		
Lagrange Multiplier Tests for Random Effects	4.1669(0.0412)			495.6268(0.0000)		
Hausman test	5.4230(0.1433)			2.1974(0.5325)		
Panel Heteroscedasticity test	96.07709(**0.0900)**			23.0347(0.4597)		
Serial Correlation Test	-1.2996(0.1937)			-1.0823(0.2791)		

4.2.5. Is there any dynamic relationship among environmental disclosure, financial report quality and financial performance of companies?

The Dynamic Relationships among Environmental Disclosure, Financial Reporting Quality, and Financial Performance

This analysis delves into the dynamic relationships among Environmental Disclosure (EDI), Financial Reporting Quality (FRQ), and Return on Assets (ROA) by examining variance decomposition and impulse response as obtained from the VAR model. Variance decomposition captures how much of the forecast error variance of each variable can be attributed to shocks in the other variables over time. This approach reveals the interdependencies among these variables and helps us understand their influence on each other.

Variance Decomposition of Environmental Disclosure (EDI)

Period 1: At the initial stage, EDI is entirely self-explanatory, with 100% of its variance accounted for by its own shocks. This indicates that environmental disclosure at this point is driven solely by internal factors within the firm, with no immediate influence from financial reporting quality (FRQ) or return on assets (ROA).

Periods 2 to 10: Over the subsequent periods, the contributions from FRQ and ROA to the variance in EDI gradually increase but remain extremely small (less than 0.1%). In Period 2 specifically, FRQ accounts for 0.012992% of EDI's variance, while ROA contributes 0.007120%. This trend continues, with small increases in their contributions over time. By Period 10, the contributions from FRQ and ROA are 0.008458% and 0.086799%, respectively. This slight increase suggests a growing acknowledgment of the role that

financial reporting and performance metrics may play in shaping environmental disclosures, albeit their influence remains minimal relative to the self-deterministic nature of EDI.

Variance Decomposition of Financial Reporting Quality (FRQ)

Period 1: At the outset, 79.18% of the variance in FRQ is attributed to its own shocks, while 20.82% is explained by EDI. This suggests that financial reporting quality is substantially influenced by its historical performance, with a significant acknowledgment of the role that environmental disclosure plays in shaping it.

Periods 2 to 10: Over time, the proportion of variance explained by EDI increases steadily. In Period 10, EDI accounts for 28.36% of the variance in FRQ, indicating that as firms improve their environmental disclosures, they also tend to enhance the quality of their financial reporting. The proportion of variance explained by FRQ itself declines, suggesting that as firms rely more on EDI for transparency, the relative importance of historical FRQ diminishes. The small contributions from ROA (hovering around 0.004%) indicate that financial performance has a negligible direct impact on financial reporting quality compared to the effects of EDI.

Variance Decomposition of Return on Assets (ROA)

Period 1: In the initial period, 99.92% of the variance in ROA is explained by its shocks. Contributions from EDI and FRQ are negligible at 0.030114% and 0.045632%, respectively. This reflects that ROA is predominantly driven by its historical performance at this early stage.

Periods 2 to 10: As time progresses, the contributions from EDI and FRQ to the variance in ROA gradually increase. For instance, by Period 10, EDI contributes 0.838775%, and FRQ contributes 1.891247% to the variance in ROA. However, despite this gradual increase, ROA remains predominantly influenced by its own past values, which continue to account for around 97% of its variance throughout the observed periods. This indicates that while EDI

and FRQ do have some influence on financial performance, their impacts are relatively minor compared to the direct effects of historical ROA.

It was obvious that environmental disclosure exhibits a strong self-deterministic nature, with minimal influence from FRQ and ROA. This implies that improvements in environmental disclosure practices primarily arise from internal company initiatives rather than external financial reporting standards or performance metrics. More so, over time, the variance decomposition results reveal that the influence of environmental disclosure on financial reporting quality grows, suggesting that firms that are more transparent about their environmental impact tend to improve their financial reporting practices.

Furthermore, return on assets is predominantly influenced by its historical performance, with only minor contributions from EDI and FRQ. This suggests that while EDI and FRQ may encourage better financial performance, the immediate effect of past performance remains the strongest predictor.

Table 7: Variance Decomposition

Variance Decomposition of EDI:				
Period	S.E.	EDI	FRQ	ROA
1	0.268008	100.0000	0.000000	0.000000
2	0.363104	99.97989	0.012992	0.007120
3	0.430143	99.94280	0.014172	0.043024
4	0.481744	99.92630	0.013334	0.060364
5	0.523276	99.91852	0.011974	0.069504
6	0.557540	99.91384	0.010684	0.075476
7	0.586263	99.91067	0.009663	0.079669
8	0.610615	99.90831	0.008962	0.082724
9	0.631434	99.90640	0.008571	0.085024
10	0.649345	99.90474	0.008458	0.086799
Variance Decomposition of FRQ:				
Period	S.E.	EDI	FRQ	ROA
1	0.190403	20.82269	79.17731	0.000000
2	0.265197	22.56830	77.42761	0.004098
3	0.313793	23.63762	76.35794	0.004445
4	0.348866	24.52419	75.47123	0.004580
5	0.375384	25.30785	74.68780	0.004353
6	0.395998	26.02089	73.97501	0.004102
7	0.412322	26.67727	73.31886	0.003870
8	0.425423	27.28376	72.71257	0.003668
9	0.436044	27.84441	72.15210	0.003499
10	0.444724	28.36208	71.63456	0.003364

Variance Decomposition of ROA:				
Period	S.E.	EDI	FRQ	ROA
1	0.586263	0.030114	0.045632	99.92425
2	0.589689	0.563749	0.664965	98.77129
3	0.591226	0.616960	0.978156	98.40488
4	0.592025	0.655369	1.205255	98.13938
5	0.592710	0.695913	1.390740	97.91335
6	0.593271	0.732159	1.539737	97.72810
7	0.593729	0.763934	1.658754	97.57731
8	0.594105	0.791996	1.753959	97.45405
9	0.594413	0.816817	1.830186	97.35300
10	0.594667	0.838775	1.891247	97.26998
Cholesky Ordering: EDI FRQ ROA				

Impulse Response Analysis:

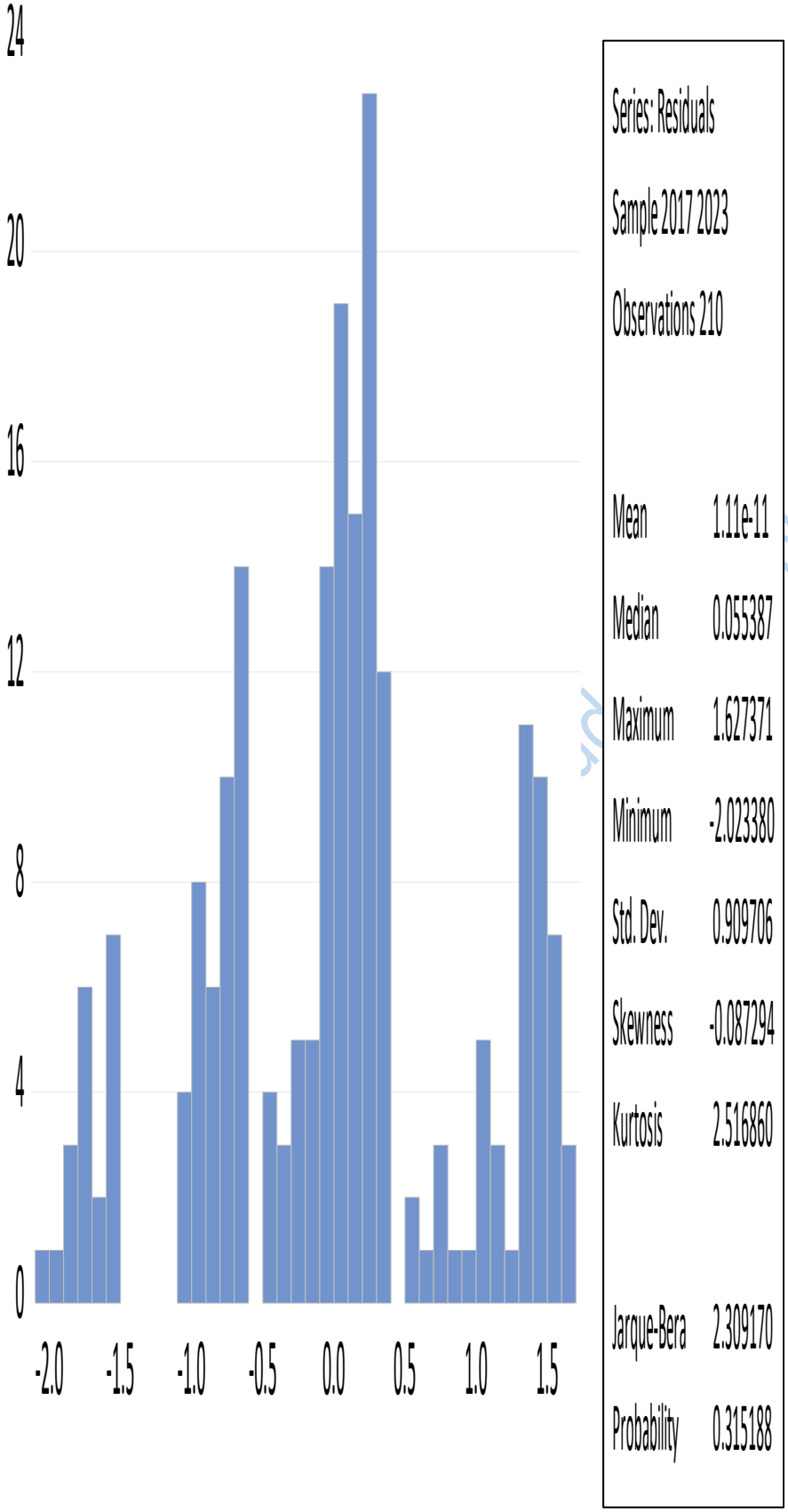
Response of EDI to Innovations in FRQ and ROA: The response of Environmental Disclosure (EDI) to innovations in both FRQ and ROA indicates a positive trend over time, suggesting that improvements in financial reporting quality and financial performance can lead to enhanced environmental disclosures by firms. Although the initial response may be modest, it grows over several periods, implying that companies may gradually increase their transparency about environmental practices as they strengthen their financial performance and reporting standards.

Response of FRQ to Innovations in EDI and ROA:

The Financial Reporting Quality (FRQ) shows a positive reaction to innovations in both EDI and ROA. This suggests that companies that are more transparent about their environmental impact tend to also exhibit higher-quality financial reporting. Additionally, firms with better financial performance (measured by ROA) tend to improve their financial reporting practices over time. This positive dynamic may reflect the importance of maintaining high standards of financial reporting as companies become more environmentally responsible and improve their financial health.

Response of ROA to Innovations in EDI and FRQ:

Return on Assets (ROA) responds positively to innovations in both EDI and FRQ. The results suggest that firms that improve their environmental disclosure and financial reporting practices also experience better financial performance over time. The relationship between environmental transparency and financial performance is likely driven by enhanced investor confidence and market valuation, as firms with better disclosure practices are perceived as lower-risk and more sustainable investments.


24
20
16
12
8
4
0
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
Series: Residuals
Sample 2017 2023
Observations 210
Mean 1.11e-11
Median 0.055387
Maximum 1.627371
Minimum -2.023380
Std. Dev. 0.909706
Skewness -0.087294
Kurtosis 2.516860
Jarque-Bera 2.309170
Probability 0.315188

4.3 Discussion of Findings

The Extent of Environmental Disclosure Practices among Manufacturing Companies in Nigeria

Determinants of Environmental Disclosure in Financial Reports

The study employs an ordered probit regression to analyze the determinants of environmental disclosure (EDI) in the financial reports of firms. The model focuses on three key variables: Leverage (LEV), Return on Assets (ROA), and Firm Size (FS), to understand their impact on the level of environmental disclosure. The negative coefficient of leverage indicates that higher leverage is associated with lower environmental disclosure. Companies with significant debt may avoid environmental transparency as it could expose financial vulnerabilities or increase scrutiny from stakeholders. This result aligns with agency theory, which suggests that firms with higher leverage face greater monitoring by debt holders, who may discourage additional disclosures that could signal increased risk(Etim, & Effiong, 2021). Additionally, firms with higher debt burdens may prioritize financial obligations over sustainability practices, as they have fewer resources to allocate toward non-financial objectives like environmental disclosure.

The positive coefficient of return on asset(ROA) implies that better financial performance is associated with higher environmental disclosure. Companies with higher profitability are more likely to invest in environmental reporting, potentially because they have more resources to allocate to non-operational activities. This finding aligns with resource-based theory, which posits that firms with greater financial resources are better equipped to engage in sustainability initiatives. Profitable companies are likely to disclose more environmental information to enhance their reputation and meet growing stakeholder expectations for corporate social responsibility (CSR).

Firm Size (FS) had a positive coefficient which shows that larger companies are more likely to engage in environmental disclosure, but the effect is minimal. Larger firms tend to face greater scrutiny from regulators and stakeholders, which may push them to be more transparent about their environmental impact. According to legitimacy theory, larger firms are more visible to the public and are, therefore, more likely to disclose environmental information to maintain or enhance their legitimacy. However, the fact that firm size does not have a statistically significant effect indicates that visibility alone does not necessarily translate into higher environmental transparency.

Financial Reporting Quality (FRQ) and Firm Performance

The positive and statistically significant relationship between financial reporting quality (FRQ) and both ROA and Tobin's Q suggests that higher-quality financial reporting is associated with better financial performance. For ROA, which reflects the firm's operational efficiency and profitability, the positive coefficient indicates that companies with higher reporting quality are more likely to achieve superior profitability. This finding is consistent with the view that high-quality financial reporting reduces information asymmetry, improves decision-making by managers, and enhances transparency for investors and stakeholders, leading to better operational outcomes(Olasupo, & Akinselure, 2017) and Udo(2019).

Similarly, the positive effect of FRQ on Tobin's Q highlights the relevance of transparent and reliable financial reporting in enhancing a firm's market valuation. Tobin's Q captures the firm's market value relative to its asset base, and higher FRQ suggests that firms with better reporting practices are valued more favorably by the market. This is likely because high-quality financial reporting reduces uncertainty for investors, improves investor confidence, and helps attract capital at favorable terms, which in turn boosts the firm's market value(Lateef, & Omotayo,2019).

The analysis reveals a significant and positive relationship between leverage (LEV) and Tobin's Q. This indicates that firms with higher levels of debt are perceived to have higher market value relative to their assets. The leverage, within reasonable bounds, may signal a firm's capacity to undertake profitable investments and manage financial risks effectively. The use of debt financing could also imply a firm's commitment to value-enhancing projects, thereby enhancing market perceptions of firm value(Lateef, & Omotayo,2019)..

However, the absence of a significant effect of leverage on ROA indicates that while leverage might positively influence market valuation, it does not necessarily translate into higher profitability from an operational standpoint. This implies that while investors may view leverage favorably, firms need to carefully manage their debt to ensure it does not negatively impact operational efficiency.

The findings show that firm size does not have a significant impact on either ROA or Tobin's Q. The coefficient for firm size is positive for ROA and negative for Tobin's, but in both cases, the relationships are not statistically significant. This suggests that, in this sample, firm size alone does not play a decisive role in determining either the profitability or market valuation of firms. The lack of significance for firm size in relation to performance could indicate that the operational and market advantages traditionally associated with larger firms, such as economies of scale, do not have a uniform effect across different firms or industries in this analysis.

The Effect of Environmental Disclosure on Financial Performance

The positive coefficient of ROA reveals that larger firms tend to experience a slight increase in profitability (ROA). However, the effect is statistically insignificant, as indicated by the p-value greater than 0.05. This means that firm size does not significantly influence profitability in this model. Larger firms may not inherently perform better in terms of profitability, likely because of increased operational complexity or inefficiencies. This

finding supports the resource-based theory, which suggests that the resources and capabilities within a firm—not just size—are more important determinants of profitability. While larger firms might benefit from economies of scale, these advantages do not automatically translate into higher profitability without effective resource utilization(Zango, 2021). The positive coefficient indicates that firms with higher leverage (more debt) tend to have higher profitability. The result is statistically significant at the 5% level, suggesting that leverage positively influences profitability. This finding indicates that firms effectively using debt can enhance operational efficiency or invest in profitable ventures, thus boosting ROA. According to agency theory, debt can act as a disciplinary mechanism, pushing managers to operate more efficiently under the scrutiny of debt holders. Firms that manage debt well can generate higher returns, but excessive debt might pose financial risks if not handled properly(Zango, 2021).

The positive and significant coefficient of Environmental Disclosure (EDI) shows that firms with higher environmental transparency tend to have better profitability. This suggests that firms that engage in comprehensive environmental disclosure benefit from improved financial performance.

This finding supports the idea that transparency in environmental practices can lead to enhanced reputational standing, increased customer loyalty, and improved investor confidence, all of which positively impact profitability. The result aligns with stakeholder theory, which emphasizes that firms responding to stakeholder demands for environmental accountability are more likely to benefit from enhanced financial outcomes. As consumers and investors increasingly prioritize sustainability, firms that are transparent about their environmental impact may enjoy competitive advantages and improved financial performance.

The Dynamic Relationships. Among Environmental Disclosure, Financial Reporting Quality, and Financial Performance

This analysis delves into the intricate relationships among Environmental Disclosure (EDI), Financial Reporting Quality (FRQ), and Return on Assets (ROA) through variance decomposition and impulse response analysis. By employing a Vector Autoregression (VAR) model, the study uncovers how shocks in one variable affect the others over time, revealing a dynamic interplay that informs corporate governance, reporting practices, and financial performance. The result shows that environmental Disclosure (EDI) largely operates on a self-deterministic basis, indicating that improvements in sustainability practices are primarily driven by internal corporate policies.Financial Reporting Quality (FRQ) is positively influenced by environmental disclosure, indicating that firms committed to transparency in environmental practices tend to enhance their overall reporting quality. Return on Assets (ROA) is predominantly influenced by its historical values, with only minor contributions from EDI and FRQ, suggesting that while environmental transparency can enhance financial performance, historical performance remains the strongest predictor. The analysis reveals that Environmental Disclosure (EDI) plays a crucial role in influencing Financial Reporting Quality (FRQ), which in turn can have a positive effect on financial performance (ROA). Firms that prioritize environmental transparency are likely to benefit from improved financial reporting practices and, consequently, better financial performance. These findings underscore the importance of integrating environmental initiatives within corporate governance frameworks to foster long-term sustainability and enhance financial outcomes.

Chapter Five

Summary, Conclusion, and Recommendation

5.1 Summary of Findings

The study was designed to determine the relationship between Environmental Disclosure and Financial Report of Manufacturing Companies in Nigeria. The specific objectives centre on : the evaluation of the extent of Environmental disclosure practices among Manufacturing Companies in Nigeria; analyses of the determinants of environmental disclosure in financial reports examining the effects of environmental disclosure on the financial performance of manufacturing companies in Nigeria, determining the influence of financial reporting quality on the financial performance of manufacturing companies in Nigeria, identify the dynamic relationship among environmental disclosure, financial report quality and financial performance of companies.

This study focuses on Environmental Disclosure and financial reporting quality of listed companies in the manufacturing sector in Nigeria covering a period of 2017-2022 and the panel estimation techniques were adopted in achieving the objective. The methods are comprised of descriptive and inferential methods.

From the estimation, it was discovered that the analysis of environmental disclosure practices among Nigerian manufacturing companies from 2017 to 2023 reveals key trends in sustainability reporting and its impact on financial performance. Over the period, environmental transparency improved significantly, with disclosure scores increasing from 1.00 in 2017 to 1.24 in 2022.

Regression analysis further examined the determinants of environmental disclosure in financial reports, focusing on leverage, return on assets (ROA), and firm size. Leverage showed a negative relationship with environmental disclosure, suggesting that highly leveraged firms may limit their transparency to avoid increased scrutiny from

stakeholders. Conversely, firms with better financial performance (ROA) and larger firms were more likely to engage in environmental disclosure, although the impact of firm size was minimal.

More so, the study found a positive and significant relationship between financial reporting quality (FRQ) and firm performance, both in terms of ROA and Tobin's Q. High-quality financial reporting enhances transparency, reduces information asymmetry, and fosters investor confidence, which in turn improves market valuation and operational performance. Similarly, leverage was found to positively influence Tobin's Q, signaling that firms with higher debt levels may be viewed more favorably by the market due to their capacity to undertake profitable investments. However, leverage did not significantly impact ROA, suggesting that while it may boost market value, it does not necessarily translate into operational profitability.

The study also underscores the dynamic relationships between environmental disclosure, financial reporting quality, and financial performance. Firms that prioritize sustainability reporting tend to improve their overall financial transparency, leading to better financial outcomes. This dynamic highlights the importance of integrating environmental practices within corporate governance frameworks to achieve long-term sustainability and enhanced financial performance.

5.2 Conclusion

The study highlights important trends in environmental disclosure practices among Nigerian manufacturing companies and their impact on financial performance. Over the analyzed period (2017-2023), there was a notable improvement in environmental transparency, driven by growing stakeholder expectations and global regulatory pressures. However, the fluctuation in disclosure scores, particularly the decline in 2023, underscores the challenges

companies face in maintaining consistent sustainability practices amid external pressures such as economic downturns.

More so, it is obvious that major determinants of environmental disclosure include leverage, profitability, and company's size, with more profitable and larger company showing greater commitment to sustainability reporting. However, highly leveraged company tend to limit their disclosures, likely to avoid increased scrutiny, aligning with agency theory. This variation in disclosure practices across companies emphasizes the influence of industry norms, regulatory pressures, and resource availability on corporate sustainability strategies. Furthermore, the study establishes a positive relationship between financial reporting quality (FRQ) and companies performance, demonstrating that higher-quality financial reporting enhances both profitability (ROA) and market valuation (Tobin's Q). This underscores the importance of transparency in improving investor confidence and reducing information asymmetry. Additionally, while leverage boosts market value, its impact on operational efficiency remains limited, indicating the need for careful debt management.

It was evidenced that the findings indicate that companies that prioritize environmental transparency and high-quality financial reporting are better positioned to enhance their financial performance.

Lastly, the findings was able to establish the dynamic relationships between environmental disclosure, financial reporting quality and financial performance in manufacturing companies

5.3 Recommendation

Based on the findings of this study, some recommendations can be made to enhance environmental disclosure practices and improve financial performance within the Nigerian manufacturing sector:

i. To prevent fluctuations in environmental disclosure practices, companies should integrate sustainability reporting into their long-term strategic planning. This can be achieved by adopting internationally recognized frameworks such as the Global Reporting Initiative (GRI) or the Sustainability Accounting Standards Board (SASB) to ensure consistency and comparability in environmental disclosures across time and industries.

ii. It should not only be companies with high leverages and big firms sizes that should prioritized disclosure of environmental issues in their reports.

iii. Companies, especially those with strong financial performance, should allocate resources toward improving the quality and depth of their sustainability reporting.

iv. Companies should continue to focus on improving the quality of their financial reporting, as it directly impacts their profitability and market valuation.

v. Companies with high leverage should carefully manage their debt levels while maintaining a focus on sustainability.

5.4 Contribution to Knowledge

The study contributes to the body of knowledge by highlighting the extent of Environmental disclosure practices among Manufacturing Companies in Nigeria; unraveling the determinants of environmental disclosure in financial reports, exploring the effects of environmental disclosure on the financial performance of manufacturing companies in Nigeria, determined the influence of financial reporting quality on the financial performance of manufacturing companies in Nigeria and identified the dynamic relationship among environmental disclosure, financial report quality and financial performance of companies.

5.5 Suggestions for Further Study

Future research could focus on sector-specific variations within the Nigerian manufacturing industry to explore how different sectors, such as food processing, cement, and chemical

industries, approach environmental disclosure. This would provide insights into the unique challenges and drivers of sustainability reporting in various sub-industries. More so, this study touches on regulatory influences, further research could investigate the direct impact of specific Nigerian regulations or international environmental reporting standards on the quality and extent of environmental disclosures. This would help assess the effectiveness of policy interventions and guide future regulatory developments.

By pursuing these avenues for further research, scholars can build a more comprehensive understanding of environmental disclosure dynamics and their financial consequences, contributing to the development of sustainable business practices in Nigeria and beyond.

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Appendix

Dependent Variable: EDI

Method: ML - Ordered Probit (Newton-Raphson / Marquardt steps)

Date: 09/28/24 Time: 10:09

Sample: 2017 2023

Included observations: 210

Number of ordered indicator values: 4

Convergence achieved after 5 iterations

Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
LEV	-2.107544	0.479195	-4.398091	0.0000
ROA	0.339364	0.201572	1.683582	0.0923
FS	0.026413	0.032145	0.821676	0.4113
	Limit Points			

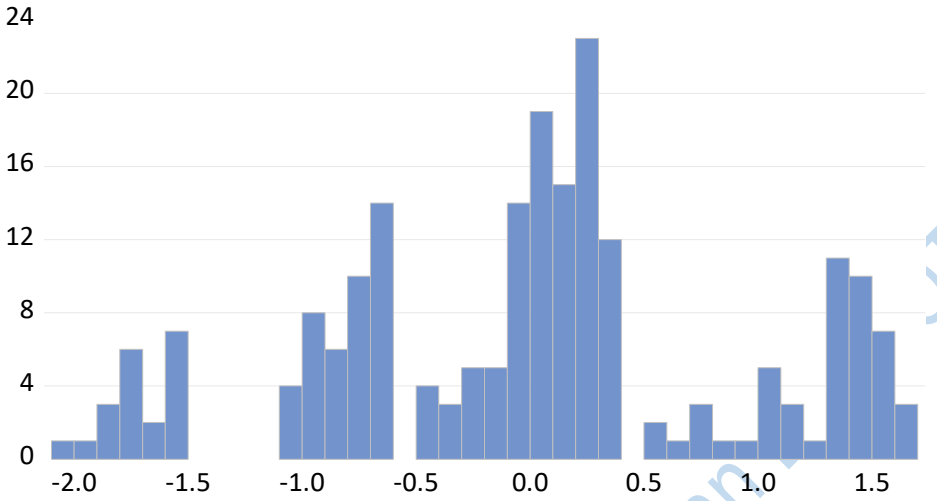
LIMIT_1:C(4)	-0.547972	0.555639	-0.986202	0.3240
LIMIT_2:C(5)	0.793626	0.554457	1.431358	0.1523
LIMIT_3:C(6)	1.551096	0.564006	2.750139	0.0060

Pseudo R-squared	0.061960	Akaike info criterion	2.385263
Schwarz criterion	2.480895	Log likelihood	-244.4526
Hannan-Quinn criter.	2.423924	Restr. log likelihood	-260.5994
LR statistic	32.29345	Avg. log likelihood	-1.164060
Prob(LR statistic)	0.000000		

Dependent Variable: EDI
Method: ML - Ordered Probit (Newton-Raphson / Marquardt steps)
Date: 09/28/24 Time: 10:09
Sample: 2017 2023
Included observations: 210
Number of ordered indicator values: 4
Convergence achieved after 5 iterations
Coefficient covariance computed using observed Hessian

Variable	Coefficient	Std. Error	z-Statistic	Prob.
LEV	-2.107544	0.479195	-4.398091	0.0000
ROA	0.339364	0.201572	1.683582	0.0923
FS	0.026413	0.032145	0.821676	0.4113
Limit Points				
LIMIT_1:C(4)	-0.547972	0.555639	-0.986202	0.3240
LIMIT_2:C(5)	0.793626	0.554457	1.431358	0.1523
LIMIT_3:C(6)	1.551096	0.564006	2.750139	0.0060

Pseudo R-squared	0.061960	Akaike info criterion	2.385263
Schwarz criterion	2.480895	Log likelihood	-244.4526
Hannan-Quinn criter.	2.423924	Restr. log likelihood	-260.5994
LR statistic	32.29345	Avg. log likelihood	-1.164060
Prob(LR statistic)	0.000000		



Series: Residuals	
Sample 2017 2023	
Observations 210	
Mean	1.11e-11
Median	0.055387
Maximum	1.627371
Minimum	-2.023380
Std. Dev.	0.909706
Skewness	-0.087294
Kurtosis	2.516860
Jarque-Bera	2.309170
Probability	0.315188

Dependent Variable: FRQ

Method: Panel Least Squares

Date: 09/28/24 Time: 10:19

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.

FS	-0.006283	0.009381	-0.669734	0.5038
LEV	-0.312542	0.081101	-3.853732	0.0002
ROA	0.038787	0.027771	1.396680	0.1640
EDI	0.194908	0.026334	7.401273	0.0000
C	1.751641	0.165018	10.61486	0.0000

Root MSE	0.323908	R-squared	0.319586
Mean dependent var	1.809524	Adjusted R-squared	0.306310
S.D. dependent var	0.393615	S.E. of regression	0.327834
Akaike info criterion	0.630905	Sum squared resid	22.03245
Schwarz criterion	0.710598	Log likelihood	-61.24501
Hannan-Quinn criter.	0.663122	F-statistic	24.07181
Durbin-Watson stat	0.297403	Prob(F-statistic)	0.000000

Dependent Variable: FRQ
Method: Panel Least Squares
Date: 09/28/24 Time: 10:19
Sample: 2017 2023
Periods included: 7
Cross-sections included: 35
Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-0.006283	0.009381	-0.669734	0.5038
LEV	-0.312542	0.081101	-3.853732	0.0002
ROA	0.038787	0.027771	1.396680	0.1640
EDI	0.194908	0.026334	7.401273	0.0000
C	1.751641	0.165018	10.61486	0.0000

Root MSE	0.323908	R-squared	0.319586
Mean dependent var	1.809524	Adjusted R-squared	0.306310
S.D. dependent var	0.393615	S.E. of regression	0.327834
Akaike info criterion	0.630905	Sum squared resid	22.03245

Schwarz criterion	0.710598	Log likelihood	-61.24501
Hannan-Quinn criter.	0.663122	F-statistic	24.07181
Durbin-Watson stat	0.297403	Prob(F-statistic)	0.000000

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	274.0221	0.115548	274.1377
	(0.0000)	(0.7339)	(0.0000)
Honda	16.55361	-0.339924	11.46481
	(0.0000)	(0.6330)	(0.0000)
King-Wu	16.55361	-0.339924	6.100416
	(0.0000)	(0.6330)	(0.0000)
Standardized Honda	17.71510	-0.090612	8.156464
	(0.0000)	(0.5361)	(0.0000)

Standardized King-Wu	17.71510	-0.090612	3.329712
	(0.0000)	(0.5361)	(0.0004)
Gourieroux, et al.	--	--	274.0221
			(0.0000)

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	274.0221	0.115548	274.1377
	(0.0000)	(0.7339)	(0.0000)
Honda	16.55361	-0.339924	11.46481
	(0.0000)	(0.6330)	(0.0000)
King-Wu	16.55361	-0.339924	6.100416
	(0.0000)	(0.6330)	(0.0000)
Standardized Honda	17.71510	-0.090612	8.156464
	(0.0000)	(0.5361)	(0.0000)
Standardized King-Wu	17.71510	-0.090612	3.329712
	(0.0000)	(0.5361)	(0.0004)
Gourieroux, et al.	--	--	274.0221
			(0.0000)

Panel Cross-section Heteroskedasticity LR Test

Equation: UNTITLED

Specification: FRQ FS LEV ROA EDI C

Null hypothesis: Residuals are homoscedastic

	Value	Df	Probability
Likelihood ratio	9607.709	35	0.0000

LR test summary:

	Value	Df
Restricted LogL	-61.24501	205
Unrestricted LogL	4742.609	205

Unrestricted Test Equation:

Dependent Variable: FRQ

Method: Panel EGLS (Cross-section weights)

Date: 09/28/24 Time: 12:14

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Iterate weights to convergence

Convergence achieved after 5 weight iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	6.96E-16	8.36E-11	8.33E-06	1.0000
LEV	1.57E-14	2.66E-09	5.90E-06	1.0000
ROA	-6.56E-16	9.03E-10	-7.27E-07	1.0000
EDI	-2.74E-15	3.22E-10	-8.50E-06	1.0000
C	2.000000	1.04E-09	1.92E+09	0.0000

Weighted Statistics

Root MSE	0.235221	R-squared	-0.000000
Mean dependent var	1.78E+08	Adjusted R-squared	-0.019512
S.D. dependent var	2.88E+08	S.E. of regression	0.238072
Akaike info criterion	-45.12009	Sum squared resid	11.61905
Schwarz criterion	-45.04040	Log likelihood	4742.609
Hannan-Quinn criter.	-45.08787	F-statistic	-2.68E-11
Durbin-Watson stat	0.468249	Prob(F-statistic)	1.000000

Unweighted Statistics

R-squared	-0.235294	Mean dependent var	1.809524
Sum squared resid	40.00000	Durbin-Watson stat	0.181034

Panel Cross-section Heteroskedasticity LR Test
Equation: UNTITLED
Specification: FRQ FS LEV ROA EDI C
Null hypothesis: Residuals are homoscedastic

Value	df	Probability

Likelihood ratio	96.07709	35	0.0900

LR test summary:

	Value	df
Restricted LogL	-61.24501	205
Unrestricted LogL	4742.609	205

Unrestricted Test Equation:
Dependent Variable: FRQ
Method: Panel EGLS (Cross-section weights)
Date: 09/28/24 Time: 12:14
Sample: 2017 2023
Periods included: 7
Cross-sections included: 35
Total panel (unbalanced) observations: 210
Iterate weights to convergence
Convergence achieved after 5 weight iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	6.96E-16	8.36E-11	8.33E-06	1.0000
LEV	1.57E-14	2.66E-09	5.90E-06	1.0000
ROA	-6.56E-16	9.03E-10	-7.27E-07	1.0000
EDI	-2.74E-15	3.22E-10	-8.50E-06	1.0000
C	2.000000	1.04E-09	1.92E+09	0.0000

Weighted Statistics

Root MSE	0.235221	R-squared	-0.000000
Mean dependent var	1.78E+08	Adjusted R-squared	-0.019512
S.D. dependent var	2.88E+08	S.E. of regression	0.238072
Akaike info criterion	-45.12009	Sum squared resid	11.61905
Schwarz criterion	-45.04040	Log likelihood	4742.609
Hannan-Quinn criter.	-45.08787	F-statistic	-2.68E-11
Durbin-Watson stat	0.468249	Prob(F-statistic)	1.000000

Unweighted Statistics

R-squared	-0.235294	Mean dependent var	1.809524
Sum squared resid	40.00000	Durbin-Watson stat	0.181034

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.772496	4	0.0670

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
FS	-0.013314	-0.011946	0.000079	0.8778
LEV	-0.132470	-0.168528	0.000982	0.2498
ROA	-0.002996	-0.001308	0.000002	0.2564
EDI	0.232876	0.217533	0.001253	0.6647

Cross-section random effects test equation:
Dependent Variable: FRQ
Method: Panel Least Squares
Date: 09/28/24 Time: 12:39
Sample: 2017 2023
Periods included: 7
Cross-sections included: 35
Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.797842	0.252899	7.108943	0.0000
FS	-0.013314	0.014801	-0.899532	0.3696
LEV	-0.132470	0.081301	-1.629371	0.1051
ROA	-0.002996	0.015065	-0.198882	0.8426
EDI	0.232876	0.052018	4.476819	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.151723	R-squared	0.850709
Mean dependent var	1.809524	Adjusted R-squared	0.817533
S.D. dependent var	0.393615	S.E. of regression	0.168137
Akaike info criterion	-0.562089	Sum squared resid	4.834187

Schwarz criterion	0.059517	Log likelihood	98.01933
Hannan-Quinn criter.	-0.310797	F-statistic	25.64246
Durbin-Watson stat	1.236390	Prob(F-statistic)	0.000000

Dependent Variable: FRQ
Method: Panel EGLS (Cross-section random effects)
Date: 09/28/24 Time: 12:41
Sample: 2017 2023
Periods included: 7
Cross-sections included: 35
Total panel (unbalanced) observations: 210
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-0.011946	0.011828	-1.009951	0.3137
LEV	-0.168528	0.075022	-2.246371	0.0257
ROA	-0.001308	0.014991	-0.087221	0.9306
EDI	0.217533	0.038118	5.706764	0.0000
C	1.808168	0.208555	8.669996	0.0000

Effects Specification	S.D.	Rho
Cross-section random	0.269232	0.7194
Idiosyncratic random	0.168137	0.2806

Weighted Statistics

Root MSE	0.168218	R-squared	0.170363
Mean dependent var	0.443140	Adjusted R-squared	0.154175
S.D. dependent var	0.192654	S.E. of regression	0.170257
Sum squared resid	5.942451	F-statistic	10.52398
Durbin-Watson stat	1.009417	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.299243	Mean dependent var	1.809524
Sum squared resid	22.69118	Durbin-Watson stat	0.264350

Dependent Variable: FRQ

Method: Panel Least Squares

Date: 09/28/24 Time: 12:42

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-0.013314	0.014801	-0.899532	0.3696
LEV	-0.132470	0.081301	-1.629371	0.1051
ROA	-0.002996	0.015065	-0.198882	0.8426
EDI	0.232876	0.052018	4.476819	0.0000
C	1.797842	0.252899	7.108943	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.151723	R-squared	0.850709
Mean dependent var	1.809524	Adjusted R-squared	0.817533

S.D. dependent var	0.393615	S.E. of regression	0.168137
Akaike info criterion	-0.562089	Sum squared resid	4.834187
Schwarz criterion	0.059517	Log likelihood	98.01933
Hannan-Quinn criter.	-0.310797	F-statistic	25.64246
Durbin-Watson stat	1.236390	Prob(F-statistic)	0.000000

Dependent Variable: FRQ
Method: Panel Least Squares
Date: 09/28/24 Time: 12:42
Sample: 2017 2023
Periods included: 7
Cross-sections included: 35
Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-0.013314	0.014801	-0.899532	0.3696
LEV	-0.132470	0.081301	-1.629371	0.1051
ROA	-0.002996	0.015065	-0.198882	0.8426
EDI	0.232876	0.052018	4.476819	0.0000
C	1.797842	0.252899	7.108943	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.151723	R-squared	0.850709
Mean dependent var	1.809524	Adjusted R-squared	0.817533
S.D. dependent var	0.393615	S.E. of regression	0.168137
Akaike info criterion	-0.562089	Sum squared resid	4.834187
Schwarz criterion	0.059517	Log likelihood	98.01933
Hannan-Quinn criter.	-0.310797	F-statistic	25.64246
Durbin-Watson stat	1.236390	Prob(F-statistic)	0.000000

Dependent Variable: ROA

Method: Panel Least Squares

Date: 09/28/24 Time: 12:54

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.017219	0.023506	0.732518	0.4647
LEV	0.315331	0.202284	1.558851	0.1206
EDI	0.093139	0.065751	1.416554	0.1581
C	-0.408011	0.413035	-0.987838	0.3244

Root MSE	0.814630	R-squared	0.017975
Mean dependent var	0.039302	Adjusted R-squared	0.003674
S.D. dependent var	0.824016	S.E. of regression	0.822501
Akaike info criterion	2.465931	Sum squared resid	139.3607
Schwarz criterion	2.529685	Log likelihood	-254.9227
Hannan-Quinn criter.	2.491704	F-statistic	1.256910
Durbin-Watson stat	2.417611	Prob(F-statistic)	0.290269

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	2.778925	0.215418	2.994342
	(0.0955)	(0.6426)	(0.0836)
Honda	-1.667011	0.464131	-0.850564
	(0.9522)	(0.3213)	(0.8025)
King-Wu	-1.667011	0.464131	-0.218015
	(0.9522)	(0.3213)	(0.5863)
Standardized Honda	-1.322291	0.769358	-5.320478
	(0.9070)	(0.2208)	(1.0000)
Standardized King-Wu	-1.322291	0.769358	-3.593094
	(0.9070)	(0.2208)	(0.9998)

Gourieroux, et al.	--	--	0.215418
			(0.5457)

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.894578	3	0.2731

** WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
FS	0.033838	0.017219	0.005014	0.8144
LEV	-0.365357	0.315331	0.124749	0.0540
EDI	-0.067896	0.093139	0.064664	0.5266

Cross-section random effects test equation:

Dependent Variable: ROA

Method: Panel Least Squares

Date: 09/28/24 Time: 12:59

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.389842	1.279675	-0.304641	0.7610
FS	0.033838	0.074868	0.451966	0.6519
LEV	-0.365357	0.410553	-0.889914	0.3748
EDI	-0.067896	0.263233	-0.257929	0.7968

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.770174	R-squared	0.122235
Mean dependent var	0.039302	Adjusted R-squared	-0.066587
S.D. dependent var	0.824016	S.E. of regression	0.851009
Akaike info criterion	2.677503	Sum squared resid	124.5651
Schwarz criterion	3.283170	Log likelihood	-243.1378
Hannan-Quinn criter.	2.922352	F-statistic	0.647355
Durbin-Watson stat	2.755124	Prob(F-statistic)	0.940313

Dependent Variable: ROA

Method: Panel EGLS (Cross-section random effects)

Date: 09/28/24 Time: 13:01

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Swamy and Arora estimator of component variances

Period weights (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.017219	0.022917	0.751333	0.4533
LEV	0.315331	0.141762	2.224364	0.0278
EDI	0.093139	0.038507	2.418744	0.0170
C	-0.408011	0.403706	-1.010665	0.3134

Effects Specification		
	S.D.	Rho

Cross-section random		0.000000	0.0000
Idiosyncratic random		0.851009	1.0000

Weighted Statistics

Root MSE	0.814630	R-squared	0.117975
Mean dependent var	0.039302	Adjusted R-squared	0.103674
S.D. dependent var	0.824016	S.E. of regression	0.822501
Sum squared resid	139.3607	F-statistic	11.56910
Durbin-Watson stat	2.417611	Prob(F-statistic)	0.000002

Unweighted Statistics

R-squared	0.117975	Mean dependent var	0.039302
Sum squared resid	139.3607	Durbin-Watson stat	2.417611

Dependent Variable: ROA

Method: Panel Least Squares

Date: 09/28/24 Time: 13:02

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.033838	0.074868	0.451966	0.6519
LEV	-0.365357	0.410553	-0.889914	0.3748
EDI	-0.067896	0.263233	-0.257929	0.7968
C	-0.389842	1.279675	-0.304641	0.7610

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.770174	R-squared	0.122235
Mean dependent var	0.039302	Adjusted R-squared	-0.066587
S.D. dependent var	0.824016	S.E. of regression	0.851009
Akaike info criterion	2.677503	Sum squared resid	124.5651
Schwarz criterion	3.283170	Log likelihood	-243.1378
Hannan-Quinn criter.	2.922352	F-statistic	0.647355
Durbin-Watson stat	2.755124	Prob(F-statistic)	0.940313

Dependent Variable: TOBINSQ

Method: Panel Least Squares

Date: 09/28/24 Time: 13:03

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-14.64987	11.62602	-1.260093	0.2093
LEV	33.29819	63.75356	0.522295	0.6021
EDI	4.559848	40.87672	0.111551	0.9113
C	338.4442	198.7169	1.703148	0.0903

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	119.5979	R-squared	0.910006
Mean dependent var	103.3512	Adjusted R-squared	0.890647
S.D. dependent var	399.6251	S.E. of regression	132.1506
Akaike info criterion	12.76805	Sum squared resid	3003769.
Schwarz criterion	13.37372	Log likelihood	-1302.646
Hannan-Quinn criter.	13.01290	F-statistic	47.00632
Durbin-Watson stat	1.865016	Prob(F-statistic)	0.000000

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.928467	3	0.1771

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
FS	-14.649873	-20.804182	24.445337	0.2132
LEV	33.298192	30.319885	257.511891	0.8528
EDI	4.559848	40.503546	419.253101	0.0792

Cross-section random effects test equation:

Dependent Variable: TOBINSQ

Method: Panel Least Squares

Date: 09/28/24 Time: 13:04

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	338.4442	198.7169	1.703148	0.0903
FS	-14.64987	11.62602	-1.260093	0.2093
LEV	33.29819	63.75356	0.522295	0.6021
EDI	4.559848	40.87672	0.111551	0.9113

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	119.5979	R-squared	0.910006
Mean dependent var	103.3512	Adjusted R-squared	0.890647
S.D. dependent var	399.6251	S.E. of regression	132.1506
Akaike info criterion	12.76805	Sum squared resid	3003769.
Schwarz criterion	13.37372	Log likelihood	-1302.646
Hannan-Quinn criter.	13.01290	F-statistic	47.00632
Durbin-Watson stat	1.865016	Prob(F-statistic)	0.000000

Dependent Variable: TOBINSQ

Method: Panel EGLS (Cross-section random effects)

Date: 09/28/24 Time: 13:09

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Wallace and Hussain estimator of component variances

Cross-section SUR (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-21.10132	8.447184	-2.498030	0.0133
LEV	30.09229	18.89603	1.592519	0.1128
EDI	42.06463	15.68947	2.681074	0.0082
C	401.1241	163.2214	2.457545	0.0148

Effects Specification

	S.D.	Rho
Cross-section random	346.8438	0.8668
Idiosyncratic random	135.9723	0.1332

Weighted Statistics

Root MSE	131.2522	R-squared	0.325378
Mean dependent var	15.59116	Adjusted R-squared	0.311185
S.D. dependent var	133.1915	S.E. of regression	132.5203
Sum squared resid	3617698.	F-statistic	18.78802
Durbin-Watson stat	1.548739	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.309709	Mean dependent var	103.3512
Sum squared resid	29715565	Durbin-Watson stat	0.188550

Dependent Variable: TOBINSQ

Method: Panel Least Squares

Date: 09/28/24 Time: 13:11

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-54.52403	10.22101	-5.334502	0.0000
LEV	-65.76662	87.95867	-0.747699	0.4555
EDI	151.1257	28.59018	5.285929	0.0000
C	862.5014	179.5988	4.802377	0.0000

Root MSE	354.2235	R-squared	0.210555

Mean dependent var	103.3512	Adjusted R-squared	0.199058
S.D. dependent var	399.6251	S.E. of regression	357.6460
Akaike info criterion	14.61583	Sum squared resid	26349596
Schwarz criterion	14.67958	Log likelihood	-1530.662
Hannan-Quinn criter.	14.64160	F-statistic	18.31422
Durbin-Watson stat	0.224398	Prob(F-statistic)	0.000000

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	450.3664	3.147401	453.5138
	(0.0000)	(0.0760)	(0.0000)
Honda	21.22184	-1.774092	13.75163
	(0.0000)	(0.9620)	(0.0000)
King-Wu	21.22184	-1.774092	6.587002

	(0.0000)	(0.9620)	(0.0000)
Standardized Honda	22.62256	-1.634320	10.65431
	(0.0000)	(0.9489)	(0.0000)
Standardized King-Wu	22.62256	-1.634320	3.854522
	(0.0000)	(0.9489)	(0.0001)
Gourieroux, et al.	--	--	450.3664
			(0.0000)

Variance Decomposition of EDI:

Period	S.E.	EDI	FRQ	ROA
1	0.268008	100.0000	0.000000	0.000000
2	0.363104	99.97989	0.012992	0.007120
3	0.430143	99.94280	0.014172	0.043024
4	0.481744	99.92630	0.013334	0.060364
5	0.523276	99.91852	0.011974	0.069504
6	0.557540	99.91384	0.010684	0.075476
7	0.586263	99.91067	0.009663	0.079669
8	0.610615	99.90831	0.008962	0.082724
9	0.631434	99.90640	0.008571	0.085024
10	0.649345	99.90474	0.008458	0.086799

Variance Decomposition of FRQ:

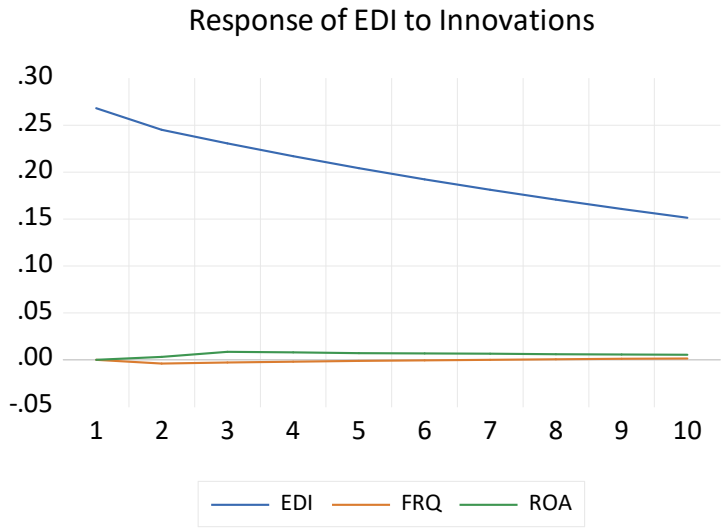
Period	S.E.	EDI	FRQ	ROA
1	0.190403	20.82269	79.17731	0.000000
2	0.265197	22.56830	77.42761	0.004098
3	0.313793	23.63762	76.35794	0.004445
4	0.348866	24.52419	75.47123	0.004580
5	0.375384	25.30785	74.68780	0.004353
6	0.395998	26.02089	73.97501	0.004102
7	0.412322	26.67727	73.31886	0.003870
8	0.425423	27.28376	72.71257	0.003668
9	0.436044	27.84441	72.15210	0.003499
10	0.444724	28.36208	71.63456	0.003364

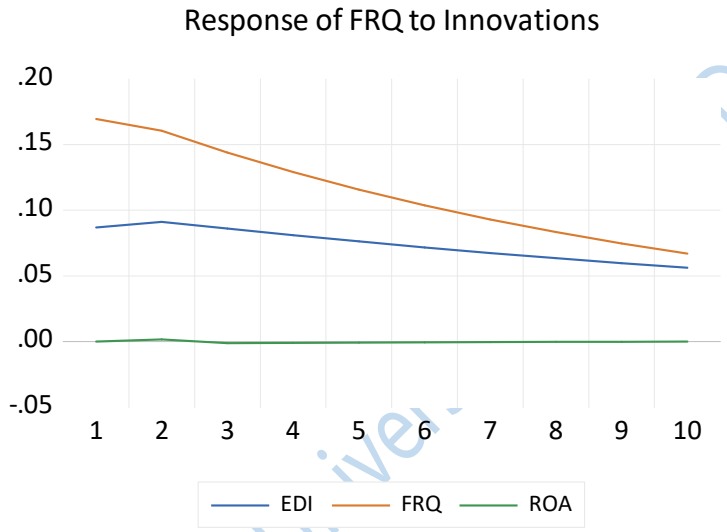
Variance Decomposition of ROA:

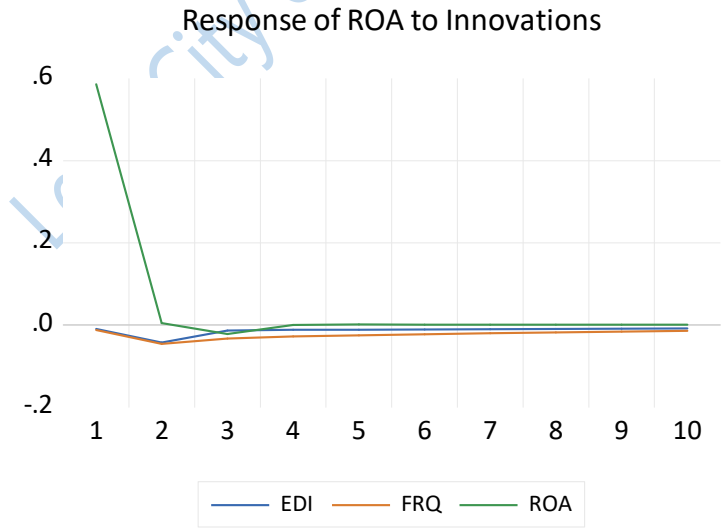
Period	S.E.	EDI	FRQ	ROA
1	0.586263	0.030114	0.045632	99.92425
2	0.589689	0.563749	0.664965	98.77129
3	0.591226	0.616960	0.978156	98.40488
4	0.592025	0.655369	1.205255	98.13938
5	0.592710	0.695913	1.390740	97.91335
6	0.593271	0.732159	1.539737	97.72810
7	0.593729	0.763934	1.658754	97.57731
8	0.594105	0.791996	1.753959	97.45405
9	0.594413	0.816817	1.830186	97.35300
10	0.594667	0.838775	1.891247	97.26998

Cholesky Ordering: EDI FRQ ROA

Response to Cholesky One S.D. (d.f. adjusted) Innovations







Dependent Variable: ROA

Method: Panel Least Squares

Date: 10/04/24 Time: 07:55

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.019127	0.023290	0.821264	0.4124
LEV	0.372496	0.206175	1.806701	0.0723
FRQ	0.290816	0.153221	1.898019	0.0591
C	-0.873658	0.500779	-1.744596	0.0825

Root MSE	0.809656	R-squared	0.025320
Mean dependent var	0.039143	Adjusted R-squared	0.011195
S.D. dependent var	0.822055	S.E. of regression	0.817441
Akaike info criterion	2.453500	Sum squared resid	138.3195
Schwarz criterion	2.517042	Log likelihood	-254.8442
Hannan-Quinn criter.	2.479185	F-statistic	1.792487
Durbin-Watson stat	2.431890	Prob(F-statistic)	0.149709

Dependent Variable: ROA

Method: Panel EGLS (Cross-section random effects)

Date: 10/04/24 Time: 08:02

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Swamy and Arora estimator of component variances

Period weights (PCSE) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.019127	0.022676	0.843501	0.3999
LEV	0.372496	0.260890	1.427788	0.1549
FRQ	0.290816	0.143073	2.032641	0.0434
C	-0.873658	0.479262	-1.822925	0.0698

Effects Specification		
	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.848534	1.0000

Weighted Statistics

Root MSE	0.809656	R-squared	0.225320
Mean dependent var	0.039143	Adjusted R-squared	0.211195
S.D. dependent var	0.822055	S.E. of regression	0.817441
Sum squared resid	138.3195	F-statistic	11.79248
Durbin-Watson stat	2.431890	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.225320	Mean dependent var	0.039143
Sum squared resid	138.3195	Durbin-Watson stat	2.431890

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.423030	3	0.1433

** WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
FS	0.031832	0.019127	0.004988	0.8572
LEV	-0.369655	0.372496	0.123270	0.0345
FRQ	-0.099709	0.290816	0.107962	0.2346

Cross-section random effects test equation:

Dependent Variable: ROA

Method: Panel Least Squares

Date: 10/04/24 Time: 08:05

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.250580	1.453266	-0.172426	0.8633
FS	0.031832	0.074650	0.426419	0.6703
LEV	-0.369655	0.411185	-0.898998	0.3699
FRQ	-0.099709	0.365046	-0.273140	0.7851

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.768336	R-squared	0.122266
Mean dependent var	0.039143	Adjusted R-squared	-0.065457
S.D. dependent var	0.822055	S.E. of regression	0.848534
Akaike info criterion	2.671009	Sum squared resid	124.5616
Schwarz criterion	3.274661	Log likelihood	-243.7915
Hannan-Quinn criter.	2.915017	F-statistic	0.651310
Durbin-Watson stat	2.753372	Prob(F-statistic)	0.937784

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	4.166928	0.646412	4.813340
	(0.0412)	(0.4214)	(0.0282)

Honda	-2.041305	0.803998	-0.874909
	(0.9794)	(0.2107)	(0.8092)
King-Wu	-2.041305	0.803998	-0.051695
	(0.9794)	(0.2107)	(0.5206)
Standardized Honda	-1.733017	1.133239	-5.360586
	(0.9585)	(0.1286)	(1.0000)
Standardized King-Wu	-1.733017	1.133239	-3.423774
	(0.9585)	(0.1286)	(0.9997)
Gourieroux, et al.	--	--	0.646412
			(0.3917)

Panel Cross-section Heteroskedasticity LR Test

Equation: UNTITLED

Specification: ROA FS LEV FRQ C

Null hypothesis: Residuals are homoskedastic

	Value	df	Probability

Likelihood ratio	833.1666	35	0.0000

LR test summary:

	Value	df
Restricted LogL	-254.8442	207
Unrestricted LogL	161.7391	207

Unrestricted Test Equation:

Dependent Variable: ROA

Method: Panel EGLS (Cross-section weights)

Date: 10/04/24 Time: 08:06

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Iterate weights to convergence

Convergence achieved after 24 weight iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	0.002611	0.001700	1.536196	0.1260
LEV	0.002209	0.018789	0.117569	0.9065
FRQ	0.049927	0.003144	15.87756	0.0000
C	-0.062595	0.034925	-1.792287	0.0745

Weighted Statistics

Root MSE	0.818878	R-squared	0.768154
Mean dependent var	1.280664	Adjusted R-squared	0.764794
S.D. dependent var	3.869938	S.E. of regression	0.826752
Akaike info criterion	-1.495157	Sum squared resid	141.4885
Schwarz criterion	-1.431615	Log likelihood	161.7391
Hannan-Quinn criter.	-1.469472	F-statistic	228.6119
Durbin-Watson stat	1.067427	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	0.002990	Mean dependent var	0.039143
Sum squared resid	141.4885	Durbin-Watson stat	2.395866

Arellano-Bond Serial Correlation Test

Equation: Untitled

Date: 10/04/24 Time: 08:08

Sample: 2017 2023

Included observations: 140

Test order	m-Statistic	rho	SE(rho)	Prob.

AR(1)	-1.299622	-24.318776	18.712193	0.1937
AR(2)	-0.625692	-9.744792	15.574432	0.5315

Dependent Variable: TOBINSQ

Method: Panel Least Squares

Date: 10/04/24 Time: 08:09

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

White period (cross-section cluster) standard errors & covariance (d.f. corrected)

Standard error and t-statistic probabilities adjusted for clustering

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-51.87018	32.41420	-1.600230	0.1188
LEV	-151.8429	111.8038	-1.358119	0.1834
FRQ	80.39455	103.2442	0.778683	0.4416
C	855.1779	538.9212	1.586833	0.1218

Root MSE	375.4325	R-squared	0.109223
Mean dependent var	102.8849	Adjusted R-squared	0.096313
S.D. dependent var	398.7300	S.E. of regression	379.0425
Akaike info criterion	14.73195	Sum squared resid	29740353
Schwarz criterion	14.79549	Log likelihood	-1550.221
Hannan-Quinn criter.	14.75763	F-statistic	8.460479
Durbin-Watson stat	0.194841	Prob(F-statistic)	0.000025

Dependent Variable: TOBINSQ

Method: Panel EGLS (Cross-section random effects)

Date: 10/04/24 Time: 08:13

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Swamy and Arora estimator of component variances

White period (cross-section cluster) standard errors & covariance (d.f. corrected)

Standard error and t-statistic probabilities adjusted for clustering

Variable	Coefficient	Std. Error	t-Statistic	Prob.

FS	-18.89755	18.57889	-1.017152	0.3163
LEV	35.67958	15.31321	2.329987	0.0208
FRQ	68.31631	33.43767	2.043094	0.0423
C	284.0578	301.9486	0.940749	0.3535

Effects Specification		
	S.D.	Rho
Cross-section random	372.4088	0.8895
Idiosyncratic random	131.2283	0.1105

Weighted Statistics			
Root MSE	128.7139	R-squared	0.324740
Mean dependent var	13.98165	Adjusted R-squared	0.310606
S.D. dependent var	130.5864	S.E. of regression	129.9515
Sum squared resid	3495692.	F-statistic	17.75039
Durbin-Watson stat	1.593290	Prob(F-statistic)	0.000000

Unweighted Statistics			
R-squared	0.359750	Mean dependent var	102.8849
Sum squared resid	31392115	Durbin-Watson stat	0.177422

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.197410	3	0.5325

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
FS	-13.882911	-18.897549	21.298840	0.2772
LEV	44.434759	35.679581	214.354105	0.5498
FRQ	67.785419	68.316314	264.862973	0.9740

Cross-section random effects test equation:

Dependent Variable: TOBINSQ

Method: Panel Least Squares

Date: 10/04/24 Time: 08:14

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	205.6251	224.7519	0.914898	0.3615
FS	-13.88291	11.54484	-1.202521	0.2308
LEV	44.43476	63.59105	0.698758	0.4856
FRQ	67.78542	56.45541	1.200690	0.2315

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	118.8254	R-squared	0.910767
Mean dependent var	102.8849	Adjusted R-squared	0.891683
S.D. dependent var	398.7300	S.E. of regression	131.2283
Akaike info criterion	12.75338	Sum squared resid	2979209.
Schwarz criterion	13.35703	Log likelihood	-1307.481
Hannan-Quinn criter.	12.99739	F-statistic	47.72304
Durbin-Watson stat	1.874422	Prob(F-statistic)	0.000000

Panel Cross-section Heteroskedasticity LR Test

Equation: UNTITLED

Specification: TOBINSQ FS LEV FRQ C

Instrument specification: @DYN(ROA,-2)

Null hypothesis: Residuals are homoscedastic

	Value	Df	Probability
Likelihood ratio	23.03476	35	0.4597

LR test summary:

	Value	Df
Restricted LogL	-1550.221	207
Unrestricted LogL	-398.4827	207

Unrestricted Test Equation:

Dependent Variable: TOBINSQ

Method: Panel EGLS (Cross-section weights)

Date: 10/04/24 Time: 08:14

Sample: 2017 2023

Periods included: 7

Cross-sections included: 35

Total panel (unbalanced) observations: 211

Iterate weights to convergence

Convergence achieved after 45 weight iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FS	-0.023362	0.004549	-5.135312	0.0000

LEV	-0.009187	0.189715	-0.048426	0.9614
FRQ	0.247371	0.030071	8.226117	0.0000
C	0.423974	0.091599	4.628575	0.0000

Weighted Statistics

Root MSE	410.7292	R-squared	0.341291
Mean dependent var	662.0115	Adjusted R-squared	0.331745
S.D. dependent var	577.3392	S.E. of regression	414.6786
Akaike info criterion	3.815002	Sum squared resid	35595372
Schwarz criterion	3.878544	Log likelihood	-398.4827
Hannan-Quinn criter.	3.840687	F-statistic	35.75043
Durbin-Watson stat	0.830003	Prob(F-statistic)	0.000000

Unweighted Statistics

R-squared	-0.066145	Mean dependent var	102.8849
Sum squared resid	35595372	Durbin-Watson stat	0.159489

Lagrange Multiplier Tests for Random Effects

Null hypotheses: No effects

Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided

(all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	495.6268	3.223096	498.8499
	(0.0000)	(0.0726)	(0.0000)
Honda	22.26268	-1.795298	14.47262
	(0.0000)	(0.9637)	(0.0000)
King-Wu	22.26268	-1.795298	6.989846
	(0.0000)	(0.9637)	(0.0000)
Standardized Honda	23.66779	-1.656408	11.42085
	(0.0000)	(0.9512)	(0.0000)
Standardized King-Wu	23.66779	-1.656408	4.279158
	(0.0000)	(0.9512)	(0.0000)
Gourieroux, et al.	--	--	495.6268
			(0.0000)

Arellano-Bond Serial Correlation Test

Equation: Untitled

Date: 10/04/24 Time: 08:18

Sample: 2017 2023

Included observations: 140

Test order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-1.082346	-1858768.420505	1717351.396023	0.2791
AR(2)	NA	36262.44558 1	NA	NA

*Standard errors could not be computed. Try different covariance matrix options

Bio Data

E. Personal Date

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Place of birth: Ibadan,Nigeria

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Education Background

Educational Institution attended with dates and qualifications:

Lead City University ,Ibadan, PhD. Accounting (in view)

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Ambrose Alli University,Ekpoma, 2007

F. Working Experience with Dates:

The Polytechnic ,Ibadan (Senior Lecturer} 2023-till date

The Polytechnic ,Ibadan (Lecturer1} 2020-2022

The Polytechnic, Ibadan (Lecturer 2} 2017-2019

The Polytechnic, Ibadan (Lecture 3} 2014-2016

The Polytechnic ,Ibadan (Assitant Lecturer} 2011-2013

G. Publications:

1 Segun Wale Olayinka & Jadesola Abiodun Adepoju, Analysis of the Dynamic relationship among stock liquidity ,Dividend Policy and Financial Performance of Non-Financial Quoted Companies in Nigeria. Journal of Management Science & Entrepreneurs (JMSE) Vol.5 No. 7

2 Prof. Kabiru Aderemi Adeyemo FCA& Adepoju Jadesola Abiodun, Financial Reporting Quality and Corporate Performance of Business Organization in Nigeria, International journal of Social Science and Management Review. ISS2582-0172

The University Compliance Certification

This is to certify that this Thesis was written by Adepoju Jadesola Abiodun with the matric number in the department of management and accounting, Faculty of Management science, Lead city University, Ibadan I full compliance with the approved University format and style

Signature Date