

THE IMPACT OF SUSTAINABILITY REPORTING ON
PROFITABILITY OF SELECTED CONSUMER GOODS
COMPANIES IN NIGERIA

BY

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DECLARATION

I declare that this project is based on a study conducted by me, SUEZIBE BILLY in the Department of Accountancy, Bayelsa State Polytechnic, Aleibiri under the supervision of Mr Timinipre Okpobo. This project report has not been submitted elsewhere for the award of a degree. The ideas and views of the research project are products of research undertaken by me. Where the ideas and views of other authors/researchers have been expressed, they have been duly acknowledged.

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CERTIFICATION

The project, the impact of sustainability reporting on profitability of selected consumer goods companies in Nigeria, meets the regulations governing the award of National Diploma in Accounting, Department of Accountancy, Bayelsa State Polytechnic, Aleibiri.

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Dean, School of Management Sciences Signature Date

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DEDICATION

This project is dedicated to the Almighty God for His unfailing love and kindness to me.

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I want to appreciate all my lecturers at Bayelsa State Polytechnic, especially my project supervisor, Mr Timinipre Okpobo, for his patience, understanding, constructive and painstaking

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ABSTRACT

The aim of this paper was to examine the impact of sustainability reporting on profitability of selected companies in the consumer goods manufacturing sector of the Nigerian Stock

Exchange, for a period of five years, from 2017 to 2021. This study used time-series and cross-sectional analysis of selected listed industrial goods companies on the Nigerian Stock Exchange. Ex-Post Facto research was used in this study. Data were gathered from secondary sources such as fact books and financial statements of seventeen consumer goods manufacturing companies in Nigeria, which served as the sample size. Using E-View 9.0 statistical software, the data were statistically analyzed using Pearson correlation coefficient and multiple regression analysis. The findings of this study demonstrated that, at a 5% level of significance, sustainability reporting (as measured by economic, environmental, and social performance indices) has a positive significant effect on return on assets, return on equity and earnings per share. The study recommended, among other things, that a standardized Sustainability Index be adopted, since this will assist to put pressure on firms to pay greater attention to their environment and take sustainable development issues more seriously.

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CHAPTER ONE

INTRODUCTION

1.1 background to the Study

Business organizations are mainly set up with the motive of satisfying consumers' needs while maximizing profit for the owners. To achieve the objective, organizations involve in a lot of activities that have unintended consequences on the host community and the society at large. Often times, these activities impact negatively on the environment in which they operate (Ihimekpen, 2021). For instance, Niger Delta region of Nigeria has witnessed numerous damages to the economy, environment and social life of the host communities due to operations of oil and gas firms in their locality which have led to innumerable social unrest by the youths.

Considering current environmental crises globally such as global warming, businesses must give more attention to their operating environment to cushion the negative and unintended consequences arising from business operations on the people, planet earth and at the same time balance the needs of other stakeholders. Sustainability reporting has therefore become one of the tools used by reporting companies to report sustainability issues which traditional financial reporting is insufficient and have failed to provide different users of financial information with economic, social and environmental effects of business operational activities (Etale & Otuya, 2020).

Without a doubt, in recent times, sustainability has become a serious issue that is generating global attention. This has been attributed to the fact that in recent years, stakeholders have developed tremendous interest in firms' non-financial activities. This means that there is serious demand by stakeholders for more disclosure on firm's non-financial performance. Stakeholders now desire to know the impact of the firms' activities on them and their environment. However,

sustainability reporting over the years has become popular as a result of increase in awareness of environmental and social issues in the society, the decreasing role of government, demand for detailed disclosure, increased pressure from investors, supplier relations and competition in labour markets (Thayaraj & Karunarathna, 2020).

Due to the main aim of establishing business firms, which is to improve the quality of life in the society, necessary gauge should be taken to determine and report the degree to which the firm has impacted on the society from period to period. Sustainability Reporting therefore seems to be the best option for reconciling all the doubts and information needs of the stakeholders.

Global Reporting Initiative (2011) defines 'Sustainability Reporting' as "the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance towards the goal of sustainable development". Alluding to the foregoing definition, sustainability reporting helps organizations communicate the relationship between their strategies and their commitment to sustainable development to the stakeholders. The clamour for sustainability reporting is based on the premise that it would not only help stakeholders to make decisions but enhance both the financial and non-financial performance of the firms and also increase its competitive advantage and create a long term success and good reputation of the firms. In a nutshell, sustainability reporting entails economic, environmental, and social and governance disclosure attempts by reporting entities to different users of accounting information especially shareholders, whose funds are used in financing the firm.

The Nigerian consumer goods sector occupies an important position in the Nigerian economy and contributes immensely to the development of the country. This sector remains one of the fastest growing sectors of the economy and opportunities abound therein. Consumer goods are

classified into durable and non-durable. While durable have life span of three or more years, non-durable have life span below three years. However, after the recovery of the Nigerian economy from a six-quarter long recession, which ended in 2017, the consumer goods market is back on track to trend upwards as Nigeria is predicted to become one of the top 20 economies in the world by 2030.

The main trend driving this growth is the youthful population that is eager to try new products and brands and reside in large cities and has access to mobile phones that can facilitate payments and money transfer. This population makes it possible for multinational companies to take advantage of long-term opportunities in Nigeria. Therefore, opportunities for consumer goods in Nigeria such as home and personal care products, apparel, real estate and automobile to move people around are apparent given that these things are seen as a necessity amongst the country's large population. This sector has attracted and retained foreign investment over decades. The latest is the boom in the retail sector, one that has spurred the entry of foreign capital through physical stores like Shoprite and online supermarkets like Jumia and Konga. Currently, retail and wholesale sales make up 16 percent of Nigeria's GDP, making retail and consumer goods the third largest contributors.

Though sustainability reporting is voluntary as at today, many firms are seeing the need to establish best approach to appropriately develop a social bookkeeping and accounting system that will capture relevant economic, social and environmental data and value them (Ihimekpen, 2021). This practice has therefore aroused curiosity amongst accounting researchers as to whether these disclosures affect the financial performance of reporting companies. It is against this background that this study intends to ascertain the relationship between sustainability reporting and the profitability of consumer goods companies in Nigeria.

1.2 Statement of Problem

Sustainability Reporting has been a major concern in today's business era as it does not only satisfy stakeholders informational needs about the economic, social and environmental activities of the firm, but also works as a competitive advantage for the company in question. Therefore, in today's business world where companies are highly competitive, it is very important for firms to draw sustainability reports not only to track down their economic, social and environmental performances, but also to attract more customers to survive in business. Sustainability reporting attract customers because, consumers in today's business world are more aware and awake as to how firms treat the prosperity of their society and environment via their mode of operation.

Consequently, organizations have increasingly embraced sustainability reporting. According to Global Reporting Initiative (2011), thousands of organizations worldwide now produce sustainability reports. KPMG International Survey of 2011 which covers 34 countries including Nigeria shows that 95 percent of the 250 largest global companies now report on their corporate responsibility activities. This is in response to the increased demand by stakeholders for organizations to be more transparent in how they treat their economic, social and environmental activities.

It has been agreed by world business leaders and through academic research that sustainability tells on a firm's corporate responsibility; therefore, any company that does not produce sustainability report could be seen as working towards unsustainable development. However, the results of most Sustainability Reporting and financial performance studies are either inconclusive or contradictory, reporting positive or sometimes negative results. Moreover, most of these studies were conducted in developed countries with properly enacted environmental and social laws which is not the case of Nigeria. Similarly, most of the studies on sustainability reporting

carried out in Nigeria were done with respect to the more established sectors (such as banking, oil & gas, industrial goods manufacturing sectors). Therefore, this study is being carried out to evaluate the effect of sustainability reporting on corporate performance of selected consumer goods quoted companies in Nigeria.

1.3 Objectives of the Study

The main objective of this study is to determine the impact of sustainability reporting on profitability of selected consumer goods companies in Nigeria. The specific objectives of this study are to:

- i. Ascertain the impact of sustainability reporting on return on assets of quoted consumer goods companies in Nigeria.
- ii. Evaluate the relationship between sustainability reporting and return on equity of quoted consumer goods in Nigeria.
- iii. Examine the effect of sustainability reporting on earnings per share of quoted consumer goods in Nigeria.

1.4 Research Questions

The following research questions are raised with respect to the objective statements above:

- i. What is the extent of impact of sustainability reporting on return on assets of quoted consumer goods companies in Nigeria?
- ii. What is the level of relationship between sustainability reporting and return on equity of quoted consumer goods companies in Nigeria?

- iii. To what extent does sustainability reporting affect earnings per share of quoted consumer goods companies in Nigeria?

1.5 Statement of Hypotheses

The hypotheses statements relating to this study are formulated in both null and alternative forms:

H₀ 1: Sustainability reporting does not have any significant impact on return on assets of quoted consumer goods companies in Nigeria.

H_a 1: Sustainability reporting has significant impact on return on assets of quoted consumer goods companies in Nigeria.

H₀ 2: There is no significant relationship between sustainability reporting and return on equity of quoted consumer goods companies in Nigeria.

H_a 2: There is significant relationship between sustainability reporting and return on equity of quoted consumer goods companies in Nigeria.

H₀ 3: There is no significant effect of sustainability reporting on earnings per share of quoted consumer goods companies in Nigeria.

H_a 3: There is significant effect of sustainability reporting on earnings per share of quoted consumer goods companies in Nigeria.

1.6 Significance of the Study

Firstly, it is hoped that the study will serve as an inspiration to other potential students, institutions, stock market researchers in accounting and other users of the financial statements as

well as contribute to the growth and development of the Nigerian stock market, serve as data bank for research.

Secondly, the finding of the study will be useful to policy institutions like the Securities and Exchange Commission (SEC) in identifying what investors perceive as being the determinants of accounting information usefulness. This knowledge is critical in order for efficient policies to be put in place as the growth of the capital market will depend largely on the confidence of the market participants on the system.

Thirdly, this study will provide necessary evidence from developing economies like Nigeria. This will thus facilitate cross country comparisons of findings and also fill the gap in literature and knowledge. The finding of the study will also be immensely beneficial to firms as it will provide a basis for evaluating the components that investors consider as determinants of sustainability reporting of their published financial statements. It is hoped that the study will assist in practice and standard setting, which in turn will increase stakeholders' confidence in the Nigerian economy.

1.7 Scope of the Study

The scope of this study comprises sustainability reporting and its impact on profitability of quoted consumer goods companies in Nigeria. Therefore, the geographical scope of this study is the manufacturing sector in Nigeria, with respect to the consumer goods companies listed on the Nigerian Stock Exchange, while the time scope of this study covers a period of five (5) years, which is the 2017 to 2021 annual reports of the selected companies under study.

1.8 Definition of Terms

Sustainability Reporting: Sustainability report can be defined as a report prepared and published by an organization which includes important environmental, social and economic impacts caused by its operations.

Firm Performance: It is a set of financial and non- financial indicators which give information on the extent of achievement of objectives and results.

Global Reporting Initiative (GRI): Is an Independent International organization launched in 1997 by the Environmentally Responsible Coalition (CERES) and the United Nations' Environmental Programme (UNEP) with the mission to support companies to make decisions on the sustainable development of their businesses.

Return on Assets (ROA): The return on assets shows the percentage of how profitable a company's assets are in generating revenue.

Return on Equity (ROE): This is a measure of the profitability of a business in relation to the equity. It is also known as net assets, that is, assets minus liabilities.

Financial Information: This is a formal record of the financial activities and position of a business, person or other entities. Relevant financial information is presented in a structured manner and in a form easy to understand.

After Tax Profit Margin: After tax profit margin is the percentage of revenue that remains after all operating expenses, interest, taxes and preferred stock dividends have been deducted from a company's total revenue.

Earnings Before Interest and Tax: Earnings before interest and tax is an indicator of the company's profitability.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses in details the works of other researchers in respect of sustainability reporting and its impact on profitability of companies. Therefore, this chapter is considered under: theoretical framework, empirical framework and conceptual framework.

2.1 Theoretical Framework

2.1.1 Legitimacy Theory

Legitimacy theory was derived from the concept of organizational legitimacy, and it was propounded by Dowling and Pfeffer in 1975. The theory is hinged on the assumption that accounting for sustainable development and the associated role of management accounting in sustainable development are used as communication mechanisms to inform and/or manipulate the perception of the entity's actions (Mistry, Sharma & Low, 2014). The objectives of this theory can be identified as describing the relationship between a company and the community; explaining companies' motivations for social and environmental disclosures presenting how companies can use legitimacy strategies and determining the impacts of social and environmental disclosures on the public and society.

Lindblom (1993) defined legitimacy as a condition which exists when an entity's value system is in harmony with the value system of society. This theory maintains that it is of great importance for firms to meet up with the societal expectations to ensure the survival of firm in long-term.

(Patten, 1992; Deegan, 2000) argue that sustainability reporting tends to low the risk of regulatory actions and boycotts by stakeholders, and it strengthens the firm's license to function. According to legitimacy theory, it is necessary to achieve society's approval for the company to survive (Campbell, Craven, & Shrivs, 2002). Corporations that consider sustainability crucial to their success might be interested to show their sustainability commitment to stakeholders (internal and external) by providing an extensive sustainability report. O'Donovan (2002) suggested that companies need to behave as what is expected from society to maintain its business activities. This need of behaving as expected from society stimulates companies to disclose information as a legitimizing tool (Cho & Patten, 2007) and use documents to change society's perception toward them (Deegan, 2002; Gray, Kouhy, & Lavers, 1996). Konar and Cohen (2001) say that companies tend to comply with environmental regulations and portray an image of environmental responsibility, which in turn is rewarded by the market. According to Ching et al (2017) sustainability report can be seen as one of those documents that legitimize the behavior of a company, enforcing the legitimacy theory.

However, one can understand that for a firm to remain in business and pursue its long-term goal, it must perform its legitimate responsibility to the society. Therefore, a firm cannot survive if its value system is not in harmony with that of the society. Recall that the essence of having business firm is to enhance the quality of life in the society. More so, it is through sustainability reporting that the society can understand whether firms are actually discharging their legitimate responsibility.

2.1.2 Stakeholders Theory

This study was anchored on the stakeholder theory which was propounded by Edward Freeman in 1984. It is one of the major approaches to social, natural and administration investigation.

Scholars portray stakeholders as “those people who can influence or be influenced by the activities associated with trade” or as “the people who depend on the firm to attain their individual objectives and on whom the firm depends on for its existence”. The idea of stakeholder theory began to receive significant attention in organizational and management research after the publication of *Strategic Management: A Stakeholder Approach* by Edward Freeman in 1984. According to Freeman (1984), the stakeholder theory maintains that firms have a stewardship role towards a variety of stakeholders, different from shareholders, i.e. creditors, customers, suppliers, employees, government, community, environment, future generations, etc. King (2002) acknowledged the importance of integrated sustainability reporting in strengthening the relationship between firm and society in which it operates. Being insensitive to stakeholders’ interests may detract firm’s reputation, which would adversely affect firm’s operational and financial performance.

However, looking at stakeholders’ theory, it tries to establish relationship between the firm and other stakeholders including the community where the business is located unlike the agency theory that considers only the owners and the management of the business. A firm understands the role the customers, suppliers, creditors, government, environment and the host community play towards the success of firms. Therefore, firms owe these stakeholders a lot including making adequate disclosure of financial and non-financial performance. By doing this, the stakeholders can conveniently assess the impact of firms’ operations on the entire stakeholders; acknowledging the fact that firms operate in a system of stakeholders who they cannot do without. More so, through sustainability reporting the bond between firms and stakeholders will be strengthened and they will have more confidence in the firm.

2.1.3 Political Economy theory

The political economy has been defined by Gray, Qwen and Adams (1996) in Deegan (2007) as the social, political and economic framework within which human life takes place. Political economy theory explicitly recognizes the power conflict that exist within society and the various struggles that occur between various groups within the society. The perspective embraced in political economy theory is that society, politics and economics are inseparable and economic issues cannot meaningfully be investigated in the absence of considerations about the political, social and institutional framework in which the economic activity takes place. It is argued that by considering the political economy a researcher is better able to consider broader (society) issues which impact on how an organization operates, and what information it elects to disclose.

Following the above point, Guthrie and Parker (1990) in Deegan (2007) explain the relevance of accounting within a political economy perspective. They state that the political economy perspective perceives accounting report as social, political and economic documents. They serve as a tool for constructing, sustaining, and legitimizing economic and political arrangements, institutions and ideological themes which contribute to the corporation's private interests. Political economy theory relies on the concept that society, politics and economics are indivisible and economic events cannot be studied in comprehensive manner without reference to political, social and institutional framework in which the event occurs. A study of political economy allows researchers to contemplate broader issues about the information companies elect to disclose in their annual reports (Kenth & Stewart, 2008).

2.2 Empirical Framework

Appah(2011) carried out a study on Corporate Social Accounting Disclosure in the Annual Report of Nigeria companies. The objective of this study is to examine the practice of social accounting disclosure in Nigeria companies. The research adopted descriptive research design, secondary data only was used. A sample size of 384 from infinite population the formula is $Z^2pq/(e)^2$.The research hypothesis was tested using chi-square (X^2) The findings reviewed that the inclusion of social cost and the disclosure of information by the organizations in the financial statements of will enhance disclosure of information disclosure in the financial statement of the organization.

Asaolu et al (2011) assessed sustainability reporting in the Nigerian oil and gas sector in order to ascertain the level of reporting with global best practices. The GRI G3 reporting guidelines were used and all the sampled Nigerian companies were benchmarked against their international counterparts. However, the study only used limited criteria deemed fit to be “relevant within the Nigerian context”. This assertion was not scientifically justified. Nonetheless, the study found incompatible difference in sustainable reporting indicators of all companies studied when compared with their counterparts.

However, Beredugo and Mefor [2012] assessed the impact of environmental accounting and reporting on sustainability development in Nigeria. The study posited that there is a significant relationship between environmental reporting and sustainable development and that environmental reporting encourages organizations to track their GHG emissions and other environmental data against reduction targets.

Nwobu (2013) examined the annual reports of some banks in Nigeria for the presence or absence of sustainability reporting. The study found that sustainability reporting has received substantial

attention over the past four (4) years in the Nigerian banking sector and that small positive correlation exists between sustainability reporting index and Profit after Tax (PAT) shareholders fund.

Ekweme et al (2013) carried out an exploratory study on the benefits of triple bottom line disclosures on corporate performance. Questionnaire was used to collect the data Using a sample of 141 respondents comprising 21 corporate managers, 55 corporate employees and 65 consumers and investors, in Anambra state, south east Nigeria and using descriptive statistics, kolmogorov-smirnov, one sample t-test and multiple regression to analysed the data, the study showed a positive correlation between sustainability reporting and corporate performance.

Adeyemi and Oluwaseyi (2014) studied corporate governance and sustainable banking sector in Nigeria. Their study focused on the relationship between corporate governance mechanisms and commitments to sustainable banking. They found that Nigerian banks have not shown enough commitment towards sustainable banking. Their finding also shows that general accountability, level of board responsibility and transparency has not been impressive enough vis-a-vis sustainable banking requirement.

Mohammed (2014) studied sustainability reporting among food and beverages companies in Nigeria. The study examined the voluntary sustainability reporting among the Nigerian food and beverages firms and its impact on firms' profitability and size, using secondary source of data the findings show that firms disclosed more of their environmental activities than other aspects of sustainability reporting. Again there is a significant positive relationship between the size of company and extent of sustainability disclosure.

Oyewo and Badejo (2014) studied sustainable development reporting practices by Nigerian banks. They created checklist which was categorized into 4 broad items as follows: economic, social, environmental and general. Their findings show that Nigerian banks were involved mostly in the social aspect of sustainability at the detriment of other aspects of sustainability reporting. It also showed that firms characteristics, such as profitability and size were seen not to affect sustainable banking practice.

Erin et al (2015) examined sustainability reporting and quality of corporate disclosure: evidence from Nigerian banking sector. They used primary data from the big- four audit firms and a sample of 270 was drawn and regression analysis was used. Their findings show that sustainability reporting has a relatively significant impact on the quality of corporate disclosure in the Nigerian banking sector.

Ajayi and Ovharhe (2016) examined how Nigeria LNG uses CSR as a key strategy in creating an enabling environment that fosters support from all her stake holders which has led to good performance and growth of the company. This paper brought out CSR initiatives taken by NLNG in Nigeria that made her stands out as role model with regards to CSR in Nigeria. An exploratory research design was chosen in order to develop a profound understanding of the research topic and to obtain in-depth data about the research objectives. All main elements of the research paper, comprising theory, findings and analysis were incorporated in a cohesive and expository manner and structured in order to address and evaluate the central research objectives and hypotheses appropriately.

Nze, Okoh and Ojeogwu(2016) examined the effect of corporate social responsibility on earnings of quoted firms in Nigeria. Data for the study were secondary and were sourced from firms' financial statements and the fact book of Nigerian Stock Exchange. The two firms studied

were chosen from the oil and gas industry in Nigeria using the simple random sampling technique. The study covered a ten-year period. Data were analysed using the ordinary regression analysis. The results show that CSR has a positive and significant effect on earnings of firms studied

Owolabi et al (2016) carried out an assessment of sustainability reporting in Nigeria industrial goods sector. The study examined the extent of sustainability reporting practiced by Lafarge Africa plc. content analysis was employed and the (GRI) G4 was used as a basis of assessment. They found no disclosure on human right issues, 3% environmental disclosures and an aggregate of 30% disclosure based on one hundred and sixty –nine indicators used.

Nnamani et al (2017) studied effect of sustainability accounting and reporting on financial performance of listed manufacturing firms in Nigeria. Data was gathered through secondary sources. The period covered 2010 – 2014, they sampled 3 firms in the brewery sector. Expost facto research design was used. ROA and ROE were used as dependent variable while independent variables were total personal cost to total assets ratio and total equity to total assets ratio. Their finding showed that sustainability reporting has positive and significant effect on financial performance of firms studied.

Utile et al (2017) carried out study on environmental reporting and the financial performance of listed manufacturing firms in Nigeria. The sample was drawn from ten manufacturing firms listed on Nigeria stock exchange. expost facto design was used and random effect regression was used for data analysis. Independent variables used are erosion control reporting index, waste management reporting index and air pollution reporting index while the dependent variable is earnings per share. The period covered is from 2011 – 2015 and a sample of 12 was drawn out of all 87 companies in Nigeria that are of manufacturing nature and listed in NSE. They found that

erosion control and air pollution have significant effect with financial performance while waste management reporting has negative but significant effect on firms' financial performance. The result proves that environmental reporting has significant effect on firm financial performance.

Tyokoso, Teghtegh and Bweseh (2020) examined the relationship between sustainability reporting and financial performance of Nigerian and Mozambican oil and gas companies. Secondary data extracted from published accounts of sampled firms were subjected to multiple regression analysis. Results from the study indicate that economic reporting and environmental reporting affect positively and significantly financial performance of Oil and Gas firms in Nigeria and Mozambique while social reporting had an insignificant negative effect on the performance of Oil and Gas firms in Nigeria and Mozambique. Additionally, the study found that sustainability reporting amongst Nigerian and Mozambican oil and gas companies differ significantly. The study concluded that economic and environmental reporting have a significant positive influence on the financial performance of firms while social reporting has a negative but insignificant influence on the financial performance of Oil and Gas companies in the two countries. The study recommended an international reporting standard to guide companies globally in reporting sustainability activities to enhance meaningful comparison among reporting companies within the same jurisdiction and even internationally.

The study of Ihimekpen (2021) examined the effect of sustainability reporting on financial performance of non-financial listed companies in Nigeria. To achieve that objective, the study specifically sought to ascertain the extent to which environmental sustainability reporting, social sustainability reporting, employee health and safety sustainability reporting, and economic sustainability reporting affected accounting and market performance proxies (Gross Profit after Tax, Earnings before Interest and Tax and Return on Capital Employed). In this study, ex-post

facto research design was employed on panel data which was sourced from related company annual financial reports. Pooled Ordinary Least Square (POLS) regression analysis was conducted, and diagnostic test conducted to ensure that there was no violation of a vital least square assumption while the formulated hypotheses were tested based on the uniqueness of the specified model. In this study the least square dummy variable regression was employed on Return on Capital Employed and Gross Profit after Tax Margin models while Robust Least Square Regression analyses technique was employed on Earnings before Interest and Tax model. The probability values, (p- values) of the regression results formed the basis for decision making. The findings revealed that environmental sustainability reporting had a positive and significant effect on the performance measure of earnings before interest and tax, but it revealed an insignificant effect on return on capital employed and gross profit after tax margin. That was seen to be consistent with the legitimacy theory which suggested that corporate duties did not end at reaping profit but that commitment to environmental support programme and activities would result in profit for shareholders. It was found that social sustainability reporting had both positive and negative effects on performance to the extent that while it was seen to be negative on return on capital employed and gross profit after tax, its effect on earnings before interest and tax was positive. Therefore, it was recommended that policies that would sustain reporting on environmental issues (such as mandatory disclosure on environmental issues) should be encouraged since it had been shown to be beneficial to the health and survival of the firms.

2.3 Conceptual Framework

2.3.1 Concept of Sustainability Reporting

Sustainability reporting was first coined in 1994 by John, the founder of a British Consultancy called Sustain-Ability (Elkington, 2004). His argument was that companies should be preparing three different (and quite separate) bottom lines. One is the traditional measure of corporate profit. The “Bottom-line” of the profit and loss account. The second is the bottom line of a company’s “People account” – a measure in some shape or form of how socially responsible an organization has been throughout its operations. The third is the bottom line of the company’s “Planet” account – measure of how environmentally responsible it has been. The triple bottom line or sustainability accounting consists of three ‘Ps’ profit, people and planet. It aims to measure the financial, social and environmental performance of the business entity over a period of time. The triple bottom line is made up of “social, economic and environmental” factors. Nigeria as a member of united Nation impliedly adopted the UN global compact on global reporting initiative (GRI) which provided sustainability reporting guideline in 2000 to design and build acceptance of a common framework for reporting on the linked aspects of sustainability. It is in the light of the above amidst growing demand by the society, over economic, social and environmental accounting company’s performance that more research work on sustainability accounting becomes imperative.

Sustainability Reporting is not an end in itself but a means to an end. Sustainability reports are meant to provide stakeholders with information on economic, social, and environmental performance of the reporting organization. Various reporting standards exist as guidelines for Sustainability Reporting typical of which the Sustainability Reporting guideline is as developed by Global Reporting Initiative (GRI). The GRI guidelines are the world most widely used

Sustainability Reporting guidelines used to benchmark organizational performance with respect to norms, codes, performance standards and voluntary initiative; demonstrate a company's commitment to sustainable development and compare company performance. GRI promotes and develops these guidelines to primarily fulfil demand for sustainability information. Sustainability reports involve disclosure of information on a company's sustainability performance from the three dimensions of economic, social, and environmental performance.

There is no single, generally accepted definition of sustainability reporting. It is a broad term generally used to describe a company's reporting on its economic, environmental and social performance (Mishra & Suar 2010). It can be synonymous with triple bottom line reporting, corporate responsibility reporting and sustainable development reporting, but increasingly, these terms have become more specific in meaning and therefore, subsets of sustainability reporting (Klynveld Peat Marwick Goerdeler KPMG, 2008). Schaltegger (2004) defined sustainability reporting as a subset of accounting and reporting that deals with activities, methods and systems to record, analyze and report, firstly, environmentally and socially induced financial impacts and secondly, ecological and social impacts of a defined economic system (example, a company). Thirdly, sustainability reporting deals with the measurement, analysis and communication of interactions and links among social, environmental and economic issues constituting the three dimensions of sustainability (Ioannou & Serafeim, 2019).

Sustainability reporting has become more prevalent, driven by a growing recognition that sustainability related issues can materially affect a company's performance, demands from various stakeholder groups for increased levels of transparency and disclosure and the need for companies (and the business community more generally) to appropriately respond to issues of

sustainable development (KPMG, 2008; Ivan, 2009). According to the Parliament of Australia (2010), sustainability reporting involves companies and organizations demonstrating their corporate responsibility through measuring and publicly reporting on their economic, social and environmental performance and impacts. However, some of the more useful definitions of sustainability reporting include that given by the Global Reporting Initiative (GRI). According to GRI (2011), sustainability reporting is the practice of measuring, disclosing and being accountable to internal and external stakeholders for organizational performance of the goals of sustainable development. Similarly, Dow Jones sustainability index in KPMG (2008) looked at sustainability reporting as a business approach that created long term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments.

Corporate sustainability leaders achieve long term shareholder value by gearing their strategies and management to harness the market's potential for sustainability products and services while, at the same time, successfully reducing and avoiding sustainability cost and risks. According to Arndt, Isenmann, Brosowski, Thiessen and Marx-Gomez (2006), sustainability reporting has its roots in environmental or non-financial reporting. It describes a development path towards a concept of balanced reporting of an organization, often communicating the three pillars of environmental, social and economic performance and its mutual interrelations that in business terms, are called the triple bottom line approach or social sustainability reporting respectively.

2.3.1.1 Environmental Sustainability Reporting

Environmental reporting and its later development into sustainability reporting has been the most

important aspect of accounting and the environment especially in the last two decades (Gray,2014). Environmental reporting provides a strategic framework for achieving a holistic re-appraisal of corporate performance. Although it is not a new concept, environmental reporting remains an interesting area of discourse for academics and an intensely debatable issue for business managers and their stakeholders. According to Deegan and Rankin (1996), corporate environmental sustainability reporting refers to the way and manner by which a company communicates the environmental effects of its activities to particular interest groups within society and to society at large. Companies, through the process of environmental communication, may seek to influence the public's perception of their operations. They attempt to create a good image as they interact with the environment at large, including the use of natural resources and a company's impact on earth's ecosystems, compliance with environmental regulations, leadership in addressing climate change, energy-efficient operations, renewable energy, natural resource conservation, pollution prevention programmes, strategy towards sustainable development and programmes to engage stakeholders in environmental improvement. Considering that accounting provides the most important corporate system of information collection and analysis in environmental accounting context, it means that someone has the duty to give an explanation of how resources have been used (Schaltegger & Burritt, 2000). Therefore, the goal of environmental accounting is to prepare environmental reports for interested users. According to the European Environmental Agency (EEA 1998), environmental reports are "the principal vehicle for company communication on the environment and a fair and credible reflection of the company's environmental activities."

Environmental reports are provided to inform stakeholders about companies' environmental responsibilities, ensure business transparency and create the reputation of responsible partners who contribute to environmental protection and the quality of life of the local community. A pre-requisite for good environmental reporting is the establishment of an environmental management system and the foundation for any substantive environmental accounting (Gray, 2014). Therefore, the integration of and synergies between environmental management system and environmental accounting are needed in encompassing environmental aspects. The disclosure of environmental information can be viewed as an instrument which can help in the management of precious environmental resources (Batra, 2013). Environmental reporting can be considered as a business practice that demonstrates companies' commitment to addressing environmental issues. However, the implementation of environmental accounting, collecting environmental data and preparing environmental reports are not easy tasks. There are many obstacles that can affect this process. In previous research, authors discussed various influencing factors. For example, Doody (2010) pointed to knowledge deficiency, owner and manager attitudes, human resources, finance, customer attitudes, operational structure of a company as well as legislation and accreditation, as the barriers in implementing environmental practices. Hillary and Burr (2011) pointed out that not engaging employees in the process of environmental management, lack of internal skills, knowledge and experience, complexity of the management system, unclear benefits, limited human resources and cost of external support were the main barriers to environmental management implementation which was likely to affect the implementation of environmental reporting processes.

Corporate environmental reporting has become a tool for promoting companies' communication, demonstrating their accountability regarding environmental issues, and providing

useful information for decision-making. It refers to the systematic and holistic statements of environmental burden and environmental efforts in organizations' activities such as environmental policies, objectives, programmes and their outcomes and organizational structures in accordance with the general reporting principles of environmental reporting (Ministry of the Environment, Japan Government, 2004). Motivating forces for environmental reporting can be both internal and external, tangible and intangible, financial or ethical. The reasons for reporting have changed over the years. The Global Reporting Initiative (2011) documented that some of the main motives for the reporting were: (a) to show commitment and be transparent; (b) to demonstrate the ability to participate in competitive markets; (c) to plan activities, become more sustainable and position the company; and (d) to comply with regulations. Corporate environmental reporting is a contemporary management tool that companies can use to provide information to external stakeholders and find opportunities to improve internal processes, gain benefits and ensure its own sustainability. Environmental reports (a) enable greater distinction of companies in terms of environmental risk which is the purpose sought by the business community; and (b) adequate accountability to the community which is the purpose sought by the regulating entities, non-government organizations and society (Borges & Bergamini, 2001). Companies report environmental information to respond to stakeholders expectations and contribute to the welfare of society (Morsing & Schultz, 2006), to manage their own legitimacy (Reverte, 2009), to preserve their reputation (Reynolds & Yuthas, 2008), and to make profitability in the long run by reducing information asymmetry (Merkl-Davies & Brennan, 2007, Du; 2010). Corporate environmental reporting as an important part of sustainability reporting instills discipline and helps a company think about and define its long-term while raising awareness of sustainable practices in the whole organization (Association of Certified

Chartered Accountants (ACCA), 2013). Corporate environmental reports are the result of functioning an internal system for collecting, analyses and processing data on the company's environmental aspects. Hence, it is a systematic and formal approach to addressing environmental impacts and integrating environmental issues into business processes. Due to the growing pressure for companies to consider the environmental effects of their operations, accounting and disclosure of environmental matters have rapidly emerged as an important dimension of environmental management (Batra, 2013).

2.3.1.2 Economic Sustainability Reporting

Economic sustainability aims to keep the capital intact. If social sustainability focuses on improving social equality, economic sustainability aims to improve the standard of living. In the context of business, it refers to the efficient use of assets to maintain company profit over time. As stated by the UK Government (Annual Report 2000, January 2001) "Maintaining high and stable level of economic growth is one key objective of sustainable development, hence, abandoning economic growth is not an option. Sustainable development is more than just economic growth and the quality of growth matters as well as the quantity". Critics of this model acknowledge a great gap in modern accounting practices which do not include the cost of damage to the earth in market prices (Hawking, 2010). A more recent approach to economics acknowledges the limited incorporation of ecological and social components in the model. New economics is inclusive of natural capital (ecological systems) and social capital (relationships amongst people) and challenges the mantra of capital that continual growth is good and bigger is better if it risks causing harm to the ecological and human system (Benn et al., 2014).

2.3.1.3 Employee Health & Safety Sustainability Reporting

The nature of the modern corporate worker's wellbeing and security arrangement has driven analysts to note that announcing on worker can best be portrayed as "worker washing" (Behm & Schneller, 2011; O'Neill; Flanagan & Clarke, 2016) because it ventures a positive picture of companies that, whereas given authenticity, it ought to reflect a company's work conditions or workers' encounters. Work environment is seen as all perspectives of the plan and administration of the work framework that influence employees' interactions with the working environment. This may incorporate the physical plan, counting formats and the built environment, division of work, utilization of innovation, supervisory structures, human asset administration techniques, and coworker intelligence that can influence the physical, mental and enthusiastic workload which decides the positive or negative results of work for the worker. Be that as it may, there have been calls to move the wellbeing of workers forward through corporate social duty (Granerud, 2011; Montero, Araque, Rey, Zwetsloot & van Scheppingen, 2009; Dijkman, 2013). But relative to other zones of social sustainability such as the characteristic environment, there is the need for information on how representative concerns tend to incorporate social duty detailing.

2.3.2 Financial Performance

The subject of financial performance has received significant attention from scholars in various areas of business and strategic management (Jat, 2006). It has also been the primary concern of business practitioners (managers and entrepreneurs in all types of organizations) because corporate performance is essential in organizations' success stories because of their perceived effectiveness and efficiency in managing their operations and their positive contributions to the

well-being of their stakeholders. But low performance organizations owe to their lack of such essential attributes (Makhamreh, 2000). Performance is however, a difficult concept in terms of definition and measurement. It has been defined as the result of activity and the appropriate measure selected to assess corporate performance is considered to depend on the type of organization to be evaluated and the objectives to be achieved through that evaluation (Hunger & Wheelan, 1997). According to the Encyclopedia of Business (2011), performance measures can be grouped into two basic types: those that relate to results (outputs or outcomes such as competitiveness or financial performance) and those that focus on the determinants of the results (inputs such as quality, flexibility, resource utilization and innovation). This suggests that performance measurement frameworks can be built around the concepts of results and determinants. Zuriekat, Salameh and Alrawashdeh (2011) on the other hand opined that performance measurement systems were considered information systems that were used to evaluate both individual and organizational performance.

Until recently, companies concentrated on the use of financial performance measures as the foundation of performance measurement and evaluation purposes. According to Lin and Liu (2005), in business management, financial ratios are usually one of the indicators used to evaluate a firm's performance. Generally, the financial information of a company's business operations will be reported in the yearly financial statements, and a financial ratio simply constitutes one item divided by another in the financial statement. Financial ratios can be viewed as a preliminary reference to the analysis of the business performance. This agrees with Osisioma's (1996) assertion that "ratios relate one set of values to another, with the resulting quotient serving as a measure, a standard or a norm by which performance is judged."

Traditionally, the measurement of a firm's performance usually employs a financial ratio method because it provides a simple description about the firm's financial performance in comparison with previous periods, helps to improve its performance of management. According to Berger and Patti (2002) the measures of firm performance are usually ratios fashioned from financial statements or stock market prices such as industry-adjusted operating margins or stock market returns. Glautier and Underdown (2001) maintained that there were two aspects of a company's financial performance of interest to investors. First, its financial performance could be assessed by reference to its ability to generate profit. That agreed with Pandey's (2005) assertion that it was assumed that profit maximization caused the efficient allocation of resources under the competitive market conditions, and profit was considered as the most appropriate measure of a firm's performance. Hilland Jones (2009) also asserted that the key measure of a company's financial performance was its profitability. Thus, ratios of financial efficiency in this respect focus on the relationship between profit and sales and profit and assets employed. Second, the company's financial performance may be assessed in terms of the value of its shares to investors. In this way, the ratios of financial performance focus on earnings per share, dividend yield and price/ earnings ratios (Said & Tumin, 2011). The ratios used to measure the overall profit performance of a firm are termed profitability ratios. Pandey (1995) and Khan and Jain (2004) maintained that profitability ratios were determined based on either sales or investment. According to Osisoma (1996), the ratios are aimed at bringing to light the profitability of a firm's operation, the management efficiency as measured by the returns on capital employed and the intensity of capital usage – the rapidity with which invested capital is turned over. Osisoma (1996) identified the following profitability ratios in his study: Return on capital employed or return on investment; return on equity; and net profit margin and gross profit margin. Pandey

(1995) state that the profitability of the common shareholders' investment could also be measured in many other ways. One such measure was to calculate the earnings per share which was the most used measure of entities performance. It indicated the amount of net profit after tax, minority interest and extraordinary items that were attributable to each ordinary share in issue and ranking for dividend in the period (Ofoegbu, 2003).

2.3.3 Sustainability Accounting and Reporting

The interrelationship between corporate sustainability elements i.e., natural environment, economic system, and society is highly complex, context-specific and most often, also concerns various stakeholders with heterogeneous preferences (Schneider, 2015). To follow up the above-mentioned interrelationship with the aim to achieve a balance between the requirements of all dimensions in an ethical and transparent way, a new field of accounting emerged – sustainability accounting. Sustainability accounting has become a generic term with related expressions, as sustainability management accounting and sustainability financial accounting (Schaltegger & Burritt, 2010).

Sustainability accounting has a reason to evaluate the environmental, social and governance performance of a company and provide a report on the matter (Rogošić & Čaljkušić, 2015). Sustainability accounting is seen to play a central role as it can support the implementation of the sustainability strategy, embedding sustainability into day-to-day operations and decision-making, and developing relationships with stakeholders based on trust and legitimacy (Schaltegger & Burritt, 2010). In fact, it comprises internal and external accounting practices and mechanisms devoted to measuring, representing, and communicating the company's performance (Pistoni, 2013). Sustainability accounting is mainly focused on the integration of

social, environmental, and economic facets of organizational activities (Ulterlerchner & Malan 2008). More specifically, sustainability accounting currently represents the zenith of extended accounting and reporting. The emphasis is on accounting for ecosystems and communities, consideration of eco-justice as well as issues of effectiveness and efficiency (Gray & Milne, 2002; Schaltegger & Burritt, 2010).

The Green Washing motive can be derived from the motivation of management to signal concern and to collect data for communicating and reporting purposes rather than to improve sustainability performance. In this view, accounting serves as a tool to support cost efficient communicative activities contra sustainability (Gray, 2006). The Mimicry and industry pressure may also be a motivation for management to talk about and deal with sustainability accounting. Mimicry can be seen as a way in which new accounting ideas about sustainability can be introduced, but emulation of methods can also be seen as being uncritical of associated problems (Qian & Burritt, 2008). Further, Legislative pressure, stakeholder pressure and ensuring the “license to operate”: stakeholder pressure and the introduction of mandatory information and reporting requirements through governmental legislation is another possibility. It is the easiest for most people to think of (e.g., as discussed in relation to the European Union (EU) chemical regulation, REACH, or in the context of stakeholder pressure with published toxic release information). In case of enforced information requirements on sustainability, institutional compliance and stakeholder communication and dialogues can become necessary for the continuation of corporate activities (Murillo-Luna, Garces-Ayerbe, & Rivera-Torres, 2008). Self-regulation which is the fourth motive is a voluntary activity where a company or an industry association restrains its actions or commits itself to certain non-market actions (e.g., the disclosure of social and environmental information) seeking to improve its performance and

reputation in a voluntary way, set within a framework whereby commercial or profit-making considerations may be important (CMAC 2005), but not necessarily the main driver. Self-regulation on an industry level is often introduced in order to impede further mandatory government regulations, to maintain social acceptance and reputation, or to prevent competing companies from free riding (e.g., by not bearing the costs of information management) (Gunningham, 2007). From the perspective of corporate responsibility, which is another motive, the corporate information gathering system provides it with a way of perceiving, the first step in acting responsibly (Stone, 1976), prior to the identification of the morally significant features of corporate activities. If the information system is incomplete, lacks relevance, or does not assist with comparability of different alternatives the likely outcome is irresponsible corporate activity and impacts (Campbell, 2007). The centrality of accounting information in the process of promoting and maintaining responsible corporations is linked with the view that accounting is concerned with the individual behaviour or the behaviour of individuals in groups, such as in departments, divisions or corporations (Card, 2005). Ethical motivation and legitimation for accounting to address sustainability issues is of uncontested importance (Dillard, 2007). The focus of accounting information will direct and guide corporate decision makers (Burrill, Hahn, & Schaltegger, 2002). Therefore, for managers who aim to improve corporate sustainability, sustainability accounting thus plays a crucial role.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter is concerned with the research design of this study, as well as the characteristics of the study population, sampling design and procedures, data collection instrument, operational measure of variables and method of data analysis relating to the study.

3.1 Research Design

Descriptive research design was used for this study. Information on sustainability reporting and firms' financial performance can best be obtained by exploring the annual reports and accounts of the companies. Data for the study was collected from annual reports and accounts of the sampled companies listed in the Nigerian Consumer Goods Sector for the period of five years (2017 - 2021).

3.2 Characteristics of Study Population

The population of this study comprises all the consumer goods companies quoted on the Nigerian Stock Exchange as of 2022. Thus, as per the Nigerian Stock Exchange website, there are twenty-one of such companies. These twenty-one (21) companies therefore serve as the population of the study.

3.3 Sampling Design and Procedures

Due to fact that not all of these quoted companies have all the relevant data for this study, only the companies with the complete relevant data were selected for this study. On the basis of this, seventeen (17) of such companies were selected as the sample size of this study.

3.4 Data Collection Instrument

For the purpose of this study, the researcher used annual reports and accounts of the selected companies for the study; also the global reporting initiatives (G4) guideline was used and reference was made to relevant journals. However, annual reports are seen by stakeholders as the most important and influential source of corporate information. Again, chief executive officers see annual reports as an important communication tool to all stakeholders about them and their firms' performances.

3.5 Operational Measure of Variables

The variables of this study are both dependent and explanatory.

Independent Variables

The explanatory variables were quantified using a ratings system based on performance indicators chosen from previous research' Global Reporting Initiative (GRI) guidelines (Burhan & Rahmanti, 2012; Khaveh et al., 2012). The number of indicators that are reported (occurrence) and the level of disclosure are used to compute the economic, environmental and social disclosure index (quantitative and qualitative). The researcher allocated 1 if a firm reported any indicator, that is, the appearance of an indicator in the firm's annual report, or 0 if the firm did

not reveal any signal. If the level of the indicator given is quantitative, the researcher assigned 3, and if the level of the indicator disclosed is qualitative, the researcher assigned 2.

Dependent Variables

The dependent variables in the study were corporate performance proxies; measured by

1. **ROA:** Net profit (after interest, taxes and preference dividend)
Shareholders' Assets
2. **ROE:** Net profit (after interest, taxes and preference dividend)
Shareholders' Equity
3. **EPS:** Profit after taxes
Number of equity stock outstanding

Regression Model Specification

The following regression models for the relevant hypotheses were used to test for the applicability of the hypotheses about the effect of sustainability reporting on business performance. The following is a description of the general form of the regression:

$$Y = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + E_{it}$$

Where:

Y = is the dependent variable which describes corporate performance

X = is the explanatory variable which signifies the components of sustainability reporting disclosure

X1 = Economic performance disclosure

X2 = Social performance disclosure

X3 = Environmental performance disclosure

E = is the error term capturing other explanatory variables not explicitly included in the model

β_0 = is the intercept of the regression

$\beta_1, \beta_2, \beta_3$ = coefficients of sustainability reporting indices

The above equation can be represented for the three hypotheses, thus;

$$ROA_{it} = \beta_0 + \beta_1 ECPD_{it} + \beta_2 SOPD_{it} + \beta_3 ENPD_{it} + E_{it} \text{ --- Ho1}$$

$$ROE_{it} = \beta_0 + \beta_1 ECPD_{it} + \beta_2 SOPD_{it} + \beta_3 ENPD_{it} + E_{it} \text{ --- Ho2}$$

$$EPS_{it} = \beta_0 + \beta_1 ECPD_{it} + \beta_2 SOPD_{it} + \beta_3 ENPD_{it} + E_{it} \text{ --- Ho3}$$

Where:

ROA_{it} = Return on Assets for firm *i* in period *t*

ROE_{it} = Return on Equity for firm *i* in period *t*

EPS_{it} = Earnings per Share for firm *i* in period *t*

ECPD_{it} = Economic performance disclosure for firm *i* in period *t*

SOPD_{it} = Social performance disclosure for firm *i* in period *t*

ENPD_{it} = Environmental performance disclosure for firm *i* in period *t*

3.6 Method of Data Analysis

For the purpose of this study, the techniques that were used to analyze the data generated are Descriptive Statistics, Regression and Correlation. This is consistent with the work of Chtourou et al (2001). Pearson correlation coefficient is the most commonly used coefficient. It is the method that measures both the degree (strength) of association and direction of variables. It will enable the researcher to assess the strength of relationship among the variables. This means the use of percentage, mean, median, mode, maximum, minimum and standard deviation will be employed to explain the differences between dependent and independent variables. For the purpose of this study, multiple regressions will be employed. This is because, when a given dependent variable is influenced by several independent variables, it will be more appropriate to use multiple regressions.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter is concerned with presenting the data obtained, analyzing the data presented and discussing the findings thereon.

4.1 Data Presentation

Table 1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev	Min	Max
DV	100	.0222	.2125914	-1.24	.73
ECPD	100	.2541	.19614	0	.5
ENPD	100	.1746	.21128	0	.4
SOPD	100	.2567	.204431	0	.5

Source: Result Output from Stata Version 11

Table 1 indicates that the mean value of dependent variables used (ROE, NPM, EPS) of the sampled firms during the study period is 0.02 with a standard deviation of 0.21 signifying that the data deviate from the mean by 0.21. This standard deviation also indicates a low variation in dependent variables of the sampled companies. The minimum & maximum values respectively of the dependent variables of the companies during the study period were -1.24 and 0.73. Similarly, the Table shows a mean value of 0.25 in respect of economic reporting (ECPD) with a standard deviation of 0.20. This implies that sampled companies from Nigeria on average reported economic activities to the tune of 25% which suggests that economic reporting in both countries was low during the study period. The standard deviation of 20% shows that deviation

from the mean value of economic reporting among sampled companies was not high. This is further confirmed by the minimum value and maximum value which were 0% and 50%.

Table 1 also reveals a mean value of 0.17 for environmental reporting (ENPD) and a standard deviation 0.21. This implies that ENPD of sampled companies from Nigeria during the period of investigation was an average of 17% which suggests low reporting of environmental activities among sampled companies. The standard deviation from the mean value of ENPD of 21% show low dispersion in the mean value of environmental reporting among sampled firms. The minimum and maximum values of ENPD of the sampled companies were 0 and 40% respectively.

In addition to the above, the mean value of social reporting (SOPD) of sampled firms from Nigeria was 0.26 with a standard deviation of 0.20 during the study period. This suggests that on average, social reporting by sampled firms was 26% for the period of study. The standard deviation of 20% indicates that there is low dispersion in the mean of social reporting by sampled companies from Nigeria. The minimum and maximum statistics of SOPD stood at 0 and 0.5 respectively for the same period.

4.2 Test of Hypotheses

Hypothesis One (Ho1)

Sustainability reporting does not have any significant impact on return on assets of quoted consumer goods companies in Nigeria.

Table 4.2. Least squares regression for hypothesis one

Variable	Coefficient	Std error	t-Statistic	Prob
C	3.0371	4.0303	3.09251	0.0067
ECPD	0.1295	0.506030	2.97001	0.0170
SOPD	0.4236	1.068652	3.19760	0.0090
ENPD	-0.3190	0.951103	-3.3800	0.0041
R-squared				0.5721
Adjusted R2				0.4721
S.E. of regression				1.6825
F-statistic				4.6438
Prob(F-statistic)				0.6136
Durbin-Watson stat				1.6844

Source: E-Views 9.0 Regression Output, 2022

Table 2 shows that, with the exception of the environmental index, all of the Sustainability Reporting indices under examination are significant and positively associated to return on assets, ROA. The social index has a stronger relationship with ROA than the environmental and economic indices. The Adjusted R-square of 0.47 indicates that Sustainability Reporting indices account for 47 percent of the variation in return on equity, ROE, with the remaining 53 percent explained by factors outside the model. The t-values of 2.97001 and 3.19760 for ECPD and SOPD, respectively, reveal that the coefficient of Sustainability Reporting index is positive,

whereas the t-value for ENPD is -3.3800. The results reveal that Sustainability Reporting indices have a considerable impact on ROA. That is, a one-unit rise in ECPD and SOPD will enhance returns on equity by 0.13 percent and 0.42 percent, respectively; but, a one-unit increase in ENPD will decrease returns on equity by 32%, while maintaining all other variables constant. This indicates that the Sustainability Reporting indexes have a considerable impact on ROA when aggregated. Again, in order to determine entire influence of Sustainability Reporting indices on ROA, the Prob (F-Statistic) value of 0.6136 further suggests that Sustainability Reporting indices have a positive impact on ROE. The null hypothesis is rejected at the 5% level of significance because the P-value of F-statistics is less than the level of significance of 0.05, suggesting that sustainability reporting indices have a strong positive impact on return on equity of consumer goods companies listed on the Nigeria Stock Exchange.

Hypothesis Two (Ho2)

There is no significant relationship between sustainability reporting and return on equity of quoted consumer goods companies in Nigeria.

Table 4.3. Least squares regression for hypothesis Two

Variable	Coefficient	Std error	t-statistic	Prob
C	2.5391	3.11931	4.65215	0.0000
ECPD	0.2115	0.59933	2.62012	0.0130
SOPD	0.4886	1.11652	3.14460	0.0000
ENPD	0.0190	0.41169	4.57001	0.0064
R-squared				0.6120
Adjusted R2				0.5028
S.E. of regression				1.6992
F-statistic				5.7731
Prob(F-statistic)				0.0138
Durbin-Watson stat				1.4442

Source: E-Views 9.0 Regression Output, 2022

The regression results in table 3 show that the Sustainability Reporting indices under examination are favorably connected to ROE. The social index has a stronger relationship with net profit margin, NPM. It was also discovered that the Sustainability Reporting Index has a 50 percent explanatory power in determining NPM. The Adjusted R-square of 0.50 indicates that Sustainability Reporting indices account for 50 percent of NPM variation, with the remaining 50 percent explained by factors outside the model. The t-values of 2.62012, 3.14460 and 4.57001 for ECPD, SOPD, and ENPD, respectively, reveal that the coefficient of Sustainability Reporting index is positive. Net profit margins will improve by 0.04 percent, 0.38 percent, and 0.09 percent for each unit increase in ECPD, SOPD, and ENPD, respectively. Again, the Prob (F-Statistic) value of 0.0138 further implies the positive influence of Sustainability Reporting indices on

NPM in order to determine the total impact of Sustainability Reporting indices on NPM. The null hypothesis is rejected at the 5% level of significance because the P-value of F-statistics of 0.0138 is less than the level of significance of 0.05, implying that sustainability reporting indices have a significant and positive impact on return on equity of consumer goods companies listed on the Nigeria Stock Exchange.

Hypothesis Three (Ho3)

There is no significant effect of sustainability reporting on earnings per share of quoted consumer goods firms in Nigeria.

Table 4.4. Least squares output for hypothesis three

Variable	Coefficient	Std error	t-statistic	Prob
C	0.8344	2.14621	4.97325	0.0087
ECPD	0.2192	0.53765	2.62402	0.0180
SOPD	0.3216	2.15521	2.17380	0.0999
ENPD	0.2090	0.41169	3.42301	0.0143
R-squared				0.6627
Adjusted R2				0.5624
S.E. of regression				1.9273
F-statistic				4.2561
Prob(F-statistic)				0.0442
Durbin-Watson stat				2.3741

Source: E-Views 9.0 Regression Output, 2022

As shown by the regression results of Sustainability Reporting and EPS in Table 4, the Adjusted R-square of 0.562 indicates that Sustainability Reporting indices account for 56 percent of EPS volatility, while the residual 44 percent is explained by factors outside the model. This shows that if the economic index rises by one unit, EPS will rise by 0.22 percent. EPS will grow by 0.21 percent if environmental reporting is increased by one unit if all other factors remain constant. It also reveals that a one-unit increase in the social index will result in a 0.32 percent increase in EPS. For the economic, social, and environmental reporting indices, the t-values for the independent variables are 2.62402, 2.17380 and 3.42301 respectively. With the exception of the social index, the t-values for the economic and environmental indices are statistically significant at the 5% level of significance.

The null hypothesis is rejected at the 5% level of significance because the P-value of F-statistics is less than the level of significance of 0.05, indicating that sustainability reporting indices have a significant and positive impact on earnings per share of consumer goods companies listed on the Nigeria Stock Exchange. This is in line with the findings of Fuadah, Safitri, and Yuliani (2019).

4.3 Discussion of Findings

Following the results presented above, it was revealed that the effect of sustainability reporting disclosure on firm performance was significant for only the model of return on assets. The findings agreed with the arguments by Mishra & Suar (2010) that the effect of sustainability reporting disclosure differed across different measures of firm performance. Furthermore, the findings implied that, on average, the value of performance proxied by return on assets for the firms in the sample would significantly increase when the disclosure policy of the firm supported full participation and increased reporting of activities relating to sustainability reporting. Hence,

we noted in this study that sustainability reporting disclosure has a significant effect on the firm performance of consumer goods companies in Nigeria.

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter gives an overview of the outcome of the study by presenting its findings and conclusion and making necessary recommendations.

5.1 Summary of Findings

This study investigated the effect of sustainability reporting on the financial performance of listed consumer goods companies in Nigeria. The scope of this study was a five-year period ranging from 2017 to 2021.

The independent variable of interest which was employed to test the effect of sustainability reporting on the firms' financial performance was sustainability reporting disclosure, while the dependent variables were return on assets, return on equity and earnings per share as in carrying out the analyses. Through some rigorous regression analyses, we obtained the following results:

1. Sustainability reporting has a positive significant effect on the performance measure of return on assets of quoted consumer goods companies in Nigeria.
2. Sustainability reporting was seen to have a significant effect on the performance measure of return on equity of quoted consumer goods companies in Nigeria.
3. Sustainability reporting was revealed to positively impact on earnings per share of quoted consumer goods companies in Nigeria.

5.2 Conclusion

This study evaluated the effect of sustainability reporting on the performance of consumer goods companies listed on the Nigerian Stock Exchange for the period 2017 and 2021. In this study, we employed three accounting performance measures (return on assets, return on equity and earnings per share) as dependent variables.

In general, the results of this study showed that sustainability reporting has a favorable influence on the business performance metrics studied. A thorough examination reveals that the social index has influenced all performance indicators. This means that if the selected companies adopt sustainability reporting, it will have a considerable impact on financial performance, as evidenced by the social index. Among all the sustainability metrics, the environmental reporting index is the most unfavorable. This could be due to the fact that most firms examined do not report it. Greater environmental reporting is expected to influence or affect the study's performance measures.

5.3 Recommendations

- i. Nigeria's regulatory agencies, such as the Corporate Affairs Commission and the legislative branch, should enact legislations that encourage sustainability reporting.
- ii. A standardized sustainability index, such as the one employed in this study, should be utilized to rank companies. This will help to put pressure on businesses to pay greater attention to their environment and to take sustainable development challenges more seriously.

- iii. Policies that would sustain reporting on environmental issues (such as mandatory disclosure on environmental matters) should be encouraged because they had been shown to be beneficial to the health and survival of the firms.
- iv. Managers should be genuine and open in their motives and purposes, together with pursuing social sustainability objectives since that would minimize the risk of incurring losses.

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APPENDIX

Year Companies Exchange

	Sector	ROCE	GPTM	EITM	ENVD	CSRD	HSED	EAPS	EAYD
2010	Cadbury Nig Consumer	4.1234	31.7082	6.7087	0	0.8	1	0.38	1.4832
2011	Cadbury Nig Consumer	10.906	32.7148	14.9674	0	0.8	1	1.17	10.2632
2012	Cadbury Nig Consumer	8.6038	33.0764	16.8542	0	0.8	1	1.1	3.7931
2013	Cadbury Nig Consumer	13.9515	36.6326	20.947	0	0.8	1	1.92	3.2537
2014	Cadbury Nig Consumer	5.2487	25.9857	4.8079	0	0.8	1	0.75	1.8669
2015	Cadbury Nig Consumer	4.0585	32.094	5.5971	0	1	1	0.61	3.5804
2016	Cadbury Nig Consumer	-1.0439	22.8837	-1.8182	0.125	1	1	0.16	-1.5336
2017	Cadbury Nig Consumer	1.0555	22.4766	2.7155	0.125	1	1	0.16	1.0193

2018	Cadbury Nig Consumer	2.99	22.1165	5.0456	0.125	1	1	0.44	4.3823
2019	Cadbury Nig Consumer	3.7193	21.1703	3.9115	0.125	1	1	0.57	5.4042

2010	Champion Breweries Consumer	-44.1613	15.0619	-16.162	0	0.6	1	-1.37	-61.644
2011	Champion Breweries Consumer	-17.1559	-21.1046	-69.875	0	0.6	1	-1.33	-32.9137
2012	Champion Breweries Consumer	-19.6595	-26.1228	-68.4469	0	0.8	1	-1.49	-35.7882
2013	Champion Breweries Consumer	-12.8919	1.1613	-24.3546	0	0.8	1	-1.31	-7.7405
2014	Champion Breweries Consumer	-7.8659	19.3779	6.5371	0	0.8	1	-0.24	-3.4685
2015	Champion Breweries Consumer	0.7468	28.5478	7.0946	0	0.6	1	0.1	0.2968
2016	Champion Breweries Consumer	5.3245	27.6085	17.6273	0	0.8	1	0.7	2.807
2017	Champion Breweries Consumer	5.13	29.0251	12.6258	0	0.8	1	0.07	3.1781
2018	Champion Breweries Consumer	-2.5156	25.0032	-5.362	0	0.8	1	-0.03	-1.6932
2019	Champion Breweries Consumer	1.5345	92.7901	0.2982	0	0.8	1	0.02	2.2655

2010	Dangote Sugar Consumer	18.1113	20.1136	17.9471	0	0.6	1	0.94	5.875
2011	Dangote Sugar Consumer	10.1677	12.6822	10.1859	0	0.6	1	0.62	13.1915
2012	Dangote Sugar Consumer	13.0145	21.7357	15.2821	0	0.6	1	0.9	15
2013	Dangote Sugar Consumer	13.0423	23.8464	15.833	0	0.6	1	0.9	7.6923
2014	Dangote Sugar Consumer	12.5384	19.6384	16.2138	0	0.6	1	0.97	15.2701
2015	Dangote Sugar Consumer	11.24	20.5115	17.033	0	0.8	1	0.96	15.7325
2016	Dangote Sugar Consumer	8.0703	13.5446	11.7328	0	1	1	1.2	19.8949
2017	Dangote Sugar Consumer	20.3934	24.9425	28.2435	0	1	1	3.31	16.5765
2018	Dangote Sugar Consumer	12.5496	26.3913	23.1818	0	1	1	1.85	12.009
2019	Dangote Sugar Consumer	11.5439	23.767	18.7943	0	1	1	1.87	13.7018

2010	Flour Mills Of Nigeria Consumer	2.7116	22.2965	9.9341	0	0.6	1	9.67	2.6977
2011	Flour Mills Of Nigeria Consumer	5.7884	16.8282	9.4989	0	0.6	1	4.52	6.906
2012	Flour Mills Of Nigeria Consumer	3.5973	15.3197	7.8214	0	0.8	1	3.08	5.0179
2013	Flour Mills Of Nigeria Consumer	2.7571	12.5886	7.4759	0	0.8	1	2.91	3.3843
2014									

Flour Mills Of
 Nigeria Consumer 1.8058 13.144 7.325 0 0.8 1 1.93 5.2181
 2015
 Flour Mills Of
 Nigeria Consumer 2.4684 11.4546 8.5596 0 0.8 1 3.43 15.5045
 2016
 Flour Mills Of
 Nigeria Consumer 4.1756 10.9825 9.8915 0 1 1 5.57 29.7188
 2017
 Flour Mills Of
 Nigeria Consumer 1.831 12.7157 8.1993 0 1 1 3.03 11.6111
 2018
 Flour Mills Of
 Nigeria Consumer 3.3344 12.6734 9.0469 0 1 1 4.83 22.4608
 2019
 Flour Mills Of
 Nigeria Consumer 0.9597 10.1151 6.2267 0 1 1 1 4.952

2010 Guinness Nig Consumer 17.5216 43.61 19.2382 0 0.8 1 9.31 4.8856
 2011 Guinness Nig Consumer 19.4387 44.5109 21.6247 0 0.8 1 12.16 4.862
 2012 Guinness Nig Consumer 13.4088 47.3831 19.2996 0.375 0.8 1 9.64 3.5045
 2013 Guinness Nig Consumer 9.7998 45.7919 17.258 0.375 0.8 1 7.93 3.3382
 2014 Guinness Nig Consumer 7.2346 47.0075 15.0575 0.375 0.8 1 6.36 3.7808
 2015 Guinness Nig Consumer 6.3764 47.1675 13.4901 0.375 0.8 1 5.18 4.2992
 2016 Guinness Nig Consumer -1.4715 41.0014 5.4924 0.375 0.8 1 -1.34 -1.6119
 2017 Guinness Nig Consumer 1.3173 38.3699 9.8791 0.375 0.8 1 1.28 1.359
 2018 Guinness Nig Consumer 7.1346 34.0095 10.9024 0.375 0.8 1 3.3 4.5854
 2019 Guinness Nig Consumer 3.4104 30.5169 7.3894 0.375 0.8 1 2.5 8.3313

2010
 Honywell Flour
 Mill Consumer 3.9187 22.1999 11.5654 0 0.6 1 0.15 2.9078
 2011
 Honywell Flour
 Mill Consumer 8.5539 20.9181 13.5955 0 0.6 1 0.31 13.6061
 2012
 Honywell Flour
 Mill Consumer 6.0134 17.2557 11.0903 0 0.6 1 0.34 16.3051
 2013
 Honywell Flour
 Mill Consumer 5.1292 17.3292 9.5012 0 0.8 1 0.36 9.7703
 2014
 Honywell Flour
 Mill Consumer 5.2507 18.9848 11.1184 0 0.8 1 0.42 12.2148
 2015
 Honywell Flour
 Mill Consumer 1.6488 15.2954 5.4345 0 0.8 1 0.14 6.891
 2016
 Honywell Flour
 Mill Consumer -3.9763 8.5713 -3.2069 0 0.8 1 -0.38 -29.3314
 2017
 Honywell Flour
 Mill Consumer 3.8046 23.8834 17.2788 0 0.8 1 0.54 88.1834
 2018
 Honywell Flour
 Mill Consumer 3.5463 22.4587 13.2592 0 0.8 1 0.56 148.7767
 2019
 Honywell Flour
 Mill Consumer 0.0497 15.4674 5.2632 0 0.8 1 0.01 2.9707

2010
 International
 Breweries Consumer 2.0091 36.8007 5.8095 0 0.6 1 0.09 1.4019
 2011
 International
 Breweries Consumer 1.0195 31.5211 1.921 0 0.6 1 -1.03 1.1683
 2012
 International
 Breweries Consumer 1.0195 31.5211 1.921 0 0.6 1 -1.03 0.4111
 2013
 International

Breweries Consumer 10.8804 44.2889 22.6143 0 0.8 1 0.71 2.6458
 2014
 International
 Breweries Consumer 8.6395 48.1382 27.3217 0 0.8 1 0.71 2.7294
 2015
 International
 Breweries Consumer 6.4514 43.8827 22.454 0 0.8 1 0.59 3.6953
 2016
 International
 Breweries Consumer 7.9229 46.0216 23.0613 0 0.8 1 0.81 4.3528
 2017
 International
 Breweries Consumer 2.3005 46.3586 24.7237 0 0.8 1 0.31 0.5761
 2018
 International
 Breweries Consumer -1.2461 39.2504 6.6166 0 1 1 -0.45 -1.4747
 2019
 International
 Breweries Consumer -7.6108 19.0458 -15.8542 0 1 1 -3.23 -34.0319

2010
 Mcnichols
 Consolidated Consumer -3.6364 23.1321 -1.238 0 0 0 -0.03 -2.3341
 2011
 Mcnichols
 Consolidated Consumer 2.6805 18.1029 3.075 0 0 0 0.02 2.1863
 2012
 Mcnichols
 Consolidated Consumer 3.5097 22.1829 4.3514 0 0 0 0.03 4.1975
 2013
 Mcnichols
 Consolidated Consumer 7.2904 25.5468 8.188 0 0 0 0.87 4.2056
 2014
 Mcnichols
 Consolidated Consumer 10.7166 27.6257 10.4098 0 0 0 0.15 9.2224
 2015
 Mcnichols
 Consolidated Consumer 14.3609 19.6814 7.0008 0 0 0 0.17 16.9296
 2016
 Mcnichols
 Consolidated Consumer 12.1724 17.4218 5.4891 0 0 0 0.17 15.0988
 2017
 Mcnichols
 Consolidated Consumer 7.0891 15.1215 5.2454 0 0 0 0.1 14.4456
 2018
 Mcnichols
 Consolidated Consumer 4.7524 17.833 9.4265 0 0 0 0.13 25.5554
 2019
 Mcnichols
 Consolidated Consumer 2.3706 15.9103 8.103 0 0 0 0.62 11.3972

2010 Nascon Allied Consumer 21.9485 31.8064 23.2632 0 0.6 1 0.62 9.7343
 2011 Nascon Allied Consumer 21.934 39.4926 30.5791 0 0.6 1 0.83 20.7421
 2012 Nascon Allied Consumer 25.8786 37.9523 30.1493 0 0.6 1 1.04 13.0514
 2013 Nascon Allied Consumer 23.6156 42.3825 37.3408 0 0.8 1 1.02 6.7973
 2014 Nascon Allied Consumer 14.8698 33.6496 25.5243 0 0.6 1 0.7 11.3295
 2015 Nascon Allied Consumer 12.9222 26.9444 18.7761 0 0.8 1 0.79 11.1154
 2016 Nascon Allied Consumer 9.8165 32.3466 21.1789 0 0.6 1 0.91 10.7245
 2017 Nascon Allied Consumer 17.7391 36.9269 29.4912 0 0.6 1 2.02 10.902
 2018 Nascon Allied Consumer 14.6024 30.1936 25.0273 0 0.6 1 1.67 9.2687
 2019 Nascon Allied Consumer 4.7719 21.2484 10.8844 0 0.6 1 0.7 5.3781

2010 Nestle Nig Consumer 20.8827 43.7961 22.9646 0 0.6 1 19.08 5.177
 2011 Nestle Nig Consumer 21.2232 41.4379 22.3331 0.125 0.8 1 20.81 4.6695
 2012 Nestle Nig Consumer 23.7596 42.9867 23.0479 0.125 0.6 1 26.67 3.81
 2013 Nestle Nig Consumer 20.57 42.6692 21.1853 0.125 0.6 1 28.1 2.3404
 2014 Nestle Nig Consumer 20.9647 42.7199 20.7577 0.125 0.6 1 28.05 2.7726
 2015 Nestle Nig Consumer 19.9109 44.5197 22.6024 0.125 0.8 1 29.95 3.4821
 2016 Nestle Nig Consumer 4.6731 41.409 23.3151 0.125 0.8 1 10 1.2343
 2017 Nestle Nig Consumer 22.9719 41.315 25.3686 0.125 1 1 42.55 2.7343
 2018 Nestle Nig Consumer 26.4935 42.783 23.4185 0.125 1 1 54.3 3.6537
 2019 Nestle Nig Consumer 23.6242 45.1165 25.8387 0.125 1 1 57.63 3.9209

2010 Nigeria Breweries Consumer 26.5165 46.8988 24.2923 0.75 0.8 1 4.01 5.201
 2011 Nigeria Breweries Consumer 16.1436 52.0022 27.4798 0.75 0.8 1 5.03 5.3273
 2012 Nigeria Breweries Consumer 14.9991 49.6497 25.5237 0.75 0.8 1 5.03 3.4218
 2013 Nigeria Breweries Consumer 17.044 50.808 25.9565 0.75 0.8 1 5.7 3.3949
 2014 Nigeria Breweries Consumer 12.1755 50.9002 25.1005 0.75 0.8 1 5.62 3.3999
 2015 Nigeria Breweries Consumer 10.6834 48.472 21.1732 0.75 1 1 4.82 3.5291
 2016 Nigeria Breweries Consumer 7.74 43.196 16.9947 0.75 1 1 3.58 2.4217
 2017 Nigeria Breweries Consumer 8.6463 41.6613 16.6278 0.75 1 1 4.13 3.0759
 2018 Nigeria Breweries Consumer 5.0064 43.6123 10.6541 0.75 1 1 2.43 2.8429
 2019 Nigeria Breweries Consumer 4.2076 40.634 10.98 0.75 1 1 2.01 3.4136
 2010
 Nigerian
 Enamelware Consumer 5.2511 10.0275 11.0095 0 0.4 1 1.18 2.766
 2011
 Nigerian
 Enamelware Consumer 8.6457 11.0921 6.6427 0 0.4 1 1.39 3.8409
 2012
 Nigerian
 Enamelware Consumer 4.0579 13.6706 8.4199 0 0.4 1 1.39 4.087
 2013
 Nigerian
 Enamelware Consumer 3.3571 12.7677 10.0493 0 0.4 1 1.01 3.6178
 2014
 Nigerian
 Enamelware Consumer 2.7936 15.1761 9.5195 0 0.4 1 1.36 4.2733
 2015
 Nigerian
 Enamelware Consumer 1.4805 15.6144 10.122 0 0.4 1 1.17 4.147
 2016
 Nigerian
 Enamelware Consumer 2.9402 15.0337 13.4202 0 0.4 1 2.11 7.5587
 2017
 Nigerian
 Enamelware Consumer 0.7733 22.5832 24.9937 0 0.4 1 0.71 3.0613
 2018
 Nigerian
 Enamelware Consumer -0.0728 26.4068 23.882 0 0.4 1 0 -0.1984
 2019
 Nigerian
 Enamelware Consumer -5.5147 -3.8778 -6.666 0 0.4 1 -3.18 -14.3803
 2010
 Nigerian Northen
 Flour Mill Consumer 5.813 9.0804 6.186 0 0.6 1 2.76 2.5182
 2011
 Nigerian Northen
 Flour Mill Consumer 11.0206 8.3995 6.2009 0 0.6 1 2.56 11.9181
 2012
 Nigerian Northen
 Flour Mill Consumer 0.1502 4.8425 0.8571 0 0.6 1 0.03 0.1632
 2013
 Nigerian Northen
 Flour Mill Consumer 6.2136 6.6948 3.0543 0 0.6 1 1.42 6.1313
 2014
 Nigerian Northen
 Flour Mill Consumer 7.1494 4.1896 3.1237 0 0.6 1 1.31 7.2576
 2015
 Nigerian Northen
 Flour Mill Consumer -4.8522 2.4322 -2.046 0 0.6 1 -1.12 -13.0919
 2016
 Nigerian Northen
 Flour Mill Consumer -5.7176 -10.2873 -23.8061 0 0.6 1 -1.11 -17.6452
 2017
 Nigerian Northen
 Flour Mill Consumer -0.3743 -2.8987 3.4393 0 0.8 1 -0.09 -1.5982
 2018
 Nigerian Northen
 Flour Mill Consumer -1.0306 24.8844 12.8045 0 1 1 -0.34 -7.1301
 2019
 Nigerian Northen
 Flour Mill Consumer 0 1 1
 2010 Pz Cussons Consumer 9.4706 27.5846 12.9156 0 0.6 1 1.67 5.3016
 2011 Pz Cussons Consumer 8.2654 28.0101 12.3727 0 0.8 1 1.64 5.8571
 2012 Pz Cussons Consumer 4.0642 22.4258 6.8978 0 0.6 1 0.61 2.2837
 2013 Pz Cussons Consumer 7.6043 26.7678 11.0284 0 0.6 1 1.23 3.6221
 2014 Pz Cussons Consumer 7.6508 26.3281 9.7263 0 0.6 1 1.16 5.3787

2015 Pz Cussons Consumer 6.7828 27.9708 9.5748 0 0.8 1 1.02 4.6921
 2016 Pz Cussons Consumer 2.8613 24.9079 5.3876 0 0.8 1 0.47 3.6992
 2017 Pz Cussons Consumer 4.0922 35.0972 6.4067 0 0.8 1 0.84 4.5073
 2018 Pz Cussons Consumer 2.1747 30.3597 3.6811 0 0.8 1 0.46 4.0113
 2019 Pz Cussons Consumer 1.446 23.0052 3.022 0 0.8 1 0.25 5.1524

2010 Unilever Nig Consumer 16.1191 37.2726 13.8898 0 0.8 1 1.11 4.1264
 2011 Unilever Nig Consumer 15.3315 36.5495 15.4335 0 0.8 1 1.46 5.0345
 2012 Unilever Nig Consumer 13.7807 38.9676 16.4218 0 0.8 1 1.48 3.1828
 2013 Unilever Nig Consumer 10.9862 37.4141 13.4058 0 0.8 1 1.27 2.3606
 2014 Unilever Nig Consumer 5.2745 36.1771 8.5791 0.25 0.8 1 0.64 1.7877
 2015 Unilever Nig Consumer 2.3765 35.5402 8.3442 0.25 0.8 1 0.32 0.7314
 2016 Unilever Nig Consumer 4.2376 29.087 9.7921 0.125 0.8 1 0.81 2.3285
 2017 Unilever Nig Consumer 6.1528 31.8859 16.1036 0.125 0.8 1 1.78 4.3484
 2018 Unilever Nig Consumer 6.9265 30.3823 14.2354 0.125 0.8 1 1.84 4.2962
 2019 Unilever Nig Consumer -7.1565 7.8527 -16.4268 0.125 0.8 1 -1.29 -5.8705

2010 Vitafoam Nig Consumer 8.6407 92.9729 10.2499 0 0.6 1 0.63 9.4265
 2011 Vitafoam Nig Consumer 5.5834 29.9866 8.1324 0 0.6 1 0.69 12.5201
 2012 Vitafoam Nig Consumer 4.8171 35.5227 9.3609 0 0.8 1 0.68 16.7509
 2013 Vitafoam Nig Consumer 4.1192 33.4705 7.8979 0 0.8 1 0.5 10.2243
 2014 Vitafoam Nig Consumer 3.6357 32.2863 9.0622 0 0.8 1 0.63 13.1976
 2015 Vitafoam Nig Consumer 1.7182 31.612 9.016 0 1 1 0.29 4.6841
 2016 Vitafoam Nig Consumer -0.24 34.3547 7.0469 0 1 1 -0.39 -1.358
 2017 Vitafoam Nig Consumer -0.9522 28.7627 7.8829 0 1 1 -0.15 -4.0845
 2018 Vitafoam Nig Consumer 3.7536 29.9796 11.1154 0 1 1 0.57 13.1278
 2019 Vitafoam Nig Consumer 17.8323 39.3252 20.3991 0 1 1 1.82 44.7826

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