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## SUSTAINABILITY REPORTING AND FINANCIAL PERFORMANCE OF SELECTED CEMENT FIRMS IN NIGERIA

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### ABSTRACT

This study examined the effect of sustainability reporting on financial performance of selected cement firms in Nigeria. The study used ex-post facto research design with 10 cement firms as population from 2016-2020. The major findings of this study were; there is a negative and insignificant relationship between environmental reporting and the performance of cement companies in Nigeria; there is a positive influence of economic reporting on the financial performance of cement firms in Nigeria and social reporting will decrease the financial performance of the selected companies. From the analysis shown above, it was concluded that sustainability reporting significantly affect the financial performance of health care companies in Nigeria compositely. It is also worthy of note that the components of sustainability reporting do not significantly affect the financial performance of the cement firms individually. From the findings of the study, it was recommended that; the policy makers in government should enforce the inclusion of sustainability reports in the annual reports by cement companies. This will make sustainability reporting a compulsory report rather than a voluntary disclosure. The management of manufacturing firms should continue to disclose more economic reports as this positively affect their performance.

### KEYWORDS

Sustainability reporting, Financial Performance, Environmental reporting.



## 1.1 Introduction

Sustainability reporting of cement industries has become an issue of major concern in the corporate world. In recent times, investors have become more concerned about sustainability; hence sustainability has the potential to influence an organizational financial performance. The concept of sustainability reporting is the traditional concern of business organization's strategies for profit maximization, diversification, product differentiation as well as global assessment of firm's performance on its environment (Nnamani, Onyekwelu and Ugwu, 2017). However, the evolution of strategic thinking underscores the need to include activities that seek to integrate social and environmental issues into business decision making process, more so, firms which integrates their environment and people are viewed as socially responsible (Emenyi, and Okpokpo, 2023)..

Businesses development has economic, social and environmental impacts that result in social problems, global warming, actual disaster and pollution. Therefore, many business organizations take much responsibility for social and environment issues as they do for economic issues. One reason for this is that business entities are reflecting growing social expectations and stakeholders concern. Responsibility is reflected in disclosure made by healthcare sector companies known as corporate social and environmental responsibility reporting. Henderson and Pierson (2004) explains that social and environmental reporting is an aspect of sustainable development reflecting concerns about environmental protection, inter-generational equality, the earth and its resources. When people come together to establish a firm, they do so to allocate their resources for a common goal and to earn profit. To achieve this goal, they also interact with the society. On the basis of their motives, stakeholders and groups keep interest in the operations of the organization. Stakeholders include the customers, workforce, lenders, suppliers, government and local communities and even the environment. Many scholars are trying to understand how sustainability reporting affects the financial performance of firms. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business to generate resources. Sustainability reports are voluntarily disclosed by corporations that want to offer additional value and information to their stakeholders concerning the effect their activities and operations have on the society and environment (Garg, 2015). This additional information will provide certain payoffs for the company as identified by Dembo, (2017), these benefits include "financial payoffs such as lower capital costs and stock market premiums, customer-related payoffs such as market share increases, improved reputation, operational payoffs such as process innovation and improved resources yields, organizational payoffs such as reduced risk and increased learning". Sustainability reporting is a practice that enhances goal setting, performance measurement and change management of organizations towards a sustainable global economy and it uses the medium of sustainability reports.

The performance of firms can be measured in terms of profitability (i.e. return on assets, return on equity, earnings per share). Prior studies have argued that size and the profitability of firms could also have an effect on the level of disclosure of information by firms. For example, Al-Gamrh and Al-Dharnari (2016) argued that larger firms are likely to disclose additional information in order to reduce agency cost, improve its reputation, win public support and attract investors. Nigeria as a member of United Nations impliedly adopted the UN global compact on Global Reporting Initiative (GRI) which provided sustainability reporting guidelines in 2000 to design and build acceptance of a common framework for reporting on the linked aspects of sustainability.

From past studies reviewed, (Nwobu, 2017; Soyka, 2012 ;Eccles and Krzus, 2010), it is apparent that there is need for sustainability reporting based on four aspects which can contribute to its

measurement. In order to achieve corporate sustainability, a business organization should show commitment in actualizing these four areas namely economic, environmental, social, and governance. Sustainability as an approach to business ensures that value is created for shareholders, and other business stakeholders, while managing risks that arise from economic, social and environmental issues. Corporate sustainability also implies that a business organization contributes to sustainable economic development by working with internal stakeholders and external societal context, in order to improve the larger society. The emphasis of sustainability on economic, social and environmental dimensions is synonymous to Profit, People and Planet (the 3Ps). These 3Ps are also referred to the triple bottom line. It is in the light of the above amidst growing demand by the society, over economic, social and environmental reporting company's performance that more research work on sustainability reporting becomes imperative. Most empirical studies about sustainability reporting have focused on the developed countries while others tilt toward the oil and gas firms in Nigeria, hence the need for this study.

### 1.2 Statement of the Problem

Most business activities in the cement firms of Nigeria often results in social, ecological and humanitarian problems. Yet firms are to take care of these problems as well as contribute reasonably to improving their environment. Cement firms are also often challenged to increase their shareholders stake which is often achieved through profiteering. In view of this, accounting as well as financial scholars who advocate sustainability reporting have argued that firms that have entrenched and availed the public of their sustainability activities have positive performance indices well and above those who have not integrated sustainability reporting. Notwithstanding, corporate entities in Nigeria, especially listed companies have been winning awards which include that of sustainability reporting. Nevertheless, how well are these entities reporting their sustainability engagements especially in line with available sustainability indicators such as GRI guidelines?. The accountability side of cement companies is not complete without the release of sustainability reports and inclusion of sustainability disclosures in corporate annual reports.

### 1.3 Objectives of the Study

The main objective of this study was to examine the effect of sustainability reporting and its influence on financial performance of selected cement firms in Nigeria. The specific objectives are to:

- i. ascertain the impact of environmental reporting on return on assets of selected cement firms in Nigeria.
- ii. evaluate the impact of economic reporting on return on assets of selected cement firm's in Nigeria.
- iii. assess the impact of social reporting on return on assets of selected cement firm's in Nigeria.

### 1.4 Research Questions

The following research questions were developed to guide the study:

- I. How does the impact of environmental reporting affect return on assets of selected cement Firms in Nigeria.
- ii. What is the effect of economic reporting on return on assets of selected cement firms in Nigeria
- iii. What is the effect of social reporting on return on assets of selected cement firms in Nigeria

### 1.5 Hypotheses of the Study

In pursuance of the above-stated research objectives, the following hypotheses were developed:

H<sub>01</sub>: Environmental reporting has no significant effect on return on assetsof selected cement Firms in Nigeria?

H<sub>02</sub>: Economic reporting has no significant effect on return on assets of selected cement firms in Nigeria?

H<sub>03</sub>: Social reporting has no significant effect on return on assetsof selected cement firms in Nigeria?

### **1.6 Scope and Limitations of the Study**

In this study, sustainability reporting and financial performance was limited to the cement industry in Nigeria. Cement industries was chosen based on the fact that allied sectors do not dispose their waste properly, thereby discharging harmful substances to their communities. The study examined the effect of sustainability reporting on the performance of listed cement industry on the Nigerian Exchange Group. Sustainability reporting variables considered in the study include economic, environmental, and social while financial performance would be based on return on assets.

The data were limited to the period from 2012 to 2019. This period is adequate to enable the drawing of necessary inferences and arrived at useful conclusions. However, the sample size of 10 was used to identify and select cement firms with high disclosure of environmental related information. While acknowledging the limitations of the research, they do not in any way detract from the strength of this result and the importance of its findings and conclusions.

### **1.7 Significance of the Study**

This study will assist in increasing the perception of regulatory authorities in putting in place a set of law that will encourage sustainability reporting in the financial reports of the cement firms. Currently, there are no local standards for firms that prepare and publish environmental accounting information reports. This study will resuscitate the need for the Financial Reporting Council of Nigeria to put machineries in place for environmental accounting information reporting standards. It will assist firms that do not adopt sustainability reporting to understand the importance of reporting system and its impact on the financial performance. It will also serve as a body of researched knowledge to be referred to by researchers.

## **2.0 Review of Related Literature**

### **2.1 Conceptual Review**

#### **2.1.1 Sustainability Reporting**

Sustainability Reporting is a broad term generally used to describe a company's reporting on its economic, environmental and social performance. It can be synonymous with triple bottom line reporting, corporate responsibility reporting and sustainable development reporting, but increasingly these terms are becoming more specific in meaning and is therefore a subset of Sustainability Reporting (KPMG, 2008). Schaltegger (2004) in Jasch and Stasiskiene (2005) defines sustainability reporting as a subset of accounting and reporting that deals with activities, methods and systems to record, analyse and report, firstly, environmentally and socially induced financial impacts and secondly, ecological and social impacts of a defined economic system (example, a company, production site, and nation). Thirdly, sustainability reporting deals with the measurement, analysis and communication of interactions and links between social, environmental and economic issues constituting the three dimensions of sustainability.

Sustainability Reporting is becoming 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 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. 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 towards the goals of sustainable development. Similarly, Dow Jones sustainability index in KPMG (2008) looks at Sustainability Reporting as a business approach that creates 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 respectively. 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, what in business terms is called the triple bottom line approach, or corporate social responsibility reporting respectively.

Nigeria is among the most important countries in Africa, with a large population and a fast-growing economy with a high GDP growth rate. But it is also the country with one of the largest number of people living in absolute poverty and faces significant environmental issues.

Due to its size and rapid growth, Nigeria faces extraordinary challenges – it must push for higher incomes, but at the same time cut emissions. Economic progress achieved in recent years is visible with the cities growing, transport systems booming and the middle class is growing rapidly. But there are still vast pockets of poverty in the villages in the countryside, and in the slums in the cities.

### **2.1.1.1 Environmental Reporting**

**Environmental** reporting includes impacts through processes, products, or services. These may include air, water, land, natural resources, flora, fauna, and human health. Environmental variables should represent measurements of natural resources and reflect potential influences to its viability (Okpo & Emenyi, 2023). It could incorporate air and water quality, energy consumption, natural resources, solid and toxic waste, and land use/land cover. Ideally, having long-range trends available for each of the environmental variables would help organizations identify the impacts a project or policy would have on the area. Specific examples include: Sulfur dioxide concentration, Concentration of nitrogen oxides, Selected priority pollutants, Excessive nutrients, Electricity consumption, Fossil fuel consumption, Solid waste management, Hazardous waste management, Change in land use/land cover.

Planet (natural capital) refers to sustainable environmental practices. A TBL endeavours to benefit the natural order as much as possible or at least do not harm and curtail environmental impact. A TBL endeavours to reduce its ecological footprint by, among other things, carefully managing its consumption of energy and non-renewable and reducing manufacturing waste as well as rendering

waste is toxic, before disposing of it in a safe and legal manner. “Cradle to grave” is uppermost in the thoughts of TBL manufacturing businesses which typically conduct life cycle assessment of products to determine what the true environmental cost is from the growth and harvesting of raw materials to manufacture to distribution to eventual disposal to the end user (Jorgensen, 1993). A triple bottom line company does not produce harmful or destructive products such as weapons, toxic chemicals or batteries containing dangerous heavy metals for example. Currently, the cost of disposing of nondegradable or toxic products is borne financially by government and environmentally by the residents near the disposal site and elsewhere. In TBL thinking, an enterprise which produces and markets a product which will create a waste problem should not be given a free ride by society. It would be more equitable for the business which manufactures and sells a problematic product to bear part of the cost of its ultimate disposal.

### 2.1.1.2 Economic Reporting

**Economic** reporting includes financial performance, activities related to shaping demand for products and services, employee compensation, community contributions, and local procurement policies. Economic variables ought to be variables that deal with the bottom line and the flow of money. It could look at income or expenditures, taxes, business climate factors, employment, and business diversity factors. Specific examples include: Personal income, Cost of underemployment, Establishment churn, Establishment sizes, Job growth, Employment distribution by sector, Percentage of firms in each sector and Revenue by sector contributing to gross state product.

Profit is the economic value created by the organization after deducting the cost of all inputs including the cost of capital tied up. It therefore differs from traditional accounting definitions of profit. In the original concept, with a sustainability framework, the “profit” aspect needs to be seen as the real economic benefit enjoyed by the host society. It is the real economic impact the organization has on its economic environment. This is often confused to be limited to the internal profit made by a company or organization (which nevertheless remains an essential starting point for the computation). Therefore, an original TBL approach cannot be interpreted as simply traditional corporate accounting profit; it considers social and environmental impacts.

### 2.1.1.3 Social Reporting

**Social reporting** includes treatment of minorities, equality, involvement in shaping local, national and international public policy, employee issues and community concerns. Social variables refer to social dimensions of a community or region and could include measurements of education, equity and access to social resources, health and well-being, quality of life, and social capital (Okpo, 2022). The examples listed below are a small snippet of potential variables: Unemployment rate, Female labor force participation rate, Median household income, Relative poverty, Percentage of population with a post-secondary degree or certificate, Average commute time, Violent crimes per capita, and Health-adjusted life expectancy.

Data for many of these measures are collected at the state and national levels, but are also available at the local or community level. Many are appropriate for a community to use when constructing a TBL. However, as the geographic scope and the nature of the project narrow, the set of appropriate measures can change. For local or community-based projects, the TBL measures of success are best determined locally. There are several similar approaches to secure stakeholder participation and input in designing the TBL framework: developing a decision matrix to incorporate public preferences into project planning and decision-making, using a “narrative format” to solicit shareholder participation and comprehensive project evaluation, and having stakeholders rank and weigh components of a

sustainability framework according to community priorities. For example, a community may consider an important measure of success for an entrepreneurial development program to be the number of woman-owned companies formed over a five-year time period. Ultimately, it will be the organization's responsibility to produce a final set of measures applicable to the task at hand. Lastly, People [human capital] performs to fair beneficial business practices towards labour and the community and region in which a corporation conducts her business. A TBL company conceives a reciprocal social structure in which the wellbeing of corporate, labour and other stakeholder interests are inter dependent. A triple bottom line enterprise seeks to benefit many constituencies, not exploit or endanger any group of them. The "upstreaming" of a portion of profit from the marketing of finished goods goes back to the original producer of raw materials, i.e., a farmer in fair trade agricultural practice. In concrete terms, TBL business would not use child labour and would monitor all contracted companies for child labour exploitation, would pay fair salaries to its workers, would maintain a safe work environment and tolerate working hours, and would not otherwise exploit a community or its labour force. A TBL business also typically seeks to "give back" by contributing to the strength and growth of its community with such things as healthcare and education.

#### 2.1.1.4 Financial Performance

Financial performance is an important issue in corporate finance considering the recent levels of financial scandals and various degrees of firms' failures. The concept of financial performance in accounting literature refers to profit, return on assets and economic value (Hasan et al, 2010). Corporate profit is one of the most closely followed economic indicators. Profits are source of retained earnings, providing much of the funding for investment in plant and equipment that raises productive capacity. Profits are also frequently used in measuring the rate of return on investment and the relationship between earnings and equity valuation. Profits may also be used to evaluate the effects of changes in policy on corporations or profits or in economic conditions. Profitability is the primary goal of all business ventures, without profitability the business will not survive in the long run. Therefore, the measurement of current or past profitability and projecting future profitability is very important. Profitability is the most important measure of the success of the business and a business that is not profitable cannot survive. Consequently, profitability of firm plays an important role in the structure and development of firm because it measures the performance, success of the firm and enhances the reputation of the firm (Nousheen & Arshad, 2013). Profitability provides a summary measure of corporate success or failure and thus serves as an essential indicator of economic performance. Consequently, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Profitability of a firm is the ability to generate revenue in excess of cost in relation to the company's capital base (Victor, Samuel & Eric, 2013).

Owolabi and Obida (2010) defined profitability to mean; the ability to make profit for all business activities of an organization. They further described it as management efficiency in the use of organizational resources in adding value to the business. Profitability is a way of measuring economic success of a firm in terms of capital invested in the firm Roxana, 2010. Profitability is determined by the extent of the net accounting profit (return on asset, return on capital employed, return on equity). Hence, a sound and profitable company is best able to absorb negative shocks and contribute to the stability of the nation's economy in general. Corporate performance or firm's performance refers to the result of management process in relation to corporate goals. It is a product of the activities and return on investment in a given period (Mohammad & Ebrahim, 2010). Firm performance helps to reveal the result of investment activities of the organizations thus informs and send out signals to the public in relation to their worth/value to help investors make valuable economic decisions. The concept of performance is a controversial issue in finance largely due to its multidimensional

meanings as opined by (Jegers, 1987). In analyzing financial performance, emphasis should be made in formulating an adequate description of the concept of a firm's performance which will uncover the different dimensions upon which firm's performance should be evaluated. Webster's (1990) defines performance as "what is accomplished", Venkatraman and Varadarajan (1986) defines performance as "the time test of any strategy". To this end the definition of firm performance, vary from one study to another. In conjunction with these definitions of performance, this study takes a position that performance of a firm can be defined as the outcome of a firm's strategy or an assessment of how well a firm has succeeded in reaching its objectives. Financial performance is used as a measure to dictate an organization's growth and development. It shows the level of improvement made by an organization or firm within a period of time. There is no specific measure to employ in order to arrive at performance; however, the measure of corporate performance could be arrived at by the use of a number of indices or variables which include productivity, profitability, growth or even customersatisfaction are most likely used (Aliu, 2010).

#### **2.1.1.4.1 Return on Assets**

Today, manufacturers work constantly to increase assets utilization and reduce loss in the ongoing effort to achieve high performance. This is as a result of pressure from shareholders which is greater now than ever and thus, the funds available for investment that would lead to improvements are often limited. To remain competitive, companies must get more from their assets while keeping costs down (Carlos & Rodrigo, 2010). Return on assets (ROA) is one example of the classical financial indicators or accounting ratios used by firms to measure performance. This concept has been perceived and applied differently. ROA is an indicator of how profitable a company is, relative to its total assets. It gives an idea as to how efficient management is at using its assets to generate earnings. Bambang, Elen & Andi (2012) defined return on assets, as the measurement of performance. It tells the investor how well a company uses its assets to generate income. And that a higher ROA denotes higher level of management performance. To Emil (2011), ROA is an indication of the operating efficiency of the firm.

According to Panagiotis & Konstantinos (2005), ROA can be viewed as the firm's ability to make use of its assets, thus, it is one of the world's easiest calculations of performance aside return on sales and return on equity. On the other hand, Yana (2010) defined ROA to be a measure of how effectively assets are used to create profits. Hence, the higher the ROA measure the more favorable the company is because it is earning more from what it has invested. Contrary to this, Huijun and Jianeng (2013) report that firms with low ROA are less risky than firms with high ROA leading to the profitability premium. Consequently, this study view return on assets as a tool to appraise management effectiveness and efficiency of a firm's assets for generating income, that is, a profitability ratio that expresses net income as a ratio of the assets used to earn the income. The concept return on assets has been used in several researches to reflect financial performance, although measured differently.

## **2.2 Theoretical Framework**

### **2.2.1 Voluntary Disclosure Theory**

Voluntary disclosure theory has its roots from agency theory and was expounded by Brammer and Pavelin (2008). Voluntary disclosures are attempts to remove informational asymmetries between the firm, external agents and primary agents in the investment community. Voluntary disclosure theory is based on the agency theory perspective which explains the level of disclosure of information. The voluntary disclosure theory predicts that organizations which have a good environmental performance do not hide the environmental impacts of their operations and are willing to inform stakeholders about their environmental activities. Voluntary disclosure predicts that the



information risk for current and potential investors will be lowered (Brammer and Pavelin, 2008). Voluntary disclosure can lead to a competitive advantage because it highlights the environmental programme and the impact of activities on the national environment. Stakeholders receive bad news from the company along with good news. Investments in environmental management or programs are costly and for the short term, they will not result in higher returns. If disclosure is absent or low, stakeholders will assume that the current environmental strategy adopted by the firms is inferior (Clarkson, Li, Richardson and Vasvari, 2008). Superior environmental performers truly disclose issues regarding environmental affairs, the quality of their disclosures is superior to the quality of the weak environmental performers. The superior firms believe that their strengths will outweigh the weaknesses and do not fear the reaction of any stakeholder (Clarkson *et al.*, 2008).

### 2.3 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  $Z^2 pq/(e)^2$ . 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 will enhance disclosure of information in the financial statement of the organization.

Setyorini and Ishak (2012) examined Corporate Social and Environmental Disclosure. A Positive Accounting Theory View Point. The center objective is to provide an examination of Indonesian corporate social and environmental disclosure in the Positive Accounting Theory (PAT) perspective. It used descriptive research design also and secondary data only was used.

Population of the study was listed companies since they are required to publish their annual report yearly in the Indonesian stock exchange from 2005 until 2009. The study applied sampling method on the sectors of the listed companies in the Indonesian stock exchange. There were approximately 336 to 398 companies listed on Indonesian stock exchange from 2005-2009. The findings review that if the association is driven more by political cost considerations, it can be expected that corporate social and environmental disclosure is positively associated with earnings management.

Onyekwelu and Ekwe (2014) examined whether corporate social responsibility predicate good financial performance using the banking sector in Nigeria?. The study adopted the ex post facto as it made use of historical research design and secondary data used. Analysis was done using the Ordinary Least Square Regression. The findings shows that the amount committed to social responsibility vary from one bank to the other. The data further revealed that the sample banks invested less than ten percent of their annual profit to social responsibility. The researchers recommended that companies in Nigeria particularly profitable one should give greater priority to Corporate Social Responsibility because this has the tendency to assist them to survive and maintain their profitability and also diffuse the tensions and hostilities usually experienced by companies in their localities.

Yahya and Ghodrattollah (2014) investigated the impact of corporate social responsibility disclosure (CSR) on the financial performance of companies listed on the Tehran stock exchange, employing multiple-linear regression analysis. The CSR was the independent variable as measured by economic, social and environmental while Return on Assets, Return on Equity and Price Earnings Ratio were used in measuring financial performance. The analysis produces inconsistent results.

Olanyinka&Oluwamayowa (2014) carried out a research on Corporate Environmental Disclosure and market value of Quoted Companies in Nigeria. The broad objective of this study was focused at ascertaining the aggregate and individual impact of Corporate Environmental Disclosure was regressed on market value. Descriptive research design was adopted and secondary data only was used. A sample size of fifty firms quoted in Nigeria Stock Exchange (NSE) were purposively selected for analysis based on the availability of environmental disclosures in their annual reports. The hypothesis was tested using correlation coefficient. The findings review that the inclusion of environmental disclosure will enhance market value. The study recommends that business should take caution in areas where environmental activities impacts negatively on the value of the firm and also invest in areas that enhance value for the firm.

Juhmani(2014) studied Corporate Social and Environmental Disclosure on Website. This study was centered on examining and information disclosure of companies and website. The study made use of historical research design and secondary data was used. The findings shows that 57.57% of the samples listed companies provided social and environmental information in their 2012 annual reports and their websites. Commercial banks and insurance companies made most disclosure of social and environmental accounting, while companies in the hotels and tourism sectors and industrial sector made the least disclosure.

Onyekwelu&Ugwuanyi (2014) carried out a research on Corporate Social Accounting and Enhancement of Information Disclosure among Firms in Nigeria. The broad object of this study was aimed at ascertaining if the inclusion of social accounting information in the financial statements will significantly enhance information disclosure. They adopted survey research design; primary and secondary data were used. A sample size of 108 was drawn from a total population of 148 using Taro Yamane formula. The research hypothesis were tested using chi square(  $\chi^2$  )finding reviews the inclusion and separate presentation of social costs incurred by organizations in the financial statements will enhance information disclosure in the statement.

Nze, Okoh&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 Isa, (2014) assessed sustainable reporting among food and beverage firms in Nigeria which were randomly selected from the list on the Nigerian Stock Exchange. The study found that the firms exhibited some level of sustainability reporting though not significant because it only comprised of approximately two percent of the total disclosures of the annual reports. The results revealed that environmental activities represent 20.40% of the total disclosures, followed by product disclosures represented by 19.75% while human rights disclosures were the least representing 12.84%. The study further indicated that inverse relationship exists between the disclosures and the size of the firms.

Nwobu, (2016) 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.

Anyanwu (2015), in an empirical study titled “Environmental Management Accounting Techniques and Quality Financial Reporting” undertook to assess and explain the level to which environmental reporting disclosures quality take place in listed firms in Nigeria. The study as well identified and discussed the likely basis for the quality of reporting level. The study adopted a descriptive statistical research method. It revealed that firms in Nigeria are stepping up in environmental disclosures compared to what it was five (5) years ago. In addition, the study disclosed that greater parts of the firms are reporting on environmental accounting information voluntarily. The study concluded that many firms in Nigeria do not efficiently disclose environmental matters. The companies that disclosed on few environmental accounting information are inconsistent. The study recommended that Nigerian firms have to do more to show their seriousness in improving environmental pollution by means of better quality disclosures in the financial reports of companies to build healthier value for all stakeholders.

Noodezh and Moghimi (2015), carried out a study on environmental costs information disclosure in the company’s accounting systems. The study was aimed at examining the extent to which companies evaluate and report the negative environmental waste. The study adopted a descriptive statistical research method. The study revealed that the greater part of firms is not keen on reporting the information related to environmental accounting information components in their financial reports. This is because they consider that its disclosure would impose financial commitments on them. The study recommended that firms’ managers should disclose environmental accounting information as a means of lifting a company’s prestige and environmental reputation and legitimating their activities for effective and efficient decision making.

Deegan (1994), carried out a research on the incentives of Australian firms to provide environmental accounting reporting within their financial reports voluntarily. By use of the framework of political cost, hypotheses were built up which connect the extent of environmental disclosures with a measure of the company’s supposed sound effects on the environment. 197 companies were used as a sample. The outcome indicated that companies which function in industries which are believed to be environmentally damaging are significantly more prone to providing constructive environmental accounting information within their financial reports than other companies.

Esiraet *al.*, (2014) conducted a research on management of environmental cost and profitability of the Nigerian oil sector between 2004 to 2013. They observed that there are inadequate standards directing on environmental cost management in Nigerian oil and gas firms. The study adopted an exploratory research design to introduce the processes involved in carrying out the study. The study concluded that the environmental accounting in the oil sector is at its elementary stage. The work recommended that there should be policy consistency on the improvement of external reporting in environmental accounting information disclosure.

## 2.4 Gap in the Literature

Sustainability reporting and financial reports have long attracted the notice of past researchers. Depending on the aim of each study past scholars' selected suitable areas of sustainability reporting and financial performance to study. The following are some of the areas on sustainability reporting and financial performance that studies have been undertaken; Corporate social accounting disclosure in the annual reports of Nigeria companies, Corporate social and environmental disclosure and earning management, Corporate social responsibility and financial performance, Corporate environmental disclosure and market value of quoted companies in Nigeria, Corporate social and environmental disclosure on website, Corporate social responsibility and earning of quoted firms in Nigeria, they impact corporate performance in regards to environmental cost, and financial reporting quality in regards to environmental management accounting techniques, how environmental cost management affect profitability of oil sector in Nigeria, environmental cost accounting and the cost of environmental damages on stakeholder's well-being in Nigeria's south-south geo-political zone, as well as environmental cost- an environment management accounting component. Review of empirical studies indicates that the results of most of these researches are either indecisive or conflicting with some reporting positive and others negative impacts of sustainability reporting on the financial performance in the Cement firms. For this reason, the researcher intends to cover this gap.

Most past studies were made with emphasis on survey method of the influence of sustainability reporting on the financial performance. Little or no attention was given to the measuring viewpoint especially the consideration of financial performance of cement firms in Nigeria, using accounting practice that is generally accepted (GAAP) and the current International Financial Reporting Standards (IFRS) eras. Also, most of the empirical evidence came from developed economies. Apparently, it appears that there are some precincts in the previous research which need to be examined. Firstly, most scholars in literature only expressed sustainability reporting and the financial performance but no or little emphasis on the evaluation of the financial performance of healthcare companies in Nigeria. Secondly, sustainability reporting information that influences the financial performance of healthcare firms in Nigeria has not been thoroughly investigated and assessed with the available data. These are the major precincts in the knowledge of sustainability reporting and the financial performance of healthcare firms in Nigeria. As a result of these precincts, the study of financial performance in regards to sustainability reporting of healthcare companies in Nigeria is justified. Nigerian healthcare firms are considered appropriate to provide the needed information which is recognized as causing pollution on the environment. It is expected that this research would assist to enlarge previous studies and add to the growing literature on accounting for sustainability reporting and the financial performance of healthcare firms in Nigeria using descriptive evidence from the developing economy.

## 3.0 Methodology

### 3.1 Research Design

Ex-post facto research design and content analysis was adopted in this study. The choice of this design is based on the fact that it is not possible to directly manipulate or control any of the independent variables, inferences about the variables are made, without direct intervention from independent and dependent variables. The research design was adopted to allow a complete assessment of the sustainability reporting on the financial performance of healthcare sectors in Nigeria.

### 3.2 Population of the Study

The population of this study consists of 10 cement firms that are listed on the Nigerian Stock Exchange between 2016 and 2020.

### 3.3 Sample Size

From the population of 10 cement companies listed on the Nigerian Stock Exchange between 2016 and 2020. Sample size was determined, using Taro Yamane (1967) formula as cited in Puszczak et al (2013) as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = the sample size

N = the population

e = error term (5% on the basis of 95% confidence interval)

Thus,

$$n = \frac{10}{1 + 10(0.05)^2}$$

$$n = 9.756$$

Therefore sample size is approximately 10

### 3.4 Sampling Technique

Purposive sampling technique is used for the study. The technique enhances selection of cement firms that disclosed sustainability related information. This selection is based on the nature in which companies pollute the environment, the nature of production, types of raw materials used as well as their disposal of wastes and most importantly availability of the annual reports on the web over the period of the study.

### 3.5 Sources of Data Collection

Secondary data is the main source of data for the study. The data is obtained from financial reports and accounts of companies selected for the study. The other relevant data for this study is collected from various books, journals, magazines, and websites.

### 3.6 Method of Data Collection

Data from financial reports was obtained through an in-depth examination with the aid of measurement check-list.(contents analysis method)

**Table 3.1: Measurement of Dependent and Independent Variables**

S/N	Variables	Definition	Types	Measurement	Apriori Expectation
1	FP	Financial Performance	Dependent	Return on assets related information	
2	ENR	Environmental Reporting	Independent	Reports on environmental related information	Positive
3	ECR	Economic Reporting	Independent	Reports on economic related information	Positive
4	SOR	Social Reporting	Independent	Reports on social related information	Positive

**Source: Researcher's Computation, 2023****3.8 Model Specification****Multiple Linear Regressions**

The linear models for multiple-regression is expressed as follows:

$$ROA_{kt} = \beta_0 + \beta_1 ENR_{kt} + \beta_2 ECR_{kt} + \beta_3 SOR_{kt} + \beta_4 FS_{kt} + e_t$$

Where:

$\beta_1, \beta_2, \beta_3$  = coefficient.

$\beta_0$  = Constant

$ROA_{kt}$  = Return on Assets for cement industry, firms k in year t

$ENR_{kt}$  = Environmental Reporting for cement industry, firms k in year t

$ECR_{kt}$  = Economic Reporting for cement industry, firms k in year t

$SOR_{kt}$  = Social Reporting for cement industry, firms k in year t

$FS_{kt}$  = Firm size for cement industry, firms k in year t (Control variable)

$e_t$  = Error term in year t.

**3.9 Method of Data Analysis**

Descriptive and inferential statistical method was used to analyze the data in the study. The descriptive statistics such as one sample T-test, tabulation and percentages will be used in summarizing the information as well as their perceptions on the status of sustainability reporting. Correlation and Multiple regressions technique were adopted as inferential statistics, to determine whether a relationship exists between the sustainability reporting and financial performance in Nigeria. The data for the dependent and independent variables was extracted from the financial reports using contents analysis method and collated with the aid of Microsoft Excel software. In order to determine the level of sustainability information disclosures engaged by the listed cement firms in Nigeria, a disclosure index (Checklist) of 30 items in line with Global Reporting Initiative (2011) using content analysis was developed. The data was captured using a disclosure checklist with the scale 0-2, where 0 = none disclosure, 1 = partial disclosure and 2 = Full disclosure.

**3.10 Control Variables**

When investigating the relationship between sustainability reporting and financial performance, it is important to take into account variables that may influence a corporation's performance. Failing to do so may lead to biased results (Saunders et al., 2012). According to the findings of the meta-analysis performed by Margolis and Walsh (2007), the most common control variables within corporate sustainability literature are firm size, industry and financial risk. Firm size (i.e. total assets) and debt ratio are therefore included in the analysis together with fixed (industry and year) effects, to control for unobservable variables influence. For this research only firm size will be considered. Firm-size according to Waddock and Graves (1997), firm size should be considered because of its potential influence on both corporate sustainability and financial performance. Indeed, based on the previous study, empirical research has found that there is a relationship between the size of the firm and sustainability reporting as well as to some measurements of financial performance (Fischer & Sawczyn, 2013) and to the sustainability rating of the firm (Johnson & Greening, 1999). For instance, stakeholders may have greater expectations and concerns regarding the level of responsibility of actions and activities performed by larger firms (Hillman & Keim, 2001). Furthermore, the size of the corporation might also affect the availability of resources that can be used for the creation of performance disclosures. For instance, previous research has found a positive relationship between firm size and the amount of corporate disclosure (Clarkson et al., 2008). In accordance with Waddock and Graves (1997), firm size is measured by the logarithm of total assets.

## 4.0 DATA PRESENTATION, ANALYSIS AND FINDINGS

### 4.1 Data Presentation

The study had three independent variables, one dependent variable and one control variable. The independent variables were economic reporting, social reporting and environmental reporting. The dependent variable was financial performance which was proxied by return on asset. The Control variable was firm size measured by natural log of total assets. These data are presented in the Appendix 1 of the study. The descriptive statistics of the data set is presented in Table 4.1 of the study.

#### 4.1.1 Descriptive Statistics

The descriptive statistics include the mean, median, standard deviation of the data set.

**Table 4.1 Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ROA (%)	56	.0739	35.2087	8.437882	8.5580595
FIRM SIZE (N'000)	56	412,896.0	31,329,713.0	8,091,680.179	8,354,601.4106
ECONOMIC REPORTING INDEX (%)	56	20	60	42.50	10.996
ENVIRONMENTAL REPORTING INDEX (%)	56	20	70	33.75	15.083
SOCIAL REPORTING INDEX (%)	56	10	30	25.00	8.739
Valid N (listwise)	56				

**Source: Researcher's Computation (2023)**

The financial performance (ROA-%) had a minimum value of 0.0739% and a maximum value of 35.20% with a mean value 8.437%. The mean value implies that for every one naira invested in the assets of the cement firms, a return of 8.43% is expected. The maximum value implies that the highest return on the assets of the companies was 35.2%.

The average social reporting index of the selected companies was 25% while the maximum value was 30%. The minimum value was 10%. There was a total of 10 social reporting indices that were expected from the cement companies.

The average environmental reporting index of the selected companies was 33.75% while the maximum value was 70%. The minimum value was 20%. There was a total of 10 environmental reporting indices that were expected from the cement companies.

The average economic reporting index of the selected companies was 42.5% while the maximum value was 60%. The minimum value was 20%. There was a total of 10 economic reporting indices that were expected from the cement companies.

### 4.2 Model Evaluation

The suitability of the data set and the data set was assessed as followings;

#### Normality

It is assumed in regression analysis that each mean is distributed normally. The test the normality of the data set, Kolmogorov- Smirnov and Shapiro Wilk statistics were carried out and the result presented in Table 4.2.

**Table 4.2 Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
ROA	.232	56	.000	.801	56	.000
FIRM SIZE	.143	56	.006	.939	56	.007
ECONOMIC DISCLOSURE INDEX	.285	56	.000	.838	56	.000
ENVIRONMENTAL DISCLOSURE INDEX	.348	56	.000	.704	56	.000
SOCIAL DISCLOSURE INDEX	.466	56	.000	.539	56	.000

a. Lilliefors Significance Correction

**Source: Researcher’s Computation (2023)**

**Autocorrelation**

Autocorrelation is a correlation between a particular observation and values that precede and succeed it. Autocorrelation is detected and measured by Durbin-watson (D) statistics. Durbin Watson value will approach zero, if the residuals are not correlated, the value of Durbin watson will be close to 2, if there is negative autocorrelation. Durbin watson can be greater than 2 and could even approach its maximum value of 4. Durbin Watson value less than 1 and more than 3 are definite cause for concern. Thus, Durbin-watson statistics for this study were are not less than 1 or more than 3.

**Multicollinearity**

It was assumed that there is no multicollinearity among the independent variables included in the model. It means that there does not exist ‘perfect’ linear relationship among some or all independent variables of the regression model. VIF statistics is a commonly used procedure to conclude that multicollinearity exist in the sample data. In this study, none of the results show VIF of larger than 10.

**4.3 Test of Hypotheses**

**Table 4.3 Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.683 <sup>a</sup>	.466	.424	6.4933028	2.020

a. Predictors: (Constant), FIRM SIZE, ENVIRONMENTAL DISCLOSURE INDEX, ECONOMIC DISCLOSURE INDEX, SOCIAL DISCLOSURE INDEX

b. Dependent Variable: ROA

**Source: Researcher’s Computation (2023)**

**Table 4.4 ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1877.909	4	469.477	11.135	.000 <sup>b</sup>
	Residual	2150.312	51	42.163		
	Total	4028.221	55			

a. Dependent Variable: ROA

b. Predictors: (Constant), FIRM SIZE, ENVIRONMENTAL DISCLOSURE INDEX, ECONOMIC DISCLOSURE INDEX, SOCIAL DISCLOSURE INDEX

**Source: Researcher’s Computation (2023)**

**Table 4.5 Coefficients<sup>a</sup>**



Model	Unstandardized Coefficients		Standardized Coefficient s Beta	t	Sig.	Collinearity Statistics		
	B	Std. Error				Tolerance	VIF	
1	(Constant)	66.195		4.986	.000			
	ECONOMIC DISCLOSURE INDEX	.279	.112	.358	2.483	.016	.503	1.989
	ENVIRONMENTAL DISCLOSURE INDEX	-.047	.075	-.083	-.628	.533	.598	1.673
	SOCIAL DISCLOSURE INDEX	-.337	.165	-.344	-2.042	.046	.369	2.711

a. Dependent Variable: ROA

Source: Researcher's Computation (2023)

### Hypothesis One

The null hypothesis one states that environmental reporting has no significant effect on financial performance of cement sector in Nigeria. Based on the decision rule of the study, the null hypothesis one of the study is accepted and the alternate rejected because the p-value of 0.533 shown in Table 4.5 is greater than 0.05. The null hypothesis is further accepted because the t-cal value of -0.628 is less than the critical value of t which was 2.004.

### Hypothesis Two

The null hypothesis two states that economic reporting has no significant effect on financial performance of cement sector in Nigeria. Based on the decision rule of the study, the null hypothesis two of the study is rejected and the alternate accepted because the p-value of 0.016 shown in Table 4.5 is less than 0.05. The null hypothesis is further rejected because the t-cal value of 2.483 is greater than the critical value of t which was 2.004.

### Hypothesis three

The null hypothesis three states social reporting has no significant effect on financial performance of cement sector in Nigeria. Based on the decision rule of the study, the null hypothesis three of the study is rejected and the alternate accepted because the p-value of 0.046 shown in Table 4.5 is less than 0.05. The null hypothesis is further rejected because the t-cal value of -2.042 is less than the critical value of t which was 2.004.

### 4.3 Discussion of the Findings

The result of the analysis showed a beta coefficient of -0.083 for environmental reporting. This implies that -8.3% of the variation in financial performance in the cement companies is accounted for by environmental reporting. This result means that more disclosures on environmental activities will decrease the financial performance of the selected companies. The result also suggests that disclosures on environmental activity have negative impact on the financial performance of the selected cement firms. This finding opposes the findings of Setyorini and Ishak(2012) who examined Corporate Social and Environmental Disclosure. A Positive Accounting Theory View Point. They found out that corporate social and environmental disclosure is positively associated with earnings management.

The result of the analysis showed a beta coefficient of 0.358 for economic reporting. This implies that 35.8% of the variation in financial performance in the cement companies is accounted for by economic disclosures. This result means that more disclosures on economic activities will increase the financial performance of the selected companies. The result also suggests that economic reporting has a positive impact on the financial performance of the selected cement firms. In essence, economic disclosures as a critical component of sustainability reporting deplete the financial performance of the selected cement firms. This finding is in line with the study of Buyz, Oberholzer and Andrikopoulos (2011) which states that companies which disclose sustainability reporting may experience better economic performance.

The result of the analysis showed a beta coefficient of -0.344 for social reporting. This implies that -34.4% of the variation in financial performance in the cement companies is accounted for by reporting disclosure. This result means that more social reporting will decrease the financial performance of the selected cement companies. The result also suggests that social reporting has a negative impact on the financial performance of the selected cement firms. This finding disagrees with the findings of Nze, Okoh & Ojeogwu (2016) who examined the effect of corporate social responsibility on earnings of quoted firms in Nigeria, who found out that CSR has a positive and significant effect on earnings of firms studied.

The result of the analysis showed an adjusted R-square of 0.424 for sustainability reporting. This implies that 42.4% of the variation in financial performance in the cement companies is accounted for by sustainability. This implies that the combined influence of environmental, social and economic reporting on the financial performance of selected cement firms in Nigeria is 42.4%. This finding is in line with the study of Amacha and Dastane (2017) who found out that there was a strong and significant relationship between sustainability practices and better financial performance.

## 5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary of findings

- i. The result of the analysis showed a beta coefficient of -0.083 for environmental reporting, which means that -8.3% of the variation in financial performance in the cement companies is accounted for by environmental reporting. There is a negative and insignificant relationship between environmental reporting and the performance of cement companies in Nigeria.
- ii. The result of the analysis showed a beta coefficient of 0.358 for economic reporting. This implies that 35.8% of the variation in financial performance in the cement companies is accounted for by economic reporting. This implies that there is a positive influence of economic reporting on the financial performance of cement firms in Nigeria.
- iii. The result of the analysis showed a beta coefficient of -0.344 for social reporting. This implies that -34.4% of the variation in financial performance in the cement companies is accounted for by social reporting. This result means that more social reporting will decrease the financial performance of the selected companies.
- iv. The result of the analysis showed an adjusted R-square of 0.424 for sustainability reporting. This implies that 42.4% of the variation in financial performance in the cement companies is accounted for by sustainability reporting.

## 5.2 Conclusion

From the analysis shown above, it can be concluded that sustainability reporting significantly affect the financial performance of health care companies in Nigeria compositely. It is also worthy of note that the components of sustainability reporting do not significantly affect the financial performance of the cement firms individually.

## 5.3 Recommendations

From the findings of the study, it was recommended that;

- i. The policy makers in government should enforce the inclusion of sustainability reports in the annual reports by cement companies. This will make sustainability reporting a compulsory report rather than a voluntary disclosure.
- ii. The management of manufacturing firms should continue to disclose more economic reports as this positively affect their performance.
- iii. Environmental disclosure affects the financial performance of cement companies negatively, the management of the cement should spend less on environmental reporting.
- iv. Social disclosure affects the financial performance of cement companies negatively, the management of the cement should spend less on social reporting.

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**APPENDIX I- SUSTAINABILITY REPORTING CHECKLIST**

S/N	Sustainability reporting checklists	Reported (1)	None Disclosure (0)
	<b>Economic indicators</b>		
1	Reports on Consumers’ interest in sustainable products and services		
2	Reports on investment in the community		
3	Reports on climate change financial implication		
4	Report on financial assistance received from government on sustainability		
5	Spending on local suppliers at significant locations of operations		
6	Employee wages and benefits		
7	Risks and Opportunity posed by climate change		
8	Operating costs separated from sustainability costs		
9	State the benefits of reporting on Sustainability		
10	Payments to Providers of Capital		
	<b>Environmental indicators</b>		
11	Reports on Waste and method of disposal		
12	Reports on Environmental protection expenditures		
13	Assessment of suppliers on the basis of environmental risks		
14	Assessment of clients on the basis of environmental risks.		
15	Renewable and non-renewable materials used		
16	Recycled materials used to manufacture the organization's product and services		
17	Fuel/electricity/heating/cooling/steam consumption		
18	Employee Training on environmental reporting by business organizations		
19	Reduction in energy consumption due to conservation		
20	Electricity/heating/Fuel consumption		
	<b>Social indicators</b>		
21	Awards given to business organizations for sustainability performance		
22	Rating of business organizations on the basis of sustainability performance		
23	Injury/injury rate/occupational diseases rate as a result of the negative impact		
24	Representation of men and women in governance bodies		
25	Equal remuneration of men and women		
26	Local community development programmes		
27	Stakeholder engagement plans		
28	Anti-corruption policies and procedures		
29	Suppliers and clients subject to assessments for impacts on society.		
30	Employees’ attitude towards sustainability reporting		