

## SUSTAINABILITY DISCLOSURE AND PROFITABILITY OF INSURANCE FIRMS IN NIGERIA

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### Abstract

*This study sought to find the relationship that exists between corporate sustainability reporting and firm profitability in insurance companies. The study adopted an ex-post facto research design and utilized secondary data sourced from the annual reports and financial statements of the twenty-one insurance firms listed on the Nigerian Stock Exchange in the period of study. Multiple regression analysis was used to analyse the results for a 10-year spread from 2011 to 2020. The results showed that just about 16% of the companies had a standalone sustainability report. The majority of disclosures were about social sustainability. The analysis revealed that Sustainability had a significant negative relationship with Return on Equity while the relationship with earnings per share was positive but insignificant. This result could discourage firms from investing in sustainability if a positive impact on shareholders' wealth is not guaranteed. It is recommended that Sustainability development and reporting be encouraged by the government through legislation of standardized reports, tax incentives and other government support.*

**Keywords:** *Sustainability, Sustainability disclosure, Earnings per share, Return on Equity, Insurance firms*

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### 1. Introduction

In the simplest terms, sustainability has to do with the ability to maintain a process or situation for a long time either as individuals, people group or business. Businesses need to be concerned about being able to continue doing business without threats (either to themselves or society at large) in the long run. Paradoxically, the business may actually compromise its continued well-being through unethical or unsafe ecological and social practices. Sustainability is therefore no longer just a buzzword but a concept

every organization needs to embrace. It is now necessary and important to do business in a way that does not compromise the future well-being of the firm, its people and society. This is the crux of the sustainability discussion.

A profit is defined as a financial gain. It is the difference between the amount earned and the amount spent in buying, operating, or producing something. This is generally accepted as the primary purpose of doing business and as the measure of good performance or well-being. The Annual Financial Report serves as the

window through which an organization's activities can be viewed. It gives details of a company's activities in financial terms per time and highlights if the company is making profits or not. However, profit-making companies may still have threats to their continued well-being. This is because profit is an absolute value. The ability to do well in the long run financially is relative to expenses and other factors – that is profitability. Some of these factors may be not financially denominated such as social and environmental factors. The awareness that the numbers do not tell the whole story has created a demand for a different kind of information.

There is a need for assurance that the business practices will not in any way threaten the continued financial and non-financial success in a future period and this assurance cannot be gotten from the Financial Reports. Consequently, stakeholders now require reports on activities, policies and conduct outside of the traditional financial reporting requirements. Sustainability Reporting is in response to this call and it is focused on information about the firm activities that affect its environment, social network and economic goal. This is a better guarantee in the long run because it is premised on responsible corporate behaviour in various spheres which are conduits between sustainability and profitability. Environmental preservation and Cost Saving initiatives birth innovative products and services that are production and user efficient. Focus on employee welfare leads to policies and processes that attract or retain talented employees and can potentially boost profits. Being perceived in good light on environmental and social issues is reputation support that can be quite attractive for investors and customers alike. A responsibility mindset is also great for managing risks related to regulatory compliance and reputational damage all of

which can impact a firm's profitability. All these are dimensions of sustainability with the potential to impact profitability.

Maximising shareholders' wealth is a core objective of any business and a business must continue to run profitably. In the pursuit of sustainability, firms will need to do things differently which may have financial implications as sustainability-promoting practices have attendant costs and benefits. The question is how profitability reacts relative to reporting since practice is assumed to precede disclosure. Some studies assert that there is a positive relationship between sustainability and profitability (Aggrawal, 2013 and Laskar, 2019). On the other hand, Ndukwe and Nwakanma (2018) and Oyewo (2014) found a negative relationship between the two variables. Onipe and Aminu (2021) found varying influences based on different elements of the two variables. This lack of coherence in results from previous studies indicates a knowledge gap yet to be filled and this work seeks to add to the information on this with an emphasis on insurance firms.

A review of the literature on the topic shows that studies have been skewed towards the manufacturing, agricultural and Oil & Gas sectors of the economy. These are the sectors believed to have a major significant impact on sustainability, especially regarding the physical environment. Oyewo (2014) opined that sustainability is everyone's concern and considering the enormous resources required to maintain societies, very big individuals and corporate citizens should be involved especially firms with very large capital bases such as banks and other financial corporations. The financial sector especially the insurance sub-sector has however not been well represented in sustainability studies despite its huge presence on the stock exchange. Changes in their activities can really affect all share

indexes and the capital market stability. This study is focused on the status of reporting in the insurance sub-sector. It seeks to evaluate the level of compliance, practices and their implications for profitability. Subsequent sections deal with conceptual, theoretical and empirical reviews, methodology and data analysis as well as reports of findings, discussion and recommendations.

### Problem Statement

At the moment, corporate reporting is the most common way of disclosing performance, either financial or otherwise. In research and practice, the concept of sustainability reporting is now fully established as the customary method of communicating an organization's performance and commitment to sustainability (Oyewo, 2014, Unerman et al, 2018). There has been a lot of work on this subject in recent years (Erin et al, 2021; Ndukwe & Nwakanma 2018; Mion & Adai, 2020, Olayinka, 2021), however, oil companies and manufacturing firms have been the major focus as they are believed to pose the biggest threat to sustainability in the society. The Financial sector is the second largest on the Nigerian stock exchange and accounted for 47% of all issuances in the 2022 financial year, Price Waterhouse Coopers (2022). Any slight change in their activities or performance holds huge implications for the stock market and the nation at large. Finance and Insurance was the largest driver of growth in the non-oil sector and contributed 23% of the growth recorded. The few studies on the finance sector have been largely focused on money deposit banks ignoring Insurance companies which also constitute 34% of the sector Nigerian Stock Market, (2022). This study seeks to fill this gap by examining the relationship between profitability and sustainability in the insurance sub-sector of Nigeria.

### Research Objective

The overall aim of this study is to

examine the relationship between sustainability reporting and profitability in the insurance company in Nigeria. The specific objectives are as follows:

- i. To examine sustainability disclosure practices in insurance firms in Nigeria
- ii. To evaluate the level of compliance of sustainability reporting with the Global Reporting Initiative (GRI) standards by insurance firms in Nigeria.
- iii. To examine the relationship between sustainability disclosures and returns on equity among quoted firms in Nigeria.
- iv. To examine the relationship between sustainability disclosures and earnings per share among quoted firms in Nigeria.

### Research Questions

The following questions arise from the objectives.

- i. How do insurance firms report and disclose sustainability?
- ii. To what extent does the sustainability disclosure of insurance firms align with the GRI guidelines?
- iii. What type of relationship exists between sustainability disclosures and returns on equity among quoted firms in Nigeria?
- iv. What type of relationship exists between sustainability disclosures and earnings per share among quoted firms in Nigeria?

### Statement of Research Hypotheses

The following hypotheses were developed in line with the research questions

Ho<sub>1</sub>: There is no significant relationship between corporate sustainability reporting and returns on equity among insurance firms in Nigeria.

Ho<sub>2</sub>: There is no significant relationship between corporate sustainability reporting and Earning per Share in Insurance firms in Nigeria

## 2 LITERATURE REVIEW

### 2.1 CONCEPTUAL REVIEW

#### 2.1.1 Sustainable Development

Development is all about advancement or growth and progress. To be sustainable means to be able to maintain a certain level or status. Together sustainable development can be described as the ability to maintain a rate of advancement. It involves ensuring progress and avoiding depletion of resources or productive ability. According to Babalola & Adedipe (2014), it is about improving the quality of human life whilst living within the carrying capacity of the ecosystems. Development is almost always a product of a desire to meet a need or want. Human needs are insatiable as they keep evolving, hence sustainable development becomes critical. It covers the processes firms must put in place to forestall negative outcomes or by-products of their activities. (Owolabi & Okulenu, 2020).

Sustainable development is in harmony with the continual enhancement of the quality of human life both for now and in the future (Anyachie & Areji, 2015). Quality of life would address employee health, welfare, provision of staff training and safe working processes. Securing the future would include precautions against damaging the environment, giving equal opportunities for career advancement, providing amenities for the host communities, inclusion and diversity in the staff strength. According to the

International Federation of Accountants (IFAC), sustainability is about promoting ethical responsibility and sound corporate governance practices. One of the earliest and most popular descriptions is by the Brundtland Commission, (1987) which defined it as development that meets the needs of the present without compromising the ability of future generations to meet their own needs

#### 2.1.2 Sustainability Reporting

Based on several prior works, the concept of sustainability has been explored in the accounting and corporate world for about fifty years. Despite the popularity of the topic and several exploratory studies, it has been difficult to come up with just one apt definition. Sustainability has such varied tentacles and thus difficult to capture the essence of its reporting succinctly. KPMG, (2008) says it is a term broadly used to define a company's reporting on its economic, environmental and social performance. Sustainability practice has been known by various labels in time past such as social accounting and environmental accounting, corporate social reporting, corporate social responsibility reporting, triple bottom line accounting or non-financial reporting (Asaolu et al., 2011).

It is a means of communicating a firm's contribution to sustainable development. The objective is to inform stakeholders of the efforts, policies and practices that the company has in place to ensure its activities are environmentally friendly, socially responsible and economically viable. The report identifies and reports on non-financial activities with economic, social, environmental and governance impacts. Elkington (1998) defined sustainability reporting as a yardstick for measuring and reporting corporate performance against social, economic, and environmental parameters. This is also called the Triple Bottom Line

paradigm and the goal is to integrate the three elements of people, profit and planet.

### 2.1.3 Sustainability Reporting Metrics

Due to a lack of uniform definition, it is difficult to measure or report performance. There is thus, a need for some form of standards to make practice and adherence more meaningful. Although sustainability reporting is not fully standardized, the most popular standard currently in use worldwide is the Global Reporting Initiative (GRI) Index. According to KPMG (2008), more than 93 percent of the world's top 250 firms (by sales) have produced a sustainability report since 2017, with the majority of them using the GRI standards. It was developed by the Global Sustainability Standards Board (GSSB). It is an international organization that seeks to harmonize the language of communicating sustainability impact. The aim is transparency in all activities of sustainability. The index lays out a set of principles by which organizations may define the content of their reports. One of the aims of the GSSB is to elevate sustainability reporting to the same level as financial reporting.

The GRI consists of three universal standards covering economic, environmental and social reporting metrics which are further divided into thirty-three topic-specific standards. Economic indicators include financial information such as turnover, return on investment, profit and such data as well as data and policies on benefits and wages, labour productivity, creation of jobs, expenditures on research and development as well as investments in training and other forms of human capital. The Environmental issues related to the impacts of processes, products and services on land, air, waste management, water, biodiversity and human health. Social elements encompass workplace safety and health, retention of employees, labour

rights, human rights, wages and working conditions (both in-house and at outsourced operations) and measures are indicated by per capita income, crime rate, literacy rate, employee turnover and morale.

Any organization can use the GRI Standards to report on areas pertinent to their operations in a standardized and comparable way. The organization decides on the materiality of topics. For instance, while environmental issues like emissions, oil spills and pollution are relevant to oil firms, cosmetic companies may be faced with child labour issues while agriculture-based firms may have major issues with waste management and recycling.

### 2.1.4 Profitability

A profit is a difference between revenue and costs. It is absolute in nature. Profitability on the other hand is comparative and measures the degree to which a business or activity yields profit or financial gain. In other words, it is a measure of profits relative to expenses. Horton (2021) describes it as a measure of efficiency. Corporate profitability is seen and measured as how well companies use their own assets for generating revenue for the economic well-being of shareholders (Dioha et al., 2018). The term describes the overall financial picture for a particular time frame. Profitability is considered vital to a firm's total income, its generated profits, and the rise of the firm's value because of appreciation in the company's worthiness.

### 2.1.5 Conceptual Framework

It is wholly believed that the dynamic nature of businesses and their complex environments affect realizable profit and the sustainability performance of the concerned firms (Aggarwal, 2013). Therefore, the profitability of firms and their sustainable performance are linked. It has been argued that the sustainability reports of most African companies come from a backwards-looking analysis of

performance and that they are isolated from their financial reports (Umukoro, 2019) or company strategy. However, the commitment to sustainability is something that should be demonstrated in the daily operations of a company regardless of the prevalent financial performance per time.

Mitchell et. al. (1997) stated that firms in the high sustainability group are capable of better performance. The premise is that their dedication to acquiring and building high-quality labour input, the establishment of a friendly good supply chain and maintenance of a good relationship with the external community reduces conflict and guarantees a peaceful and productive work environment. An opposing argument says that firms that have implemented sustainability accounting may underperform because they are liable to high expenses as a result of additional costs (Oyewo, 2014). This is because sustainable practice entails a peculiar set of costs like investing in staff welfare and training, foregoing opportunities that lack environmental consideration, and clean-up expenses for pollution, oil spills or protection expenses on host communities. Firms with low profitability may therefore fail to abide by sustainability tenets. Given these issues, this research seeks to investigate the culture of sustainability; the disclosure practice and the relationship between sustainability and profitability in insurance firms. The basic framework for this work is that sustainability is dependent on the profitability of a firm and in this study, following the pattern of earlier works, Return on equity (ROE) and Earnings per share (EPS) are used as the indicative parameters of profit.

## 2.2 Theoretical Review

Several theories buttress sustainability disclosures. This study will be hinged upon stakeholder theory and signalling theory based on their relevance.

### 2.2.1 Stakeholder Theory

The focus of the stakeholder theory is to satisfy the interest of various classes of stakeholders (Ngatia, 2014). Freeman (1984) defined a stakeholder as any group or individual that affects or is affected by the achievement of the organization's objectives and they include employees, competitors, customers, suppliers, governments, banks, investors, non-governmental organizations (NGOs), and the society at large. Many studies have stated that sustainability reporting should be based on stakeholder theory, (Bebbington & Thomson, 2013; Spence & Rinaldi, 2014; Erin et al., 2021).

The stakeholder theory is divided into ethical and managerial aspects. The managerial dimension primarily strives to meet the needs of the stakeholders who have the greatest impact on productivity and performance Adekanmi, (2015). Conversely, the ethical aspect of the stakeholder's theory posits that all key actors have earned the right to adequate and equal treatment by the organization. Within this ethical purview of the theory, all stakeholders are entitled to fair treatment and information, (Owolabi & Okulenu, 2020).

According to the GRI (2013), sustainability reporting is created to suit the needs of an organization's direct and indirect stakeholders. Organizations must take into account the expectations of stakeholders, regardless of the level of power they wield or their ability to influence company activity. In this view, all stakeholders do have a right to know about the non-financial as well as financial aspects of the firm (such as social, governance and environmental) and this position is backed by the ethical tangent of the stakeholder theory.

### 2.2.2 The Signalling Theory

The theory accentuates the

importance of the exchange of information between management and the market, stakeholders, and community. In connection with a typical line of communication, it consists of four elements: signaler, signals, receiver, and feedback (Taj, 2016). The signaler in the corporate world are the insiders viz directors, employees, managers or executives. The signals include information on dividends, environmental performance, social investment, and stock price. The receivers are outsiders who are oblivious to the insider information. The feedback reflects the signalers' and receivers' interactions. Both the signaler and receiver are the main players in the process, and the signals sent or received by them provide positive or negative information to reduce information asymmetry. Furthermore, the market receives signals from the organization's strategic decisions about commitment and initiatives, which are likely to have an impact on the organization's reputation and relationships with stakeholders (Ching & Gerab, 2017). Every negative signal has a diminishing impact on the firm, whereas positive ones boost overall performance. For this reason, insiders must consider signalling as a strategic tool in the decision-making process for social and environmental investments.

In line with the signalling theory, management can utilize sustainability reports to communicate with stakeholders about the firm's performance. Sustainable disclosure practices also send other signals such as effective corporate governance, good financial stability, proactive environmental policy, openness, and overall stakeholder involvement. As a result, signals lessen the asymmetry of knowledge between businesses and their many stakeholders both outsiders and insiders.

### 2.3 Empirical Literature Review

There has been an upsurge in

research into sustainability and its relationship with corporate performance and profitability, however, the results have not been conclusive. Aupperle, Carroll, & Hatfield, (1985) asserts that studies have shown varying degrees of relationship flowing from negative to neutral and to positive. One main issue is the reporting is largely voluntary and even though there are frameworks now available to guide reporting, the extent of compliance is subject to individual firms. Adegbe et al. (2020) did a content analysis of the sustainability reports of Quoted companies in the Nigeria Stock Exchange. The study used purposive sampling to pick 28 companies and examined data from their annual reports for ten years from 2009 to 2018. The age of the firm and its leverage levels were set as control variables for the research. The result showed that compliance levels with reporting requirements of the GRI model were below average for the most part but did not state possible causes. This conclusion in itself calls for further investigation in this area.

Sustainability has become a major concern for businesses and by extension a popular area for researchers and scholars. Alshehhi et al. (2018) reviewed 132 articles on the subject to find the position of researchers on the relationship between sustainability, its reporting and corporate performance. The broad content analysis showed 78% of the articles reported there is a positive relationship between corporate sustainability and financial performance. Although a positive relationship is in alignment with 78% of the 132 articles reviewed by Alshehhi et al. (2018) on the subject, the position is not regarded as conclusive. This is because the methodology of the study varied greatly and the measurement variables for the two concepts were also different across studies. Standardizing the operational variables may yield different results. Another criticism is

that some of the sampling techniques were judgmental and therefore likely to be biased.

On the international front, Norhasimah et. al. (2015) studied public firms in Malaysia to check for a relationship between environmental disclosure and financial performance. Data was gathered from the year 2011 financial reports of a hundred well-established firms which were purposively sampled because they are assumed to have more societal impact. Performance was measured by ROA, EPS and ROE. Spearman's correlation and multiple regressions were used to test the hypotheses and results showed a significant association between environmental disclosure and profit margin. Laskar et al. (2017) utilized a binary coding system to derive a sustainability disclosure score for firms from India and Japan using the Global Reporting Initiatives (GRI) framework. The objective was to find an association between sustainability and financial performance and the scores was analyzed using the logit regression and panel data models for the period 2009 to 2014. The result showed that Japanese firms had higher disclosure levels than Indian firms which is a rather predictable result considering Japan is a far more developed economy when compared with India. Corporate sustainability performance, however, exacted a significant positive impact on financial performance in the two countries. The study gap identified is that sustainability is a long-term issue and these studies are short-term in nature. Secondly the

In studies on Nigerian firms, there has also been a mix of results and conclusions. Udeh and Ezejiofor, (2018) examined the telecommunications sector with the objective of establishing the extent to which sustainability cost accounting affected the financial performance of the companies. Time series data and an ex-post-fact study design were used. Hypotheses

were tested using regression analysis with the aid of SPSS Version 20.0. Based on this, the study found that in Nigerian telecommunication firms, Sustainability cost accounting significantly affected return on assets. Okerekeoti, (2022) also studied the seven oil and gas companies listed on the Nigerian Stock Exchange. A content analysis of the sustainability disclosures was carried out and the data extracted were analyzed using tools such as Least Square Regression, Pearson correlation and other statistical software. The study concluded that Profitability has a significant effect on sustainability. Based on its findings, it recommended that firms should strive to improve social engagement and sustainable practices and should also develop processes that promote objective and transparent reporting.

On the other hand, some studies established a negative relationship between the concepts. Ndukwe & Nwakanma, (2018) found a negative relationship between return on equity and corporate sustainability reporting of quoted companies in Nigeria. The study was an ex-post fact design and used multiple regression analysis to analyse secondary data from the firm's annual reports from 2011 to 2015. Earnings per Share and Corporate Sustainability reporting also did not have a significant relationship. Likewise, Asuquo et al. (2018) investigated the reporting practices of 3 brewery corporations in Nigeria for 5 years from 2012 to 2016. Companies' performance was measured using ROA and sustainability was split into its component elements of economic performance, social performance and environmental performance. The result of the study is that Reporting did not affect performance. The data used for these studies were also limited to a period of 5 years which is quite short when sustainability is being considered.

Another stream of studies reported



mixed relationships when different components of sustainability were considered. Ibrahim et. al. (2021) delved into the individual components of Sustainability. It involved an eleven-year review of the annual reports of 12 out of the 17 Oil and Gas companies listed on the Nigeria exchange which were selected using census sampling. The data on sustainability was gotten from the annual reports and other standalone publications while financial data was sourced from the published annual reports and the data was analyzed with the STATA 13 software. The conclusion was that all the sustainability components had a positive impact on profitability. However, economic and social sustainability had an insignificant effect while environmental sustainability had a significant impact.

Asuquo et.al (2018) held the view that social and environmental sustainability have a more positive impact on financial performance compared to economic sustainability. The study reviewed 26 firms in the consumer goods sector in Nigeria. The annual reports from 2009 to 2018 were analyzed using multiple regression techniques and other diagnostic checks. Social and Environmental performance had a significant positive effect on financial output while economic issues had a negative effect. They attribute the result to increased concerns about pollution, habitat loss, environmental degradation and other such issues but also stated that more information is needed on social and environmental sustainability as compared with economic performance. In Aggrawal, (2013), the objective was to find whether companies with sustainable performance are more profitable. The study measured sustainability using four components (Community, Employees, Environment and Governance) and revealed that of the four components of sustainability, only one component (Governance) has a significant

positive effect while the other three have no significant influence.

In the finance sector, Oyewo (2014) purposively sampled twelve publicly quoted commercial banks which had standalone sustainability reports in the year 2012. The objective of the study was a review of sustainability reporting practices. The research included a content analysis of disclosure and correlation analysis as well as ANOVA was used to test the connection between variables. It was discovered that size and profitability were not determinants of sustainability. Although banks were one of the biggest and most capitalized firms in the country then, the level of sustainability development was quite minimal. A limitation of this research design is that correlation-based and used for just one year. Onipe and Aminu, (2021) did a more in-depth study and examined the impact of the different aspects of sustainability on corporate performance. After a review of the annual reports of 26 listed insurance firms in Nigeria, it was established that Social issues had a positive effect on performance while environmental sustainability had the opposite effect. The study was for a ten-year span from 2010 to 2019 and the analysis used descriptive and inferential statistical tools. Owolabi and Okulenu, (2020) sought to find the reaction of company performance to the different components of sustainability. It focused on the insurance sector and did a content analysis of data from the annual reports. Firm performance was proxied on market value. The regression analyses showed sustainability had a positive relation with environmental reporting while social reporting had the opposite. The inconclusive position on the nexus of sustainability and profitability constitutes a knowledge gap that requires further research. Owolabi and Okulenu (2022) used only one company as sample and therefore cannot be taken as representative of the

population while Oyewo (2014) study is based on just one year. Hence there is a need for more empirical evidence to fill the dearth of work on the finance segment and this study seeks to contribute to the available intelligence on the insurance subsector of Nigeria.

### **3. METHODOLOGY**

#### **3.1 Research Design**

This research employed the 'ex post facto' research design because it involves past events. Due to the pragmatic nature of the topic, a mixed-method research design was utilized involving both quantitative analysis and qualitative evaluation of disclosures.

Secondary data was used which was gathered from the published financial reports of the companies because that is the main medium of reporting on sustainability. Moreover, the reports are produced annually, readily available and easily accessible. The study covered the period 2011 to 2020 because of the heightened interest and increased awareness of sustainability which characterized that time frame.

The Global Reporting Initiative (GRI) guidelines were used to analyze disclosures. The study picked eight indicators that are relevant to insurance firms out of the 33 topics highlighted by the GRI standards. Five social sustainability performance indicators and three environmental performance indicators were analyzed. Employment, local communities, occupational health and safety, employee training and education, diversity and equal opportunity are the social indicators analyzed while environmental indicators of water and effluents, energy conservation and waste were picked for environmental analysis.

A rigorous two-stage content analysis of the annual reports was carried

out which considered the occurrence of sustainability disclosure and the quality of the information disclosed to develop the Sustainability Reporting index - SRI. The occurrence and disclosure of any of the aspects in annual reports were given a score of '1' and '0' was given for non-disclosure. A content analysis of the disclosure was also done to further classify and rate the disclosures as either qualitative, quantitative or a mix. Other prior research on this topic of study adopted this analysis method (Ndukwe & Nwakanma 2018).

#### **3.2 Scope and Limitation**

This study investigated the relationship between corporate sustainability disclosure and the corporate profitability of insurance firms in Nigeria. The study covers a period of ten years from 2011 to 2022. The work is limited to the twenty-three insurance companies listed on the Nigeria stock exchange.

#### **3.3 Population and Sample Selection**

The population of the study is made up of twenty-three insurance firms registered on the Nigerian Stock Exchange. Census Sampling was used to pick all the companies since the number was minimal. An additional condition for selection was the availability of the annual reports either on the Nigerian Stock Exchange website or the company's website for the relevant period. The final sample consists of 21 insurance companies out of the 23 listed firms.

#### **3.4 Operational Measures of Variables**

Sustainability Reporting is the dependent variable of the study and it is represented by SR. The independent variable is profitability and it was proxied by Return of Equity (ROE) and Earnings per Share (EPS). ROE is given by the formula: net profit (after interest, taxes and preference dividend) divided by shareholders' equity.

EPS is residual profit after expenses divided by ordinary shares. The choice of all these two variables is consistent with contemporary literature (Olayinka, 2021, Erin et al., 2021, Ndukwe & Nwakanma 2018, Al-Shaer & Zaman, 2016, Agu and Amedu 2018, Whetman 2017). It also seeks to counteract the criticism of a lack of standardization of measures across different studies.

To measure the link between firm profitability and corporate sustainability disclosure, the multiple regression model below was adopted.

$$SR = f(ROE, EPS)$$

This model can be written in an explicit form as:

$$SR = \alpha_0 + \alpha_1 ROE + \alpha_2 EPS + \epsilon_t$$

Where:

SR = Sustainability Reporting

ROE = Return on Equity

EPS = Earnings per share

$\alpha_0$  = Constant or intercept of the regression

$\alpha_1$  and  $\alpha_2$  = Coefficients to be estimated

[ $\epsilon_t$  the error term capturing other explanatory variables not included in the model.

The apriori expectations are that  $\alpha_1$  ROE and  $\alpha_2$ EPS are all expected to have a direct positive relationship with SR. Therefore,  $\alpha_1 > 0$ ,  $\alpha_2 > 0$ .

## 4 DATA ANALYSIS AND DISCUSSION OF FINDINGS

### 4.1 Data Analysis Techniques

The first stage of analysis was a qualitative evaluation of disclosure in the annual report. Content analysis was done to check for sustainability reports, evaluate the presence of disclosures and their alignment with the GRI standards.

For the quantitative aspect, the Correlation coefficient was used to test the strength of the relationship between the dependent variable and the explanatory variables. Due to the need to probe how well the independent variable predicts the dependent, Multiple regression techniques were used to analyse the data. The hypotheses were tested using the t-test of statistics at a 5% level of significance.

**Table 1: Summary of Disclosure Reports**

<b>Number of Firms</b>	21
<b>Firms with Sustainability Reports</b>	13
<b>Number of Reports</b>	210
<b>Total Sustainability Reports</b>	35

At first glance, about 59% of the firms prepare a report – that is 13 out of the 21 companies on the NSE which would be impressive. However, of the 210 annual reports analyzed, only 35 reports had a standalone sustainability report representing just 16% in all. Some reports

come as full-fledged reports with highlights of social, economic and environmental policies. Other presented their reports as part of the corporate governance report. Furthermore, the analysis showed that none of the companies reported on sustainability before the year 2016. The analysis revealed

that sustainability reporting is just being embraced by insurance companies. This supports the position of Kolk (2003) who

stated that sustainability reporting was not very common in the financial sector as compared with the industrial sectors.

**Table 2: Analysis of Disclosure per GRI Standards**

Sustainability Group	GRI Topics	Total Observation	Percentage %
Social Sustainability Measures	Employment	179	85
	Local Communities	159	75.7
	Occupational Health and Safety	182	86.7
	Employee Training and Education	183	87.1
	Diversity and Equal Opportunity	176	83.8
Environmental Sustainability Measures	Water and Effluents	18	8.6
	Energy Conservation	23	11
	Waste	21	10

A total of two hundred and ten annual reports were reviewed. At least 76% of the annual reports included information on social sustainability disclosure. Disclosures in this regard encompassed statements published under the human resource summary, Chairman’s comments or the sustainability reports. It is thus unclear if these actions were motivated by sustainability concerns or merely the efficiency of operations. Issues related to employment and Staff welfare were the most recurrent while local community initiatives were comparatively fewer. Community support was mainly in the form of charity and donations to Red Cross, schools and other student-related programs. It is however the only index with a quantitative value attached to the disclosure. The companies did not begin to focus on environmental issues until 2016. Only 18 disclosures were made on water and effluents, 23 on energy conservation and 21

on waste. Altogether, this would amount to just about 10% reporting for each of the measures analysed. The most notable action reported by firms was in respect of energy consumption. There were reports on moves towards energy-saving light bulbs, generator-shot-down policies and the use of alternative energy sources such as solar installations. Some disclosures were also either futuristic in nature or mere explanations of company policy in respect of issues. They did not feature actual action steps taken to ensure resource conservation. Financial companies have been declared less embracing sustainability reporting Kolk (2003). This is possible because their daily operations may not constitute an immediate environmental danger. Although more firms are now reporting on sustainability, it is still a low-risk sector when environmental issues are concerned and this could account for the late adoption of this index in the reports studied. This

position is also parallel with the findings of Adegbe et. al. (2020) which reported low levels of compliance with the GRI standards.

**Table 3: Summary Result of Regression Analysis**

Variable	Coefficient	T-statistics	Sig
SR (constant)	2.079	45.047	.000
ROE	-0.508	-2.489	.018
EPS	0.016	1.714	.097
<b>R</b>	<b>0.420</b>	<b>F-Statistic</b>	<b>3.187</b>
<b>R-Squared</b>	<b>0.168</b>	<b>Sig. (p- value)</b>	<b>0.055</b>
<b>Adjusted R- squared</b>	<b>.117</b>	<b>Durbin- Watson stat.</b>	<b>1.587</b>

*Source: SPSS Output (2022)*

From the summary above, the regression equation can be written as

$$SRI = 2.079 - 0.508 ROE + 0.016 EPS.$$

Ho<sub>1</sub>: There is no significant relationship between corporate sustainability reporting and ROE. The decision rule is to reject the Null hypothesis if the P-value of t-statistics is less than 5% alpha level

The P-value of the t-statistic testing SRI and ROE relationship stands at (0.018) which is less than the (0.05) alpha level. Therefore, we reject the null hypothesis and conclude that there exists a significant relationship between sustainability reporting and return on equity. The -0.508-regression coefficient is evidence of a negative relationship between SRI and ROE. This is consistent with the result of Aggarwal, (2013) and Ndukwe &

Nwankanma, (2018) and who implied the negative relationship may be due to additional expenses on sustainability. However, it contradicts the finding of Agu and Emedu (2018) and Whetmen (2018)

Ho<sub>2</sub>: There is no significant relationship between corporate sustainability reporting and earnings per share among insurance companies in Nigeria.

From Table 7 the P-value of the t-statistic (0.097) is greater than the (0.05) alpha level for a test of the regression between the sustainability reporting Index and Earnings per share. We, therefore, accept the null hypothesis. The regression coefficient of 0.016 shows a positive but insignificant relationship between the variable at (P = 0.05). This aligns with Ndukwe & Nwankanma, (2018) and Nagornova(2016) but is contrary to the findings by Okerekeoti, (2022) which reported a significant negative relationship between environmental reporting and earning per share

**Table 4: Correlation of Variables**

		SRI	ROE	EPS
SRI	Pearson	1.000	-0.304	.059
	Sig (1 tailed)		0.040**	.0370
	N	34	34	34
ROE	Pearson	-0.304		0.566
	Sig (1 tailed)	0.040**		.000
	N	34	34	34
EPS	Pearson	0.059	0.566	1.000
	Sig (1 tailed)	0.370	0.000	
	N	34	34	34

\*\* Correlation is significant at 5%

From the analysis in Table 4, we find a negative coefficient of -0.304 and a P-value of 0.040 indicating an insignificant negative correlation between SRI and ROE. A positive correlation coefficient of 0.059 between SRI and EPS is discovered with a P-value of 0.370.

#### 4.2 Discussion of Findings

The regression analysis revealed that there is a negative association between Sustainability reporting and Return on Equity (ROE) ( $\hat{\alpha}_1 = -0.508$ ) which means an increase in SRI would deplete ROE by that value. On the other hand, the result shows a positive link with Earnings per Share (EPS) with ( $\hat{\alpha}_2 = 0.016$ ) which portrays a direct relationship between the two variables. The R-value indicates a 42% positive correlation of 42% while the adjusted  $R^2$  value of 11.7% indicates that changes in ROE and EPS account for almost 12% of the changes in Sustainability Reporting while other factors not captured in this model were responsible

for the remaining 88%. The P-value of the overall regression is 0.055 and it shows the overall regression is significant at 10%. Positive autocorrelation is absent as indicated by the Durbin-Watson statistic value of 1.587 which is approximately 2.

The results are instructive for corporate managers. Return on equity (ROE) is a profitability measure which shows how efficiently equity financing is converted into profit. Any negative impact on this measure would naturally be avoided, thus a negative impact from sustainability reporting would not be attractive to management. Earnings per Share (EPS) indicate how much earnings an establishment makes for each share of its stock. A higher EPS share is desirable as investors will pay extra for a corporation's shares thus anything that boosts this measure would be attractive. The correlation of SRI with EPS share is positive on its own, but the impact is also insignificant. This implies that an increase in the extent of sustainability disclosure is not significantly associated with an

improvement in the earnings of investors. Put together, these results could be a deterrent to compliance with sustainability reporting. It challenges the value relevance of expansive and elaborate investments in sustainability. Possible reasons for a negative impact on profitability may be the additional cost incurred on sustainability initiatives such as community aids, staff training and education, and investment in health and safety (all of which feature heavily in the financial statements of the insurance companies). Secondly, sustainability investment may not yield many rewards in the short-term. Therefore, non-compliance may ultimately come back to hurt the corporations in the long run.

## 5 Conclusion and Recommendations

The concepts of profitability and sustainability are at the core of this work. Both concepts were reviewed and studied in the context of insurance firms in Nigeria. The 23 insurance firms listed on the Nigeria Stock exchange formed the population and sample of the study. Census sampling was used to select them based on the small population size. Secondary data was utilized for this study and it was sourced from the published annual reports of the companies. The data collected was analysed using both qualitative and quantitative tools. A thorough content analysis of disclosure was done to identify the trend in the industry. The hypotheses were also tested using regression analysis. Sustainability was proxied by eight indicators while ROE and EPS were the operational variables for profitability in alignment with other earlier works.

The results of the research showed that sustainability reporting is just being embraced among insurance companies. Sustainability indicators are present in the reports of 59% of the reports. It is, however, a fairly recent development as the insurance companies did not start reporting on

sustainability till 2016. Compliance of firms with GRI standards is not definitive in the financial reports. The reports indicate a theoretical understanding of the requirements of these standards; however, the nature of the reports given does not fully demonstrate compliance and consideration for sustainability. For instance, staff issues were majorly presented as part of the human resource unit report and it was always not clear if the firms' focus was sustainability or just management efficiency. Much of the reports were also generic statements and the impact could not be quantified. From the test of the relationship between variables – Sustainability Reporting, Return on Equity and Earnings per share, there is a significant negative relationship between SR and ROE while no significant relationship was found between SR and EPS.

In response to the findings, It is recommended that the government and professional bodies jointly move to improve this status quo. The negative relationship between sustainability and profitability could be a deterrent to compliance if there are no legal requirements instituted that expressly demands compliance. Government can promote compliance through the use of both coercion and persuasion. There could be legislation on compliance with international standards or the international standards which have been customised to suit local and cultural realities could be included in the accounting framework. Secondly, Incentives like tax credits could also be given to encourage voluntary compliance. Moreover, Sustainability reporting should be presented by auditors and professionals not just as an external communication medium for the benefit of investors, but as a tool for improving the legitimacy and also as an internal monitoring mechanism which should be infused into company operations continuously. This would help promote standardization of the reporting. Finally,

government and environmental protection bodies should create more awareness of environmental issues. Better education of the external audience will increase the pressure placed on companies by their host communities to perform better in the area of environmental sustainability in particular.

This study is limited by the fact that it utilised only secondary data from the annual reports. Future studies could seek input from stakeholders such as members of staff to evaluate how the operations of firms align with their sustainability stance. This study also used Earnings per share and Return on equity as variables of profitability. Other variables such as Return on Asset, and Return on Sale, could also be used to evaluate profitability and improve the analysis. Another potential area of study could be the use of sustainability reporting as a tool for risk minimization.

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