

Impact of Sustainability Reporting on Corporate Performance: Evidence From in Nigeria Stock Exchange (NSE)

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Keyword:

Sustainability Reporting, Corporate Performance and Quoted Companies

Abstract

This research is on the Impact of Sustainability Reporting on Corporate Performance of Selected Quoted Companies in Nigeria. The specific objectives of this research is to ascertain the level of impact of sustainability reporting on Return on equity, Return on assets, Earnings per share and Net profit margin of companies listed on the Nigerian Stock Exchange. This research employed ex-post facto design. The sample for the study was made up of 64 companies selected from 76 non financial companies quoted on the Nigerian Stock Exchange. This research utilized secondary data. A model specification based on regression model was used. The statistical technique employed in testing the hypotheses was the student t – test statistic. Findings from this study show that Sustainability Reporting impacted positively on financial performance of quoted companies in Nigeria Stock Exchange. Companies are therefore encouraged to adopt this reporting system in order to account for it social, environmental and economic values which serve as tools for investment decision making.

Introduction

According to global reporting organization; A sustainability report is a report published by a company or organization about the economic, environmental and social impacts cause by its everyday activities. A sustainability report also presents the

organization's values and governance model, and demonstrates the link between its strategy and its commitment to a sustainable global economy. Sustainability reporting can help organizations to measure, understand and communicate their economic, environmental, and social and governance performance and then set goals and manage change more effectively. A sustainability report is a key platform for communicating sustainability performance and impact, whether positive or negative.

Corporate performance is a composite assessment of how well an organization executes on its most important perimeters, typically financial, market and shareholder performance. The overall objective of any organization is to consistently grow and survive on a long term basis. Most managers are also aware that their organisations are part of a large system which has profound direct and indirect influence on their operations. This implies that if this organisations must effectively and efficiently meet their objectives, they should properly adapt themselves to their environments. According to Meyer (2007), "accounting plays a significant role within the concept of generating and communicating wealth of companies". Financial statements still remain the most important source of externally feasible information on companies. Nevertheless, in the wake of the recent accounting scandals and economic meltdown where billions of naira of investment and retirement wealth have disappeared, the very integrity and survivability of the sustainability reporting of this service has been called to question.

Adapting organizations (especially firms) to their environments signifies a reciprocal or symbiotic relationship between the 'duos' as typified by systems model of viewing business. Considering the current environmental crisis, businesses must give more to their environment. The environment in which businesses operate is on an unsustainable course. We are now faced with serious challenge of environmental changes such as global warming, health care and poverty. This situation is similar to what Welford (1997) described as tangible environmental crises (serious water shortage across around the world, global food insecurity and decline in fish catches). According to (Vlek & Steg 2007), Ezeabasili (2009) as human population continue to grow, material consumption intensifies and production technology further expands there is a steady decline in the quantity and quality of environmental resources. There is continuing concern about nature fragmentation and loss of biodiversity, shortages in freshwater availability, over-fishing of the seas, global warming, extreme weather events, air pollution, water pollution, environmental noise and utter neglect and disregard for the protection of the immediate environment, much more the future environment.

This type of environmental unsustainability associated with continuously rising demand and a shrinking resource base now spills over into social and economic

instability. Following from the above, therefore, many are looking to business to be part of the solutions. For instance Welford (1997) maintains that business seems content to see the natural system on the planet disintegrating, people starving and social structures falling apart. Business is central to the problem and must be central to the solution. Indeed the expectations of corporate responsibility in areas such as environmental protection, human rights, human capital, and product safety are rising rapidly. Key stakeholders such as shareholders, employees, and financial institutions want business to be responsible, accountable and transparent.

Many people argue that the growing social injustice experienced by ever larger numbers of people, and the growing damage to the ecosphere, are a result of a dominant – and almost unquestioned – objective of maximizing economic growth. In these terms economic growth (characterized by energy and material-intensive production and exploitative social relations) is socially and environmentally unsustainable. (Unerman et al, 2007) Responding to these issues by business leaders help companies to mitigate risks, protect corporate brand and gain competitive advantage while helping to reduce poverty and improve the quality of life for many. Therefore, if business as a whole operates in a manner which causes damage to the society and thereby causes a break down in the social harmony necessary to provide a stable context for operation, then such business activities are neither economically nor socially sustainable.

According to Peiyuan, Xubiao & Ningdi, (2007) the number of enterprises writing sustainability reports based on GRI framework worldwide increased from 150 in 2002 to 750 in 2005. “From 1 January to 31 December 2010, the number of sustainability reports registered on the GRI Reports List increased by 22 percent” (GRI, 2011). GRI maintains that “the Reports List is an online database that tracks all GRI-based reports that GRI is aware of, and that contain a GRI Content Index. While the List does not include the thousands more reports that follow GRI’s guidance, it does reflect wider trends in sustainability reporting.” The use of Sustainability Reporting (a term used to describe a company’s reporting on its economic, environmental and social performance) techniques has been increasing rapidly in recent years. An understanding of the basis of this reporting system, and its impact on corporate performance is very crucial in determining the essence of its application.

Statement of the Problem

It is an accepted fact that most companies the world over are embracing Sustainability Reporting practices. According to Global Reporting Initiative (2011) “thousands of organizations worldwide now produce sustainability reports. KPMG research shows that in 2008 nearly 80 percent of the largest 250 companies worldwide issued

sustainability reports, up from around 50 percent in 2005.” Similarly, KPMG International Survey of 2011 which covers 34 countries (Nigeria inclusive) shows that 95 percent of the 250 largest global companies now report on their corporate responsibility activities. Also, corporate responsibility reporting has gained ground within the Top 100 companies in each of the 34 countries (KPMG, 2011). This is in response to the demand for organisations to be more transparent in how they treat their economic, social and environmental activities as they affect their stakeholders.

Sustainability Reporting is therefore seen as impacting substantially on performance of corporate organizations. It should be noted that business leaders and most academic literature on Sustainability Reporting widely recognize that this reporting system is beneficial. Therefore, any company that is not involved in Sustainability Reporting could be considered as striving towards unsustainable development. So far it is unclear what impact Sustainability Reporting has actually had on organization strategies, practices and outcomes (Hubbard, 2008). The result of most research conducted on Sustainability Reporting and financial performance are either inconclusive or contradictory, reporting positive or sometimes negative results. Burhan and Rahmanti (2009) concluded in a study that for the next researcher, due to inconsistent result it is necessary to re-evaluate other important variables that could determine company performance as well as consider longer time frame since their research covered only four years. From the above impending issues and evidences, this study is unravel the impact of Sustainability Reporting on corporate performance of companies in Nigeria Stock Exchange..

Objectives of the study

The principal objective of this research is to ascertain the impact of Sustainability Reporting on corporate performance of selected quoted companies in Nigeria. The specific objectives of this research are as follows:

- (i) To ascertain the impact of Sustainability Reporting towards return on assets, return on equity and Earnings per share of companies listed on the Nigerian Stock Exchange.

Research Hypothesis

H1 Sustainability Reporting has impact towards Return on Assets, return on equity and Earnings per share of companies listed on the Nigerian Stock Exchange

H1 Sustainability Reporting has impact towards Return on Equity and Earnings per share of companies listed on the Nigerian Stock Exchange

H1 Sustainability Reporting has impact towards Earnings per Share of companies listed on the Nigerian Stock Exchange

REVIEW OF RELATED LITERATURE

Introduction

There is no single, generally accepted definition of Sustainability Reporting. It is a broad term generally used to describe a company's reporting on its economic, environmental and social performance. 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 therefore subsets of Sustainability Reporting (KPMG, 2008). 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).

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.

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.

Financial accounting framework

Financial accounting is the area of accounting aimed at serving users of accounting information by providing them with financial statements. These statements are known as general- purpose financial statements (Larson, Wild & Chiappetta, 2005). Financial statements present the financial position of an entity at a point in time, the results of the entity's operation for some period of time, the cash flow activities for the same period of time, and other information about the entity's financial resources, obligations, owners, interests and operations. Financial statements report on the financial performance and condition of an organisation. They are some of the most important products of accounting and are useful to both internal and external decision makers (Marshall, McManus and Viele, 2004; Larson, Wild and Chiappetta, 2002).

Ijiri (1983) in Lamberton (2005) identifies accounting reports as the major tools of the accountant. Fundamental to the preparation of traditional financial statements are accounting records compiled using tools such as journal, ledger and trial balance, and most significantly the double entry principle, which increases reliability and influences the form of final reports. SIGMA Project (2003) maintains that sustainability accounting is based on extending the existing financial accounting framework.

Corporate Performance

The subject of corporate performance has received significant attention from scholars in the various areas of business and strategic management (Jat, 2006). It has also been the primary concern of business practitioners, managers and entrepreneurs in all types of organizations because corporate performance is essential as exemplified in high performance organizations which are success stories because of their perceived effectiveness and efficiency in managing their operations and their positive contributions to the well-being of their stakeholders. Whereas, low performance organizations are not, owing to their lack of such essential attributes (Makhamreh, 2000 in Jat, 2006).

Performance is however, a difficult concept, in terms of definition and measurement. It has been defined as the end result of activity, and the appropriate measure selected to assess corporate performance is considered to depend on the type of organization to be evaluated and the objectives to be achieved through that evaluation (Hunger and Wheelan, 1997 in Jat, 2006). According to Encyclopedia of Business (2011) performance measures can be grouped into two basic types: those that relate to results (outputs or outcomes such as competitiveness or financial performance) and those that focus on the determinants of the results (inputs such as quality, flexibility, resource utilization, and innovation). This suggests that performance measurement frameworks can be built around the concepts of results and determinants.

Zuriekat, Salameh and Alrawashdeh (2011) on the other hand opines that performance measurement systems are considered information systems that are used to evaluate both individual and organizational performance. Until recently, companies concentrated on the use of financial performance measures as the foundation of performance measurement and evaluation purposes. According to Lin and Liu (2005) in business management, financial ratios are usually one of the indicators used to evaluate a firm's performance. Generally, the financial information of a company's business operations will be reported in the yearly financial statements, and a financial ratio simply constitutes one item divided by another in the financial statement.

Financial ratios can be viewed as a preliminary reference for the analysis of the business performance. This agrees with Osisioma (1996) assertion that "ratios relate

one set of values to another, with the resulting quotient serving as a measure, a standard or a norm by which performance is judged.” Traditionally, the measurement of a firm’s performance usually employs the financial ratio method, because it provides a simple description about the firm’s financial performance in comparison with previous periods and helps to improve its performance of management. According to Berger and Patti (2002) the measures of firm performance are usually ratios fashioned from financial statements or stock market prices, such as industry-adjusted operating margins or stock market returns.

Glautier and Underdown (2001) maintains that there are two aspects of a company’s financial performance of interest to investors. First, its financial performance may be assessed by reference to its ability to generate profit. This agrees with Pandey (2005) assertion that it is assumed that profit maximization causes the efficient allocation of resources under the competitive market conditions, and profit is considered as the most appropriate measure of a firm’s performance. Hill and Jones (2009) also assert that the key measure of a company’s financial performance is its profitability. Thus, ratios of financial efficiency in this respect focus on the relationship between profit and sales and profit and assets employed. Second, the company’s financial performance may be assessed in terms of the value of its shares to investors. In this way, ratios of financial performance focus on earnings per share, dividend yield and price/ earnings ratios.

The ratios used to measure the overall profit performance of a firm are termed profitability ratios. Pandey (1995) and Khan and Jain (2004) maintains that profitability ratios are determined on the basis of either sales or investment. According to Osisioma (1996) the ratios are aimed at bringing to light the profitability of a firm’s operation, the management efficiency as measured by the returns on capital employed and the intensity of capital usage – the rapidity with which invested capital is turned over.

Return on Assets (ROA) represents the amount of earnings (before interest and tax) a company can achieve for each naira of assets it controls and is a good indicator of a firm’s profitability. According to Hagel, Brown and Davison (2010) ROA explicitly takes into account the assets used to support business activities. It determines whether the company is able to generate an adequate return on these assets rather than simply showing robust return on sales. Asset-heavy companies need a higher level of net income to support the business relative to asset light companies where even thin margins can generate a very healthy return on assets. Using ROA as a key performance metric quickly focuses management attention on the assets required to run the business.

Theoretical Framework

At the start of any research study, it is important to consider relevant theory underpinning the knowledge base of the phenomenon to be researched (Sinclair,

2007). There are several theories that could be employed to explain the motivation for sustainability reporting. These includes: legitimacy, political economy and stakeholder theory (Buhr, 2007).

1 Political Economy theory

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

Following the above point, Guthrie and Parker (1990) in Deegan (2007) explain the relevance of accounting within a political economy perspective. They state that the political economy perspective perceives accounting report as social, political and economic documents. They serve as a tool for constructing, sustaining, and legitimizing economic and political arrangements, institutions and ideological themes which contribute to the corporation's private interests.

Political economy theory relies on the concept that society, politics and economics are indivisible and economic events cannot be studied in comprehensive manner without reference to political, social and institutional framework in which the event occurs. A study of political economy allows researchers to contemplate broader issues about the information companies elect to disclose in their annual reports (Guthrie and Parker, 1990 in Kenth and Stewart, 2008).

2 Stakeholder Theory

The traditional definition of a stakeholder is 'any group or individual who can affect or is affected by the achievement of the organization's objectives' (Freeman 1984 in Fontaine, Harman and Schmid, 2006). The general idea of the stakeholder concept is a redefinition of the organization. In general the concept is about what the organization should be and how it should be conceptualized. Friedman (2006) in Fontaine et al (2006) states that the organization itself should be thought of as grouping of stakeholders and the purpose of the organization should be to manage their interests, needs and viewpoints. This stakeholder management is thought to be fulfilled by the managers of a firm. The managers should on the one hand manage the corporation for the benefit of its stakeholders in order to ensure their rights and the participation in

decision making and on the other hand the management must act as the stockholder's agent to ensure the survival of the firm to safeguard the long term stakes of each group. According to Freeman, Wicks, and Parmar (2004) stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together. It also pushes managers to be clear about how they want to do business, specifically what kinds of relationships they want and need to create with their stakeholders to deliver on their purpose.

Thus, Popa, Blidisel and Bogdan (2009) maintains that stakeholder theory is based on the premise that the stronger the companies' relationships are with other interest parties, the easier it will be to meet its business objectives. Stakeholder theory contributes to the corporate sustainability concept by bringing supplementary business arguments as to why companies should work toward sustainable development.

Also, Perrini and Tencati (2006) states that the sustainability of a firm depends on the sustainability of its stakeholder relationships; a company must consider and engage not only shareholders, employees and clients, but also suppliers, public authorities, local (or national according to a firm's size) community and civil society in general, financial partners etc. nowadays and more and more in the future, the quality, that is the sustainability, of stakeholder relationships must be the guiding principle for the managerial decision making process and the pillar of a more comprehensive corporate strategy.

Adopting this stakeholder view means rethinking nature and purposes of firms and the managerial tools adopted by companies themselves. In this relational view of the firm, the success of managerial efforts cannot be measured according to a shareholder perspective, but only by adopting a more holistic and comprehensive stakeholder framework. Companies need appropriate systems to measure and control their own behaviour in order to assess whether they are responding to stakeholder concerns in an effective way and in order to communicate and demonstrate the results achieved. These new evaluation and reporting systems should have the purpose of broadening, integrating and improving the traditional financial/economic approaches to the corporate performance measurement, taking stakeholder needs and requirements into due account (Perrini and Tencati, 2006).

Empirical Review

The researchers reviews few prior empirical works on the impact of Sustainability Reporting on corporate performance in this section just as Hubbard (2008) observes that while many frameworks have been developed for sustainability reporting, few have received much general traction. Limited light has actually been cast on

organizational performance by Sustainability Reporting to date and so far it is unclear what impact it has actually had on organisation strategies, practices and outcomes. Empirical works on impact of Sustainability Accounting and reporting reviewed here are: Research conducted by Burhan & Rahmanti (2012) ascertained the relationship between Sustainability Reporting and company performance. Using a sample of thirty two companies listed on the Indonesian stock exchange during the period 2006 – 2009, the study uses linear regression model as well as multiple regression and the researchers shows that sustainability reports does have an association with company performance, however, partially as only social performance disclosure influences the company performance.

Khavesh, Nikhashemi, Yousefi, & Haque, (2012) research found a positive and considerable relationship between sustainability disclosure and revenue. Also Sustainability Reporting inspires companies' awareness about communities and the environment, and in addition would inspire a sustainable and continues profitability for companies as well. The study uses linear regression model. Ngwakwe (2008) establishes a possible relationship between sustainable business practice and firm performance. Using a field survey methodology, a sample of sixty manufacturing companies in Nigeria was studied. An investigation was undertaken into the possible relationship between firm performance and three selected indicators of sustainable business practice: employee health and safety (EHS), waste management (WM), and community development (CD). This study revealed that the sustainable practices of the firms are significantly related with firm performance. The paper concludes that, within the Nigerian setting at least, sustainability affects corporate performance.

In the study of corporate social responsibility and financial performance Tsoutsoura (2004) states that there are different views of the role of the firm in society and disagreement as to whether wealth maximization should be the sole goal of corporation. Using extensive data over a period of five years, (1996 – 2000). The study explores and tests the sign of the relationship between corporate social responsibility and financial performance. The relationship was tested using regression analysis. The results indicate that the sign of relationship is positive and statistically significant; supporting the view that socially responsible corporate performance can be associated with series of bottomline benefits.

According to Morhardt, Baird and Freeman (2002) the business effects of undertaking environmental and social improvements (and reporting on them) is not as clear as it might be, largely because it is difficult to test causality. They were interested in knowing whether environmental and social improvements are the cause or result of good or bad performance in other managerial and financial areas. They believed that the analysis of the correlation between environmental or social performance and financial performance or reputation would shed light on this. They however relied on

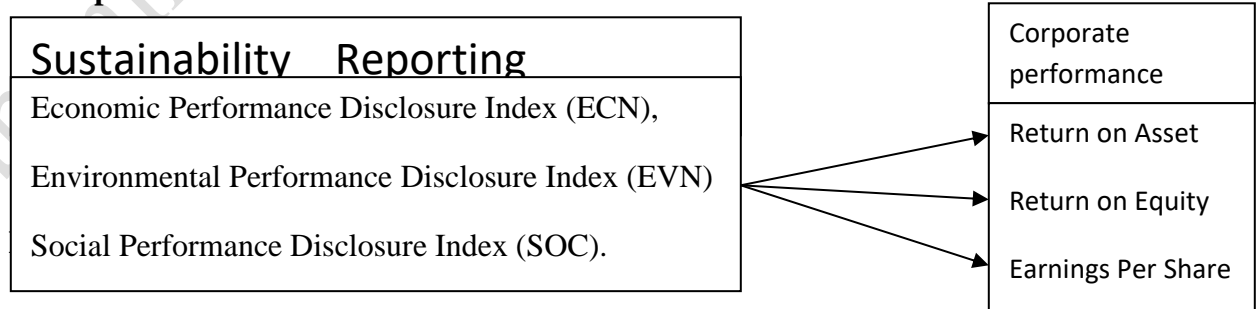
the work of Hart and Ahuja (1999) who looked at return on sales, return on assets and return on equity of 127 large firms in the four years following initiation of required toxic release inventory in the United States, when many companies were actively seeking to decrease their toxic effluents. They found that in 1991 and 1992 all three financial variables were significantly correlated with emissions reductions.

Robbins (2011) while writing on “does corporate social responsibility increase profits?” maintains that most executives believe that corporate social responsibility reporting can improve profits. They understand that corporate social responsibility can promote respect for their company in the market place which can result in higher sales, enhance employee loyalty and attract better personnel to the firm. Also, corporate social responsibility reporting activities focusing on sustainability issues may lower costs and improve efficiencies as well. Robbins (2011) observes that reviewing individual empirical studies can be confusing. But by using the technique of ‘meta-analysis,’ many studies can be statistically analyzed to determine collective results.

Makori and Jagongo (2013) investigated into whether there is any significant relationship between environmental accounting and profitability of selected firms listed in India. Using multiple regression analysis they found that there is significant negative relationship between Environmental Accounting and Return on Capital Employed (ROCE) and Earnings per Share (EPS) and a significant positive relationship between Environmental Accounting and Net Profit Margin and Dividend per Share. Researching on the impact of sustainability performance of company on its financial performance, a study of Indian companies Aggarwal (2013) ascertained whether sustainable companies are more profitable. Using regression analysis he established that sustainability has significant but varying impact on financial performance.

Munasinghe and Kumara (2013) ascertained the relationship between Corporate Social Responsibility (CSR) and financial performance to see what motivates firms to voluntarily initiate CSR activities. Using Spearman’s rank-order correlation they found out that Return on Equity and Return on Assets were positively correlated and significant.

Conceptual Framework



RESEARCH METHODOLOGY

Research Design

This research employs ex-post facto design. The ex-post facto research design according to Onwumere (2009) is the type of research involving events that have already taken place. Data already exist as no attempt is made to control or manipulate relevant independent variables apparently because these variables are not manipulatable.

Population, Sample and Sampling Techniques

The selection of the 64 companies out of the 76 follows judgmental or purposive non-probability sampling technique. With eighty four percent (84%) of the population included in the sample size, it is believed that the sample is a good representative of the working population under investigation. The data from the sampled companies covered a period of 5 years (2014 to 2018) and was transformed into specific attributes of our variables for the number of years the research covers.

Data Collection and Analysis

The sources of data used includes annual reports and accounts of companies selected for this study. Annual reports are generally considered by management and outsiders to be the most important and influential source of corporate information. (Beretta and Bozzolan, 2004 in Ndukwe, 2009). The statistical technique employed in analysing the data is the multiple regression analysis. Multiple regression analysis is very relevant in investigating the predictable power of the independent variables on the dependent variable. The analysis was guided by the specified model in each hypothesis. All the hypotheses were tested using the student t-test statistic at 5% level of significance. Statistical Package for Social Sciences (SPSS) was utilized in data analysis.

ANALYSIS AND RESULTS

Data Presentation

The data for the work were obtained from the Annual Reports and Accounts of 64 sampled companies and computed the values of dependent variables; Return on Assets (ROA), Return on Equity (ROE) and Earnings per Share (EPS). The researchers used the data to compute the values of independent variables; Economic Performance Disclosure Index (ECN), Environmental Performance Disclosure Index (EVN), and Social Performance Disclosure Index (SOC).

Descriptive statistics

With the aid of SPSS the researcher used the data in Appendix viii and computed the mean, standard deviation and variance which form the descriptive statistics for both

the dependent and the independent variables. The result of the computation is presented below.

Table 4.1 Descriptive Statistics on dependent and independent variables

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
ROA	64	1.0947	-.3923	.7024	.135889	.0233636	.1869089
ROE	64	5.5543	-2.0851	3.4692	.208032	.0782351	.6258804
EPS	64	36.3198	-16.3289	19.9910	2.116988	.6534384	5.2275068
ECN	64	.5000 2	.0000	2.5000	2.063802	.0159293	.1274341
ENV	64	3.0000	.0000	3.0000	2.030208	.0825199	.6601592
SOC	64	5.8333	1.6667	7.5000	2.246875	.0867519	.6940149
Valid N (listwise)	64						

Source: SPSS Output file (Version 21.0)

The table 4.2 shows the descriptive statistics of sustainability indices (ECN, EVN and SOC) as well as those of ROA, ROE and EPS. The result shows that, the mean Return on Assets is 13.59% with low variability of 0.187. This shows the stability of ROA earned across the firms under consideration.

The mean return on equity is 20.8% and has shown relatively wider fluctuations of 0.626. It shows how vulnerable ROE is among the firms under investigations. Although, on the aggregate ROE has shown positive return, some companies had consistent negative profits that completely eroded shareholders wealth, leading to negative equity values.

This negative profit is however fairly distributed among such companies given a standard deviation of 0.364. EPS of the sampled companies shows a mean of N2.12 per share and this is widely varied as shown by the standard deviation of 5.23. It is largely due to large negative EPS of some companies and highly positive values for others. This also shows the vulnerability of EPS amongst the companies. Sustainability Reporting indices show that economic index has a mean of 2.064 with little variations around the mean of 0.127. This result indicates that, economic indicators selected for the study are reported by most of the companies in qualitative terms and that in most situations quantitative data do not exist.

Environmental index indicates a mean of 2.03 among the companies meaning that, most of the companies report qualitative data and that, in most cases quantitative data are not found. However, there is wide variation of the values around the means showing a standard deviation of 0.660. It is also indicative that most of the

environmental parameters have 0 occurrences meaning that they were completely left out in the report of the sampled companies.

Social performance index shows a mean of 2.247 and indicates that although most companies report qualitative information, others report quantitative information especially in the area of community commitment. However, there are wide fluctuations among the values showing a standard deviation of 0.694. On the whole, there is an indication that the performance measures represented by ROA, ROE and EPS all show negative values as their minimum. This shows that most of the non-financial companies included in the sample had poor performance at one time or the other. Some made losses throughout the study period resulting to wide variations as clearly reflected in the EPS. In sustainability reporting indices, economic and social aspects are the most reported. However, qualitative information has obtained prominence in all reports. Environmental aspect is the least reported among the sustainability indices. In some companies, information about environmental disclosure is completely absent. This accounts for the minimum 0 value reported in the result.

Test of Research Hypotheses

In this section, the hypotheses earlier stated in chapter one of this study in their null form are tested using t-statistic. The critical or table value are compared with the computed t value to decide whether to reject or accept a hypothesis.

Test Results for Hypothesis 1

Ho 1: Sustainability Reporting does not impact positively on return on assets of companies listed on the Nigeria Stock Exchange.

The researchers used multiple regression model based on the statistical package for social sciences (SPSS) computer software (version 21.0) to test the hypothesis. The data in Appendix VIII for the independent variables were regressed on the data for return on assets (ROA). This was aimed at establishing the impact of Sustainability Reporting on return on assets.

Decision Rule

The decision rule is to reject the null hypothesis if calculated t-value is greater than the tabulated t value.

First, the Sustainability Reporting indices were decomposed into individual components, namely; economic, environmental and social indices to ascertain the impact on return on assets; the result is presented in Table 4.2.

Table 4.2 Regression Result of Sustainability Reporting Indicators and ROA

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.245	.097		2.526	.012
	LogECN	.192	.296		.648	.512
	LogENV	-.238	.042		-.249	.001
					.061	5.667
	LogSOC	1.127	.079		14.266	.000

Dependent Variable: Log ROA

Source: SPSS Output file (Version 21.0)

Table 4.7 shows the regression result of sustainability indices and the performance indicator, ROA. It shows that, given one unit increase in economic index while holding others constant, ROA will increase by 19.2%. It also indicates that in an increase in environmental index by one unit holding others constant will reduce ROA by 23.8%. On the other hand, a unit increase in social index will increase ROA by 112.7%. This on the whole indicates that, economic and social indices have positive impacts on ROA while environmental index has negative impact on ROA. As seen on Table 4.3, all the Sustainability Reporting indices except economic index used in this study are statistically significant at the 5% level of significance using their t-values which are 0.648, -5.667 and 14.266 respectively for economic, environmental and social indices. Furthermore, to ascertain the impact of Sustainability Reporting index on ROA, the three indices were combined and regressed on ROA. The result is presented below.

Table 4.3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.54 ^a	.43	.41	.18814

a. Dependent Variable: Log ROA Source: SPSS Output file (Version 21.0)

The R-Square shows that variation in ROA is explained by Sustainability Reporting index by 43%, while 57% is explained by other factors other than Sustainability Reporting index. The result shows that there is a positive impact of Sustainability Reporting index on return on assets. That is, 1% increase in Sustainability Reporting index will lead to 54.1% increase in return on assets. This suggests that the Sustainability Reporting indices have combined to exert positive impact on the ROA.

Decision

Since the value of t-calculated of 21.76 is greater than the t-tabulated value of 2.01, the null hypothesis is rejected at 5% level of significance implying that, Sustainability Reporting has impacted positively and significantly on return on assets of companies listed on the Nigeria Stock Exchange.

Test Results for Hypothesis 2

Ho 2: The impact of Sustainability Reporting on return on equity of companies listed on the Nigerian Stock Exchange is not positive.

The regression model was also used by the researcher to test the hypothesis. This is based on the application of the statistical package for social sciences (SPSS) computer software (version 21.0). The data in Appendix for the independent variables were regressed on the data for return on equity (ROE). This test was aimed at establishing the impact of Sustainability Reporting on return on equity.

Decision Rule

The decision rule is to reject the null hypothesis if calculated t-value is greater than the tabulated t - value.

Here too, the Sustainability Reporting indices were decomposed into individual components, namely; economic, environmental and social indices to ascertain the impact on return on assets; the result is presented in Table 4.4

Table 4.4 Regression result of Sustainability Reporting indicators and ROE

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.271	0.332		3.828	.036
		.414	.019		21.789	.099
	LogECN	.872	.201		4.338	.005
	LogENV			.315		
				.243		

LogSOC	.063	.349	.156	0.181	.378
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Dependent Variable: Log ROE

Source: SPSS Output file (Version 21.0)

Table 4.4 shows the regression result of Sustainability Reporting and ROE. It shows that, given a unit increase in economic index, ROE will increase by 41.4%. If environmental reporting increases by one unit holding others constant, ROE will increase by 87.2%. It also shows that if social index increases by one unit, ROE will increase by 6.3%. On the whole, while economic index disclosure will increase performance given its increase by one unit, a similar increase in environmental and social aspects will positively impact on ROE.

Table 4.4 displays the t-values for the independent variables as 21.789, 4.338 and 0.181 respectively for economic, environmental and social reporting indices respectively. This shows that the t-values for the economic and environmental indices are statistically significant at the 5% level of significance except the social index. Again, in order to ascertain the whole impact of Sustainability Reporting index on ROE, the three indices were combined and regressed on ROE. The result is presented below.

Table 4.5 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.47 ^a	.42	.37	.63036

a. Dependent Variable: Log ROE

Source: SPSS Output file (Version 21.0)

The R-square of 0.42 suggests that variation in ROE is explained by Sustainability Reporting indices by 42% while the remaining 58% is explained by other factors outside the model. The result shows that there is a positive impact of Sustainability Reporting index on return on equity. That is, 1% increase in Sustainability Reporting index will lead to 32% increase in return on equity. This suggests that the Sustainability Reporting indices have combined to exert positive impact on the ROE.

Decision

Since the value of t-calculated of 3.86% is greater than the t-tabulated value of 2.01, the null hypothesis is rejected at 5% level of significance implying that, Sustainability Reporting has positive and significant impact on return on equities of companies listed on the Nigeria Stock Exchange.

Test Results for Hypothesis 3

Ho 3: Sustainability Reporting does not have positive impact on earnings per share of companies listed on the Nigeria Stock Exchange.

The researcher used regression model based on the statistical package for social sciences (SPSS) computer software (version 21.0) to test this hypothesis. The data in Appendix I for the independent variables were regressed on the data for earnings per share. This was aimed at establishing the impact of Sustainability Reporting on earnings per share.

Decision Rule

The decision rule is to reject the null hypothesis if calculated t-value is greater than the tabulated t value.

Table 4.6 Regression result of Sustainability Reporting indicators and Earnings Per Share.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.391	.228		-10.487	
		.064	.017		3.765	.003
	LogECN	-.042	.081		-.519	.032
	LogENV			.128		.239
				-.072		.
	LogSOC	1.546	.298	.127	5.188	.006

a. Dependent Variable :Log EPS

Source: SPSS Output file (Version 21.0)

Table 4.6 shows the regression result between Sustainability Reporting indices and EPS. It shows that given a unit increase in economic index holding others constant, there will be an increase in EPS by 6.4%. However, a unit increase in environmental index by holding others constant will reduce EPS by 4.2%. On the other hand, a unit increases in social index holding others constant will increase EPS by 15.5%. This shows that social aspect reporting will more positively impact on EPS than economic and environmental reporting.

Table 4.6 shows that, t-Values for economic, environmental and social indices are 3.765, -0.519 and 5.188 respectively. Again, in order to ascertain the whole impact of

Sustainability Reporting index on EPS, the three indices were combined and regressed on EPS. The result is presented below.

Table 4.7 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.431 ^a	.41	.39	5.22383

a. Dependent Variable: Log EPS

The R-square of 0.41 suggests that variation in EPS is explained by Sustainability Reporting indices by 41% while the remaining 59% is explained by other factors outside the model. The result shows that there is a significant positive impact of Sustainability Reporting indices on Earnings per share. That is, 1% increase in Sustainability Reporting indices will lead to 13.1% increase in earnings per share. This suggests that the Sustainability Reporting indices have combined to exert positive impact on the EPS.

Decision

Since the value of t-calculated of 7.99 is greater the t-tabulated value of 2.01, the null hypothesis is rejected at 5% level of significance implying that, Sustainability reporting indices have significant and positive impact on earnings per share of companies listed on the Nigeria Stock Exchange.

Discussion of findings

The findings of this work are discussed in this section. From table 4.1, the descriptive statistics show that, the means of all the variables under investigation are positive except that of NPM which is negative. It implies that the companies reported losses during the period. The only variable that showed wide variations around the mean is EPS. This implies that EPS was volatile during the period.

As could be seen from the results of hypothesis 1, Sustainability Reporting indices under investigation are positively related to ROA except the environmental index. The social index is more significantly related to ROA than environmental and economic indices. It was also noticed that the explanatory power of Sustainability Reporting index in determining ROA is not too high (43%). The coefficient of Sustainability Reporting index is positive as shown by the student's t – test value of 21.76. This further implies the positive impact of Sustainability Reporting indices on ROA. This result is consistent with Aggarwal (2013), Munasinghe and Kumara (2013) who reported that Sustainability Reporting influences ROA, and, Burhan and Rahmanti (2009) who reported that social performance disclosure influences ROA.

A finding from the test of hypothesis 2 shows that all the coefficients of sustainability indices are positively related to ROE. It was also evident from the analysis that the explanatory power of Sustainability Reporting stood at 42% in relation with ROE. The coefficient of Sustainability Reporting index is however positive as shown by the student's t – test value of 3.86. This further implies the positive impact of Sustainability Reporting indices on ROE. This result is inconsistent with other researches for instance Aggarwal (2013), Makori and Jagongo (2013) all found a negative impact of Sustainability Reporting on ROE. It is however consistent with Tsoutsoura (2004) who found a positive relationship between social index and ROE. On the impact of Sustainability Reporting on EPS, it is revealed that Sustainability Reporting is positively related to economic and social indices but negatively related to environmental index. The coefficient of Sustainability Reporting index is however positive as shown by the student's t – test value of 7.99. This further implies the positive impact of Sustainability Reporting on EPS. This result is partially inconsistent with Makori and Jagongo (2013) who found a negative relationship between environmental reporting and EPS.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Generally, it can be seen from this study that Sustainability Reporting has impacted positively on financial performance indicators used in the study. A detailed analysis shows that the social index has exerted impact on all the performance variables. This implies that, if Sustainability Reporting is imbibed upon by the sampled companies, there will be significant impact on financial performances as shown by the social index. Environmental reporting index is the most negative index among all the sustainability indices. This may be largely due to its non-reporting nature in most companies investigated. Increased environmental reporting may likely change or affect the impact it may exert on the performance measures used in the study.

Recommendations

The following suggestions are put forward based on the findings of this study.

This research has brought out the pros and cons of this evolving reporting system and its impact on corporate performance. It has shown that at least social reporting impact positively on financial performance and that improvement in other indicators will also impact positively on performance. These companies are encouraged to adopt this reporting system.

- i. Introduction of Sustainability Reporting into mandatory continuing professional education programmes of professional accountancy bodies. This is a

contemporary issue in accounting development. Professional accountancy bodies in Nigeria should key into it by introducing it into their mandatory continuing professional education programmes. In the area of academics, there is need for academicians to increase the tempo for research in this field. This will help in enrichment of the literature on Sustainability Reporting.

- ii. There is the need to adopt standardized Sustainability Index as used in this work in ranking companies. This will help in putting pressure on companies to pay more attention to their environment and take much more seriously the issues of sustainable development.

Suggestions for Further Studies

The study investigated non financial companies listed on the Nigerian Stock Exchange. For future research into the impact of Sustainability Reporting on corporate performance financial companies quoted on the Nigerian Stock Exchange or those not even quoted could be considered. In addition, future research may consider evaluating the impact of Sustainability Reporting on other performance measures like share of market, financial leverage and firm size.

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