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Corporate Sustainability Accounting and Financial Performance of Listed Construction Companies in Nigeria

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ABSTRACT

The study examined corporate sustainability accounting and financial performance of listed construction companies in Nigeria. The specific objective of the study was: among others to; examine the relationship between community's environmental costs and earnings per share of listed construction companies in Nigeria, examine the relationship between human capital development costs and earnings per share of listed construction companies in Nigeria. examine the relationship between social community development costs and earnings per share of listed construction companies in Nigeria. Ex-post facto research design was employed. The population of the study was the six (6) listed construction companies with complete financial statements in the Nigerian Stock Exchange 2022.The instrument of the study is secondary data. The formulated research questions were analysed with descriptive statistics, while simple regression analysis was adopted to test the hypotheses. The findings of the study among others were that; there is no significant relationship between community's environmental costs (CEC) and earnings per share (eps) of listed construction companies in Nigeria.

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there is a significant relationship between human capital development costs (HCDC) and earnings per share (EPS) of listed construction companies in Nigeria. There is a significant relationship between social community development costs (SCDC) and earnings per share (EPS) of listed construction companies in Nigeria. From the findings the following recommendations were made among other; construction industry should as a matter of urgency should logical budgeted for host community environmental sustainability and take into full account on environment degradation, revegetation and toxic waste management and many more, the resultant effect will be global recognition which will prompt increase in profit. Since there is statistical significance between human capital development costs and earnings per share of listed construction companies in Nigeria, this aspect of sustainability accounting should be upheld by management and more human capital development activities should be carried out as it improves their financial performance. Listed Construction companies in Nigeria should continue or better introduce more social community sustainability strategies via cultural and permanent employment. This will in turn stop youth restiveness and kidnaps which will result in financial performance.

Introduction

No business exists in a vacuum and operates in a closed system without any form of interaction with its environment. Hence, based on their activities, they tend to have some level of impact on the environment and the society through this constant interaction with their environment. (Nnamani, et al. 2017). As organizations seek to achieve competitive advantages over their competitors, the businesses grow complex and quite industrious, this, in turn, will affect the environment and the society. Industrialization is also associated with economic, social and environmental hazards ranging from environmental degradation, air and water pollution which has dramatically increased deforestation and loss of habitats for aquatic and terrestrial animals (Utile, 2016). Traditionally, a corporation's main objective is to grow, survive and maximize value for its owner (shareholders), to meet these objectives they prepare conventional financial reports to investors, potential investors, shareholders and other stakeholders who show their financial performance but this reports usually do not reflect the effect of the operations of the corporation on the environment (Yalkhou & Dorweiler, 2013).

Brown, et al. (2016). Sustainability accounting entails systems, methods, and processes of creating sustainability information for transparency, accountability, and decision-making purposes. This includes the identification of relevant sustainability issues of the company, the definition of indicators and measures, data collection, overall performance tracking and measurement, as well as the communication with to internal and external information recipients. Sustainability accounting connects the company's strategies from a sustainable framework by disclosing information on the three-dimensional levels (environment, economic and social). Bennett and James (1997), asserts that Sustainability accounting entails the measurement and management of the interaction between the business, society and the environment. According to Schaltegger and Wagner (2006), sustainability accounting aims at ascertaining how the business progresses towards sustainability, operationalized, measured and communicated to the stakeholders. Indeed, reporting sustainability performance alerts the managers to incorporate sustainable thinking into their decision-making, planning, implementation and control activities (Donaldson & Preston, 1995; Epstein & Widener, 2011). Sustainability Accounting is thus the process by which managers ensure that resources are obtained and used effectively and efficiently in order to reach the economic, social and environmental firm's objectives (Anthony, 1965; Henri & Joumeault, 2009). Sustainability accounting skill requires a sound knowledge of management framework which, links environmental and social management with the business and competitive strategy and management and, on the other hand, integrates environmental and social information with economic business information and sustainability reporting (Schaltegger & Wagner 2006).

Kleindorfer, et al. (2005), sustainability accounting is the term used to describe new information management and accounting methods that attempt to create and provide high quality, relevant information to support corporations in relation to their sustainable development. Sustainability accounting describes a subject of accounting that deals with activities, methods and systems to record, analyze and report environmentally and social induced financial impacts; ecological and social impacts of a defined economic system and the interactions and linkage between social, environmental and economic issues that constitute the three dimensions of sustainability.

Sustainability accounting entails systems, methods, and processes of creating sustainability information for transparency, accountability, and decision-making purposes. This includes the identification of relevant sustainability issues of the company, the definition of indicators and measures, data collection, overall performance tracking and measurement, as well as the communication with to internal and external information recipients (Schaltegger & Wagner, 2016). Sustainability accounting can be defined as the integration of reporting and accounting for social, environmental and economic issues in corporate reporting. This also what is known as “Triple Bottom Line” reporting (Elkington, 2004). According to Global Reporting Initiative (GRI) (2015), sustainability reporting discloses the triple bottom line; economic, environmental and social impacts of an entities operations that substantively influence the assessments and decisions of stakeholders.

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It is a general measure of a firms overall financial health over a given period of time and can be used to compare similar firms across the same industry. Kaplan and Norton (2014), argues that, performance can also be assessed on a balanced scorecard of critical success factors through four perspectives financial, customers, internal business processes and learning and growth.

Financial performance of breweries companies can be measured through variety of ratios of which return on asset, return on equity and new interest margin are the major ones (Alexandru, 2018). Return on equity (ROE) is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. A business that has a high return on equity is more likely to be one that is capable of generating cash internally. Thus, the higher the ROE the better the company is in terms of profit generation. It is further explained by Khrawish (2011) that ROE is the ratio of net income after Taxes divided by total equity capital. It represents the rate of return earned on the funds invested in the breweries companies by its stockholders. ROE reflects how effectively breweries company’s management is using shareholders’ funds. Thus, it can be deduced from the above statement that the better the ROE the more effective the management in utilizing the shareholder’s capital.

There have been complaints and counter accusations on going sustainability accounting, reporting, regulations and policies in Nigeria. As more than 80% of firms (ranging from small scale to multinationals) do not complied with environmental laws and regulations for sustainable development (Ironkwe & Success, 2017). In Nigeria most companies have abandoned their sustainability responsibilities to the oil and gas companies alone.

The issues of sustainability of environment and society does not only relate to the oil and gas companies along. Construction companies are fully known for clearing farmlands, vacating parts of a communities, and demolishing their forests, etc, in order to make a state or federal roads, bridges, dams and gas turbines, etc (Ainia, & Deddy, 2014). Many times, construction companies are usually confronted with social issues such as youth restiveness largely attributed to destruction of host community properties, displacements and unemployment of indigenes (human capital development), dearth of socio-community amenities (social community development), reforestation and land revegetation (community's environmental costs). Thus, there is need for construction companies to take cognizance of the effect of their activities within the environment for future generations.

In the light of these above challenges, many researches have been studied, which so many concentrates on environmental accounting or corporate social responsibility accounting and corporate performance. While, those on sustainable accounting development and practice are of more of developed nations and are of limited in Nigerian literature. It was also found from the WebMatrix empirical analysis that the constitute of human capital development costs, social community development costs and community's environmental costs as dimensions are scarcely used and there is shift of scope from over flogged oil and gas companies and manufacturing companies to listed construction companies in Nigeria. Thus, this study filled the literature gap by investigating corporate sustainability accounting and financial performance of listed construction companies in Nigeria. *Therefore, the main aim of this study was to empirically investigate* corporate sustainability accounting and financial performance of listed construction companies in Nigeria. The specific objectives were to:

1. Examine the relationship between community's environmental costs and earnings per share of listed construction companies in Nigeria.
2. Examine the relationship between human capital development costs and earnings per share of listed construction companies in Nigeria.
3. Examine the relationship between social community development costs and earnings per share of listed construction companies in Nigeria.

The study was guided by the following research questions

1. To what is the relationship between community's environmental costs and earnings per share of listed construction companies in Nigeria?
2. To what is the relationship between human capital development costs and earnings per share of listed construction companies in Nigeria?
3. To what is the relationship between social community development costs and earnings per share of listed construction companies in Nigeria?

The following null hypotheses was tested at 0.05 level of significance.

Ho_1: There is no significant positive relationship between community's environmental costs and earnings per share of listed construction companies in Nigeria.

Ho_2: There is no significant positive relationship between human capital development costs and earnings per share of listed construction companies in Nigeria.

Ho_3: There is no significant positive relationship between social community development costs and earnings per share of listed construction companies in Nigeria.

Review of Related Literature

Conceptual Review

Sustainability Accounting

According to Henerson and Pierson (2014), sustainability accounting is that social and environmental reporting that focuses on sustainable development reflecting concerns about environmental protection, inter-generational equality, the earth and its resources. Henerson and Pierson added that, business developments in every country create social and environmental impacts that result in social problems, global warming, actual disaster and pollution. Therefore, many business organizations take much responsibility for social and environment issues as they do for economic issues. One reason for this is that business entities are reflecting growing social expectations and stakeholder's concern. These responsibilities are reflected in disclosure made by the company's or business concerns known as corporate social and environmental responsibility reporting.

Corporate sustainability accounting (also known as social accounting, social and environmental accounting, corporate social reporting, corporate social responsibility reporting, or non-financial reporting) was originated in the 1970s, when traditional financial reporting was first complemented to social and environmental aspects and thus is considered a subcategory of financial accounting that focuses on the disclosure of non-financial information about a firm's performance to external stakeholders, such as capital holders, creditors, and other authorities Henderson and Pierson (2014). Elkington (2004), sustainability accounting represents the activities that have a direct impact on society, environment, and economic performance of an organisation. Sustainability accounting in managerial accounting contrasts with financial accounting in that managerial accounting is used for internal decision making and the creation of new policies that will have an effect on the organisation's performance at economic, ecological, and social (known as the triple bottom line or Triple-P's; People, Planet, Profit) level. Sustainability accounting is often used to generate value creation within an organisation.

Sustainability practices draws the attention of firms to issues such as resource usage, waste treatment, carbon emissions, water pollution, employee welfare and other unethical issues. It has been argued by many scientist and researchers, that human activities mostly conducted for profit motives by business entities are having the greatest impact on society such that have led to global warming and earth damage, causing an ever-growing unsustainable environment (Unerman & O'Dwyer, 2007). Thus, sustainability accounting, a business viewpoint which refers to best reporting practices that promote and call for sustainable development. And the international financial reporting standards (IFRSs) is on the speed-lain to harmonization and adoption compliance with other environmental regulations enacted to encourage green operation, emphasizing more disclosure requirement is actively shaping a reporting system that gives prominent focus to the effect of firm's operation on the society at large (people and ecology).

Communities' Environmental Costs (CEC)

The call for community environmental sustainability costs by companies has emerged in recent times as a major aspect of discussion in the problems of environmental degradation. Such issues have taken, among other things, the form of global warming; atmospheric, afforestation or reforestation, land degradation, soil and water pollution caused by industrial activities (Dutta and Bose, 2008). This issue of increasing environmental degradation amidst developed and developing countries has generated much calls for increased attention on community environmental sustainability worldwide. World

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Commission on Environment and Development (INCED), known as "BRUNDTLAND COMMISSION" headed by Norway's former Prime Minister, Gro Harlem Brundtland, which was established by the United Nation (UN) also focus on community environmental sustainability as its major objective. The commission published a report called "Our Common Future", in 1987, with the proposed concept of "Community Sustainable Development". This concept received worldwide acceptance which led to the convening of the UN conference on "Earth and Development (UNCED), in Rio de Janeiro, Brazil known as Earth Summit.

Thus, community environmental costs are expenses, levies or fines incurred by companies in the cause of environmental sustainability of the communities in which they operate for the next generation. Community environmental costs are costs connected with the actual or potential deterioration of natural assets due to economic activities. It is the costs of preserving and protecting earth's natural resources for the sake of future sustainable development and civilization. Hence these costs include company’s deforestation expenses, land degradation expenses, revegetation expenses, soil and water pollution expenses, emission expenses, waste management disposal expenses, gas flaring expenses, oil and oily spillage management expenses, and community development costs etc.

Human Capital Development Costs

Human capital development costs are associated with management of a company’s human resources employees and individual contractors’ costs), which is as a key asset to delivering long-term value. It includes costs factors that affect the productivity of employees, such as all employee benefits; employee engagement, diversity, and incentives and compensation, as well as the attraction and retention of employees in highly competitive or constrained markets for specific talent, skills, or education (Ebipanipre and Confidence, 2014). It also addresses the management of labour relations in industries that rely on economies of scale and compete on the price of products and services, or in industries with legacy pension liabilities associated with vast workforces. Lastly, it includes the management of the health and safety of employees and the ability to create a safety culture for companies that operate in dangerous working environment as well as product innovation and looking at efficiency and responsibility in the design, use-phase, and disposal of products (Agbiogwu, et al. 2016).

Training of staffs plays a vital role in human capital development. Workforce that lacks training is related to low competitiveness (Green, 1993). Also, a greater human capital stock is associated with greater productivity and higher salaries (Mincer, 1997). Likewise, training is linked to the longevity of companies (Bates, 1990) and greater tendency to business and economic growth (Goetz & Hu, 1996). Doucouliagos (1997) asserts that human capital as a source not only to motivate workers and boost up their commitment but also to create expenditure in R&D and eventually pave way for the generation of new knowledge for the economy and society in general. Also, for small businesses it is a valuable asset, which is positively associated with business performance. Finally, investment in training is desirable form both a personal and social perspective. From the organizational level, human capital plays an important role in the strategic planning on how to create competitive advantages. Subsequent to the work of Snell et al., (1999) it stated that a firm’s human capital has two dimensions which are value and uniqueness. Firm indicates that resources are valuable when they allow improving effectiveness, capitalizing on opportunities and neutralizing threats. In the context of effective management, value focuses on increasing profits in comparison with the associated costs. In this sense, firm’s human capital can add value if it contributes to lower costs, provide increased performances.

Social Community Development Costs (SCDC)

The call for community environmental sustainability costs by companies has emerged in recent times as a major aspect of discussion in the problems of community environmental degradation in land and social infrastructural amenities (Ironkwe & Success, 2017). Community development costs are those costs incurred by the business enterprises or organization in other to support the host community initiative developmental programmes and agendas as a payback to the environment. In other hand, this could be direct or indirect way of incurring costs from the host community by way of instituting many levies such as community development levy, and other levies that does not have meaning or contribute anything that will bring growth to the business. These costs should be recorded under environmental accounting cost and should serve as an expense incurred by the business before declaring the net profit of the business or measuring the financial performance of the business (Bermiss, et al. 2013).

Thus, social community development costs are voluntary expenses, levies or fines incurred by companies in causes of community environmental sustainability of the communities on which they operate for the next generation. Social community development costs are costs connected with the actual or potential deterioration of natural assets due to economic activities. It the costs of preserving and protecting earth's natural resources for the sake of future sustainable development and civilization.

Financial Performance

According to Richard (2009), financial performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). Financial performance embraces the three specific areas of firm outcomes: financial performance (profits, return on equity, return on investment, earnings per share etc.); Financial performance captures corporate effectiveness plus the myriad internal performance outcomes normally associated with more efficient operations and other external measures that relate to considerations that are broader than those simply associated with economic valuation (either by stakeholders, shareholders, managers, or customers), such as corporate social responsibility.

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It is a general measure of a firms overall financial health over a given period of time and can be used to compare similar firms across the same industry. Kaplan and Norton (1992) argues that, performance can also be assessed on a balanced scorecard of critical success factors through four perspectives financial, customers, internal business processes and learning and growth.

Liargovas and Skandalis (2008) state that financial performance is the level of performance of a business over a specified period of time, expressed in terms of overall profits or losses during that time. Evaluating the financial performance of a business allows decision-makers to judge the results of business strategies and activities in objective monetary terms. It is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues.

Earnings per Share (EPS)

According to Tryfino (2009), earnings per share (EPS) is a ratio that has been used to calculate the net profit or to see the net profit that can be generated from a sheet of stock. The usefulness of this method is to measure the performance of the company in generating profits. By calculating the ratio of EPS, investors can determine the profit that is generated from each share. The greater the EPS, it can be concluded that the performance of the company remained better. Meanwhile according to Sihombing

(2008), EPS is the net profit earned by each share in which it is computed by dividing net income by the number of outstanding shares. EPS is one of the measures of management efficiency as well as firm performance. The term EPS indicates the return earned per share. This ratio measures the company's market value of the shares. It points out whether the earning power of the company has increased or not. It symbolizes the part of the company's earnings, net of taxes and preference stock dividend that is apportioned to each share of ordinary stock.

The figure can be computed simply by dividing net income earned in a given reporting period by the total number of shares outstanding during the share term or is calculated by dividing earnings after interest, depreciation and tax by total number of outstanding shares.

It refers to the ratio of the profit after tax of the company for any financial year after payment of preference dividend (Islam, Khan, Choudhurry, Adnan, 2014). The revenue earned by a company after meeting cost of production, then interest depreciation and tax belong to the equity shareholders. These earnings divided by the number of outstanding equities, shares are referred to as EPS (Bhatt & Sumangala, 2012). EPS is widely used for indicating the performance of the company to the shareholders and analysis. It helps as a basis of valuation of the company. It helps in determining the market price of equity share. It also helps in determining the company's capacity to pay dividend. It is used to set a benchmark for a meaningful comparison of performance among different companies.

According to Gitman (2009) earnings per share represent the number of monetary-value earned during the period on behalf of each outstanding share of ordinary stock. It is considered as an important indicator of corporate success and is watched by investing public. EPS is calculated as follows:

$$\text{Earnings per-share (EPS)} = \frac{\text{Net Profit}}{\text{Number of ordinary shares outstanding}}$$

EPS is a calculation that allocates a company's profit to each of its ordinary shares (Vaidya, 2014). It serves as indication of profitability by measuring the entity's performance in relations to share capital that is employed to generate such return. **IAS33** has made provision for three categories of EPS, namely basis EPS, diluted EPS and headline EPS (BDO, 2014).

The ordinary shareholders, who bear all risks, participate in management and are entitled to all the profits remaining after outside claims, are the real owners of the business. Therefore, the profitability of a firm, from the owner's point of view should be assessed in terms of the return to the ordinary shareholders. Return on Owner's Equity Ratio is a single most important ratio for judging the profitability of an organization in terms of return to the owners. This ratio reflects how much the firm has earned on the funds invested by the shareholders (Either directly or through retained earnings). This ratio is expressed in the percentage form of net profit earned to the owner's equity. In order to judge the efficiency with which the proprietor's Funds are employed in business, this ratio is ascertained.

Theoretical Review

Stakeholder theory

This study is anchored on Stakeholder theory. Is a theory of organizational management and business ethics that deals with principles and values in managing an organization (Freeman & Phillips, 2003). According to this theory, stakeholders are recognized as the group of people interested in the company's activities (Freedman, 2007). The originator of the stakeholder concept, Freeman, defined stakeholders as 'any group or individual who can affect or is affected by the achievement of the organization's objectives' (1984). Freeman (2004), redefined the term as 'those groups who are vital to the survival and success of the corporation'. The WBCSD (1999) identified stakeholders as representatives from labour organizations, academia, churches, indigenous people, human rights groups, government and NGOs, shareholders, employees, customers/consumers, suppliers, community's and legislators. Further, Friedman (2006) identified stakeholders as customers, employees, local communities, suppliers and distributors as well as shareholders. Other groups and individuals are also considered stakeholders, including, the media, the public, business partners, future generations, past generations (founders of organizations), academics, competitors, NGOs or activists, stakeholder representatives such as trade unions or trade associations of suppliers or distributors, financiers other than stockholders (debt holders, bondholders and creditors), competitors and government, regulators and policymakers.

According to stakeholder theory, the company's major objective is to balance the expectations of all stakeholders through their operating activities (Ansoff, 1965). The way businesses involve shareholders, employees, customers, suppliers, governments, NGOs, international organizations and other stakeholders is usually a key feature of the CSR concept (Fontaine et al. 2006). Clarkson (1995) stated that the fundamental aspect of stakeholder theory is determined the stakeholders of an organization and reveal the organization's responsibility for them. In addition, they are important to the organization because their investment is subject to risk due to the activities of the organization. As well, stakeholder theory can be considered a sustainability theory, because it gives a normative framework for responsible business towards society (Mele 2008). However, Donaldson and Preston (1995) have stated that 'the stakeholder theory could be or/and would have been presented and used in a number of ways that are quite distinct and involve very different methodologies, types of evidence, and criteria of appraisal' (p.70). Accordingly, they categorized three branches of stakeholder literature: descriptive, instrumental and normative approaches. Each branch is discussed in the following sections and the common features of the various conceptions of stakeholder theory are identified

Reason for the Adoption of Stakeholder theory

In general, the concept is about what the organization should be and how it should be conceptualized. Popa, et al. (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. 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 community and civil society in general, financial partners, for continuous businesses growth, increase in profit, earnings per share and market value, etc

Empirical Review

Shehu (2016), examines the effect of environmental expenditure on the performance of quoted Nigerian oil companies. Correlational research design is adopted using multiple regression as tool of analysis for the data collected from all the quoted oil companies in Nigeria. The result reveals that environmental expenditure has significant effect on the performance of quoted oil companies in Nigeria. It is therefore recommended among others that the management of oil companies in Nigeria should increase spending on environmental issues in their host community in other to improve their performance.

Raymond. **et al.** (2016). Assesses the effect of sustainability accounting measure on the performance of corporate organizations in Nigeria. Ex post facto research design and time series data were adopted. Data for study was collected from annual reports and accounts of the company in Nigeria. Formulated hypotheses were tested using Regression Analysis with aid of SPSS Version 20.0. Based on the analysis, the study found that environmental cost does not impact positively on revenue of corporate organizations in Nigeria, also that environmental cost impact positively on profit generation of corporate organizations in Nigeria. Based on this the researcher recommends that Indigenous and multi-national firms should ensure that strict policies as regards environmental accounting are adhered to, in order to enable stable organizational performance.

Acti, et al. (2013), examined the impact of environmental cost on corporate performance in oil companies in the Niger Delta States of Nigeria. The field survey methodology was utilized involving a selected sample of twelve oil companies. The multiple regression analysis was explored to test the hypothesis. An investigation was undertaken into the possible relationship between corporate performance and three selected indicators of sustainable business practices: Community Development Cost (CDC), Waste Management Cost (WMC) and Employee Health and Safety Cost (EHSC). The study revealed that sustainable business practices and corporate performance is significantly related. And sustainability may be a possible tool for corporate conflict resolution as evidenced in the reduction of fines, penalties and compensations paid to host communities of oil companies. Therefore, the researchers recommended that the management of oil companies in the Niger Delta States of Nigeria develop a well-articulated environmental costing system in order to guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity and eventually improve corporate performance.

Agbiogwu, et al. (2016). examines the impact of environmental and social costs on performance of Nigerian manufacturing companies. With the use of secondary data, sourced from ten (10) randomly selected firms' annual report and financial summary 2014. The study makes use of t- test of Spss version 20 for the analysis of collected data. Finding from the analysis shows that the sample companies environmental and social cost significantly affect Net profit margin, Earnings per share and Return on capital employed of manufacturing companies. The researchers recommended that government should ensure complete adherence of environmental laws by manufacturing companies in Nigeria.

Nwaiwu, and Oluka (2018), examines the effect of environmental cost disclosure and financial performance measures of quoted oil and gas companies in Nigeria. Time series data were collected from annual financial reporting and economic review of Central Bank of Nigeria; Pearson product moment coefficient of correlation and multiple linear regression analysis with the aid of special package for social sciences (SPSS) version 22. The econometric results reviewed adequate disclosure on environmental cost, compliance to corporate environmental regulations have positive significant effect on financial performance measures. Thus the study recommended regulatory enforcement for adequate environmental cost disclosure and proper reporting. Management of oil and gas companies in Nigeria should develop a well-articulated environmental costing system in order to guarantee a conflict free corporate atmosphere for improved corporate performance.

Holm and Rikhardsson (2008), studied the effect of environmental disclosure on investment decisions. The results suggest that environmental information disclosure influences investment allocation decisions. This finding would imply that companies that are apathetic to their environmental costs or responsibility might experience eventual crashes on their stock price if their investors are rational in considering the future value of the firm based on its present state of environmental responsibility. Hassel (2005), investigated the effect of environmental information on the market value of listed companies in Sweden using a residual income valuation model. The results show that environmental responsibility as disclosed by sampled companies has value relevance, since it is expected to affect the future earnings of the listed companies. Their findings have implications for companies that pollute the environment – their future solvency may be eroded with gradual depletion in earning.

Methodology

The methodology deals with research design, study population, sample size, sampling technique, instrumentation for data collection, validity of instruments and reliability of instruments, method of data analysis, model specification and model estimation technique and data diagnostic and robustness tests that will be used to achieve comprehensive study.

The study adopted correlational survey design. A correlational research aims at determining the relationship between variables, to ascertain the extent to which variations in one variable are associated with variations in another. The correlational survey design was adopted because the study intended to determine the relationship between sustainability accounting and corporate performance.

Population of the Study

The population of the study comprised six (6) listed construction companies with complete financial statements in the Nigerian Stock Exchange. Since the target population is six (6) listed construction companies in Nigerian Stock Exchange and all data covering the period of the study. The population being small, there is no sampling technique involved in the study. It then means the sample size will be the same as the population.

Instrumentation

The study emphatically employed the use of secondary data. The data were sourced from the fact book (Annual reports) of listed construction companies from the Nigerian Stock Exchange (NSE).

Method of Data Analysis

The formulated research questions were analysed with descriptive statistics (mean, median, standard deviation, Kurtosis, Skewness and Jarque-Bera probability tests etc), and multiple regression analysis was adopted to test the hypotheses models to determine the relationship between a dependent variable and a combination of independent variables all with the aid of E-views statistical software vision 12. The value of the independent variable is defined as a function (Ex) or linear combination of the independent variables plus an error term.

$Y = B0 + B_1X_1 + B_2x_2 + B_3X_3 + B_4X_4 + Et$ (Pohlman & Leitner, 2003).

From the stated formula, the [Bs represents the regression co-efficient Xs are the independent variables, Et represents the error term. The regression coefficients are interpreted as the change in the anticipated value of Y associated with a unit increase in independent variable with other variables being constant. However, the errors are regarded to be normally distributed within expected zero value and Constance. (Pohlmann & Leitner, 2003).

Model Specifications

According to Nmesirionye et al. (2019), regression analysis is concerned with the study of how one or more variables affect changes in another variable. Thus, on the basis of the theoretical framework, the study adopted the regression formula adopted in the work of with some modifications. The model is specified as:

$Y = f\,(ao + bX_1) + Et$

Where:

y = Criterion variable

f = Function

x = Independent (explanatory) variables

a = Intercept

b = Slopes

In functional form, our hypotheses model are:

H0$_1$: EPS = f(CEC)……………………………………………. (1)

Where:

EPS = Earnings Per Share

CEC = Community's Environmental Costs

H0$_2$: EPS = f(HCDC)…………………………………………. (2)

Where:

EPS = Earnings Per Share

CAPEX = Human Capital Development Costs

H0$_3$: EPS = f(SCDC)……………………………………………. (3)

Where:

EPS = Earnings Per Share

REVC = Social Community Development Costs

Data Presentation, Analysis, Results and Discussion of Findings

Data Presentation

The study data for analysis is centred in corporate sustainability accounting and financial performance, with emphasis on community's environmental costs, human capital development costs, social community development costs as dimensions, whereas earnings per share and return on equity, as measures. And firm size is used as the moderating variable. The analytical scope of the study centred on listed construction companies on the Nigerian Stock Exchange (NSE).

Data Analyses and Results Interpretations.

This section provides univariate descriptive analysis and result interpretation research questions and variables of the input variables dimension [community's environmental costs (CEC), human capital development costs (HCDC), and social community development costs (SCDC)] also of outcome variable measures [earnings per share (EPS).

Table 4.1: Descriptive Statistics

	CEC	HCDC	SCDC	EPS
Mean	46335.10	103662.9	35352.30	74.69300
Median	46590.00	95803.00	41221.50	32.72500
Maximum	80039.00	197852.0	62750.00	316.9900
Minimum	13660.00	186.9800	37.96000	-36.37000
Std. Dev.	23161.52	59732.01	21297.27	112.7129
Skewness	1.209867	1.502913	1.609721	1.423722
Kurtosis	3.688152	4.377344	3.969079	3.455453
Jarque-Bera	0.717223	0.161556	1.062433	3.464740
Probability	0.698646	0.922399	0.587889	0.176865
Sum	463351.0	103662.0	353523.0	746.9300
Sum Sq. Dev.	4.83E+09	3.21E+10	4.08E+09	114337.9
Observations	10	10	10	10

Source: Statistical Computation result from Researcher's E-view (v.12), 2022

Table 4.1 shows the descriptive statistics of the data collected for the criterion variable's dimensions of the study. The community's environmental costs (CEC), human capital development costs (HCDC), and social community development costs (SCDC) have a mean value of 46335.10, 103662.9 and 35352.30 respectively. The maximum and minimum values of community's environmental costs (CEC) were 80039.00 and 13660.00, while human capital development costs (HCDC) were 197852.0 and 186.9800, whereas, community development costs (SCDC) were 62750.00 and 37.96000. On the other hand, the standard deviation values of 23161.52, 59732.01 and 21297.27 signify that the data deviates from the mean values of the three study dimensions, which implies that there is a wide dispersion of the data from the mean because the standard deviation is close to the mean.

On the other hand, Skewness and Kurtosis calculated mean values, which is a measure of the departure of a distribution from symmetry above, for three study dimensions' community's environmental costs (CEC), human capital development costs (HCDC), and social community development costs (SCDC), show a positive skewness value that is greater than 1. This indicates that the three study dimensions are normally distributed. The Kurtosis result, which measures the extent of flatness or peakedness of a distribution in relative terms to a normal distribution, confirms that community's environmental costs (CEC), human capital development costs (HCDC), and social community development costs (SCDC) are normally distributed and are not platykurtic (not having negative values/flattened curved) as their kurtosis coefficient is more than 3.0. Also, the p-value for the three study dimensions for Jarque-Bera statistics [(JB (PValue > 0.05) = Accept Ho (Normal Distribution) and JB (P Value < 0.05) = Reject Ho (Non-Normal Distribution)]. Thus, the values of 0.698646, 0.922399 and 0.587889 for community's environmental costs (CEC), human capital development costs (HCDC), and social community development costs (SCDC) respectively of Jarque-Beta and its statistical probabilities were accepted. The result strengthens the normality test of variables normally distributed.

The table also indicates the two measure of the criterion variable of the study that earnings per share (EPS).

Table 4.2: Summary of Unit Root (Stationary) Test Statistic

Variables	ADF T-Statistic	1% Critical Values	5% Critical Values	10% Critical Values	Prob. Value	Order of Diff. & Intercept	Station ary?
CEC	-4.415817	-2.937216	-2.006292	-1.598068	0.0010	1(2)	Yes
HCDC	-3.883580	-2.937216	-2.006292	-1.598068	0.0023	0(1)	Yes
SCDC	-5.231020	-2.937216	-2.006292	-1.598068	0.0003	0(1)	Yes
EPS	-4.518583	-2.937216	-2.006292	-1.598068	0.0009	0(1)	Yes

Source: Researcher's Statistical Computation from E-view (v.10), 2022

In table 4.2, the summary of unit root (stationary) test statistic of the variables is presented. The results of the unit root test adopting ADF at 1%, 5% and 10% critical levels indicate that some of the time series variables are stationary at first difference 1(1) except human capital development costs (HCDC), social community development costs (SCDC), and earnings per share (EPS) that are stationary at none 0(1) while community's environmental costs are stationary at second difference (1(2). The critical values at the selected levels showed signs/p-values that are significant and consistent. The test statistic values (ADF' T-statistic) are also greater than the corresponding critical value levels. This confirms to a large extent the stationarity and the co-integration of the data set/variables. The result implies that the adopted variables are consistent, reliable and very appropriate in explaining and measuring the relationship between corporate sustainability accounting and financial performance of listed construction companies in Nigeria. Besides, it means that the null hypothesis of a unit root test for the first/second difference for all the variables can be rejected at all critical values. This goes to show that the level series which is to a great extent non-stationery and time-tied can be made stationary.

Summary Results Findings

Table 4.3. Summary Computation of Hypotheses Results

Hypotheses	Coefficient	Std. Error	T-Stat	P-Value 0.05	Statistical Decision	Result
$H0_1$	-4.301450	0.001642	-2.882792	0.4031	Insignificant	Accepted $H0_1$
$H0_2$	28000500	0.000643	2.677523	0.0492	Significant	Rejected $H0_2$
$H0_3$	0.001696	0.001772	0.956711	0.0367	Significant	Rejected $H0_3$

From the summary of hypotheses table above, the results of the hypotheses of the study were presented in line with the statistical decision rule**:** 'if the probability value (PV) is less than 0.05 alpha level, we reject the null hypotheses and accept significant relationships. Meanwhile, if the probability value (PV) is greater than 0.05 alpha level, we accept the null hypothesis and accept an insignificant relationship. Hence:

$H0_1$: There is no significant relationship between community's environmental costs (CEC) and earnings per share (EPS) of listed construction companies in Nigeria.

$H0_2$: There is a significant relationship between human capital development costs (HCDC) and earnings per share (EPS) of listed construction companies in Nigeria.

$H0_3$: There is a significant relationship between social community development costs (SCDC) and earnings per share (EPS) of listed construction companies in Nigeria.

Discussion of Findings

There is no Significant Relationship between Community's Environmental Costs (CEC) and Earnings Per Share (EPS) of Listed Construction Companies in Nigeria.

The descriptive statistics analysis results of table 4.1 for community's environmental costs (CEC) and earnings per share (EPS) displayed an average statistical value of 46335.10 and 74.69300 respectively. On the other hand, null hypothesis one was accept with a P-Value of 0.4031 0.05 and a coefficient value of -4.301450. Hence, there is no significant relationship between community's environmental costs (CEC) and earnings per share (EPS) of listed construction companies in Nigeria. The study hypothesis result finding was in agreement with the empirical study of Tafadzwa and Fortune (2018), which investigated the impact of sustainability reporting on the financial performance of selected quoted firms in Nigeria between 2012 and 2016.

There is a Significant Relationship between Human Capital Development Costs (HCDC) and Earnings Per Share (EPS) of Listed Construction Companies in Nigeria.

The research question two descriptive statistics analysis displayed in table 4.1 for human capital development costs (HCDC) and earnings per share (EPS) displayed an average statistical value of 103662.9 and 74.69300 respectively. On the other hand, null hypothesis two was rejected with a P-Value of 0.0492, 0.05 and a coefficient value of (28000500). Hence, there is a significant relationship between human capital development costs (HCDC) and earnings per share (EPS) of listed construction companies in Nigeria. This finding was in line with the empirical study of Reddy and Gordon (2010), which investigated the effect sustainability reporting has on companies' financial performance.

There is a Significant Relationship between Social Community Development Costs (SCDC) and Earnings Per Share (EPS) of Listed Construction Companies in Nigeria.

The research question three descriptive statistics analysis displayed in table 4.1 for social community development costs (SCDC) and earnings per share (EPS) displayed an average statistical value of 35352.30 and 74.69300 respectively. On the other hand, null hypothesis three was rejected with a P-Value of 0.0367 0.05 and a coefficient value of (0.001696). Hence, there is a significant relationship between social community development costs (SCDC) and earnings per share (EPS) of listed construction companies in Nigeria. The study hypothesis result finding was in line with the empirical study of Rashid and Radiah (2012), which investigated sustainability practices and corporate financial performance: A study based on the top global corporations.

Summary

The hypotheses result acceptance or rejection rule was in line with the statistical decision rule of the probability value (PV) 0.05 alpha level. Thus, we rejected four (4) null hypotheses of significant relationship and accepted three (3) null hypotheses of significant relationship.

Hence, in view of the stated aims and objectives, it was found from the statistical regression analysis employed by the study in testing the hypotheses that under 0.05 alpha level; Hence:

1. There is no significant relationship between community's environmental costs (CEC) and earnings per share (EPS) of listed construction companies in Nigeria.
2. There is a significant relationship between human capital development costs (HCDC) and earnings per share (EPS) of listed construction companies in Nigeria.

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3. There is a significant relationship between social community development costs (SCDC) and earnings per share (EPS) of listed construction companies in Nigeria.

Conclusions

Sustainability reporting helps to mitigate the long-term goal repercussions of resource scarcity, and they are anticipated to limit the negative impact on the environment and society while maximizing the firm's worth. Many firms throughout the globe have implemented sustainability initiatives, such as waste reduction and hazardous emissions reduction, energy conservation, optimum resource usage, employee welfare promotion, and community support services. Based on the findings of this study, it appears that manufacturing businesses have made substantial efforts toward environmental sustainability, and that their stock values will eventually rise worldwide if the trend continues. Despite the Nigerian government's focus on sustainability accounting, which includes self-regulation, adherence to rules and regulations, ethical standards, environmental responsibility and sustainability, consumer satisfaction, employee welfare, community and stakeholder benefits, most businesses have yet to fully appreciate or see the value of corporate social responsibility.

Community's environmental improvement is a very important aspect of sustainability accounting which the result from the analysis shows negative and statistically not significant with earnings per share and return on equity in listed construction companies in Nigeria. This result confirms the neglected and complying of many companies in Nigeria towards the environment degradation, revegetation and toxic waste management and ozone layer depletion where they operate. In Nigeria companies complained that they pay to government agency, National Environmental Standards and Regulations Enforcement Agency (NESREA) fees or fines for waste emission. Thus, it's difficult for them to positively impact on the environment, as it will be double expenses.

Recommendations

Based on the findings and conclusion, the study advances the following recommendations:

1. Construction industry should as a matter of urgency should logical budgeted for host community environmental sustainability and take into full account on environment degradation, revegetation and toxic waste management and many more, the resultant effect will be global recognition which will prompt increase in profit.
2. Since there is statistical significance between human capital development costs and earnings per share of listed construction companies in Nigeria, this aspect of sustainability accounting should be upheld by management and more human capital development activities should be carried out as it improves their financial performance.
3. Listed Construction companies in Nigeria should continue or better introduce more social community sustainability strategies via cultural and permanent employment. This will in turn stop youth restiveness and kidnaps which will result in financial performance.

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