EFFECT OF SOCIAL AND ENVIRONMENTAL ACCOUNTING ON CORPORATE PERFORMANCE OF LISTED CONSUMABLE COMPANIES IN NIGERIA

Falope, Femi Joshua; Emehelu, Philomina Ukamaka & Ogala, Isiaka Isah
Department of Accountancy, Faculty of Management Sciences
Nnamdi Azikiwe University, Awka, Anambra State, Nigeria.

Abstract
As the world becomes more globally connected with dynamics in business and increase stakeholders' knowledge-based on sustainability, accountability and transparency in reporting, corporations around the globe have found it imperative to shift from one-dimensional financial reporting towards the integration of non-financial reporting. Consequently, many researchers have studied the effect of social and environmental accounting and how it relates to corporate performance. However, these studies ignore consumable firms whose activities have resulted into health hazard to human life and detriment to the ecosystem. Therefore, this study examined the effect of social and environmental accounting on performance of listed consumable firms in Nigeria for the period 2011-2020. The twentyfive (25) listed consumable firms in the Nigeria Stock Exchange as at 31st December 2020 constituted the population out of which fifteen (15) were purposively drawn as sampled firms. Secondary quantitative data, sourced from the sampled firms' financial reports and publications of Nigeria Stock Exchange were employed. The study adopted multiple regression model using combined data of all selected firms to analyse the data and findings revealed social and environmental accounting proxied by labour force costs and solid waste management costs respectively had significant positive effect on earnings per share, return on assets and return on equity respectively (corporate performance variables). The study therefore, recommended among others that consumable firms in Nigeria should make more effort to increase their commitment to social and environmental responsibility and also ensure proper accounting and disclosure of costs implication of such activities as this will increase their financial performance.
Keyword: *Social cost, environmental cost, corporate performance, consumer firms.*

Introduction

The increasing awareness in recent time of social and environmental issues have brought with it an added expectations of employees, investors, business partners, local communities and consumers as to the responsibility of businesses. This awareness and demand for better services was assumed to have resulted into clashes, agitations, industrial unrest, shutting down of operations or destroying facilities. In the views of Kalunda (2007) and Cheung and Mak (2010), the advent of the era of transparency and accountability necessitated the increased in demand for social and environmental accounting disclosure and reporting which is of concern and also desirable to economic activities.

Also, the increase in public awareness of environmental issues such as pollution and energy consumption through gas flaring, oil spillage, indiscriminate waste disposal and the potential for natural disasters has led to the demand for social and environmental disclosure (Ifeanyichukwu, 2002 and Osemene 2007). Again, the concern about the irreplaceable loss of many natural resources and the failure to recycle many raw materials that could be used again in products or service demands an urgent policy to encourage voluntary compliance (Tawari & Abowei, 2012). The ever-increasing sensitivity of environmental pollution, global warming and diminishing supply of natural resources seems to attract direct societal awareness towards the environmental activities of business organizations.

Nigerian firms have not been left behind in the practice of social and environmental accounting as it has observed a spectacular evolution in communities and investors stance towards the environment in the past few decades. However, this has not been well embraced due to the fact that, not all companies engaged in it and increasing awareness by stakeholders have brought with it an added demand for sustainability, accountability and transparency in reporting and disclosure of company's activities within and its environment. The attempt to incorporate non-financial items that reflect economic, social and environmental issues into the existing financial statements of companies in Nigeria have been slow and only the inclusion of value added statement have had headway (Bebbington & Gray, 2001). Udeh (2016) in addition argued that the non-satisfactory corporate, statutory and regulatory framework for social and environmental assessment, measurement and management has made the corporate firms elusive to the need for better information about the non-financial drivers of corporate success. According to Gore (2006) the two explanatory factors that explain why firms/professional bodies have not initiated change in this area is that most companies believed that these issues are not within their mandate and that it does not add value to promoting the primary aim of profit maximization goals of firms. The target to meet this industry demand or interest was assumed to also drive the professional bodies' interest. The concern about the impact of enterprises on society and its environment seems to require urgent policy attention by government and consensus by standard setting bodies on the conceptual framework of social and environmental accounting and disclosure by firms operating globally, especially in Nigeria.

The law requires that firms carry out their business activities with intention of improving the reality of life of its stakeholders, the society and the environment at large in line with the stakeholders' theory (Fauzi, Svensson & Abdul-Rahman, 2010). This necessitated the consistent and growing demands for investment by companies on social and environmental activities. Francis (1990) asserts the need for firms to put in place measures that will help them achieve this goal and report the cost incurred or monetary value of social and environmental impact in the financial statements as substantive items rather than it being reported in the director's statement or chairman's reports. In addition, evidence has shown that companies which have genuine concern for social and environmental concern do so with caution for the costs implication and the resultant effect of such action on their profits undermining the overall effect on the society and environment at large (Abiola & Ashamu, 2012). In furtherance to this assertion is the study of Igbekoyi (2015,) which indicated that companies that are socially and environmentally responsible do so with the aim of increasing their financial responsibility in order to gain competitive edge by increasing profits, save cost and reduce waste and not necessarily to meet the need of the society. Igbekoyi further states that failure to address this issue through regulations that compel companies to account and disclose the social and environmental impact of their operations may lead to further abuse by companies.

As the world becomes more globally connected with dynamics in business and increase stakeholders' knowledge –based on their social and environmental rights, companies around the globe, especially in the developed economy have shifted from their traditional reporting to incorporate non-financial reporting. Consequently, there have been extensive studies in the area of social accounting and environmental accounting as it affects the financial performance of firms (Tasneem, Hamza & Basit, 2016; Gatimbu & Wabwire, 2016; Bayoud, Kavanagh & Slaughter, 2012; Agbiogwu, Ihendinihu & Okafor, 2016; Can, Etale & Frank, 2013; Agbo, Ohaegbu & Akubuilo, 2017; Aondoakaa, 2015; Adams, 2002; Dawkins & Fraas, 2008; Wibowo, 2012 and

Ijeoma, 2015), however, the findings are controversial and yet unresolved as results either showed mixed, inconsistent, and ranging from positive, to negative, to statistically insignificant relationship. This therefore calls for further study to add to existing knowledge on the subject matter. In addition, previous studies in Nigeria have only concentrated on other sector like oil and gas and manufacturing sector without due attention to consumable industry whose pollution outburst and gas substances emitted have resulted into health hazard to human life and detriment to the ecosystem, therefore, this has created a gap in the body of literatures. Another fundamental observation is that the attention of previous studies have not centered on the relationship between social and environmental accounting and financial performance except for Agbiogwu et al (2016) who covered the period 2014 only and randomly selected ten (10) firms' annual report and Okafor, Oji and Daferighe (2020) who concentrated on cement industry for the period 2009 to 2017. Hence, the current study covers the period of ten years (2011- 2020) to give a long frame relationship prediction of interaction between variables of interest. In view of the foregoing, it is imperative to explore this gap and contribute to extant literatures.

The study therefore empirically assess social and environmental accounting (proxies: labour force cost and waste management cost) of consumable firms in the Nigerian Stock Exchange (NSE) with a view to determining its effect on the financial performance (proxies by return on assets, return on equity and earnings per share) of these firms between 2011 and 2020 as shown in the annual financial reports. The study specifically aims to: (i) examine the effect of labour force cost and solid waste management cost on earnings per share; (ii) investigate the effect of labour force cost and solid waste management cost on return on assets; and (iii) assess the effect of labour force cost and solid waste management cost on return on equity of consumable firms listed on the Nigeria Stock Exchange (NSE). Thus, the research questions were raised in line with the foregoing objectives and the following null hypotheses were formulated as a guide to the study:

$\boldsymbol{H_{o1}}$: Labour force cost and solid waste management cost have no significant effect on earnings per share of consumable firms in Nigeria.

$\boldsymbol{H_{o2}}$: Labour force cost and solid waste management cost do not significantly affect return on assets of consumable firms in Nigeria.

$\boldsymbol{H_{o3}}$: There is no significant effect of labour force cost and solid waste management cost on return on equity of consumable firms in Nigeria.

The study is expected to contribute respectively to the knowledge based of the management and analyst/adviser as it serves as invaluable sources of information for financial decision on reporting and investment/advisory services to investors who are socially and environmentally sensitive. In addition, policy makers and standard setters will be guided on policy formulation and areas requiring further regulations so as to ensure accountability and transparency in reporting. Also, employees and the general public is well informed of their social and environmental rights both in the workplace and within the community and finally, it contributes to predict the future on the state of social and environmental reporting in Nigeria and to the enrichment of literatures on how social and environmental accounting relates to performance and focus on listed consumable firms in Nigeria for the period 2011 and 2020. This period was selected as it gives a long frame relationship prediction of interaction between variables of interest that justify the analysis and findings. Also, the period is so considered as a democratic dispensation that calls for major discussions on social and environmental impact, revolutionized the corporate environment and mandates firms to report on their social and environmental impacts.

The remainder of the paper is divided into four sections as follows: section two is concerned with review of literatures, section three is the methodology, section four covers results and discussion and section five is conclusion and recommendation.

Review of Related Literature

Conceptual Review

Social and environmental accounting is defined by Crowther (2000), as an approach to reporting a firm's activities which stresses the need for the identification of socially and environmentally relevant behaviour, the determination of those to whom the company is accountable for its social and environmental performance and the development of appropriate measure and reporting techniques. According to Ali and Rizwan (2013), social and environmental accounting is the dissemination of information in a quantified manner about a firm human resource related practices, community involvement activities and project, quality and safety of products and services and environmental contribution. They further assert that it involves extending the accountability of organizations beyond the traditional role of providing a financial account to the owners of capital, in particular, shareholders. In addition, studies have shown that the concept of social and environmental cost accounting is that of communicating the social and environmental costs effects of a company's economic activities to particular interest group within the society and to society at large (Adekanbi, Adedoyin & Adewale, 2015).

Importantly, Egbunike and Tarilaye, (2017) asserts that it offers an alternative account of significant economic entities and has the potential to expose the tension between pursuing economic profit and the pursuit of social and environmental objectives. This therefore implies that companies influence their external environment (both positively and negatively) through their actions and should account for these effects in monetary terms as part of their standard accounting practices. Accordingly, Udeh (2016) identifies three principles upon which social and environmental cost accounting operates: First, sustainability which measures the rate at which resources are consumed by the organisation in relation to the rate at which resources can be regenerated; second, accountability that necessitates the development of appropriate measure of environmental performance and the reporting of actions; and third, transparency which implies that the external impact of the actions of the organisation is faithfully represented (Cheung and Mak, 2010). The benefits of social and environmental accounting include: increase market share (Solomon & Lewis, 2002); reduce operational cost and business risk (Sangle, 2010); employees' commitment (Brik & Mellahi, 2009). Also, Peter and Grahame (2002) argued that involvement of organisation in social and environmental impact activities and its communication to stakeholders through proper charging and accounting for costs is a key element to build positive image with both internal and external stakeholders.

Corporate Performance as defined by Bourguignon (1995) is the achievement of organisational objectives through its various strategies. The term according to Ondieki (2011) measures a firm overall financial health/wealth over a specified period of time, thus, can be a tool to compare similar firms in the same industry or across industries. Ogbeiwi and Okoughenu (2000) as cited in Neely, Gregory and Platts (1995) view corporate performance as the effeciency and effectiveness with which organisation achieve its strategies. In the view of Peloza (2009), corporate performance is measure by its ability to pay dividend in time and to deliver to customers with affordable prices. A high financial performance according to Fauzi *et al*., (2010) leads to increase in wealth of stakeholders and improves social and environmental performance. Orlitzky, Schmidt and Rynes (2003); and Husted and Allen (2007) identify three approaches to the measure of corporate financial performance: market based approach, accounting based approach and perceptual based approach.

The market based approach measures the performance of the firm market value from the share price which represents the prioritization of the shareholders. The accounting based approach measures a company's competitive effectiveness, internal efficiency of management as well as optimal utilization of assets through the measure of return on asset, return on equity, net income etc. The perceptual based approach measures performance through a subjective estimation provided by respondents using magazine ranking or awards. However, Al-Materia, Al-Swidi and Fadzil (2014) classified corporate performance measurement into accounting based measurement and market based measurement. The accounting based measures the profitability of firm on a short term basis which includes return on assets, return on equity, return on sales, profit margin, among others, however, market based measures the market value of shares through market price of share, price earnings ratio. Boaventura, Silva and Bandeira-de-Mello (2012) identify return on asset as the most widely used measure of financial accounting performance measure, followed by return on equity, sales growth, return on sales, contribution margin, tobins-Q, market shares, risk of firm, return on capital employed, operational profit and cash-flow. This study used return on asset and return on equity as a measure of accounting performance and earnings per share as a measure of market performance.

Studies have shown that there is a positive relationship between social and environmental accounting and financial performance**.** Can, Etale, and Frank (2013), for instant, discovered that improved corporate performance is a product of sustainable business practices. In addition, Agbiogwu, et al. (2016) argued that environmental and social cost significantly affect net profit margin, earnings per share and return on capital of the companies. In furtherance to this are Egbunike and Tarilaye (2017) and Davies and Okorie (2007) who asserted that the success of an organisation is measured not only by its financial performance but also by its social and environmental impact. Also, there is a strong positive correlation between sustainability reporting and financial performance of firms (Aondoakaa, 2015). Gatimbu et al. (2016) submitted that environmental disclosure has a positive significant effect on the financial performance. Evidence in literatures established that social and environmental accounting build and maintained firm's reputation and brand name with the society (Adams, 2002; Dawkins *et al.,* 2008 and Wibowo, 2012). Accordingly, Cheung et al. (2010) posited that firm's transparency in reporting its social and environmental accounting determines the credibility of the firm to its stakeholder.

Theoretical Review

This study is anchored on stakeholder theory which was propounded by Freeman in 1984. This theory proposes that business entity should be used as a vehicle for coordinating stakeholder interests, instead of maximizing shareholders' (owners') profit. This theory according to Frynas and Yamahaki (2016) suggests organisation/management has a duty to put the interests of stakeholders first before the maximisation of the value of the firm's shareholders. These according to Adeyemo, Oyebamiji and Alimi (2013) prompted some firms to engage in social and environmental friendly activities and voluntary reporting of information so as to positively influence the stakeholders' opinion about their activities which is believed can add value to the organisation. Corporate disclosure and fair reporting policies and practices are considered to represent one important means by which the management can influence stakeholder's perceptions about their organizations.

This theory is believed to influence the level of organizational performance if business confines to their responsibility as expected through reporting of their impact on the society and other stakeholders (Egbunike & Tarilaye, 2017; and Davies and Okorie, 2007). The stakeholder theory predict positive relationship between the variables of interest, thus, reflecting the social and environmental accounting reported in the financial statement to explain positive association with earnings per share, return on asset and return on equity. This theory therefore suggest social and environmental accounting increases the stakeholders' satisfaction which by extension increases financial performance. It is on the basis of the above propositions that the study seeks to examine the effect of social and environmental accounting on performance of consumable goods companies that are listed on the Nigerian Stock Exchange.

Empirical Review

Okafor, Oji and Daferighe (2020) in their study of environmental and social accounting practices of financial performance in Nigerian cement companies for the period 2009 and 2017, employed secondary source of data to examine the effect of environmental and social accounting decomposed into: social investment cost (SIC) and environmental protection cost (EPC) on corporate performance proxies by sales turnover and market value of firms. Multivariate regression model was adopted and the findings established a significant positive correlation of SIC and EPC on sales turnover while SIC and EPC showed a significant positive and negative relationship respectively on market value. The study therefore recommends the adoption of ethical approach towards expanding investment in environmental and social accounting practices of cement companies in Nigeria.

Fasua and Osifo (2020) established the relation between environmental accounting and corporate performance of firms in Nigeria. Secondary data were sourced from eighteen (18) firms randomly selected from the quoted firms in the Nigeria Stock Exchange. Panel regression model was adopted to analyse the data and result revealed a significant positive relationships between environmental accounting and return on equity and net profit margin and a significant negative relationship was established between environmental accounting and earnings per share. It was recommended that a tax credit should be given to firms who comply with environmental laws in Nigeria.

Agbo, Ohaegbu and Akubuilo (2017) investigated the effect of environmental cost on organizational performance of Nigerian brewery plc, using data obtained from the annual report of Nigerian brewery plc on donations, medical expenses and on the return on asset (ROA) within a period of five (5) years between 2011 and 2015. The study formulated some hypotheses and multiple regressions were used for the analysis. It was found that both donation and medical expenses have a negative relationship respectively with return on assets.

Egbunike and Tarilaye (2017) used some selected manufacturing companies in Nigeria between 2011 and 2015 to examined the association between firm's specific attributes [firm size, earnings, leverage and governance) and voluntary environmental disclosure with evidence from data obtained from their annual reports and accounts. It was revealed by the descriptive and inferential statistics that some of the studied manufacturing companies have high leverage profile while some with low leverage profile. It is also revealed that some companies' environmental items were not disclosed in their annual reports and accounts while some were disclosed and described in monetary terms.

Mixed result was reported by Ezeagba, Racheal and Chiamaka, (2017) on the the relationship between environmental accounting disclosures and return on equity and return on capital employed of food and beverage companies in Nigeria. Secondary source of data collection was employed and analysed using Pearson's correlation statistical technique and multiple regression. The study established a significant relationship between environmental accounting disclosures and return on equity of selected companies and a negative relationship between environmental accounting disclosures and return on capital employed and net profit margin of selected companies.

Okoye and Adeniyi (2017) focused on Brewing industry located in Lagos state consisting of management accountants in Nigeria brewing plc, Guiness plc, Coca-Cola plc and Seven-Up Plc to evaluate the effect of environmental protection costs on product price in Nigeria. The study employed survey design using structured questionnaire. Purposive sampling technique was employed in selecting the sample frame and analysed using both inferential and descriptive analysis. A negative relationship between environmental regulatory cost and product pricing decision was reported.

Tasneem, Hamza and Basit (2016) in USA used manufacturing companies listed in the National Association of Securities Dealers Automated Quotations (NASDAQ) for the year 2015 assessed the impact of environmental reporting on the performances of the selected firms. The independent variable (proxies: greenhouse gas emission, water consumption and waste disposal, while the dependent variable of firms' performances was measure by market share. It was revealed by the quantitative research technique- descriptive design that the three independent factors are key indicators of environmental reporting.

The impact of environmental and social costs on performance of Nigerian manufacturing companies was examined by Agbiogwu, Ihendinihu and Okafor (2016). Secondary data for the year 2014 was sourced from ten (10) randomly selected firms' annual report and financial summary. T-test was used to analyse the data and result established a significant effect of environmental and social cost on the net profit margin, earnings per share and return on capital employed of the sampled manufacturing companies.

Akeem, Memba and Muturi (2016) established the effect of identification of environmental cost on quality of disclosure on shipping lines. The study adopted descriptive design and inferential test analysis for the registered shipping lines which is the population of the study. The target population of the study was restricted to the legal department, finance and account department, and technical and marine department of the shipping companies. The findings of the study showed that identification of environmental cost influences quality of disclosure on shipping lines in Nigeria.

Ezejiofor, John-Akamelu and Chigbo-Ben (2016) assessed the effect of sustainability accounting measure on the performance of corporate organizations in Nigeria using ex post facto research design and time series data collected from annual reports and accounts of the sampled company. The collected data were analysed using regression analysis and findings revealed that environmental cost does not impact positively on revenue of corporate organization in Nigeria.

Magara, Aming'a and Momanyi (2015) focused on Kisii Country using descriptive research design for a targeted population of 144 consisting of accountants and auditors in the 16 corporate organizations to study the impact of environmental accounting on financial performance of corporate organization. Stratified sampling design where simple random sampling technique was used to identify a sample of 49 employees drawn from all the 16 corporations was adopted. Findings revealed that the perceived financial performance of the corporate organization was in good status as perceived by the employees and also showed that constructs of environmental accounting application are significantly positively related to perceived financial performance of the corporate organizations.

Onyinyechi and Ihendinihu (2016) studied the impact of environmental and corporate social responsibility accounting on organizational financial performance of firms in Nigeria. It determined the extent to which firms' profit after tax (PAT) affects the corporate social responsibility (CSR), environmental maintenance cost (EMC) and the personnel benefit cost (PBC) by employing exploratory research design. Multiple regression technique was employed to analyse the data and result showed no impact of CSR on EMC and a negative impact of CSR on PAT, while PBC has a positive impact on PAT.

Ijeoma (2015) determined the role of environmental cost accounting towards environmental sustainability in Nigeria by employing primary data source with the aid of questionnaire for 200 randomly administered respondents from Agricultural/Agro-Allied, Breweries, Chemical and Paints, Health Care/Pharmaceutical and Oil Marketing companies. The findings of the study revealed that majority of the respondents agreed that business organizations in Nigeria are not being aware of environmental policies and that there exists no significant difference on business organizations in Nigeria not being aware of environmental policies.

The effect of environmental cost management on the profitability of oil sector in Nigeria between 2004 and 2013 from obtained data in Central Bank of Nigeria [CBN] was investigated by Esira, Ikechukwu and Ikechukwu (2014). The collected data were analyzed using multiple regression analytical technique and result revealed a significant relationship between influence of environmental cost management and the profitability of oil sector in Nigeria. It was also discovered that there were established standards in Nigeria guiding environmental cost management in the oil and gas industries in Nigeria.

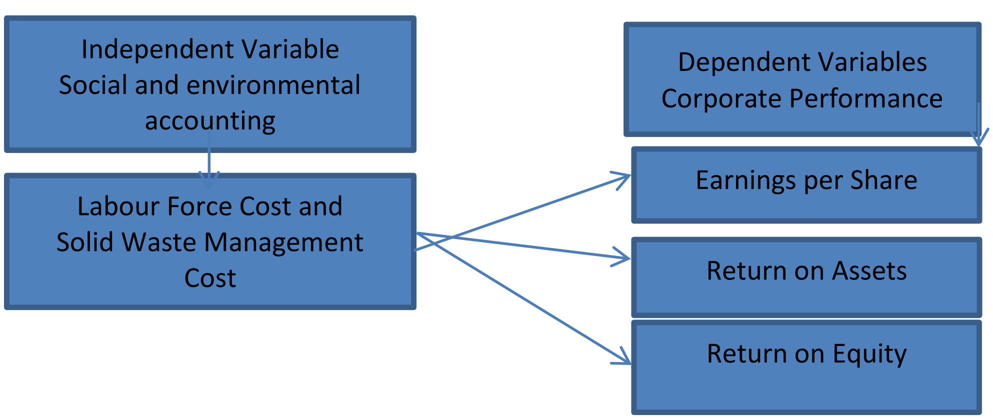

Figure 2.1 Researcher's Theoretical Framework 2021

Methodology

Research Design

Ex-post facto research design was considered appropriate for this study, hence, it was adopted. It employed secondary quantitative data sourced from the publications of the Nigerian Stock Exchange and the financial statements of selected listed consumable firms in the Nigeria for ten (10) years, spanning from the period 2011 to 2020. The period range allows for more reliable findings and establishes a trend analysis of long term relationship prediction between the dependent and independent variables.

The target population for this study constituted all listed consumable companies in the Nigerian Stock Exchange as at December 2020. Out of the twenty five (25) listed consumable firms, fifteen (15) firms were purposively selected. The justification for these firms is based on the fact that their activities have impacted both positively and negatively on the Nigeria economy and its citizenry and a democratic dispensation that calls for major discussions on social and environmental impact, revolutionized the corporate environment and mandates firms to report on their social and environmental impacts. The dependent variable was financial performance proxy by earnings per share, return on asset and return on equity and the independent variable was social accounting (proxy: labour force cost) and environmental accounting (proxy: solid waste management). The study employs multiple regression technique which offers explanation on the relationship between the dependent variables and two or more explanatory variables. The detail of the model used and its specification is as specified below:

Model Specification

The study adapted the model of Agbiogwu *et al* (2016) which specified environmental and social costs as a function of financial performance. In linear representation, the adapted model is given as:

$PERF = f\ (SC, EC)$

The mode stated that performance, measured by net present margin, Earnings Per Share; and Return on Capital Employed. The model was modified by using EPS, ROA and ROE as a measure of financial performance while explanatory variables include Labour Force Cost (LBF) and Solid Waste Management Cost (SWM). This was basically done to suit the intended objective of the study

The new functional model for this study is specified as:

$$PERF = f\ (LBC, SWM) - 1$$

This model explained that performance, which was measured by earnings per share, return on assets and return on equity, is a function of social and environmental costs.

In a linearized form, the model was re-specified as follows;

$$\mathrm{PERF} = \beta_0 + \beta_1 \mathrm{LBF} + \beta_2 \mathrm{SWM} + \mu_t \quad - - - - - - - - - - 2$$

Where:

PERF= EPS, ROA, ROE

EPS = Earnings per Share is total earnings divided by total number of share.

ROA = Return on Assets is profit after tax divided by total assets.

ROE = Return on Equity is profit after tax divided by total equity shares.

LBF = Labour Force Costs is the total cost of wages and salaries.

SWM = Solid Waste Management Costs is the total costs incurred on solid waste.
β_1 to β_2= Coefficient parameters of the explanatory variables.
μ_t= Stochastic error term of the models.
β_0 = Constant term of the coefficient parameter of the explanatory variables.

Results and Discussion

This section presents the discussion of the study.

Table 1: Descriptive Statistics of Operational Variables.

	LBF	SWM	EPS	ROA	ROE
Mean	3.60857	3.214286	8.891429	5.30429	8.74143
Median	3.11	3.01	9	5.37	8.55
Maximum	4.87	4	9.32	6	9.94
Minimum	2.99	2.07	7.99	4.47	8.21
Std. Dev.	0.75777	0.673297	0.417709	0.56	0.59965
Skewness	0.63598	-0.32303	-1.6008	-0.02297	1.17313
Kurtosis	1.85141	2.350747	4.436806	1.89989	3.35456
Jarque-Bera	0.85666	0.244687	3.591785	0.3536	1.64228
Probability	0.0016	0.04845	0.005979	0.03795	0.03993
Sum	25.26	22.5	62.24	37.13	61.19
Sum Sq. Dev.	3.44529	2.719971	1.046886	1.88157	2.15749
Observations	10	10	10	10	10

Source: Researcher's Computation Using E-View 9.0 2021

Table 1 above presents the descriptive statistics of variables employed. A critical examination of the descriptive statistics for the dependent and explanatory variables revealed that the mean value which is the average value of series shows EPS with the highest mean of 8.89%, followed by ROE of 8.74%, while SWM of 3.21% has the least mean. The standard deviation which measures the deviation of the data set from the mean (volatility level of the variables employed/risk level) also revealed that, LBF of 0.76% is the most volatile variable, followed by SWM of 0.67% while the least volatile variable is EPS of 0.42%. These therefore show a less than one standard deviation away from the mean value. The result also showed that only two variables are positively skewed (LBF 0.64%, and ROE of 1.17%) while others are negatively skewed. This implies that the distribution has both left and right tail. The kurtosis statistics revealed that EPS and ROE have kurtosis value that is greater than 3 while LBF, SWM and ROA has kurtosis value of approximately 2. This is an indication that the distribution is peaked hence relative to normal distribution. Jarque Bera is used to test normality, that is, whether data are normally distributed. The Jarque Bera statistics of this series revealed that the P-value of the variables are less than 10%, that is the data are normally distributed. The P-value of the series LBF (0.0016); SWM (0.485); EPS (0.0060); ROA (0.0379) and ROE (0.0039) are normally distributed since P-values are less than 10%. The number of observations are seven (10).

H_{01}: Social and environmental costs have no significant effect on earnings per share of consumable firms.

Table 2: Multiple Regression Showing the Effect of LBF, SWM on EPS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.4773	0.51999	14.3797	0.0001
LBF	-0.2759	0.21435	-1.2873	0.0274
SWM	0.7497	0.24124	3.10778	0.0359
R^2=0.7650	Adj-R^2=0.6464	F-Stat=6.5094	Pro=0.452	D.W=2.5712

Source: Researcher's Computation Using E-View 9, 2021

The regression estimates on Table 2 depicts a positive relationship between EPS, LBF and SWM (β_o = 7.477). The positive value of the intercept indicates that the consumable firms can sustain some financial performance in the absence of those social and environmental accounting variables.

The table result also shows that probabilities associated with each coefficient (Individual co-efficient) are significant as they are all less than 5% level of significance.

The results of the slope coefficients when taken individually shows that the variable of LBF (-0.2759) has statistically negative significant relationship. The implication of this is that, a unit increase in LBF leads to 0.28 decrease in EPS and by extension the performance of the consumable firms in Nigeria. The SWM (0.7497) has a high significant positive relationship with EPS which indicate that a unit increase in SWM will bring about a (0.75) increase in EPS. In measuring the level of their individual significance, it was revealed that, the variables (LBF and SWM) have negative non-significant and positive significant relationship with EPS when taken individually. The co-efficient of determination (R^2) of 0.7649 indicate that about 76% of the variations in EPS is explained by the joint effect of LBF and SWM while 24% was explained by the variables not included in the model.

The Durbin-Watson value of 2.57 indicates the absence of serial (auto) correlation in model. The probability value of F-statistics 0.0452541 is less than 5% critical value. This implies that the overall regression model is statistically significant in predicting the relationship between the dependent and independent variables at 5% significant level.

Conclusively, since P-value (0.0452) of the test is less than α-0.05, alternative hypothesis (H1) is accepted while null hypothesis (H0) is rejected. Thus, social and environmental accounting have significant effect on Earnings per Share of combined consumable goods firms quoted on the Nigerian Stock Exchange for the period 2011 to 2020 at 5% level of significance.
H_{02}: Social and environmental costs do not significantly affect return on assets of consumable firms.

Table 3: Multiple Regression Showing the Effect of LBF, SWM on ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.4132	1.43681	3.76749	0.0196
LBF	-0.0046	0.59228	-0.0077	0.9942
SWM	-0.0287	0.66659	-0.0431	0.9677

R^2=0.6016	Adj-R2=0.5476	F-Stat=4.0031	Prob=0.0069	D.W=1.8454

Source: Researcher's Computation Using E-View 9, 2021

The Multiple regression on tables 3 depicts that there is positive relationship between ROA, LBF and SWM ($\beta_{o\,=}$ 5.413). The slope coefficients show that the variables when taken individually are not statistically significant because their probability values are greater than 5%. The result revealed a negative relationship between LBF (-0.0045), SWM (-0.0287) and ROA. This implies that a unit increase in both LBF and SWM will lead to decrease in unit of ROA by -0.0045 and -0.0287. Hence, ROA has no positive significant relationship with LBF and SWM as collaborated by the P-values that is greater than 0.05 when taken individually.

The result also indicated that the R-squared for the model is 0.60, meaning that the regression model used for this study is a good predictor. The independent variables explained 60% of the variation in dependent variable (ROA). This means that ROA of firms is affected by the behavior of explanatory variables which are accounted for by the model. The remaining 40% of variation is caused by other explanatory factors outside this model. The Adjusted R^2 of 54.76% confirmed this based on the number of variables in the model. The Durbin-Watson value of 1.845 is close to the bench mark of 2 which indicates the absence of serial correlation in model.
Checking the overall significant of the model, it was revealed that F-statistics of 4.003 and its corresponding p-value of 0.006 were significant, implying that, the regression model is significant in predicting the relationship between the independent variable and the dependent variables. The significance between the variables is less that α=0.05.

This result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 5% significance level.

Conclusively, since the P-value of the test is less than α=0.05, H_1 is accepted and Ho rejected. Thus, Social and environmental costs have a significant positive effect on return on assets of consumable firms listed on Nigerian Stock Exchange.
H_0: There is no significant relationship between Social and environmental costs on return on equity of consumable firms.

Table 4: Multiple Regression Showing the Effect of LBF, SWM on ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.8171	0.9077	7.51035	0.0017
LBF	0.8621	0.37417	2.30414	0.0826
SWM	-0.3692	0.42112	-0.8768	0.4301
R^2=0.6525	Adj-R^2=0.4787	F-Stat=3.7551	Prob=0,0208	D.W=1.5099

Source: Researcher's Computation Using E-View 9, 2021

Table 4 shows that there is a positive relationship between ROE, LBF and SWM (β_0=6.817). The slope coefficients show that the variables when taken individually are not statistically significant because their probability values are greater than 5%, P(X_1> 0.05; X_2>0.05). This implies that LBF has a positive non- significant relationship with ROE while a negative non-significant relationship exists between SWM and ROA at 5% significant level.

The value of R-squared for the model is 0.65, meaning that the regression model used for this study is a good predictor. The independent variables explained 65% of the variation in ROE. This means that ROA of firms affect the behavior of explanatory variables which is accounted for by the model. Only 35% of variation is not explained by the regression model and this is captured by the error term.
The Durbin-Watson value of 1.509866 indicates the absence of serial correlation in the model.

From the test of coefficients, the overall performance of the model is satisfactory as shown by the probability value of the F-statistics = 0.0208. This implies that the regression model is significant in predicting the relationship between the independent variable and the dependent variable at P-value of F-statistic less than α=0.05. This result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 5% significance level.
Conclusively, since the P-value of the test is less than α=0.05, H_1 is accepted and Ho rejected. Thus, there exists a significant positive relationship between Social/environmental costs and return on equity of consumable firms listed on Nigerian Stock Exchange at 5% level of significance.

Summary
In consonance with the analysis of this study, the following findings were deduced:
Social and environmental costs have significant effect on earnings per share of consumable goods firms quoted on the Nigerian Stock Exchange at 5% significant level. Social and environmental costs have a significant positive effect on return on assets of consumable firms quoted on the Nigerian Stock Exchange at 5% level of significant. There is a significant positive relationship between Social/environmental costs and return on equity of consumable firms quoted on the Nigerian Stock Exchange at 5% level of significance

Discussion of Findings
The study attempts to explore the social and environmental cost accounting of consumable firms in the Nigeria Stock Exchange (NSE) with a view to determining its effect on the financial performance of these firms that has occurred between 2011 and 2020 in the annual financial reports. The econometric results from the multiple regression analysis showed that the social and environmental cost accounting variables, when taken together, have significant effect on earnings per share, return on asset, and return on equity respectively of quoted consumer goods firms on Nigerian Stock Exchange (NSE). The regression result in tables 2, 3 and 4m revealed that the probability value of F-statistics = 0.045241, 0.006868 and 0.020768 respectively, implies that the regression model is significant in predicting the relationship between the independent and the dependent variables. The significance between the variables is less that α=0.05.

This result indicates that the overall regression model is statistically significant and is useful for prediction purposes at 5% significance level. The findings of this study is consistent with the result of Agbiogwu et al. (2016) on impact of environmental and social costs on performance of Nigerian manufacturing companies which stated that environmental and social cost significantly affect net profit margin, earnings per share and return on capital employed of manufacturing companies**.**

Still in consonance with the findings of this study is Ngwakwe (2008) that established a positive relationship between sustainable business practice and firm performance using a field survey methodology for a sample of sixty manufacturing companies. Findings revealed that the sustainable practices of the responsible firms are significantly related with firm performance**.**

Conclusion and Recommendations

This study examined the effect of social and environmental costs accounting on financial performance of consumable firms in the Nigeria Stock Exchange from 2011 to 2020 using ordinary least square multiple regression for combined data of fifteen selected quoted consumable firms. The descriptive statistics of the operational variables was adopted to show the mean, median, minimum and maximum levels, and standard deviation to show the variation of the value of the data set from the mean. The Jarque-Bera was used to test for skewness and Kurtosis so as to show whether data are normally distributed. The ordinary least square multiple regression analysis was used to show the effect of independent variable on the dependent variable. The R-Squared coefficient of determination was adopted to show the degree of variable of EPS, ROA and ROE that is explained by the explanatory variables.

The variables when taken individually revealed both negative non-significant and positive significant correlation coefficient which was evidenced by the individual probability value that is either less or greater than 5% significant level.

However, the combined results showed R-Squared of the explanatory variables (LBF and SWM) to be 76%, 60% and 65% variation in EPS, ROA and ROE respectively with P-value of F-Statistic less than 5% significant value.

The resulting evidence suggests that the social and environmental costs variables have significant influence on EPS, ROA, and ROE and they have joint explanatory power in determining the financial performance.

The study conclusively states that social and environmental costs have a statistically significant effect on financial performance of quoted consumable goods firms in Nigeria from 2011 to 2020 at 5% significant level.

Based on the findings and conclusion above, the following recommendations were made:

i) Companies in Nigeria should make more efforts to increase their commitment to social and environmental responsibility and also ensure proper accounting and disclosure of costs implication of such activities so as to increase its net returns vis a vis its financial performance and also guarantee a safer environment for firm’s smooth operations.

ii) Management through its policies should encourage more discharge of social and environmental activities so as to enhance more efficiency in the use of its resources vis a vis its return on assets. Also, government through its policy makers should mandate firms to adhere to the discharge of social and environmental responsibility as this would ensure proper disclosure and accountability.

iii) Since social and environmental cost influence return on equity of consumable firms, the amount expended on social and environmental costs should be stated individually on a line by line item as part of the corporate mission and strategy statements and not just be regarded as a philanthropic exercise. This would help to enhance the value of the firms and sense of belongings of the company’s shareholders.

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