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IMPACT OF SOCIAL COSTS ON FINANCIAL PERFORMANCE OF LISTED FIRMS IN NIGERIA

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ABSTRACT: *To succeed in the business world, organisations need to provide reliable and credible efforts to their stakeholders, to ensure that their business activities would not harm the safety of stakeholders in the area where they are operating. The operation of business conducts in recent time, changes drastically due to the emergence of an increasing number of external factors which impose on corporate performance. Hence, this study examined the impact of social costs on the financial performance of listed firms in Nigeria. The study adopted ex-post facto research designs. Secondary data sourced from the published annual reports of 52 firms, purposively selected for a period of 11 years (2008 to 2018), giving 572 firm-year observations. Data analysed by panel data regression of pooled OLS, random effects, fixed effects models and the Feasible General Least Squares (FGLS) regression for the objectives. Findings revealed that Social Costs (SOCO) had significant and positive effect on ROA ($R2 = 0.42$, $\beta = 0.202$, $t(570) = 4.869$, $p < 0.05$). In addition there is evidence that SOCO, firm age, firm size and leverage jointly exerted significant effect on ROA ($Adj.R2 = 0.608$, $F(6, 565) = 5904.01$, $p < 0.05$). The study concluded that social costs have a significant impact on the financial performance of listed firms in Nigeria. It recommended that the practice of elimination of social costs should be intensified by corporate firms to improve on their business reputation.*

KEYWORDS: business reputation, firm size, firm age, leverage, return on assets, social costs

INTRODUCTION

The primary purpose of a business organisation is to continue in business and create value as a key strategy in business survival. Firms have to acquire the skill to peddle products to satisfy the customers' requirements, such as meeting reasonable prices, required quality, and quantity, at the same time meeting the targeted profit that will enable firms to sustain in the business (Uchehara, 2019). Due to competitiveness and changes in the business environment, which require firms to incorporate all other issues that may have forces on financial performance or create value to the business on a long-term basis apart from the economic activities (Almaleeh, 2019).

Firms are conscious of how to improve their operations, which would contribute to their organisational performance in such ways to boost the economic growth of the firms. Firms' strategy is how to distribute their resources to make a profit. To achieve this purpose, firms also relate to society; based on this purpose, firms can divide its operations into economic activities, social activities, and environmental activities. Economic activities try to maximise shareholders' wealth; Social activities strive towards satisfying the social needs of the community where the

firms operate. The environmental activities strive towards the elimination of social costs; that is internalising all the negative externalities caused by economic activities that are harmful to the environment where they are operating (Iqbal, Naveed-Ahmad & Naqvi-Ahmad, 2014; Fontaine, 2013).

The role organisations play in the economy of a nation is very vital; therefore, an organisation is an essential tool used in developing a nation's economy. The business organisation regarded as a tool in determining the economic, social, and political development of a country. Stable performance is the focus of any organisation because only through performance organisations can develop and move forward. One of the most critical variables in management research is financial performance and regarded as the most important indicator of sustainable organisational growth (Gallardo-Vazquez, Barroso-Mendez & Pajuelo-Moreno, 2019).

To succeed in the business world, organisations need to provide reliable and credible efforts to their stakeholders, to ensure that their business activities would not harm the safety of stakeholders in the area where they are operating (Adesunloro, Udeh, & Abiahu, 2019). The actions of corporate organisations have a direct bearing on the level of disasters relating to the business environment, employees, and natural resources that are faced by host communities. Firms have requested to voluntarily disclose the effects of their economic activities on the environment through corporate social responsibility reports in their financial statements to their stakeholders (Adesunloro, Udeh & Abiahu, 2019).

The operation of business conducts in recent time, changes drastically due to the emergence of an increasing number of external factors which impose on corporate performance. Society plays a very vital role in the survival of business such that businesses can no longer ignore the society where they operate; firms expected to design procedure of improving the quality of life of the host community to enhance their performance. The organisation needs to eliminate its social costs to provide an enabling environment for their business operations. The organisation needs to internalise all their negative externalities caused by their economic activities. These factors affect organisational performance which may reduce the return on assets of the firms and also affect business reputation (Okoye, Modebe, Ahmed, Okoh & Okojie, 2017; McWilliams & Siegel, 2001). Hence, the study hypothesised that:

Ho1: Social costs (Internalising negative externalities) have no significant impact on the return on assets of listed firms in Nigeria.

The size of the firm influences its degree of commitment in the CSR activities; larger firms prefer to share their relations with a multitude of stakeholders, and believe that they are more prompt to the media, are more eager to reflect the right image. The bigger the size of the organisation, the more they substitute for financial resources to carry out their responsible management activities (Elouidani & Zoubir, 2015). Corporate size is a variable that has frequently used in studies on corporate social and environmental disclosure.

Large firms more geographically spread, therefore, have a broader market spread for their products, which enable it to have more stakeholders groups and to disclose more information

than smaller organisations (Mohammed-Sani, 2018; Brammer & Pavellin, 2008). Also, bigger organisations are more exposed to an inquiry from stakeholders and other pressures from the community where they are operating than the smaller organisations; thus, they are likely to make more disclosure (Mohammed-Sani, 2018; Ayadi, 2004).

The researchers from economics, strategic management, and finance have committed to understanding and exploring why older firms perform better than smaller ones. The most persuasive arguments for why there may exist a positive influence of age on performance are the firm's experience, business reputation, and consideration that it has more available to financing (Pervan, Pervan and Curak, 2019).

However, older firms often try to classify a decision-making procedure, which makes their administrative process too rigid and does not allow flexibility in organisational activities, which does not bring immediate changes to business environments. Such rules and procedures can be significant obstacles for organisational change and innovation, which are crucial in a competitive business environment, which may affect financial performance on a long-run basis (Pervan, Pervan & Curak, 2019).

The big leveraged firm implies that more debts are used in financing its operations than its funds, while low leveraged firms mean employing less of borrowed funds in its services (Glancy, 2016). Corporate managers in leveraged companies are likely to increase disclosure to reduce agency costs between insiders and creditors. Therefore, leveraged companies expected to make more corporate social responsibility disclosure to satisfy stakeholders interested in social exposure. In contrast, highly leveraged companies are more likely to share information with their stakeholders, thus, making less disclosure (Zhang, 2013; Alsaeed, 2006; Zarzeski, 1996).
Hence the study hypothesis that:

Ho2: Company size, age, and leverage do not have significant effects on the relationship between social costs and Return on Assets of listed firms in Nigeria.

REVIEW OF LITERATURE

Financial performance measured the utilisation of resources concerning organisational objectives that conform to the demands of the business environment. The corporate performance measurement should look beyond the daily operations of the business, as it is long term in nature. The measure should aim at creating an excellent future performance, where the present is not affected; it would provide an appropriate avenue to react to changes in the business environment (Selvam, Vasanth, Lingaraja & marxiaol, 2016). Financial performance is the value created by an organisation based on their economic activities; it is the total sum of effectiveness and efficiency made for the firms' genuine stakeholders (Khudhair, Norwani & Ahmed, 2019).

Financial performance is a measure based on profitability and how well a firm utilises its assets to generate revenue, and to assess the achievements of the company through Return on Assets ratio. Non-financial performance makes use of qualitative information to determine company's

image branding (company reputation). Others are customers and suppliers satisfaction; community development, and complying with government regulations (Khudhair, Norwani & Ahmed, 2019; Strouhal, 2015; Harrison & Wicks, 2013).

The performance of an organisation is a derivative of both internal and external factors of the firms. The external factors are the immediate community in which the entity situated which are always a concern about the effects of the organisation's operations on their immediate environment most especially the communities that host company that produces toxic wastes (social cost). The negative impact of such activities always cause disharmony between the host community and the organisation; the stakeholder's theory propounded by Freeman (1984) advocates that organisation should not be shareholders focused, but stakeholders focused. It eventually brought the idea of social responsibility, which makes the organisation socially responsible to the entire public that defines its environment; rather than only the owners of such entity (Adewoye, Olaoye & Ogundipe, 2018).

Return on Assets (ROA) is an indicator of how fair or effective or efficient usage of company total assets. It gives an idea of how useful the management uses investments to generate earnings; ROA represents the profitability of the firm with the entire set of resources, or assets, under its control. Profitability shows the degree to which a firm's revenues exceed its cost. The ROA measures not only profit aspect but also that related to assets employed to generate the profit (Ogbodo, Amahalu & Abiahu, 2017).

The accounting information will show the expected returns from the utilisation of the company's assets. Stakeholders, especially prospective investors, will be expected to rely on the accounting information disclosed on this ratio to make a decision about the company and to determine the trend analysis of the information on a long-term basis. Investors would be able to see or predict the effect of investment on the return on assets, whether it is favourable or not (Karagiorgos, 2010).

Lawal (2012) "stated that the corporate executives are the agent of the owners required to eliminate the social costs of the firms through their business operations which are sometimes hazardous to the environments. Such as raw materials; transformation process, finished products and by-products of companies may constitute external diseconomies for other business as well as pose health or safety hazards to the community where they are operating. Such offending firms expected to eliminate the social costs created by their economic activities which are harmful to the environment where they are working" (p 301).

The social cost is the process by which companies identify and voluntarily neutralise the harmful effects their operations have on society. It refers to as 'internalising their negative externalities'. The concept of negative externality refers to the detrimental effects of economic activities that are not expected and worth by the terms of an agreement between corporation and casualty (Johnston, 2011).

The negative externalities are objectionable from an economic perspective. Firms that manufacture externalities gain all the profit of its economic activities, but do not bear all the costs. Since firms get no account of these costs, engaging in productive activity are lower than the social costs. So they will be more productive than is optimal from the perspective of society as a whole (Johnston, 2011).

The challenges faced by firms in satisfying the needs of their stakeholders are what compel them to engage in social responsibility practices through the elimination of social costs. Stakeholders are now holding corporate firms responsible for the social costs and economic effects they are having in every city where they are operating through internalising all their negative externalities caused by their commercial activities (Nnaoma & Omotosho, 2017; Nzewi, Osisioma, & Paul, 2015).

Theoretical framework

The researcher anchored the study on stakeholder theory; because the theory takes into consideration all the beneficiaries of the organisation. All other theories are tailor towards the interest of stakeholders; such as legitimacy theory, institutional theory, Triple Bottom Line theory and Information asymmetry theory.

The stakeholder theory is the theory that explains how the firm should take the interest of all the beneficiaries of the company into business conducts. It also requires a firm to take necessary action that will make the operation of the firms to be transparent in line with the law and principle of economics (Freeman, 1984). The theory also allows the management of the firms to realise that there are other parties involved in the firm apart from the shareholders which include the employees, customers, suppliers, government, agencies, the community in which they operate, trade associations and unions, financial institutions and political group. It would enable the firms to maintain equitable balance among the stakeholders and also have fair dealings among the stakeholders by ethically running the business, which eliminates information asymmetry.

The theory enables an organisation to incorporate the norms and traditions of the community in where they operate into their business conducts. The theory allows firms to know that their actions are desirable, proper, or appropriate within social constructs system of norms, values, the belief of the society in where they operate to enable them to survive and have sustainable growth in their business (Suchman, 1995). The theory explained that society would allow the firms to continue to operate in as much as they are meeting their expectations. Where an organisation perceived in failing in its social contract, a legitimacy gap is said to exist. In such occasion the society can impose sanctions on the organisation in the form of restricting its operations, limiting its access to resources and reducing demand for its products through boycotts (Deegan & Rankin, 2002).

Empirical review

Johnston, Amaeshi, Adegbite and Osuji (2019) stated that firms should be subjected to legal obligations on how to identify and internalised their social costs or negative externalities caused

by their economic activities to the society. It further stated that corporate social responsibility should be reserved for the process by which firms willingly ascertain and correct the costs their actions inflicted on society. The costs did not include the voluntary measures of social causes expected to make the world a better place and improving the value of corporate brands from the range of CSR. The costs would allow CSR to become another possible means of a cost-effective way of leading the negative externalities or social costs of the company's activities.

Falope, Offor and Ofurum (2019) observed that environmental pollution prevention cost, environmental protection cost and environmental recycling disclosure have effects on return on assets of quoted construction firms in Nigeria. It further stated that regular and continuous environmental evaluation would improve organisations sales, income and ensure that environmental, situational needs met regularly to maintain business reputation.

METHODOLOGY

The research work adopted *ex-post facto* research design for data collections; which examined the impact of Social costs (Internalising negative externalities) on the financial performance (proxy on return on assets) of listed firms in Nigeria. The researcher made use of secondary data from the audited financial statements of listed firms in the Nigerian Stock Exchange as of 31st December 2018 for fifty-two (52) firms purposively selected for those that disclosed social costs in their financial statements.

Model specification

The study consisted of two variables: independent and dependent variables. The dependent variable is financial performance (proxy by return on assets). The independent variable is social costs. The moderating variables are firm size, age and leverage. The model for the variables denoted in the following equations:

Y= f(X)
Y= y
y= Financial performance (Return of Assets (ROA))
X= x
x= Social costs (SOCO)
Z= z1, z2, z3
z1 = Company size (SZE)
z2 = Company age (AGE) and
z3 = Leverage (LEV)
The functional representation of the study based on the objective of the study given as;
ROA = f(SOCO) ……..……..….1
Therefore, the regression model is given as:
ROAit= β0+β1SOCOit + et……...…….……...…..2
ROAit= β0+ β1SOCOit + β2SIZE + β3AGE +β4LEV + et ……...3

Model Evaluation Techniques

The significance of financial performance on social costs evaluated at $\alpha = 0.05$, employing the t-statistics. The aggregate or combined effect was assessed at the same level of significance, using F-statistics. The null hypotheses on the impact of social costs on financial performance will not be rejected if the associated probabilities of computed F-statistics are more than the stipulated 5% and 10% levels of significance in each of the hypothesis. The null hypothesis of individual effects of each of the independent variables on the dependent variables would not be rejected if the t-statistics results were less than the absolute value of t-tabulated at 5% and 10% levels of significance. The probabilities of the t-test should be greater than the stipulated 5% and 10% levels of significance. Besides, the R^2 and the adjusted R^2 would also use to judge the goodness of fit of the estimated model.

RESULTS/FINDINGS

The section discusses the panel data regression results, used to assess the impact of social costs on the financial performance of listed firms in Nigeria. The section is structured as follows: Section 5.1 discusses the descriptive statistics, the degree of association between the dependent and the independent variables using the correlation coefficients for the objectives. Section 5.2 is devoted to panel data regressions of Pooled OLS, random effects models, fixed effects models and the Feasible Generalised Least Squares (FGLS) regression for the objectives.

Table 1: Descriptive Statistics and Correlation Coefficients of Social costs and financial Performance (Return on Assets)
Panel A: Descriptive Statistics

Variables	Mean	Median	Max	Min	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob	Obs
ROA	1.88	0.20	4.63	0.29	2.16	0.38	1.15	0.98	0.25	572
SOCO	1.64	1.49	23.92	0.07	1.21	0.32	2.01	1.26	0.32	572
SIZE	3.76	3.26	291.00	2.51	2.99	0.90	0.76	0.50	0.54	572
AGE	1.96	2.52	11.61	0.01	1.54	1.20	0.17	0.52	0.22	572
LEV	9.12	3.10	697.03	0.00	3.18	0.56	0.36	0.43	0.49	572

Panel B: Correlation Coefficient

Variables	ROA	SOCA	SOCO	MEB	SIZE	AGE	LEV	VIF
ROA	1							
SOCO	**0.349**	**0.022**	1					3.54
SIZE	0.005	-0.009	0.003	0.021	1			4.89
AGE	**0.526**	-0.004	**0.363**	**-0.468**	0.057	1		2.16
LEV	**-0.135**	-0.032	-0.076	**0.166**	0.005	**-0.124**	1	4.96

Source: Researchers Computation (2020)

Notes: Table 1 shows the mean, maximum, minimum, standard deviation and correlation coefficient of the variables. The dependent variable is the Return on Asset (ROA), and the explanatory variable social costs (SOCO), The moderating variables are the firm age (AGE), firm size (SIZE) and financial leverage (LEV). The correlations are below the major diagonal, and the bold coefficients denote statistical significant at 1 and 5 per cent level. All the values calculated from the 572 firms-year observations for fifty-two listed firms in Nigeria. The estimation process facilitated using Eviews 10.

Interpretation

ROA:
The mean value of the return on asset is 1.88. It implies effective utilisation of the firm's assets to generate an operating surplus. Besides, it shows that firms in Nigeria create value for their shareholders value for the sampling period. The maximum value of 4.63 and the minimum value of 0.29, show that firms in Nigeria have a different efficient level. The standard deviation of 2.16; indicates that the return on assets is susceptible to change in Nigeria. It also shows that the return on assets of the listed firms in Nigeria follows a normal distribution because the Jarque-Bera test of 0.98 indicates that the variable normally distributed.

SOCO:
The mean value of social costs (internalising the externalities) is 1.64. It revealed that on the average, the selected listed firms curtailed their internalisation of the negative externalities caused by their economic activities to the environment where they are operating. The activities are harmful to society, such as environmental degradation, air pollution, toxic wastes, air emission, waste resources. The maximum value for the cost is 23.92, and the minimum value is 0.07. It indicated that there is a difference in the level of the amount incurred by the selected firms on the internalisation of their negative externalities caused by their economic activities. These are harmful to society, such as environmental degradation, air pollution, toxic wastes, air emission. The standard deviation of 1.21; shows that the amount incurred on the internalisation of their negative externalities is susceptible to change in Nigeria. It also shows amount incurred on the internalisation of their negative externalities caused by their economic activities by the listed firms in Nigeria follows a normal distribution; because the Jarque-Bera test of 1.26 shows that the variable is normally distributed.

SIZE:
The mean value of the logarithm of total assets given as 3.76; it suggests that firms have enough assets to carry out business activities. Besides, the maximum and minimum values are given as 291 and 2.51, respectively. The standard deviation of 2.99; shows that the firm size is susceptible to change in Nigeria. In also shows that firm size of the listed firms in Nigeria follows a normal distribution because the Jarque-Bera test of 0.50 indicates that the variable normally distributed.

AGE:
The age defined as the logarithm of the number of years of a firm since incorporation, and the mean value is given as 1.96. The maximum and minimum values were presented as 11.61 and 0.01, respectively. It suggests the firm age of the firms differs across the period. The standard deviation of 1.54; shows that the firm age is susceptible to change in Nigeria. It also indicates that the listed firms in Nigeria follow a normal distribution because the Jarque-Bera test of 0.52 shows that the variable normally distributed.

LEVERAGE
The leverage is defined as the ratio of total debt to total equity, and the mean value for all the selected firm is 9.12. It suggests that the debt owed by these firms is about 9.12 per cent of their total equity. Besides, the maximum value is given as 697.03, and the minimum is 0.00. It shows that firms included in the sample size have its debt is more significant than the equity, and some of the listed firms do not incur any liability. The standard deviation of 3.18; shows that financial leverage is susceptible to change in Nigeria. It also shows that the financial leverage of the listed firms in Nigeria follows a normal distribution because the Jarque-Bera test of 0.43 indicates that the variable normally distributed.

Panel B of Table 1 presents the correlation coefficient of the dependent variable of Return on Assets (ROA) on the explanatory variable social costs (SOCO). The moderating variables are the firm age (AGE), firm size (SIZE) and financial leverage (LEV). The result shows that return on assets has a significant positive relationship with cost incurred in the internalisation of the negative externalities caused by firms' economic activities which are harmful to society. The moderating variables of firm age and firm size also have a positive relationship between social costs and return on assets. In contrast, leverage has a negative association with return on assets.
These results imply that increases in social costs firm age and firm size will lead to improvements in return on assets. Conversely, increases in leverage lead to decreases in return on assets. Besides, the variance inflation factor, which is a measure of multicollinearity suggests that all the independent variables not related to each other because they are less than 10 in absolute values.

Presentation, Hypothesis Testing of Regression Results
The section presents and discusses the regression results based on pooled OLS, fixed effect models, random effect models and the Park's Feasible Generalized Least Square (FGLS). To determine the appropriate model to use the Hausman test was used, a sign of the Hausman test implies that the fixed effect model is suitable. However, if the fixed effect model is applied, it

must be free of serial correlation and heteroscedasticity; otherwise, the Feasible Generalised Least Square will be used. If the Hausman test is not significant, it implies that the random effect model is appropriate, before the use of the random effect model, a random test called the Besuch-Pagan Langragian Multiplier test must be conducted. The significance of the test implies the use of the random effect model; otherwise, the Pooled OLS will be appropriate.

Research Hypothesis one: Social costs (Internalising negative externalities) have no significant effect on the return on assets of listed firms in Nigeria.

Table 2: Social Costs (Internalising Negative Externalities) on Return on Assets of Listed Firms in Nigeria

Dependent Variable: ROA

Variables	**Pooled OLS**	**Random Effect**	**Fixed Effect**	**FGLS**
Coefficient –SOCO	0.622***	0.202***	0.175***	0.297***
Standard Error	0.070	0.041	0.040	0.053
T-test	(8.883)	(4.869)	(4.320)	(5.588)
Probability Value	0.000	0.000	0.000	0.000
Coefficient – Constant	0.861***	1.549***	1.593***	3.171***
Standard Error	0.142	0.216	0.079	0.166
T-test	(6.035)	(7.189)	(20.078)	(19.100)
ProbabilityValue	0.000	0.000	0.000	0.000
R^2	0.422	0.422	0.402	0.402
F	78.915(0.00)	-	18.660(0.00)	-
Wald Test	-	23.71(0.00)	-	31.23
Hausman Test	-	-	0.89(0.438)	-
Besuch-Pagan RE Test	-	1289.96(0.00)		-
Heteroscedasticity Test	-	-	386.16(0.00)	-
Serial Correlation Test	-	-	0.636(0.00)	-
Observations	572	572	572	572

Notes: Table 2 reports Pooled OLS, fixed effects, random effects and Feasible GLS regression results of the effects of social cost on Return on Assets of listed companies in Nigeria. The dependent variable is Return on Assets (ROA). The explanatory variable is the social cost (SOCO). The T-statistic values are in parentheses. * Significant at 10%, ** Significant at 5%, *** Significant at 1%.

Source: Researchers' Computation (2020)

Notes: Table 2 reports Pooled OLS, fixed effects, random effects and Feasible GLS regression results of the effects of social cost on Return on Assets of listed companies in Nigeria. The dependent variable is Return on Assets (ROA). The explanatory variable is the social cost (SOCO). The T-statistic values are in parentheses. * Significant at 10%, ** Significant at 5%, *** Significant at 1%.

Interpretation

$$ROA_{it} = \alpha_1 + \alpha_2 SOCO_{it} + \varepsilon_{it}$$

$$ROA_{it} = 1.549 + 0.202 SOCO_{it}$$

Table 2 shows the results of regression analysis for the effect of social costs (internalising negative externalities) on return on assets among listed firms in Nigeria. The results show that internalisation of the externalities caused by the economic activities of firms which are harmful to the society such as environmental degradation, air pollution, toxic wastes, air emission and waste resources have a positive relationship with return on assets of selected listed firms in Nigeria. Besides, there is evidence that internalisation of the externalities caused by the economic activities of firms which are Hazardous to the society such as environmental degradation, air pollution, toxic wastes, air emission, waste resources have a significant relationship with return on assets of listed firms Nigeria (SOCO = 0.202, *t*-test= 4.869, $p < 0.05$). It implies that internalisation of the externalities caused by the economic activities of firms which are harmful to the society such as environmental degradation, air pollution, toxic wastes, air emission, waste resources are significant factors influencing changes in the return on assets of selected listed firms in Nigeria.

Concerning the magnitude of the estimated parameters for the coefficient is 0.202; this implies that a unit increase in the costs of internalising negative externalities of listed firms will lead to 0.202 improvements in return on assets of the listed firms in Nigeria.The R^2 measures the proportion of the changes in return on assets as a result of changes in the cost incurred on internalising negative externalities explains about 42 per cent changes in return on assets of listed firms in Nigeria. In comparison, the remaining 58 per cent were other factors explaining differences in return on the asset in Nigeria but not captured in the model.The *t*- statistic of 4.869 is statistically significant at the 5 per cent level. Thus, the null hypothesis of the elimination of social costs has no significant effect on the return on assets of listed firms in Nigeria rejected. Thus, the alternative hypothesis was accepted, which stated that the costs incurred on the internalisation of the negative externalities dues to the economic activities of the firms have a significant impact on return on assets of listed firms in Nigeria at 5 per cent level of significance.

DISCUSSION OF FINDINGS

The hypothesis examines the impact of social costs (internalising negative externalities) on return on assets among listed firms in Nigeria. The results show that costs incurred in the internalisation of the externalities caused by the economic activities of firms which are harmful to the society such as environmental degradation, air pollution, toxic wastes, air emission, waste resources have a significant positive relationship with return on assets of selected listed firms in Nigeria. It implies that costs incurred in internalising negative externalities are significant factor influencing changes in the return on assets of selected listed firms in Nigeria. Studies in conformity with the study include; Johnston, Amaechi, Adegbite & Osuji (2019), Agbiog, Ihendinihu & Okafor (2016), Yusof, Tabbasi & Esa, (2018), Falope & Offor (2019), Yi-Chun, Hung & Wang (2018); Johnston (2011).

Johnston (2011) argued that the term 'social costs (internalising negative externalities) should be kept for the procedure by which firms classify and willingly neutralise the hazardous effects of its activities on society. It further stated that the concept of negative externality refers to the detrimental effects of economic activity that are not expected and charged by the conditions of

an agreement between firms and injured party. Negative externalities are disagreeable from an economic perspective, because firms that produce externalities earned all the benefits of its economic activity, but do not bear all the costs. Since firms take no report of these costs, their own prices of engaging in productive activity are lower than the social costs. So there will be more productive than is optimal from the perspective of society as a whole.

Company size, age, and leverage do not have significant effects on the relationship between social costs and Return on Assets of listed firms in Nigeria.

Research Hypothesis two: Company size, age, and leverage have no significant relationship between social costs and Return on Assets of listed firms in Nigeria.

Table 3: Effect of Company size, age, and leverage on the relationship between social costs and Return on Assets of listed firms in Nigeria.

Variables	**Pooled OLS**	**Random Effect**	**Fixed Effect**	**FGLS**
Coefficients –SOCO	0.021	0.016	0.015	0.413***
Standard Error	0.038	0.027	0.027	0.122
T-test	(0.557)	(0.579)	(0.539)	(3.367)
Probability Value	0.578	0.563	0.590	0.000
Coefficients-SIZE	0.003	0.301	0.500***	0.280
Standard Error	0.004	0.204	0.201	0.401
T-test	(0.866)	(1.474)	(2.485)	(0.670)
Probability Value	0.634	0.110	0.003	0.503
Coefficient-AGE	0.210***	0.210***	0.203***	0.141***
Standard Error	0.322	0.030	0.030	0.036
T-test	(6.519)	(6.945)	(6.559)	(3.908)
Probability Value	0.000	0.000	0.000	0.000
Coefficient-LEV	0.001	-0.328	-0.100	-1.202
Standard Error	0.001	0.470	0.090	0.240
T-test	(0.936)	(-0.698)	(-1.102)	(-0.500)
Probability Value	0.350	0.464	0.453	0.546
Coefficient – Constant	4.821***	4.150***	3.994***	5.598***
Standard Error	0.157	0.172	0.142	0.153
T-test	(30.539)	(24.009)	(28.005)	(36.540)
Probability Value	0.000	0.000	0.000	0.000
Adjusted R^2	0.783	0.608	0.608	0.608
F	340.637(0.00)	-	133.149(0.00)	-
Wald Test	-	1027.22(0.00)	-	5904.01(0.00)
Hausman Test	-	-	19.44(0.00)	-
Bresuch-Pagan RE Test	-	684.24(0.00)	-	-
Heteroscedasticity Test	-	-	728.15(0.00)	-
Serial Correlation Test	-	-	8.704(0.00)	-
Observations	572	572	572	572

Notes: Table 3 reports Pooled OLS, fixed effects, random effects and Feasible GLS regression results of the effect of Company size, age, and leverage effects on the relationship between social costs and Return on Assets of listed firms in Nigeria. The dependent variable is Return on Asset (ROA). The explanatory variables are social causes (SOCA), social costs (SOCO) and maintaining equitable balance among shareholders (MEB). The T-statistic values are in parentheses. * Significant at 10%, ** Significant at 5%, * Significant at 1%.**

Source: Researchers' Computation (2020)

Interpretation

$$ROA_{it} = \alpha_1 + \alpha_2 SOCO_{it} + \alpha_3 SIZE_{it} + \alpha_4 AGE_{it} + \alpha_5 LEV_{it} + \varepsilon_{it}$$

$$ROA_{it} = 5.598 + 0.413 SOCO_{it} + 0.280 SIZE_{it} + 0.141 AGE_{it} - 1{,}202 LEV_{it}$$

Table 3 shows the results of regression analysis of the effect of Company size, age, and leverage effects on the relationship between social costs and Return on Assets of listed firms in Nigeria. The results show that elimination of social costs (i.e. cost incurred in the internalisation of the externalities caused by firms' economic activities which are harmful to the society); size and age of the firms have a positive relationship with return on assets of listed selected firms in Nigeria. In contrast, leverage of the firms has a negative correlation with the return on asset of selected listed firms in Nigeria.

In addition, there is evidence that the social costs and age of the firms have significant relationship with return on assets of listed firms in Nigeria (SOCO=0.413, t-test = 3.367, $p < 0.05$ and AGE= 0.141, t-test= 3.908, $p < 0.05$) respectively. It implies that social costs and age of the firms were significant factors influencing changes in return on assets of listed firms in Nigeria.

Conversely, there is evidence that size and leverage of the firms do not have significant relationship with return on assets of listed firms in Nigeria (SIZE= 0.280, t-test= 0.670, $p > 0.05$ and LEV = -1.202, t-test= -0.500, $p > 0.05$) respectively. It also implies that the size and leverage of the firms are not significant factors influencing changes in return on assets of listed firms in Nigeria.

Concerning the magnitude of the estimated parameters for the coefficients of the regression analysis, a unit increase in the elimination of social cost, size and age of the firms will lead to 0.413, 0.280 and 0.141 increase in return on assets of listed firms in Nigeria respectively. In contrast, a unit increase in leverage of the firm will lead to 1.202 decreases in return on assets of the listed firms in Nigeria.

The Adjusted R^2 which measure the proportion of the changes in return on assets of listed firms in Nigeria as a result of changes in social costs, size, age and leverage of the firms explains about 61 per cent changes in return on assets of listed firms in Nigeria. In comparison, the remaining 39 per cent were other factors explaining variations in return on assets of listed firms in Nigeria but not captured in the model.

The Wald Test of 5904.01 is statistically significant at 5 per cent level, thus on the overall, the null hypothesis of combine moderating variables of company size, age and leverage do not have substantial effects on the relationship between social costs and return on assets; and it was rejected. Thus, the alternative hypothesis that the combined moderating variables of company size, age, and leverage have significant effects on the relationship between social costs and return on assets was accepted.

DISCUSSION OF FINDINGS

The fourth hypothesis examined the effects combine moderating effects of company size, age and leverage on the relationship between social costs and return on assets of listed firms in Nigeria. The results show that the elimination of social costs, size and age of the firms have a positive relationship with return on assets of listed selected listed firms in Nigeria. In contrast, leverage of the firms has a negative correlation with the return on asset of selected listed firms in Nigeria. Besides, there is evidence that elimination of social costs, size and age of the firms were significant factors influencing changes in return on assets of listed firms in Nigeria.

Studies in conformity with Badulescu, Badulescu, Saveanu and Hatos (2018) who investigated the relationship between firm size and age and its social responsibility actions on a developing country. The researchers used primary data survey to gather data from 84 SMEs operating in Oradea, Romanian; the data were collected between July and September 2016 and analysed by correlations, independent sample T-tests and linear regression modelling. Their findings revealed that there are significant differences between newly established venture and those with a long history and age is not a determinants factor of CSR practices.

CONCLUSION

The study concluded that elimination of social costs has positive impact on the financial performance among the list firms in Nigeria. The company size and age have a positive effects on the relationship between social costs and return on assets of listed firms. The leverage does not have significant effects on the relationship between social costs and return on assets of listed firms.

Implication of findings

The research objective has several implications for theory and practice. It supports and strengthens the accumulating body of empirical for the positive impact of the elimination of social costs such as internalising the externalities of economic activities that are harmful to the community where they are operating and the impact it will have on return on assets of the firms.

Theoretical implications

The theoretical implication of elimination of social costs and its impact on return on assets anchored on stakeholder theory, because, there is a need for an organisation to engage in an active social role in the society where they are operating; since it depends on the society for sustenance.

The theoretical implication is that firms should perform an action that is suitable, needed, or correct within the norms, values and believe of the society through a legitimacy theory. Legitimacy theory implies that the actions of a firm (that is the elimination of social costs by internalising their negative externalities) should be done in a pleasant, proper, or suitable within some socially creative system of standards, values, beliefs and defined ways to the society.

Therefore the theory believes that by eliminating the social costs through internalising their negative externalities; society will allow the corporate organisation to continue their operations in as much as they are meeting the expectation of the community. For firms to be responsible corporate citizens, they must voluntarily internalise all their negative externalities caused by their economic activities which are harmful to the environment where they are operating through voluntary disclosure theory.

The legitimacy theory explained that society would allow the company to continue to operate in as much as they are meeting their expectations. Where an organisation is perceived in failing in its social contract, a legitimacy gap is said to exist. In such occasion the society can impose sanctions on the organisation in the form of restricting its operations, limiting its access to resources and reducing demand for its products through boycotts (Deegan & Rankin, 2002).

Practical implication

The practical implications of the findings on the impact of the elimination of social costs on internalising the negative externalities of economic activities that are harmful on the community where they are operating, and their implications on return on assets stated below:

The elimination of social costs through voluntary disclosure assumptions gives firms to bear the responsibility for the economic activities created to the community. It allows firms to move beyond the anti-regulatory 'business case for CSR which focuses on the 'win-win' situation in which firms are seen to be 'doing good', thereby enhancing their reputation or brand, and in turn, increasing the returns on a long term basis. Based on this CSR dimensions, firms undertake activities commensurate with CSR activities, but which do not harm the community where they are operating.

Elimination of social costs implies that firms should account for the internalisation of their negative externalities created by their economic activities voluntarily. Where the law does not require this, to the extent that managers should consider it in the interest of the stakeholders on a longer-term basis to boost their returns, and improve their business reputation. It may occur where particular firms' activity is generating bad publicity and affecting market share. However, most voluntary actions taken on by the firms is aimed at producing shareholder value, which enhances the corporate brand.

Recommendations

The study examined the impact of social costs and the financial performance of listed firms in Nigeria. From the results of the findings, the following recommendation made:

i. Firms should adopt the policy of eliminating social costs in their business policy; they should engage in business ethics of internalising their negative externalities created by their economic activities which are harmful to the community where they are operating. Such as waste management control, proper disposal of toxic waste generated from their business activities, air pollution control; firms need to eliminate all these activities to operate in a conducive and friendly environment where they are working. Where firms perform all these activities fairly and

openly, it will enable the organisation to be a responsible corporate citizen, and boost its financial performance.

ii. The larger the size and longer the age of firms; the higher will be the expectation of the stakeholders from such firms. The size and age of the firms have moderating effects on the social costs and financial performance, which may have a long-run impact on their financial performance. It expected that older and bigger firms expected to internalised their negative externalities so that they will regard as responsible corporate citizens.

iii. Firms should have a unique desk that is devoted to implement and carry out social costs practices to improve their image and also increase the level of performance.

iv. The study recommended that the management of listed firms in Nigeria should spend more on social costs activities to boost profitability and improve their business performance.

v. Government agencies in Nigeria should develop a framework that will encourage firms to give priority to social costs through Federal Environmental Pollution Agency (FEPA). It will enable firms in Nigeria to portray a high level of compliance with law and order, and the government should monitor and see to the enforcement.

Contribution to the knowledge

The study has contributed to the body of knowledge by establishing a positive and significant impact of social costs and financial performance within the framework of stakeholder theory.

The study provides the government and other stakeholders on the need to monitor firms to discharge their duties on social costs and to ensure a harmonious relationship. The study has contributed to the empirical literature by providing robust evidence on the social costs and financial performance of listed firms in Nigeria. Many studies have investigated social costs and financial performance. Still, none to the best of our knowledge in Nigeria examined the impact of social costs on financial expo-facto design. The practical evidence of this study contributes to the vast body of literature knowledge, where the findings of the study provided the unique experience of infrastructural development through the elimination of social costs in Nigeria.

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