Nigerian 3C-Index Rating of Corporate Social Responsibility and the Profitability of Some Companies Listed on the Nigerian Stock Exchange

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Abstract

This study sought to ascertain the link between Corporate Social Responsibility (CSR) rating and the profitability of companies listed on the Nigerian Stock Exchange (NSE), following the release of the first ever country rating of Corporate Citizenship Index (3C-Index) in 2013. The study further sought to ascertain whether significant differences exist between the performances of companies that received high CSR ratings as compared to those that received low ratings. Secondary data were extracted from the 2013 to 2017 annual reports and accounts of companies that got different CSR ratings classified as high and low. The multiple regression and Mann-Whitney rank test (U-test) were used to test the propositions. The findings from the regression showed a positive but insignificant relationship between CSR rating and firm performance but a significantly positive relationship with the size of firms. The results of the U-tests were mixed, whereas the Return on Assets (ROA) of companies with high CSR ratings did not differ significantly from companies with low CSR ratings, the Return on Equity (ROE) of companies with high CSR ratings was significantly greater than that of companies with low CSR ratings. This finding suggests that CSR may be in its infancy among the study sample but is beginning to take roots as evident by the positive βs statistics and a significant difference in the ROE of the companies as captured by the non-parametric statistics. It is recommended that the period of the study be extended in the intermediate and long-run to determine if the relationship might become significant.

Keywords: corporate social responsibility, corporate citizen index, financial performance, Nigerian stock exchange

1. Introduction

Corporate Social Responsibility (CSR) is a set of guidelines outlining the procedures and strategy that a business entity can follow in the disclosure of the potential and real impacts of its business activities on the environment, people and profits and the ways in which these adverse effects can be mitigated in a sustainable manner (GRI, 2013). It is considered germane to corporate performance and firms that engage in CSR activities are said to have greater value than otherwise and thereby gain higher profits (Haitain, 2015; Eccles, Ioannou & Serafeim, 2014). Some other benefits associated with the practice of CSR include an increase in the value of the firm's brand, having greater access to financial capital, the firm's workforce is safer, healthier and thereby more productive, the firm's risk management architecture is considered more robust and such a firm is touted to gain the confidence and trust of stakeholders as well as enhanced public image thereby resulting in fewer disruptions and low litigation costs (Haitain, 2015; Eccles, et al., 2014).

Since the coming of CSR into being, the concept has generated a lot of debate and contentions as to its relevance. On one divide are the profit-centric capitalists, who are opposed to the squandering of investor capital on activities, such as addressing environmental, social and ethical concerns that have no bearing on the profit motives of capital holders (Friedman, 1970). They argue that shareholders should have all of the profits from what they ploughed into an investment, as they are the providers of the capital. On the other divide are the sustainability stakeholders group, they contend that the activities of the business of shareholders is carried out in a manner that affects the ecologic environment of everybody and so some of the profits of these businesses should be used to mitigate the concerns and the impact of the business activity on people and the environment

(Freeman, Harrison, Wicks, Parmar, & de Colle, 2010).

1.1 Statement of the Problem

The value of CSR seems to be well established in the countries of Eastern Europe, most of North America and Japan than in other climes (Suzuki & Tanimoto 2015). Many corporations in the world are now become aware of the purported benefits associated with CSR adoption and are creating strategic agendas for operating CSR activities.   However, the evidence in support of the benefits of embracing CSR remains inconclusive. The empirical facts consistently tend to show mixed results of positive (Wang, 2015; Akpinar, Jiang, Gomez, Berron & Walls, 2008; Eccles et al., 2014), neutral (Aly & Hussainey 2010; Garvare & Johansson, 2015) and negative (Pan, 2014; Garvare & Johansson, 20) relationship between various measures of CSR and those of firm performance.

Haitain (2015) has identified ambiguity in the definition of CSR activities as a possible reason for the inconclusive empirical evidence and also noted that CSR data that is in quantitative stream could yield more reliable conclusions on the nexus between company performance and the practice of CSR. Blomgren (2011) opines that defects in the methods used in analysing the results of some CSR studies with the aim of linking it to firm performance. He criticized the use of Ordinary Least Square regressions (OLS) on rather dichotomously defined variables in the violation of the assumptions of OLS regression when the nexus is researched.

In Africa, the data on CSR activity particularly in Nigeria seems to be scarce because it was not collected or reported. The issues of CSR may also have been evolving here and therefore the awareness may have been low among the population and the business community, with respect to the importance of the CSR concept. The initial studies of CSR in Nigeria were based on subjective surveys of the financial service sector that has the fewest environmental impacts. Other studies on CSR use dichotomous scoring, on whether CSR is contained in the financial reports or not of firms to proxy for CSR engagement. In other studies, that attempted to use quantitative data to analyse the relationship between CSR and firm performance, the construction of the proxies for CSR were arbitrary, using different measures that each researcher felt pleased to use, which is biased and likely to lead to spurious conclusions (Ameshi, Adi, Ogbeche & Amao, 2006).

Additionally, most global institutions collecting and hosting the data on CSR did not have information about the CSR ratings of companies in Nigeria. For example, a search on CSRHub website, one of the leading private organisations that host CSR data of over 7,000 companies in 135 different industries and in 90 countries, by the researchers, yielded 87% incomplete rating for Nigerian listed companies in their database as recent as in 2017.

An intensive search for quantitative data on CSR in Nigeria, however, revealed that the first ever country rating of Corporate Citizen Index (3C-index) in Africa, compiled by CSR-in-Action for 117 companies was published in 2013. The 3C-index contains information of some companies listed on the NSE. These companies are from diverse sectors such as; automobile/transportation, the business services sector, education, manufacturing, electricity and energy, engineering construction and financial services. Others covered by the 3C-index include fast-moving consumer goods (FMCG), the mass media, health care, and telecommunications.

Although the NSE recommends mandatory disclosure of Environmental and Social Governance (ESG) issues for all its listed companies (NSE, 2016), there was no information on any ESG indicator by any of the listed companies in 2017 on the NSE website. This development the 3C-index as a basic benchmark for CSR practice in Nigeria presents a rare opportunity for empirical exploring how CSR and financial performance of companies listed on the NSE is represented, using the 3C-index data.

The CRS-in-Action 3C-Index rating framework is derived from the peculiar pedestal of Nigeria-centered facets of the Millennium Development Goals (MDGs) and the United Nations Global objectives based on environment, human rights, anti-corruption, and community investment as well as labour and reporting.

1.2 Literature Review

1.2.1 Conceptual Framework

The lack of congruence about the definition and the concept of CSR make it highly contentious and debatable amongst practitioners and academics, as noted by Carroll and Shabana (2010). The concept is associated with a variety of terminologies and its meaning and context differ across industrial sectors. According to Carroll (2012), CSR is those "actions that appear to further some social good, beyond the interests of the firm than what is required by law".

Dahlsrud (2008) in a review of the numerous definitions of CSR, likened CSR to the practice by which firms strive to enhance their responsibility in respect of the "five organizational dimensions: stakeholders, social,

economic, voluntariness and environmental". In Aguinis and Glaves (2012) opinion, CSR entails organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance in their business strategy. The perspective of Aguinis and Glaves (2012) is adopted in this study and CSR is considered as a strategic business concept encompassing the application and incorporation of ethical standards and well-grounded management conventions that enable the creation and sharing of wealth for the advancement of the interest of parties to a business operation.

Firm performance relates to the ability of managers to generate profit with shareholder capital so as enhances the long-term wealth of the capitalists and to run the firm successfully in a sustainable manner (Andreaus., Costa, Pesci & Taufer, 2013). In the accounting and economic literature, the firm performance is sorted into the classical and contemporaneous financial indexes (Carroll & Shabana 2010).

The classic indexes of firm performance comprise the financial rate of returns or financial ratios such as the Return on Assets (ROA), the Return on Equity (ROE) and the Return on investment (ROI). Others are gross profit margin, debt ratio, current ratio, acid test ratio etc. The contemporaneous indexes are related to the attribute of creating value such as Tobin-Q and multi-Beta value. Studies on CSR have used a wide range of measures for firm financial performance. These include: Return on Assets (ROA) (Bratenius & Melin, 2015; Chih, Chih, & Chen, 2010; Whitehouse, 2008; Waddock & Graves, 1997), Return on Equity (ROE) (Bratenius & Melin, 2015; Aupperle, Carroll & Hatfield, 1985; Carroll & Shabana 2010) and Tobin's-Q (Amaesi, et al., 2006). Santos and Brito (2012) identified other measures of firm financial performance as Profit Margin (PM), Earnings per Share (EPS), Divided Yield (DY), and Price - Earnings Ratio (PER). Others include Return on Sales (ROS) and Expense to Assets (ETA). They also mentioned Cash to Assets (CTA), Sales to Assets (STS), Expenses to Sale (ETS), Abnormal returns (AR), Operating Cash Flow (OCF), Return on Investment (ROI), Market-to-book value (MTBV), and Growth in Sales (GRO).

Glick, Washburn, and Miller (2012) have opined that superlative firm performance in the form of profitability provides greater satisfaction for shareholder and they reported a consistent and highly significant positive correlation when using ROA and ROE as measures of profitability. The ROA and ROE, are therefore, adopted as the proxies for the firm's financial performance in this study because they have a strong appeal in the empirical literature.

Some firm distinctive attributes have been spotted from previous research, to clarify significant changes in the matrices of CSR reporting made by the firms. Singh (2017); Dhaliwal, Radhakrishnan, Tsang and Yang (2011) in different reviews have identified some of the firm distinctive attributes to include; leverage, the type of industry the firm belongs to, the size of the firm, internationality, media exposure and the presence of CSR committee/representative on the firm's board among others. On the whole, the size of firms has consistently shown a positive and significant influence on CSR practice (Branco & Rodrigues, 2008; Bratenius & Melin, 2015). The size (SIZE) of the firms in this study is also used as a control variable to see if bigger firms have higher CSR inclinations.

1.2.2 Theoretical Framework

The literature on the link between CSR practice and the profitability of firms seem to have mixed outcomes and therefore does not fit a single theoretical perspective. Fundamentally, the relationship is based on the managerial branch of stakeholders' perspective which holds that the interest of several stakeholders who are affected by the business operations of a firm should be considered and provided for by the firm in order to increase; patronage, access to capital and commendation as well as to decrease disruption risks, and legal cost which will result in higher profits (Freeman, et al., 2010; Eccles et al., 2014). The theory, however, is constrained in explicating the management of different stakeholders for corporate survival.

On the other end, in the political-economic domain is the legitimacy theory. It deals with firm interaction and the whole of society. Suchman (1995) defines 'legitimacy' as an all-encompassing viewpoint or notion which signals that the activities of a corporate entity are pleasing, advantageous, or are in conformity within some socially constituted structure of models of beliefs, philosophy, tenets, and interpretations. The theory holds that the persistent survival of any corporation is determined by the combine effects of market determinants and the expectations of the social environment in which it operates and having quality information about the important concerns of community expectations becomes a vital imperative for the corporation's continuous existence.

The focus of the theory is hinged on the assumption that a corporate entity needs to gain the support of its social environment by yielding to their social expectation and providing the society its expected needs. With regards to CSR, firms aspire to tailor the narrative of their operation by voluntarily depicting to the social, political and economic world, their own viewpoints of how they are taking care of the concerns of the stakeholder so as to

gain legitimacy and minimize the adverse effects of government regulation and public disruption of their business activity.

1.2.3 Related Prior Empirical Studies

Extant literature is replete with the studies that examined the relation between CSR and corporate financial performance. The empirical studies comprise essentially two groups; in the first, a study methodology is used to assess the short-run financial impact (abnormal returns) when firms engage in either socially responsible or irresponsible acts. The results of these studies have been mixed. Whitehouse (2006) discovered a negative relationship; Pava (2008) on the other hand, reported a positive relationship, while Adebayo and Olawole (2012) found no significant relationship between CSR and the financial performance of some studied firms. Other studies, discussed in Chih et al. (2010), are similarly inconsistent, revealing neutral coefficients on the relationship between CSR and short run financial returns.

The second group examines the relationship between some measure of corporate social performance (CSP) and measures of financial performance, by using accounting or financial measures of profitability. These studies that have explored the relationship between CSP and accounting performance-based measures have also shown mixed outcomes. Whereas, Carroll and Shabana (2010); Aguinis and Glavas (2012) found a positive correlation between CSP and accounting performance after controlling for the age of assets. Aupperle, et al., (1985); Carroll (2008) reported an insignificant link between CSP and the firm's risk adjusted return on assets. Modum, Ugwoke and Onyeanu (2012) also found significant positive relation between CSR and profitability. In contrast, Waddock and Graves (1997) found significant negative relationships between the index of CSP and firms' performance measures, such as ROA, when the effect was lagged by one year.

The summary of a recent review on the nature of the relationship between CSR and firm performance by Galant and Cadez (2017) reveals further that Burnett and Hansen (2008); Rodgers Choy and Guiral (2013) found relationships of significantly positive nature. The findings of Baird, Geylani, and Roberts (2012); Peng and Yang (2014) on the same issue, on the other hand were significantly inverse. The review also reported findings of neutral relationships by Suchman (1995); Sun, Salama, Hussainey and Habbash (2010); Haitain (2015). The review further reported results of U-shape or inverted U-shape by Barnett and Salomon (2012).

In the Nigeria environment, studies by Richard and Okoye (2013); Shehu (2013) have showed a positive and significant nexus between CSR and profitability, Adebayo and Olawole (2012); Solomon Oyerogba and Olaleye reported neutral outcome while Umobong and Agburuga (2018); Emma, Amaefule and Onyekpere (2016) reported negative outcomes.

On the link between CSR and SIZE, Branco and Rodrigues, 2008; Nega, 2017 have consistently reported positive and significant relationships. However, Prado-Lorenzo, Gallego-Álvarez and Sanchez (2009) could not find a significant link between CSR and SIZE among Spanish firms.

1.2.4 Study Objectives and Hypothesis Development

The main objective of this study is to determine the extent of the relationship between CSR rating and the financial performance of companies listed on the NSE. The specific objectives include the determination of:

1. The relationship between CSR rating and the ROA of companies listed on the NSE.

2. The relationship between CSR rating and the ROE of companies listed on the NSE.

3. Whether the ROA of top-rated companies listed on the NSE is significantly different from low-rated companies after the announcement of 3C-Index.

4. Whether the ROE of top-rated companies listed on the NSE is significantly different from low- rated companies after the announcement of 3C-Index.

5. The link between CRS rating and size of companies listed on the NSE.

This study sets out to answer these research questions;

1. What is relationship between CSR rating and ROA of companies listed on the NSE?

2. Is the relationship between CSR rating and ROE of companies listed on the NSE significant?

3. Does the ROA of listed firm on the NSE that received high 3C-Index ratings, differ significantly from those that received low 3C-Index ratings?

4. Is there a significant difference between the ROE of listed firms on the NSE that received high 3C-Index ratings and those that received low 3C-Index ratings?

5. What is the link between CRS rating and size of companies listed on the NSE?

In line with the research objectives, the study seeks to test the following null hypotheses;

H_{01}: There is no significant relationship between CRS ranting and ROA of companies listed on the NSE.

H_{02}: There is no significant relationship between CRS ranking and ROE of companies listed on the NSE.

H_{03}: The ROA of listed firm on the NSE that received high 3C-Index ratings does not differ significantly from those that received low 3C-Index ratings.

H_{04}: There is no significant difference between the ROE of listed firms on the NSE that received high 3C-Index ratings and those that received low 3C-Index ratings.

H_{05}: The link between CSR and SIZE is not statistically significant.

2. Methodology

2.1 Research Design

The research study adopts an ex-post facto research design which consists of secondary data analyses. The population of the study comprises 117 companies ranked in the 3C-index survey of 2013.

2.2 Population and Sampling Procedure

The population of the study is 117 companies and using convenience sampling technique, data was collect only from a sample of 17 firms across five sectors that met the selection criteria and represents the sample for the study (Table 1). The sample selection criteria were for a firm to have a 3C-index rating and be listed on the NSE before the year 2011 so that the firm who have started filing with the SEC by 2013. Although this methodology is considered biased and non-representative and lacks the sufficiency to identify differences in population groups (Woodside, 2012), it is considered adequate in the present study.

Table 1. Distribution of Study Sample

Consumer Goods	Industrial Goods	Finance	Construction	Agriculture	Oil & Gas	Total
7 UP Nig. Breweries PZ	WAPCO Beta Glass UAC	Access Bank GT Bank UBA Union Bank Zenith Bank FCMB	Julius Berger	PRESCO	Mobil Nig. MRS Oil Total Nig.	
3	3	6	1	1	3	17

Source: NSE (2017)

2.3 Measures and Covariates

The Financial performance of the firms as proxied ROA and ROE were computed based on standard ratio analyses from figures extracted from the financial statements of the firms from 2011 to 2017, two years before and four years after the CSR rating were released, including the year of the rating. This is to determine the trend between CSR ratings and financial performance. ROE was computed based on average equities for the years 2011 to 2017. The weighted 3C- Index CSR scores were extracted from the Collective Social Investment Report by CSR-in-Action without modification (see CSR-in-Action, 2013; CSI Report Nigeria for the details of the methodology). The variable specification and measurement are shown in Table 2. The control variable that seems to consistently mediate the interaction between CSR and firm performance is the size of the firm (Aguinis and Glavas, 2012; Eccles et al., 2014) and so the size of listed firms were computed using the logarithm of book value of total assets to control for the outliers typical of market value data to proxy for size.

Table 2. Variable Specification

Variable	Code	Measurement	Source
Corporate Social Responsibility (Dependent Variable)	CSR	Measured by aggregating and averaging scores on social and environmental indicators	CSR-in –Action Collective Social Investment Report
Profitability Return on Assets (Independent Variable)	ROA	Measured as net profit after tax divided by total assets.	Annual Financial Report
Profitability-Return on Investment (Independent Variable)	ROE	Measured as net income divided by the change in equity in the current from the previous year	Annual Financial Report
Firm size (Control variable)	SIZE	Ln of book value of total sales	Annual Financial Report

In order to categorise firms into low and high CSR performance, the 3C- Index CSR scores of all the sampled firms were divided into percentiles of 33% to represent one-third of the score in the lower boundary limit, 66% the median percentile and 100% for upper percentile. The raking for the lower boundary was computed as 21.00, the middle boundary was 30.76 and the high boundary as 44.00. The values were then re-coded into low ranks for values falling below 30.00 and high rank for values ranging from 30 to 44.00 (see details in Bornmann, 2013). The multiple regression model (Equation 1 & 2) were used to analyse the relationship between the dependent and independent variables. The Mann-Whitney U-test (Equation 3) was employed to determine the difference in the financial performance of high-rating and the low-rated companies listed on the NSE using Cohen's effect size (r) (equation 4) of the magnitude of differences. The explicit and implicit regression functions are given in Equations (1) and (2):

$$CSR_{it} = f(ROA_{it} + ROE_{it} + SIZE_{it}) \tag{1}$$

$$CSR_{it} = \beta_0 + \beta_1 ROA_{it} + \beta_2 ROE_{it} + \beta_2 SIZE_3 + \varepsilon_{it} \tag{2}$$

where

CSR, ROA ROE and SIZE are as explained in Table 2 and ε is the error term, β_0, β_1 and β_2 are the intercepts of the dependent variable.

Mann- Whitney ranked test was computed using equation (3);

$$U = n_1 n_1 + \frac{N_1(N_1+N)}{2} - R_1 \tag{3}$$

where;

n_1 and n_2 are the sample sizes of groups, R_1 is the sum of ranks for group 1 and N_1 the population in group 1

The Cohen Effect Size (r) was computed using equation (4);

$$r = \frac{z}{\sqrt{N}} \tag{4}$$

Where; Z, is the value of the Z-score in the Mann-Whitney U-test result and N is the sample population.

3. Results

The result of the descriptive statistic for CSR scores ROA, ROE and SIZE is given in Table 3, the mean score of ROA is 0.01, and that of ROE is -0.72 with standard deviations of 0.76 and, 1.84 respectively. The minimum CSR score is 15.00 and the maximum is 44.00 with a mean score and standard deviation of 27.00 and 8.60. The average SIZE of these companies is 17.56 with a standard deviation of 3.31

Table 3. Descriptive Statistics of study variables

	N	Minimum	Maximum	Mean	Std. Deviation
CSR_scores	17	15.00	44.00	27.0000	8.5951
ROA	17	0.0072	0.3263	0.07208	.07690
ROE	17	-0.7224	5.5077	2.0316	1.8348
LnSIZE	17	6.92	21.48	17.5625	3.3085

Correlation results

The correlation matrix is presented in Table 4 and shows no significant correlation between all variables except for SIZE. The SIZE of the firm correlates with CSR significantly at 0.01 levels. However, all the other independent variables also correlations positively and with CSR scores. The correlations among the entire independent variables are not significant are inverse. The Pearson correlations between all independent variables are far below 0.7 and indicate the absence of multicollinearity.

Table 4. Correlation Coefficients of study variable

	CSR Score	ROA	ROE	SIZE
CSR Score	1.000			
ROA	0.295	1.000		
ROE	0.154	-0.127	1.000	
SIZE	.586**	-0.003	-0.091	1.000

[**]Correlation is significant at 0.01 levels

Regression assumptions were assessed using Variance the Inflation Factor (VIF), tolerance and Durbin-Watson statistics (Table 5). Field (2009) suggested that if the average VIF is substantially greater than 1, then the regression may be biased. The average VIF is very close to 1 and this confirms that collinearity is not a problem in this investigation. The tolerance of the model range (Field, 2009). The Durbin-Watson statistics is very close to 2 meaning that the residuals are uncorrelated and there is no problem of autocorrelation. The histogram of CSR (Fig 1.) and plot of residuals (Fig. 2) show that the data are not affected by normality and linearity problems respectively.

Table 5. Collinearity Statistics

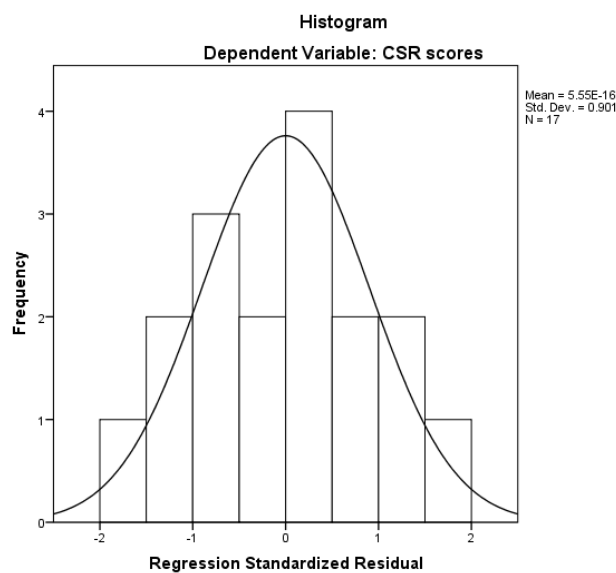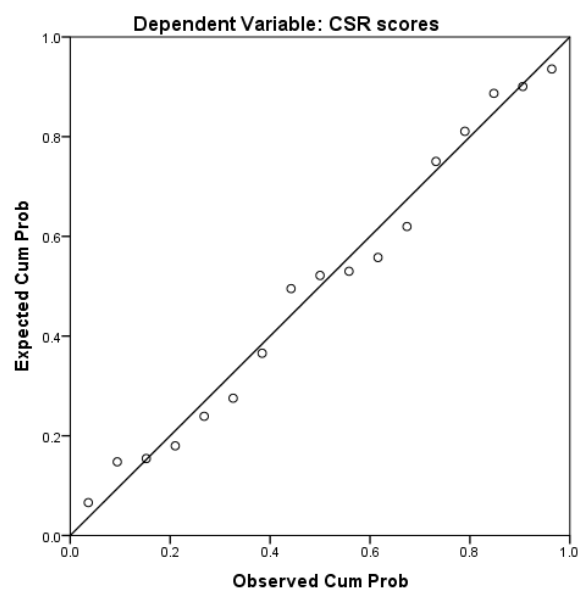| Variable	Tolerance	VIF	Durbin -Watson
			2.207
ROA	0.984	1.017	
ROE	0.975	1.025	
SIZE	0.991	1.009	

Figure 1. Histogram of CSR

Figure 2. Normal plot of CSR

Having met some of the necessary regression assumptions, the results of multiple-regression are then given in Table 6. The results reveal that the independent variables explain about 37.5% of the variation in the dependent variable based on the adjusted R^2 value. This suggests that factors other than CRS affect the profitability of the companies under study. The Fisher-statistics (F) is 4.205 ($p < 0.028$) which suggests that the model is a good fit, and could be used for testing the relationship between the dependent and independent variables. The standardized beta coefficients suggest a positive relationship between the independent variables and the dependent variables. However, the relationship for ROA and ROE are not significant at 95% confidence interval ($p > 0.05$). The result however shows a positively significant p-value of 0.009 for SIZE ($p < 0.05$) signalling the bigger firms have greater CSR engagement than smaller ones.

Table 6. Regression results

Variable	Statistics	Coefficient (β)	Standardized coefficient (βs)	Std. Error	t-ratio	p-value
Constant		-5.844		9.761	-0.599	0.560
ROA		36.743	0.266	22.268	1.560	0.123
ROE		1.176	0.458	0.937	1.255	0.232
SIZE		1.583	0.609	0.526	3.071	0.009
R^2	0.492					
Adjusted R^2	0.375					
F	4.205					
Fp-value	0.028					

Results of Mann-Whitney Rank Test

The result of Mann-Whitney U-test for ROA and ROE of companies that receive high CSR ratings compared to those that receive low CSR ratings are given in Table 7 and 8 respectively. Table 7 reveals that ROA of firms with high CSR ranks (Mdn = 36.00) differs significantly from firms with low CSR ranks (Mdn =21.00), U =13.00, Z = -2.464, r = -0.49, $p < 0.05$. It was also found that the ROE of firms with high CSR ranks (Mdn =18.21) did not differ significantly from firms with low CSR ranks (Mdn =17.50), four-years after the firms were indexed by CRS-in Action; U =21.00, Z = -1.206, r = -0.29, $p > 0.05$ (Table 8).

Table 7. Result of Mann-Whitney rank test on ROA

	RANK	N	Mean Rank	Median Ranks	Sum of Ranks
	high rank	6	12.33	36.00	74.00
ROA	low rank	11	7.18	21.00	79.00
	N	17			
Mann-Whitney U	13.000				
Z	-2.010				
r_{ROA}	-0.49				
Asymp. Sig. (2-tailed)	0.049				

Table 8. Result of Mann-Whitney rank test on ROE

	RANK	N	Mean Rank	Median Ranks	Sum of Ranks
	high rank	6	11.00	18.21.00	66.00
ROA	low rank	11	7.71	17.50	87.00
	N	17			
Mann-Whitney U	21.000				
Z	-1.206				
r_{ROE}	-0.29				
Asymp. Sig. (2-tailed)	0.256				

4. Discussion

Five hypotheses were raised at the beginning of this study, the first two and the fifth postulated significant relationships between CSR ratings of Nigerian listed companies and profitability ratios as well as the size of the companies. The result of regression analysis finds an insignificant relationship between CSR and ROA (t =1.560, $p > 0.05$) on the one hand and between CSR and ROE (t =1.560, $p > 0.05$) on the other hand. However, the relationships between CSR ratings and SIZE was positive and significant (t =3.071, $p < 0.05$). The first two propositions are accordingly accepted as the relationships between CSR ratings and the profitability ratios are not significantly different. However, the relationships signs are positive and directly proportional which signals that CSR practice can lead to increased profitability of Nigerian listed companies marginally. This finding is consistent with previous findings by Adebayo and Olawole (2012); Solomon et al. (2015) but it contrasts with the findings of Umobong and Agburuga (2018); Emma, Amaefule and Onyekpere (2016) who reported negative relationships among Nigerian firms in previous studies. The lack of significant relationship between CSR and ROA/ROE of the firms can be attributed to the low practice of CSR by the firms as reflected in about 65% (11)

of the sample firm been on the lower end of the 3C-index. The practical implication of this finding is that there is the need to increase the practice of CSR and reporting among Nigerian listed companies through advocacy or enforcement compliance by the SEC or the NSC. The media too needs to take a leading role in publishing the CSR information of the firms periodically so as to bring them to intense media expose. The firms also should be mandated to set-up CSR committees or have a CSR practitioner among the dominant coalition, as this can likely expedite CSR practice and reporting.

The third and fourth hypotheses assumed that the ROA and ROE of listed firms on the NSE that received high 3C-Index ratings does not differ significantly from those that received low 3C-Index ratings. The result of Mann-Whitney rank test for ROA and ROE of companies that receive high CSR rankings compared to those that receive low CSR rankings is given in Table 6 and 7 respectively. In respect of ROA, Table 6 reveals that the ROA of firms with high CSR ranks (Mdn = 36.00) was significantly different from firms with low CSR ranks (Mdn =17.18), U =13.00, Z = -2.010, r = -0.49, $p < 0.05$. The effect size of ROA (r_{ROA}) between the companies that receive high CSR rankings as compared to those that receive low CSR rankings is approximately 0.5 and represent a large effect size. It implies that the difference in the value of ROE firms with high CSR rating is significantly larger than for firms with low CSR rating. The practical implication of this finding is that the non-parametric test is signalling that CSR practice, after all, illustrate profitability. It was also found that the ROE of firms with high CSR ranks (Mdn =18.21) did not differ significantly from firms with low CSR ranks (Mdn =17.50), four-years after the firms were indexed by CRS-in Action (U =21.00, Z = -1.206, r = -0.29, $p >$ 0.05). The r_{ROE} for ROE of top-ranked and low-ranked companies listed on the NSE is medium.

This study invested the relationship between CSR rating and the financial performance of companies listed on the NSE. The intention is to explore an alternative measure for CSR expenditure by using the rankings contained in the first ever country ranking of Corporate Citizen Index (3C-index) of 2013. This study found a positive but insignificant relationship between CSR and firm performance (ROA and ROE) among companies listed on the NSE using OLS regression. However, the result also revealed that large companies were significantly more inclined to CSR practice on the NSE. Another important finding was that the non-parametric Mann-Whitney test showed that proxied by ROA. It is also clear that the CRS rank grading of companies listed on the NSE did not significantly relate to profitability ratios in the short run. This has created avenues for further research into the intermediate and long-run effect of CSR ranking and firm profitability.

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