The Effect of Corporate Social Responsibility on the Return on Assets of Multinational Companies in Nigeria

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Abstract
This study examined the effect of corporate social responsibility (CSR) on the return on assets of multinational companies in Nigeria. The secondary data used were collected from the financial statements of the selected multinational companies and panel data regression technique was adopted. Results revealed negative relationship between corporate social responsibility and the performance of multinational companies. Results further revealed that corporate social responsibility and total liability reduced the return on assets of the multinational companies by 0.01 and 3.33e-04 percent respectively. The probability value 0.477 ˃ 0.05 for the estimated parameter also indicated the statistical insignificance effect of corporate social responsibility on the return on assets of multinational companies. Moreover, the probability value of the F-statistic 0.000 ˂ 0.05 established the statistical significance of the relationship between the corporate social responsibility and the return on assets of multinational companies. Based on the findings, the study concluded that corporate social responsibility was not effective in boosting the return on assets of multinational companies. Therefore, this study recommended that multinational companies should strive to harness the strength of corporate social responsibility by increasing the amount committed to yield the expected result on return on assets.

Keywords: CSR, return on assets, multinational, financial statement, panel data, regression.

1.0 Introduction
Corporate social responsibility is aimed at encouraging companies to be aware of the impact of their businesses on the society including the business stakeholders and the operational environment. It is a business approach that contributes to sustainable development by delivering economic, social and environmental benefits for the firm and their stakeholders. The understanding and implementation of the concept differ greatly for each firm and the operating environment. However, corporate social responsibility is a concept that addresses various issues such as human right, corporate governance, health and safety, environmental effects, working conditions and contributes immensely to economic development.

According to Bénabou and Tirole (2010) and Enahoro, Akinyomi and Olutoye (2013), government policy makers, agitation from host communities and environmental degradation effect of most of the multinational companies operating around the world have raised a growing concerned. However, McWilliams and Siegel (2000) opined that corporate social responsibility refers to the sets of actions that engender social good beyond the interests of the firm which is required by law. It is important to note that corporate social responsibility activities are voluntarily based and goes beyond the firm’s legal and contractual obligations. As such, it involves a wide range of activities such as being friendly to the employees, investors and environment as well as good respect for the host communities where the firms’ plants are located (Bénabou &Tirole, 2010).

Corporate social responsibility is seen as an integral part of corporate strategy and it must be noted that any corporation that is aimed to be successful in its business operation in the long run must adjust its value systems in line with society wishes for the long run. Horne (2006) said that management multinational corporation can no longer ignore social responsibility such as protecting consumers, paying fair wages, maintaining fair hiring practice, ensuring safety working conditions, supporting education and becoming actively involved in environmental issues like clean air and water. Agwu and Taylor (2014) conceived that corporate social responsibility is an entangled and interwoven concept that has neck-deep into the murky waters of multinational corporations all over the world. Multinational corporations also referred to as transnational corporations have their management headquarters in one country known as home country and operate in several other countries known as host countries. These corporations play fundamental roles in the host countries, both on the economic, social and political terrain.

As pointed out by Castka and Balzarova (2008), most of the multinational corporations are so large to the extent that the value of their financial statement or financial position exceeds the gross domestic product of their host country. Kashyap, Mir and Lyer (2006) viewed multinational corporations volunteer to corporate social responsibility as part of their business strategy, mission statement and value, respecting labour and environmental laws, while taking care of varying interest of their stakeholders. Observably corporations engaged in corporate social responsibility to gain competitive advantage. This was done not only to help
corporations to attract and retain customers but also to motivate their employees for optimal productivity. Branco and Rodrigues (2006) asserted that, globally, there is increased focus on corporate social responsibility not only by business organizations but also by government, international institutions and other stakeholders. The proliferation of the practice and expansion of corporate social responsibility around the world had led to a wide range of developmental structure, principles, standards and framework by which corporate social responsibility can be governed.

Kashyap, Rajan and Stein (2008) affirmed that several indices over time had been identified and developed for evaluating corporate social responsibility. Some of these rating according to them include the Dow Jones Sustainability index, the Financial Times Stocks Exchange index and so on. These indices are used to rate firms based on various criteria including but not limited to human rights, environmental protection, worker’s health and safety, labour standard and accountability. Therefore, with increasing number of multinational corporations in African continent such as those in oil and gas, airlines, beverages, pharmaceuticals industries and so on, corporate social responsibility has become very relevant, especially in achieving the new sustainable development goals launched in 2015.

However, researches in these areas carried out by Frederick (1960); Friedman (1962); Davis and Blomstrom (1966); Sethi (1975); Carroll (1979); Jones (1980); Wood (1991); Baker (2003); Carroll and Buchholtz (2008); Enquist, Johnson and Skalen (2006); Ginnarakis and Theotokas (2011); Marcia, Otgontsetseg and Hassan (2013), Lorraine (2009), Carmen-Pilar, Rosa and Lisa (2013) had received overwhelming dominance from the western-centric centered research and these researches have been mostly within the developed countries of North America and Europe and of late a focus on the transitional or emerging economies of China, Brazil, India, and Russia. Unfortunately, empirical studies focusing on developing economies such as Nigeria are few in literatures. Thus, based on this discovery, there is need to empirically investigate the relationship between the corporate social responsibility and return on assets of multinational companies in Nigeria.

2.0 Literature Review
Corporate social Responsibility and Financial Performance
The relationship between corporate social performance (CSP) and CFP has been a hot debate topic of scholars for a half century (Dodd, 1932; Jarrell and Peltzman, 1985; Hoffer, Caprot and 1988; Preston and O’Bannon, 1997; Waddock and Graves, 1997; Griffin and Mahon, 1997; McWilliams and Siegel, 2000; and Simpson and Kohers, 2002). The empirical study result on the CSP and CFP link have never been in agreement, as some studies determined negative correlation, some determined positive correlation, while others determined no correlation at all. The viewpoint for positive correlation between CSP and CFP suggests that as a company’s explicit costs are opposite of the hidden costs of stakeholders, therefore, this viewpoint is proposed from the perspectives of avoiding cost to major stakeholders and considering their satisfaction (Cornelland Shapiro, 1987).

Jackson and Hua (2009) investigated the association between corporate social responsibility and financial performance of lodging and gaming companies in the US. They selected 10 top socially responsible companies which had been ranked in Fortune’s 2007 and other publicly traded non-ranked corporate social responsibility firms from corporate social responsibility programme and margin database. Profit margin and return on equity were used to capture financial performance. The study adopted correlation and t-test to examine the collected data and found that socially responsible companies have better financial performance than non-socially responsible companies. Cheung and Mak (2010) evaluated the relationship between corporate social responsibility disclosure and financial performance of 57 publicly traded commercial banks. The data obtained from Bloomberg ESG database between the periods of 2006-2009 was analysed using regression technique. From the result, it was revealed that there was no significant relationship between corporate social responsibility disclosure and financial performance of the selected banks under study.

Weshah, Dahiyat, Awwad and Hajat (2012) examined the association between corporate social responsibility and bank size, the level of risk in bank and advertising intensity on one hand and corporate financial performance on the other hand. Thirteen Jordanian commercial banks listed on Jordanian stock exchange for the year 2011 were selected for the study. A multiple regression method was adopted for the study and it was observed that a positive relationship exists between corporate social responsibility and corporate financial performance; corporate financial performance positively related with bank size, the level of risk and advertisement expenses of the banks. Ekatah, Samy, Bampton and Halabi (2011) studied the relationship between corporate social responsibility and profitability of Royal Dutch Shell Plc in UK for the period of 2001-2005. Principal component analysis method was used for the study and the result showed a positive relationship between corporate social responsibility and profitability of the company.

Babalola (2012) employed Ordinary Least Square using CSR investment as proxy for CSR, while profit after tax was used as proxy for financial performance. The result reported a negative relationship between CSR investment and profit after tax. Uadiale and Fagbemi, (2012) employed multiple regressions to measure CSR by:
community performance, environmental management system and employee relations. Performance was measured in terms of return on equity and return on assets. The results show that CSR has a positive and significant relationship with the financial performance measures. Enahoro, Akinyemi and Olutoye (2013) applied multiple regression method to examine the relationship between CSR measured by companies’ CSR investment and performance measured by PBT and companies turnover. The results revealed a significant relationship between CSR and profit before tax on one hand; and CSR and turnover on the other hand. It was recommended that firms increase their investments in CSR as this would boost their financial performance in the long run. Iqbal, Ahmad, Hamad, Bashir and Sattar, (2014) used least square to study CSR measured by donations and financial performance measured by Net Profit and Earnings Per Share. From the result it was discovered that there is a positive relationship between CSR and financial performance in banking sector of Pakistan.

Adeneye and Ahmed (2015) assessed the influence of corporate social responsibility on performance 500 UK companies. They selected market to book value, company size and return on capital employed as the performance indicator of the companies. Descriptive statistics, regression and correlation analysis technique were employed for the study. The result revealed that corporate social responsibility was a positively related with market to book value and return on capital employed but negatively relationship with company size. Thus, rendering more corporate social responsibility activities will give the company more competitive advantage. Dzhavdatovna, Rashadovna and Alexandrovna (2014) examined the impact of corporate social responsibility on financial efficiency of 10 large companies selected from the energy sector of fusion federation in Russia for the year 2009-2011. A descriptive analysis and ordinary least square regression was employed for the study and it was discovered that a positive relationship exists between corporate social responsibility and firm’s financial efficiency.

Valmohammadi (2014) examined the influence of seven dimensions of corporate social responsibility such as organizational governance, human rights, labour practices, the environment, fair operating practices, consumer issues and community involvement and development on organizational performance in Iran. A sample of 207 Iranian manufacturing and service firms was selected for the study using a structural equation model that was analysed by regression technique. The result revealed a significant positive relationship between corporate social responsibility and organizational performance of the companies. Lu et al (2009) investigated the impact of corporate social responsibility on organizational performance of container shipping in Taiwan China. An exploratory factor analysis, Cranach’s Alpha, ANOVA and multiple regressions were used for the analysis of collected data. From the study, it was discovered that ‘community involvement and environment’ and ‘disclosure’ had a positive relationship with financial performance but employee and customer interests’ had a positive impact on non-financial performance of these companies.

Malik and Nadeem (2014) examined the extent to which corporate social responsibility influence the financial performance of banks in Pakistan for the period of 2008-2012. The regression method employed for the study showed that a positive relationship between corporate social responsibility and profitability indicator. Siddiq and Javed (2014) examined the effect of corporate social responsibility on the organizational performance of six companies in Pakistan. The corporate social responsibility was measured by perceived corporate social responsibility and perceived stakeholder relationship and return on asset and total turnover as indicators of organizational performance. The study adopted descriptive statistics, correlation and regression for the analysis of the data gathered. The correlation result showed that corporate social responsibility measure and organizational performance were positively correlated; the regression result revealed that perceived corporate social responsibility had insignificant positive relationship with organizational performance and perceived stakeholders relationship insignificant and negatively affect the organizational performance.

A thorough examination of literature such as Babalola (2012); Uadiale and Fagbemi, (2012); Enahoro et al (2013); Adeneye and Ahmed (2015); Dzhavdatovna et al (2014); Valmohammadi (2014); Malik and Nadeem (2014); Siddiq and Javed (2014) using various techniques ranging from table, frequency, descriptive analysis, correlation and regression, principal component analysis and few using generalized method of moment and panel data revealed mixed results which include positive, negative, significant and insignificant relationship between the corporate social responsibility and financial performance. Therefore, the need to further investigate the relationship and the effect of corporate social responsibility on the return on assets of multinational companies in Nigeria using panel data regression. This without doubt contributes and adds to the existing knowledge and serve as a valuable source of information to researchers interested in the area.

3.0 Research Method

Area of the Study

The researchers used 10 multinational companies purposively selected from all the multinational companies quoted on the Nigeria Stock Exchange. Companies that were selected included Guinness Nigeria Plc, Oando Nigeria Plc, Cadbury Nigeria Plc, Nigeria Breweries Plc, Unilever Nigeria Plc, Total Nigeria Plc, 7UP bottling
company, Chellaram Plc, Nestle Plc and AG Leventis Plc.

Nature and Sources of Data
The secondary data used in this study were collected from the Annual Financial Statements of the selected multinational companies and were gathered using extraction method. It covered the periods of 2010-2014.

Ho: the effect of corporate social responsibility on the return on assets of multinational companies in Nigeria is not significant.

Model Specification
This work adopted the model of Amole, Adebiyi and Awolaja (2012) which is in line with other studies on the connection between corporate social responsibility and financial performance such as Waddock and Graves, (1997), and Mcwilliams and Siegel (2000). The adopted model regressed firm’s financial performance (proxied by profit after tax) on corporate social responsibility (proxied by corporate social responsibility expenditure). For simplicity the model adopted in the work took a linear form:

\[ \text{PAT} = \alpha_0 + \alpha_1 \text{CSRE} + \epsilon. \]  

However the work modified this model using return on assets (ROA) as a measure of performance of multinational companies as dependent variable while, corporate social responsibility (CSR) and control variables such as total liability (TOL) and total assets (TOA) were included in the model as explanatory variables. Thus, the modified model for this study was stated in functional form as follows:

\[ \text{ROA} = f(\text{CSR, TOL, TOA, U}) \]  

The models as stated in 3.2 were transformed and stated in mathematical form as given in 3.3

\[ \text{ROA}_{it} = \alpha_0 + \alpha_1 \text{CSR}_{it} + \alpha_2 \text{TOL}_{it} + \alpha_3 \text{TOA}_{it} + \mu_i - - - - - - - - - - - - - - - - 3.3 \]

Where:
ROA = Return on Assets
CSR = Corporate Social Responsibility
TOL = Total Liability
TOA = Total Assets
\( \mu_i(s) \)=Stochastic Error Terms

Definition of Variables

Return on assets
Return on assets (ROA) is the ratio of annual net income to average total assets of a business during a financial year. It measures the efficiency of the business in using its assets to generate net income. It is a profitability ratio. The formula to calculate return on assets is:

\[ \text{ROA} = \frac{\text{Annual Net Income}}{\text{Average Total Assets}} \]

Net income is the after tax income. It can be found on the income statement. Average total assets are calculated by dividing the sum of total assets at the beginning and at the end of the financial year by 2. Total assets at the beginning and at the end of the year can be obtained from the year ending balance sheets of two consecutive financial years. Return on assets indicates the amount earned on each naira spent on assets. Thus higher values of return on assets show that business is more profitable. An increasing trend of ROA indicates that the profitability of the company is improving. Conversely, a decreasing trend means that profitability is deteriorating.

Corporate Social Responsibility
This is the total amount spent on all forms of corporate social responsibility engaged in by the company for the year. It comprised of the fund that goes from the company into donations, programs, awards, community development services e.t.c for a period of time usually a year

Total Liabilities
This is the aggregate of all debt the organization is liable for and can be easily calculated by summing all short-term and long term liabilities, along with any off balance sheet liabilities that corporations may incur.

Total Assets
This is the total amount of assets owned by the company. It is the addition of all short-term assets and long term assets in possession of the company for the year.

Method of Data Analysis
In the quest to attain the objective predetermined in the research work and to provide answer to research question raised, the study employed panel data analysis. The nitty-gritty of the above methods of data analyses is detailed below.

Panel Data Analysis
An attempt to extensively utilise the strength of panel data analysis, necessitated that three panel models including Pooled effect least square regression constant coefficient model, fixed effect model (FEM) and random effect model (REM) be estimated in the work in order to ascertain that conclusions are based on the most
efficient, unbiased and consistent estimates.

In the pooled effect least square regression model or constant coefficient model, all the observation are pooled together and a panel regression was estimated neglecting the cross sectional and time series nature of the data. Thus the model took the form:

$$\text{ROA}_t = \beta_0 + \beta_1 \text{CSR}_t + \beta_2 \text{TOL}_t + \beta_3 \text{TOA}_t + U_t$$

Where:
- ROA = Return on assets as a measure of performance of multinational companies
- CSR = Corporate social responsibility
- TOL = Total Liability
- TOA = Total Assets
- $t =$ time period from 2010-2014
- $i =$ cross section unit (10 multinational companies)

It is worthy of note to stress here that pooled effect least square regression model is the most restrictive panel data model because it assumes that the intercept of the model is the same for all cross sectional subjects. Thus it does not take cognizance of the possible heterogeneity in the cross sectional units.

Fixed effect model, on the other hand, allows for heterogeneity among subjects by allowing each entity to have its own intercept values. Thus the fixed effect model takes the form:

$$\text{ROA}_i = \beta_0_i + \beta_1 \text{CSR}_i + \beta_2 \text{TOL}_i + \beta_3 \text{TOA}_i + U_i$$

The difference in this model is the heterogeneity effect that is being incorporated into the model which allowed each of the cross sectional units to have their respective estimated intercept value. That is, $\beta_0_i$. The subscript $i$ on the intercept term suggest that the intercept of the subject units differs and this might be attributed to special features of each subject unit. The term “fixed effect” is due to the fact that although the intercept may differ across subjects. However, the one way fixed effect assumes that the coefficient of the regressors does not vary across subjects units or over time.

The random effect model was based on the assumption that the heterogeneity effects of cross sectional units were not fixed rather random, and as such, the intercept is treated as random effect with a mean value of $\beta_1$ and random error term $\epsilon_i$. That is, $\beta_0_i = \beta_1 + \epsilon_i$

The implication of the intercept equation presented above was that the cross sectional units were a drawing from a much larger universe of subject units and they have a common mean value for the intercept ($\beta_1$) with the individual intercept differences reflected in the error term $\epsilon_i$.

Incorporating the random intercept term into the panel model the estimated random effect model assumed the form:

$$\text{ROA}_t = \beta_0 + \beta_1 \text{CSR}_t + \beta_2 \text{TOL}_t + \beta_3 \text{TOA}_t + W_t$$

Where $W_t = \epsilon_i + U_t$

The composite error term $W_t$ consisted of two components: $\epsilon_i$ which are the cross section or individual specific error component and $U_t$ which is the combined time series and cross section error component.

### 4.0 Result and Discussion

#### Table 4.1: Descriptive Analysis of Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>50</td>
<td>43.3038</td>
<td>52.50078</td>
<td>25</td>
<td>207</td>
</tr>
<tr>
<td>TOL</td>
<td>50</td>
<td>56457.9</td>
<td>53975.94</td>
<td>4766</td>
<td>249656</td>
</tr>
<tr>
<td>TOA</td>
<td>50</td>
<td>85862.77</td>
<td>82093.91</td>
<td>8733</td>
<td>349677</td>
</tr>
</tbody>
</table>

Sources: Authors’ Computation (2017)

The table 4.1 presents the descriptive analysis of the variables for assessing the effect of corporate social responsibility on the return on assets of the multinational companies in Nigeria. Thus, it was discovered that the average amount of return on assets, corporate social responsibility, total liability and total assets for the multinational companies in Nigeria are #9.38, #43.30, #56457.90 and #85862.77 million respectively. The minimum and maximum values of return on assets, corporate social responsibility, total liability and total assets in millions of Naira are: -36.84 & 26.52, 0.25 & 207, 4766 & 249656 and 8733 & 349677 respectively during the period under study. The standard deviation values of 9.47187, 52.50078, 53975.94 and 82093.9 revealed the amount by which return on assets, corporate social responsibility, total liability and total assets of the multinational companies under consideration deviates from their respective expected values.
Table 4.2 Pooled OLS Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>T-Test</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>.1129985</td>
<td>.0156473</td>
<td>7.22</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR</td>
<td>-.0001406</td>
<td>.0003334</td>
<td>-0.42</td>
<td>0.675</td>
</tr>
<tr>
<td>TOL</td>
<td>-3.99e-06</td>
<td>7.34e-07</td>
<td>-5.44</td>
<td>0.000</td>
</tr>
<tr>
<td>TOA</td>
<td>2.47e-06</td>
<td>5.08e-07</td>
<td>4.87</td>
<td>0.000</td>
</tr>
</tbody>
</table>

R-sqr = 0.400, Adj R-sqr = 0.362, F-stat. = 10.26, Prob(F-stat)= 0.000

Source: Authors’ Computation (2017)

The result presented in table 4.2 revealed that a negative relationship exists between corporate social responsibility, total liability and the return on assets while, a positive relationship was discovered between total assets and return on assets of the selected multinational companies in Nigeria. The result further revealed that the corporate social responsibility and total liability reduces the return on assets of the multinational companies under investigation by 0.01 and 3.99e-04 percent respectively. However, total assets of the multinational companies increase the returns on assets by 2.47e-04 percent. The implication of this result is that corporate social responsibility has hampered the performance of the multinational companies in Nigeria. The test for the significance of the effect of corporate social responsibility on the return on assets of the multinational companies showed that null hypothesis is not rejected because the probability value 0.675 > 0.05 the error margin for the estimated parameter. This implies the statistical insignificance of the effect of corporate social responsibility on the performance of multinational companies in Nigeria. The test for the significance of the effects of total liability and total assets lead to the rejection of null hypothesis because the estimated probability values of estimated parameters 0.000 < 0.05 and 0.000 < 0.05 respectively. Thus, it established the statistical significance of the total liability and total assets in determining the performance of multinational companies in Nigeria. The R-square value of 0.40 revealed that 40 percent variation or improvement in the performance of multinational companies can be explained by their respective corporate social responsibility, total liability and total assets. The probability value of the F-statistic 0.000 < 0.05 revealed the statistical significance of the pooled effect model in assessing the effect of corporate social responsibility on performance of multinational companies in Nigeria.

Table 4.3: Fixed Effect Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>T-Test</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>.2228262</td>
<td>.0218865</td>
<td>10.18</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR</td>
<td>-.000132</td>
<td>.0001836</td>
<td>-0.72</td>
<td>0.477</td>
</tr>
<tr>
<td>TOL</td>
<td>-3.33e-06</td>
<td>4.09e-07</td>
<td>-8.14</td>
<td>0.000</td>
</tr>
<tr>
<td>TOA</td>
<td>1.11e-06</td>
<td>3.21e-07</td>
<td>3.47</td>
<td>0.001</td>
</tr>
</tbody>
</table>

CROSS-SECTIONAL EFFECTS

<table>
<thead>
<tr>
<th>Company</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>T-Test</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>OANDO</td>
<td>-.0250393</td>
<td>.0272706</td>
<td>-0.92</td>
<td>0.364</td>
</tr>
<tr>
<td>CADBURY</td>
<td>-.0983778</td>
<td>.0240491</td>
<td>-4.09</td>
<td>0.000</td>
</tr>
<tr>
<td>BREWERIES</td>
<td>.1290244</td>
<td>.0288087</td>
<td>4.48</td>
<td>0.000</td>
</tr>
<tr>
<td>UNILEVER</td>
<td>-.0487212</td>
<td>.0253732</td>
<td>-2.07</td>
<td>0.046</td>
</tr>
<tr>
<td>TOTAL</td>
<td>-.022794</td>
<td>.0238398</td>
<td>-0.96</td>
<td>0.345</td>
</tr>
<tr>
<td>7UP</td>
<td>-.0970145</td>
<td>.0235354</td>
<td>-4.12</td>
<td>0.000</td>
</tr>
<tr>
<td>CHELLARAM</td>
<td>-.1887196</td>
<td>.0252268</td>
<td>-7.48</td>
<td>0.000</td>
</tr>
<tr>
<td>NESTLE</td>
<td>.0857365</td>
<td>.0218402</td>
<td>3.93</td>
<td>0.000</td>
</tr>
<tr>
<td>AG LEVENTIS</td>
<td>-.1571603</td>
<td>.0251544</td>
<td>-6.25</td>
<td>0.000</td>
</tr>
</tbody>
</table>

R-sqr. = 0.909, Adj R-sqr. = 0.879, F-stat. = 30.65, Prob(F-stat) = 0.000

Source: Authors’ Computation (2017)

Table 4.3 presents the result of the fixed effect with cross sectional specific effect. The result revealed that a negative relationship exists between corporate social responsibility, total liability and the return on assets while, a positive relationship was discovered between total assets and return on assets of the selected multinational companies in Nigeria. This result is consistent with Babalola (2012) that there is negative relationship between corporate social responsibility and profit after tax as measure of performance in corporate firms. The result further revealed that the corporate social responsibility and total liability reduces the return on assets of the multinational companies under investigation by 0.01 and 3.33e-04 percent respectively. However, total assets of the multinational companies increase the return on assets by 1.11e-04 percent. The implication of this result is that corporate social responsibility has hampered the performance of the multinational companies in Nigeria. The test for the significant of the effect corporate social responsibility on the return on assets of the multinational companies showed that null hypothesis is not rejected because the probability value 0.364 > 0.05 the error margin for the estimated parameter. This implies the statistical insignificance of the effect corporate social responsibility on the return on assets of manufacturing companies in Nigeria. Test for the significant of the effects of total liability and total assets lead to the rejection of null hypothesis because the estimated probability
values of estimated parameters $0.000 < 0.05$ and $0.001 < 0.05$ respectively. Thus, it established the statistical significance of the total liability and total assets in determining the return on assets of multinational companies in Nigeria. The R-square value of 0.91 revealed that 91 percent variation or improvement in the performance of multinational companies can be explained by their respective corporate social responsibility, total liability and total assets. The probability value of the F-statistic $0.000 < 0.05$ revealed the statistical significance of the fixed effect model in assessing the effect of corporate social responsibility on performance of multinational companies in Nigeria.

The examination of this effect on the return on assets of each of the multinational companies under study revealed that corporate social responsibility have a positive effect on the return on assets of Guinness Plc, Nigeria Breweries and Nestle Nigeria Plc. Thus, the results further revealed that corporate social responsibility improved the performance of the aforementioned multinational companies by 22, 13 and 9 percent respectively. However, corporate social responsibility had a negative effect on the performance of Oando Nigeria Plc, Cadbury Nigeria Plc, Unilever Nigeria Plc, Total Nigeria Plc, 7UP bottling company, Chellaram and AG Leventis. It was further discovered that corporate social responsibility limit the performance of the identified multinational companies by 3, 10, 5, 2, 10 19 and 16 percent respectively. This implies the need for these multinational companies to take the advantages of social responsibility to improve on their level of performance. The test for the significant effect of corporate social responsibility on the return on assets of these multinational companies using probability values revealed its statistical significance on all the multinational companies identified in this study except Oando Nigeria Plc and Total Nigeria Plc.

The R-square value 0.91 showed that 91 percent variation in the performance of multinational companies can be explained by the corporate social responsibility, total liability and total assets as well as the incorporation of the heterogeneity of the multinational companies in the model. The probability of F-statistic value $0.000 < 0.05$ revealed the statistical significance of the fixed effect model in assessing the effect of corporate social responsibility on return on assets of multinational companies in Nigeria. The result is aligned with the submission of past studies such as Eweje (2007) and Oko & Agbonifoh (2014) on the relationship between corporate social responsibility and performance of corporate firms.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Z-Test Values</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>.1658062</td>
<td>.0273103</td>
<td>6.07</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR</td>
<td>-.0001533</td>
<td>.000192</td>
<td>-.80</td>
<td>0.424</td>
</tr>
<tr>
<td>TOL</td>
<td>-3.42e-06</td>
<td>4.29e-07</td>
<td>-7.97</td>
<td>0.000</td>
</tr>
<tr>
<td>TOA</td>
<td>1.33e-06</td>
<td>3.30e-07</td>
<td>4.04</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Authors’ Compilation (2017)

Random effect result presented in table 4.5 also showed the result same effect of corporate social responsibility on the return on assets of multinational companies in Nigeria. The R-square value of 0.222 revealed 22 percent of the systematic variation in the return on assets of the multinational companies can be explained by corporate social responsibility, total liability and total assets when the heterogeneity effect is incorporated into the error term of the model.

Table 4.5: Restricted F Test of Heterogeneity

<table>
<thead>
<tr>
<th>Cross Sectional Specific Effect</th>
<th>F-statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential intercepts are not significantly different from zero</td>
<td>22.84</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2017)

Table 4.6: Hausman-Test

<table>
<thead>
<tr>
<th>Null hypothesis</th>
<th>Chi-square stat</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference in estimates not systematic</td>
<td>16.71</td>
<td>0.0008</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2017)

Table 4.5 presents the result of restricted F-test to confirm the significance of the differential intercept term corresponding to each cross-sectional unit over time. Specifically, probability values of $0.000 < 0.05$ for cross-sectional specific effects revealed that there is no enough evidence to reject the null hypothesis that all differential intercept corresponding to the cross sectional specific units are not significantly different from zero, Therefore it can be affirmed that there is presence of heterogeneity effect among the multinational companies selected for this study when examine relationship that exists between corporate social responsibility and the return on assets of multinational companies in Nigeria. Thus, the test revealed that the cross-sectional heterogeneity effect is too significant to be ignored. In table 4.6, presents the result of testing the null hypothesis of no systematic (significant) difference between fixed effect and random effect estimates. However, the
probability value of 0.001 showed that there is enough evidence to reject the null hypothesis of no systematic (significant) difference between fixed effect and random effect estimates. Thus from the foregoing it was established that fixed effect model is the most consistent and efficient estimation to determine the connection between corporate social responsibility and the return on assets of multinational companies in Nigeria during the period under investigation. Above all, this study establishes the significant relationship between corporate social responsibility and the return on assets of selected multinational companies in Nigeria.

5.0 Conclusion
A thorough examination of the connection between corporate social responsibility and the return on assets of multinational companies revealed the existence of negative relationship. Thus, corporate social responsibility does not influence return on assets of multinational firms in Nigeria. Above all, the standing of this study is that corporate social responsibility is not effective in boosting the return on asset of multinational companies in Nigeria. Therefore, this study recommends that multinational companies should objectively strive towards harnessing the strength of corporate social responsibility by increasing the amount committed to it so that it can yield the expected result and contribute significantly to their performance. Multinational companies should also invest in development of capital overhead in Nigeria especially in areas within the jurisdiction of their operations. This without doubt will boost infrastructural development and productivity which in return will enhance their performance.

REFERENCES


