Corporate Social Responsibility and Investment Decisions in Listed Manufacturing Firms in Nigeria

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Authors’ contributions

This work was carried out in collaboration between all authors. Author OW designed the study, performed the statistical analysis, wrote the protocol and the first draft of the manuscript. Authors IL and OJA managed the analyses of the study. Author IM managed the literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Corporate social responsibility (CSR) is an inexorably critical issue for economic agents everywhere throughout the world, due to regularly developing attention to all the aspects of firm’s activities and their relationships with stakeholders. Likewise in rising economies like Nigeria, the quantity of firms that take part in intentional corporate social responsibility (CSR) reports (e.g. supportability reports, natural reports, ecological and social reports or corporate social duty reports) is expanding. The purpose of this paper is to investigate the impact of Corporate Social Responsibility on investment decisions in listed manufacturing firms in Nigeria. The study employed a panel methodology, and the results show a positive and significant relationship between CSR and investment decisions of stakeholders in manufacturing firms in Nigeria. Overall, these results suggest that improved CSR investment benefits shareholders which would promote positive performance in investment level in the firm and also improved firm performance. The study recommends that CSR activities should be connected to the corporate processes of value creation, i.e., CSR is exclusively designed as an instrument for improved performance.

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1. INTRODUCTION

Environmental issues have risen as a noteworthy aspect of discussion affecting economic growth and development [1]. The increasing concern for the environment incites that organizations ought to create focused models pointed not just at acquiring profit for the time being, but additionally to meet the expectations of society and the diverse stakeholders engaged with its activities in the long run [2,3]. Regarding these requirements for companies, corporate social responsibility (CSR) has been broadcasted lately as a key instrument that causes organizations to meet these environmental issues and also to enhance competitiveness, therefore [4,5,6]. The analysis of the concept CSR reveals that for an extended period, organizations have played a fundamental and exclusive economic function in society, contributing actively in the distribution of goods and services, and the generation of wealth and employment. However, in recent decades, circumstances such as:

i. the growing number of corporate fiscal abuses and opportunistic plans in the financial environment [7];
ii. the increase of social inequalities reflected in the poverty, hunger or discrimination amongst countries [8];
iii. the great power assumed by multinationals [9]; or
iv. the environmental degradation accused by the planet [10], have caused that the parties affected by firm's decisions and outcomes (shareholders, employees, unions, customers, suppliers, citizens, local community, government, etc.) to demand for a greater commitment and responsibility from organizational activities.

The idea of social responsibility emerges if an organization is socially responsible [11], and includes both the duty to perform or abstain from negative environmental activities. Consequently, the development of report about the environment has brought about worries about environmental impacts on firm value as well as its performance [12]. Over the previous decade, creating economies has seen huge economic and social changes particularly in the Niger-Delta locale of Nigeria where relentless social turmoil among youth in the area has turned into a lifestyle because of the abnormal state of environmental debasement and poor condition of a social foundation.

The investment decision is a pivotal activity for investors, particularly in the changing condition of business environments. Investment decisions can't be made just relying on individual knowledge. Investors ought to be constantly updated and have all needed resources to accomplish the desired objective which is to make an optimal investment decision. Concerning traditional financial market theories, market participants are usually rational. But numerous studies posit that investor behaviour isn't always rational. Recently, stock markets are turning into a more unpredictable state. The securities exchanges instability increases the risk related to investment. As per [13], efficient market hypothesis explains that share prices indicate all existing information entirely. An efficient market hypothesis is based on investor's information capabilities and rationality basis.

[14] Defines efficient market theory based on the concept that investors behave rationally by increasing expected utility and quickly process all accessible information. Investor’s view fluctuates about return and risk of their investment even with the existence of efficient market hypothesis. Research done by [15] demonstrates that investors utilize repeated patterns of irrational behaviour and deviate from rationality. For investors, one of the most vital aspects when making an investment decision is implementation level of corporate governance factors (public disclosure of information, shareholder rights protection and fair treatment of shareholders) and profitability, which ensures return on investment.

Investment decisions deal with the allocation and utilisation of resources and funds [16]. A wrong decision poses a severe threat to firm's survival. Hence, careful evaluation of investment decisions is of high priority to firms. However, recent studies [e.g., 17,18] have found that managers do not always make investment decisions in the interest of shareholders. Due to the heightened interest in the concept of corporate social environmental reporting and what it entails, much research has been done in this area, particularly in the developed countries. In contrast, the developing countries are slower in responding to the increased concern about the
issue of corporate social, environmental disclosures. Despite some increase in research, studies in this area in the developing countries are still scarce [19, 20].

There exists an impressive research body that evaluates companies and the connection between strong corporate social responsibility practices and better performance. Although, the existing literature presently goes so far. The introduction of behavioural finance has brought about companies looking into the behaviour of investors and what drives them to buy more shares in a company or sell their shares. Regardless of the relative plethora of studies, there are a relative few that explicitly inquire from investors what significance they put on environmentally friendly companies when making investment choices. Studies in Nigeria haven't extensively analysed whether the level and quality of firm's corporate social responsibility play a role as large-scale investors consider investment decisions. Specific corporate social responsibility reforms could make countries prepared for an investment.

However, it is imperative to explore this question because corporate social responsibility, which promotes investor protection, might be expected to influence how investors behave; this will be imperative for understanding the role of environmental investments. It is against this precipice that this study intends to identify the relationship between corporate social responsibility and investment decisions of shareholders in Nigeria.

2. LITERATURE REVIEW

2.1 The Nigerian Context

To the author's best knowledge, there is very few known documented research work on corporate social responsibility and investment decisions in Nigeria. Consequently, of late, there appears to be increased public concern and awareness for corporate social environmental impact. This could also be due to the prominent role played by the non-governmental organizations (NGOs), such as the green alliance Nigeria, and the Federal Environmental Protection Agency (FEPA) of Nigeria, in lobbying for the preservation and conservation of the environment.

The exceptional media investigation on environmental issues such as nonstop gas flaring, corruption in the Niger-Delta areas, indiscriminate land and slope clearing, and dangerous waste dumping have additionally added to public concern for the inconvenient impacts of business activities on the environment. Due to increasing public concern, companies in Nigeria must respond to such changes by providing environmental disclosures within the annual reports. As [21], contended that “If the members of the community are becoming more interested in the environmental impact of companies, it is likely that the firm's management will be called on to explain the company's activities affecting the environment. Such accessibility may be promoted through disclosure within the annual report.

2.1.1 Corporate social responsibility

In spite of the fact that its underlying foundations backpedal to the mid twentieth century, the cutting edge idea of CSR has developed since the 1950s, formalized in the 1960s, and multiplied in the 1970s [22]. While numerous authors have attempted to give a full definition to CSR, an exact definition is elusive and yet to be acquired [23]. There are two popular schools of thought about the responsibilities of corporations. As indicated by the shareholders view, the main obligation of a business is maximising its benefits [24]. Friedman and his supporters protest the more an extensive meaning of corporate social responsibility is attached, the more it weakens the main purpose of the organisation, creating extra expenses, and weakening economic efficiency and benefit. As indicated by Friedman, shareholders value is the main goal to be improved by a firm. If managers need to progress in the direct environment performance, they ought to do such privately at their own personal cost, not as agents of the firm [24]. Opposing this view, the stakeholders view takes a more extensive responsibility of business obligations toward society.

[25] Says, Stakeholders’ theory posits that an enterprise is made out of stakeholders that have, or guarantee, possession, rights, and interests in a company and its activities. Under this system, any individual who may influence the business goal and any individual who may be influenced by its acknowledgment are thought to be stakeholders. An organization's business exercises may influence directly or indirectly the success of numerous stakeholders including investors, employees, clients, suppliers, local groups, natural environment, government, and general society. Every stakeholder has
preferences of the enterprise. The firm's responses to these desires are critical to its present and future achievement. It is generally acknowledged that the effect of corporate activity upon society and its citizens, and in addition all stakeholders is noticeable and impacts the present as well as the future [26].

Thus, socially responsible organizations must be overseen as indicated by the stakeholder hypothesis [27]. A socially mindful organization must consider the impacts of its activities on each entity that might be directly or indirectly influenced by the organization. Socially responsible conduct incorporates an expansive scope of exercises, for example, treating customers, employees, and business accomplices fairly; supporting societal causes; ensuring and enhancing the environment; etc.

Amongst others, Carroll's definition depicting the four fundamental classifications of CSR gained wide popularity: The social duty of business envelops the economic, legal, ethical and discretionary expectations that society has of firms at a given point of time [28]. Afterward, he reviewed this definition and proposed a three-domain model showing economic, legal, and ethical obligations [29]. Another powerful definition made by [30] states: 'CSR is an organization's sense of duty regarding limiting harmful impacts and expanding its long-run valuable effect on society. Similar to the decent variety in definition, there are distinctive suppositions on the impacts of CSR on business performance and on stakeholder responses.

2.1.2 Investment decisions

As postulated by [16] investment decisions have to do with effective capital allocation. It is most times based on investment decisions on long-term assets. Investment analyses are done by applying fundamental tools such as financial statement information, CSR reports. Individual investment behaviour has to do with investing in the shares of companies to yield future gains and this can be affected by numerous factors because investors are rational.

2.2 Theoretical Review

2.2.1 Stakeholder's theory

Stakeholder theory is to a lesser extent a formal theory and to a greater extent a general convention, philosophy, ethics, political hypothesis. As indicated by [31], this theory expects that values are fundamentally and expressly a part of business process. It expects directors to have the mutual feeling of the value they make, and what unites its stakeholders. Moreover, it urges managers to be exact and clear on they need to work together, particularly what sorts of relationships they want and on their need to create with their stakeholders. The goal for the firm thusly is to serve and arrange the interests of its different stakeholders, for example, investors, employees, lenders, customers, suppliers, government, and the community. Stakeholder theory is an augmentation of the agency hypothesis, concentrating on shareholders' interest and the interests of diverse groups and individuals, including interest groups related to social, environmental and ethical considerations [31].

[32] States that stakeholders are individuals who have direct or indirect relationship with the firm and impacts organizations goal accomplishment. These include the community, workers, customers, suppliers, government, political parties, etc. The stakeholders in firms will empower the organization to be considerate about its customers, the community and social organisations and can make a stable environment for long term development. As indicated by the stakeholder’s hypothesis, the best firms are ones with committed suppliers, clients, workers and management. As of late, stakeholders hypothesis has gotten consideration than before on the grounds that researchers have perceived that the activities of a firm impact on the external environment requiring larger audience to demand reports on its interaction with the environment as opposed to just its shareholders [33].

In relation to the research objectives, this study adopted the stakeholder theory because this study looks at other stakeholders and not necessarily the shareholders only and according to this theory, the satisfaction of various stakeholder groups is instrumental for organizational financial performance [34].

2.3 Empirical Review of Literature (CSR and Investment Decisions)

Regardless, because of the distinction in approach and scope, it is difficult to compare the findings of these studies. Also, in addition to the increasing pressure from stakeholders arising
from the increasing levels of education and heightened awareness on issues related to the social and environmental responsibility; neither of these studies attempted to address the issue.

**2.3.1 Research hypothesis**

In light of the mixed outcome provided in earlier research combined with the dearth of literature in this area of accounting in a developing country (e.g. Nigeria); the following hypotheses are expressed underneath in there null form.

**Hypothesis one**

\[ H_0: \text{There is no significant relationship between donations and investment decisions.} \]

**Hypothesis two**

\[ H_0: \text{There is no significant relationship between staff training cost and investment decisions.} \]

**Hypothesis three**

\[ H_0: \text{There is no significant relationship between employee benefits and investment decisions.} \]

### 3. METHODOLOGY

In order to successfully analyze the relationship between corporate social responsibility and investment decisions in manufacturing firms in Nigeria, panel data regression analysis was used. Panel data according to [43], is described as a repeated observations on the same cross section, typically of individual variables that are observed for several time periods. Hence, this study adopts this method due to the fact that the data gathered were both time-series and cross-sectional data. This study also used descriptive statistics to report the means and standard deviations of the various variables used in the study. A correlation analysis was carried out to see the association level between the independent and dependent variables on E-views and also to test for multicollinearity. The Hausman test was carried out to determine which model is appropriate for the panel regression. The manufacturing sector was chosen because it remains the most powerful engine for economic structure of countries. It also adopts the use of secondary data for the period 2008 to 2015 for 15 manufacturing companies out of the 64 companies listed on the Nigerian stock exchange [44].

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Result/critique</th>
</tr>
</thead>
<tbody>
<tr>
<td>[35]</td>
<td>(2011)</td>
<td>The outcomes show that positive CSR information about a firm enhances existing and potential investors' intentions to invest in the company.</td>
</tr>
<tr>
<td>[37]</td>
<td>(2009)</td>
<td>Results propose that there exists important variables that influence the perceived value of a business, affecting decisions to not only invest, but whether to hold or sell the shares, and consequently having an impact on the capital market.</td>
</tr>
<tr>
<td>[38]</td>
<td>(2008)</td>
<td>The results suggest that environmental information disclosure influences investment decisions. That is, companies that are apathetic to their environmental responsibility might experience eventual crashes on their stock price.</td>
</tr>
<tr>
<td>[39]</td>
<td>(2003)</td>
<td>This study proposes that engaging in a CSR action can bring negative consequences on consumers’ company appraisals, triggering a boomerang effect. If stakeholders see companies’ CSR actions as only a self-promotional tool to develop its image rather than an effort embarked on to enrich stakeholders’ welfares.</td>
</tr>
<tr>
<td>[40]</td>
<td>(1999)</td>
<td>Shown that corporate validity significantly affected dispositions toward the brand and also affects investors intention to purchase shares or not.</td>
</tr>
<tr>
<td>[41]</td>
<td>(1997)</td>
<td>Consumers’ purchase intentions were related to whether the company’s ethics record exceeded their expectation.</td>
</tr>
<tr>
<td>[42]</td>
<td>(1997)</td>
<td>Discovered that CSR activities influenced buyers’ general assessment of the organization, which thusly influenced their intention to purchase more and invest more.</td>
</tr>
</tbody>
</table>
In addition, in line with [45,46], a minimum of 5% of a defined population is considered an appropriate sample size in making a generalization. [47] Posits that it is common to use 10% of the population as sample size in research studies, because, having a sample size of 10% of the whole population has been factually recommended to be sufficient to embark on a research work. Consequently, in line with [46], the study employed content analysis in examining financial reports of Nigerian manufacturing listed firms to determine those that contain the relevant data for this research work. Annual reports are generally considered by management and outsiders to be the most important and influential source of corporate information [48]. The software applied for this study is the E-views.

This study also made use of judgmental sampling method using longitudinal research design. The longitudinal design was considered suitable for this study because data on the variables were based over a period of time.

3.1 Variables and Research Model

In order to test for the relevance of the hypotheses, this study employed a modified version of the econometric model of [49]. The Econometric model of [49] is therefore seen below as;

\[ \text{PAT}_{1t} = a_0 + a_1 \text{CSR}_{1t} + \mu_{1t} \]

Where, 
\( \text{PAT}_{1t} = \) Profit after Tax \\
\( \text{CSR}_{1t} = \) Corporate Social Responsibility Cost \\
\( a_0 = \) Constant term \\
\( a_1 = \) Parameter to be estimated \\
\( \mu_{1t} \) is the error term for the model

Based on the fact that the study employed different corporate social responsibility proxies, the above model is therefore modified to determine the relationship between the dependent variable (investment decisions) and two or more regressors or independent variables (corporate social responsibility variables). In doing this we, therefore, developed a simple definitional model to guide our analysis. This model is as follows

\[ Y = \beta_0 + \beta_x + \mu_{1t} \ldots \]  
Equation 1 can be defined as:

\[ \text{INVD} = f(\text{Donations}, \text{Staff Training Cost}, \text{Employee Benefits}) \]  
Therefore the Regression Equation is:

\[ \text{INVD} = \beta_0 + \beta_1 \text{DON}_{1t} + \beta_2 \text{STC}_{1t} + \beta_3 \text{EMB}_{1t} + \mu \]  
Where,

\( \text{INVD} = \) Investment Decisions (Natural Log of Total Amount of shareholders fund/value of Shareholdings by Investors) \\
\( \text{STC} = \) Staff Training Cost (Natural logarithm of Staff Training Cost) \\
\( \text{EMB} = \) Employee Benefits (Natural logarithm of Employees Benefits) \\
\( \text{DON} = \) Donations (Natural logarithm of Donations) \\
\( \beta = \) coefficient of parameter \\
\( i-t = \) time coefficient this is the time frame been considered in the study \\
\( \mu = \) error term

The a priori is such that: \( \beta_1, \beta_2, \beta_3 > 0 \). The implication of this is that a positive relationship is expected between explanatory variables (\( \beta_1 \text{STC}, \beta_2 \text{EMB}, \text{and } \beta_3 \text{DON} \)) and the dependent variable. The size of the coefficient of correlation will help us explain various levels of relationship between the explanatory variables.

3.2 Hypotheses

For the purpose of this study, the three hypotheses generated from the review of literature are used. These were depicted in section 2.3.1

4. RESULTS AND DISCUSSION

Generally, from the 120 observations as seen in Table 1, Descriptive statistics of dependent variable (investment decisions), independent variables (donations, employee benefits and staff training cost) were run to determine the data spread, mean and deviations (Table 1). The results obtained from the descriptive statistics give the average shareholders fund for the whole sample to be 7.335075, with maximum and minimum of 8.86 and 6.28 respectively. The standard deviation was 0.52. This shows the stability of shareholders investments across the firms under consideration.

The STC has a mean of 14.62484, a maximum and minimum of 18.9 and 11.3 respectively and a standard deviation of 1.67.
The EMB has a mean of 14.03568, a maximum and minimum of 18.3 and 11.5 respectively and a standard deviation of 1.33.

The DON has a mean of 16.16561, a maximum and minimum of 20.97 and 11.5 respectively and a standard deviation of 1.67.

From the analysis, it can be seen that the standard deviation values are close to zero, meaning the mean values are reliable and there is very little volatility in the sample. Also, it can be seen that donations (DON) have the highest standard deviation which depicts the lowest contribution to the model, while returns on asset has the lowest standard deviation, which indicates its significant contribution to the model.

Table 2 presents the correlation matrix of the independent and dependent variables used in this study. It basically reflects the relative strength of the linear relationship between the explanatory variables. According to [50], multicollinearity could only be a problem if the pair-wise correlation coefficient among regressors is above 0.80. However, from the table above, it can be seen that there is a positive and mild relationship (correlation of 0.385626 = 39%) between the staff training cost and investment decisions. That is, as the investment in staff training increases the shareholders would also increase their level of investment in manufacturing firms in Nigeria. Also, the relationship between employee benefits and investment decisions shows a positive and weak correlation of 0.094781 (9%) which explains that as employees receive more benefits, the shareholders fund in the firm increases (which is a measure of investment decision).

Consequently, Table 2 shows a positive relationship between donations and investment decisions in manufacturing firms with a correlation of 0.629781 (63%). Therefore, based on this outcome, the problem of multicollinearity is absent among the independent variables.

4.1 Regression Analysis

In this section, the study employed panel data regression analysis to investigate the relationship between corporate social responsibility and investment decisions proxied by value of shareholders fund.

The Hausman test was carried out to determine which model is appropriate for the panel regression. The Hausman test rule is as follows:

If the P-value is statistically significant, accept the alternative hypothesis (Fixed Effect Model).

If the p-value isn’t statistically significant, accept the null hypothesis (Fixed/Random Effect Model).

From the analysis, it is seen that the P-value (0.0063) < 5% significance level, so the null hypothesis is rejected and the alternative accepted which is a fixed effect model.

### Table 1. Descriptive statistics for the model

In this section, descriptive statistics is organized along a cross section of industries in the Nigerian manufacturing environment.

<table>
<thead>
<tr>
<th></th>
<th>INVD</th>
<th>STC</th>
<th>EMB</th>
<th>DON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.335075</td>
<td>14.62484</td>
<td>14.03568</td>
<td>16.16561</td>
</tr>
<tr>
<td>Maximum</td>
<td>8.861856</td>
<td>18.94392</td>
<td>18.33602</td>
<td>20.96521</td>
</tr>
<tr>
<td>Minimum</td>
<td>6.282172</td>
<td>11.32829</td>
<td>11.51293</td>
<td>11.51293</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.524066</td>
<td>1.673551</td>
<td>1.330381</td>
<td>2.217588</td>
</tr>
<tr>
<td>Observations</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: Author’s computation 2017 Using Eview 8.0

### Table 2. Correlation coefficients matrix from e-views

<table>
<thead>
<tr>
<th></th>
<th>SH</th>
<th>STC</th>
<th>EMB</th>
<th>DON</th>
</tr>
</thead>
<tbody>
<tr>
<td>SH</td>
<td>1.000000</td>
<td>0.385626</td>
<td>0.094781</td>
<td>0.629781</td>
</tr>
<tr>
<td>STC</td>
<td>0.385626</td>
<td>1.000000</td>
<td>0.489136</td>
<td>0.082479</td>
</tr>
<tr>
<td>EMB</td>
<td>0.094781</td>
<td>0.489136</td>
<td>1.000000</td>
<td>0.132650</td>
</tr>
<tr>
<td>DON</td>
<td>0.629781</td>
<td>0.082479</td>
<td>0.132650</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: Authors’ computation (2017) Using Eview 8.0
Table 3. Hausman test

<table>
<thead>
<tr>
<th>Test cross-section random effects</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>12.328148</td>
<td>3</td>
<td>0.0063</td>
</tr>
</tbody>
</table>

4.2 Discussion of Panel Regression Result

This study looks at the relationship which exists between CSR and investment decisions in Nigerian manufacturing firms. The result in the Table 4 shows the estimation of the relationship between CSR and investment decisions in Nigerian manufacturing firms measured by the natural logarithm of CSR variables (Donations, Employee Benefits And Staff Training Costs) and investment decisions (measured by natural logarithm of Total Amount of shareholders fund). The result for the goodness of fit test as presented in table shows a coefficient of determination of $R^2 = 0.81$ (81%) and adjusted $R^2$ is 0.78 (78%); this shows that 78% of the total variation in the dependent variable (investment decisions) is explained by the variations of the independent variables (Donations, Employee Benefits And Staff Training Cost).

The p-value of the F statistics is 0.00000 which is significant at 5% explaining that the null hypothesis should be rejected. Consequently, the F-test results as depicted in Table 4 indicates clearly that the fairness and non-biasness of the model. It shows simultaneously that the independent variables altogether are significantly associated with the dependent variable. The high and statistically significant value of the F-statistic confirms the overall significance of the model and the predictive power of the independent variable. The Durbin Watson is 0.980645 which falls within the acceptable region and shows the presence of low auto-serial correlation which is common in time series data. This confirms the statistical reliability of the model. Therefore, the model shows that there is a significant relationship between corporate social responsibility and investment decisions in Nigerian manufacturing firms. The results of this study is in line with the work of [35,51] which reveals that positive CSR information about a firm enhances existing and potential investors’ intentions to invest in the company.

4.3 Hypotheses Testing

There are three hypotheses on the relationship between CSR and financial performance of Nigerian manufacturing firms which were formulated and are to be tested on which this research is rested. This section shall subject these apriori expectations to empirical testing drawing from the results of our descriptive and inferential statistical analyses. The t-statistics which are denoted by the p-values flagged by the statistical packages used would serve as the bases of the decision rule. This is centered on the assumption which says that the presence of a significant relationship can be inferred from a significant t-statistic [45].

Hypothesis one

$H_{01}$: There is no significant relationship between donations and investment decisions in manufacturing firms in Nigeria.

The correlation analysis tested on donations and investment decisions possess a coefficient ($r$) of 0.053399, which signifies a positive relationship existing within the two variables associated with a p-value of 0.0426 at 5% significant level. This implies a positive influence of donations to the external public on the investment decisions in listed manufacturing firms. This invariably means that the donations to external public must be considered so as to boost investment decisions of shareholders. The result, therefore, supports the stakeholder’s theory that supports taking care of the interests of the stakeholders.

Hypothesis two

$H_{02}$: There is no significant relationship between staff training cost and investment decisions.

Consequently, the correlation analysis carried out on the staff training costs and investment decisions possess a coefficient ($r$) of 0.047234, which signifies a positive correlation between the two variables with a p-value of 0.3026 not significant at 5%. This implies a positive influence of investing in the training of staff on the investment decisions in listed manufacturing firms.
Table 4. Regression result for panel data

Dependent Variable: SH  
Sample: 2008 2015  
Periods included: 8  
Cross-sections included: 15  
Total panel (balanced) observations: 120

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STC</td>
<td>0.047234</td>
<td>0.045429</td>
<td>1.039731</td>
<td>0.3009</td>
</tr>
<tr>
<td>EMB</td>
<td>0.033322</td>
<td>0.028565</td>
<td>1.166508</td>
<td>0.2461</td>
</tr>
<tr>
<td>DON</td>
<td>0.053399</td>
<td>0.026000</td>
<td>2.053830</td>
<td>0.0426</td>
</tr>
</tbody>
</table>

Effects Specification

<table>
<thead>
<tr>
<th>Cross-section fixed (dummy variables)</th>
<th>Mean dependent var</th>
<th>S.D. dependent var</th>
<th>Akaike info criterion</th>
<th>Schwarz criterion</th>
<th>Durbin-Watson stat</th>
<th>Prob(F-statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.813930</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.335075</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.782918</td>
<td>S.D. dependent var</td>
<td>0.524066</td>
<td></td>
<td></td>
<td>0.573726</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.244173</td>
<td>Akaike info criterion</td>
<td>0.155603</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>6.081293</td>
<td>Schwarz criterion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>8.663842</td>
<td>Hannan-Quinn crtr.</td>
<td></td>
<td></td>
<td></td>
<td>0.325405</td>
</tr>
<tr>
<td>F-statistic</td>
<td>26.24587</td>
<td>Durbin-Watson stat</td>
<td></td>
<td></td>
<td></td>
<td>0.980645</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computation 2017

Table 5. Analysis of null hypotheses

<table>
<thead>
<tr>
<th>Null hypotheses</th>
<th>Accept</th>
<th>Reject</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_01$: There is no significant relationship between donations and investment decisions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$H_02$: There is no significant relationship between staff training costs and investment decisions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$H_03$: There is no significant relationship between employee benefits and investment decisions.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s computation 2017

Based on this result, the null hypothesis is not rejected and the alternate hypothesis is rejected which says that there is no significant relationship between staff training cost and investment decisions. The result somewhat negates the stakeholder’s theory that supports giving the utmost priority to the interests of the stakeholders meaning the type of stakeholder has to be considered before there can be a positive effect on investment decisions.

Hypothesis three

$H_0$: There is no significant relationship between employee benefits and investment decisions.

The result shows existence of a positive but statistically insignificant relationship between employee benefits and investment decisions. Employee benefits have correlation coefficient value of 0.033322. This implies that a unit increase in employee benefits will lead to 3% increase in investment decisions in the sampled manufacturing firms. The $p$-value of 0.2461 (which is more than 5% significance level). This indicates that there is inconclusive evidence about the significance of the relationship between the variables and the null hypothesis is not rejected and the alternative hypotheses rejected. Also, the claim of the stakeholder’s theory is not supported by the findings of the
study. This is in line with [52,11] argument that, no sound theory exists to potentially create the implausible effect, and that this can lead to no effect. It could also be that, the firm’s participation in CSR is relatively in the initial stage and majority of the stakeholders is unaware of the company’s activities also environmental responsibility shall be enforced by the stakeholders on the company without legislation imposed [53].

5. CONCLUSION

This study aimed at analysing the relationship that exist within CSR and investment decision in quoted manufacturing companies in Nigeria from 2008 to 2015. The study reviewed various literature and theories such as stakeholder’s theory as well as empirical studies from developed and developing countries. The Panel ordinary least square method of multiple regression is carried out to determine if there is a relationship which exists within the variables of the study, namely: CSR and investment decisions and also to determine whether the relationship is significant or not. The study expressed a result that there is a definite relationship between CSR and investment decisions in manufacturing firms in Nigeria. Breaking the results down, it can be seen that external CSR (donations) causes an increase in shareholders' investment as opposed to internal CSR (staff training costs and employment benefits). This shows that CSR actions directed to external society are more visible; thus more positively valued by investors.

Despite such promising results from the research work, CSR is still an emerging issue in Nigeria, and stakeholders are not fully invested in it; and also the disclosure quality of Corporate Social Responsibility may prove to be difficult in terms of measurement; caused by the absence of generally accepted standards which can serve as a form of guidelines also a large amount of firms have the practice of using CSR disclosure as an supplementary tool of publicizing, avoiding to disclose important information. In Africa in general, this study would help throw light on the benefits of environmental investments. CSR would help create better relationship with foreign and developed countries giving us better access to social, economic and environmental resources and also improvement in quality of life in Africa.

Based on the research findings, the following recommendations are made for further research:

The limited scope to manufacturing companies is as a result of the low availability of CSR reports. However, due to a larger attention to the issues of CSR, a larger sample maybe used in studies yet to come.

Whereas this study covers both internal and external stakeholders of a firm, nevertheless, there is still a need for research addressing the interaction of corporate social responsibility with the behaviour of specific stakeholders. It is interesting to find out which stakeholders are specifically targeted by socially responsible firms.

Further studies can apply control variables such as, firm age and size or focus on a particular type of investor and how CSR affects their decisions.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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