Financial Performance and Environmental Sustainability Reporting Practices of Listed Manufacturing Firms in Nigeria

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Abstract
The pursuit of environmentally responsible companies to provide a balance between corporate objective of profit maximization and the need for environmental sustainability practice has caused the need to examine how financial performance will affect the environmental sustainability reporting practices of quoted manufacturing firms in Nigeria. Specifically, the study assessed how profitability and liquidity status of firms influence their environmental reporting. The study employed Ex-post Facto Research Design and made use of secondary data sourced from annual reports and accounts of sampled firms. A total of 23 firms were selected from 67 manufacturing firms quoted as at December 2018 financial year end using Proportional Sampling Technique. Regression model was used to analyze the data in order to test the hypothesis at 5% level of significance. The result of the analysis showed that profit after tax as proxy for profitability significantly affect environmental sustainability reporting practices of quoted manufacturing firms while earnings per share has a positive relationship but insignificant effect on environmental sustainability reporting. The result for liquidity ratio shows negative and insignificant relationship with environmental sustainability reporting. This study therefore concludes that when considering the influence of financial performance determinants on environmental reporting practices, factors like profitability in terms of profit after tax is significant. It is suggested that the management team of manufacturing firms show more concern about environmental sustainability and its report thereof because firms financial constraints in the area of liquidity and profitability is not a limitation in portraying themselves as environmentally responsible entities.

Keywords: Environmental sustainability reporting, earnings per share, liquidity, manufacturing firms, Profitability.

1. Introduction
Shareholders’ wealth maximization is no longer seen as the overall objective of a company operating in the 21st century (Adeyanju, 2012). Nowadays, businesses are been accorded social responsibilities by the society and this
has made business environment more competitive. An important part of corporate social responsibility being integrated into business concept is the environmental element, which will definitely attract cost if companies obliged. The universal awareness of stakeholders regarding environmental impact of companies’ economic activities has posed a threat to evaluation of companies’ performances through their traditional financial reports (Malik & Mittal, 2015). This is why environmental practices have been perceived as the opportunity cost of growth and financial performance for firms (Nwaiwu & Oluka, 2018).

In Nigeria, the unguided quest for economic development through oil exploration and lack of appropriate policies to guide the economic activities of companies has birthed conflict between the legal entity and its concerned stakeholders. These shortcomings have made firms to lose stakeholders’ trust of the view that management represent and protect the interest of the society. Hence, companies will likely engage in environmental reporting to prove their commitment to environmental responsibilities; conformity with speculated environmental laws and, guidelines and exhibition of environmental concerns to a wide range of concerned stakeholders (Ofogegbu & Megbuluba, 2016; Beredugo & Mefor, 2012). However, beyond regulatory compliance, environmental sustainable practices must be ethically desirable for every environmentally responsible firm (Okoye & Asika, 2013). Howbeit, the financial resources needed to engage in environmental accounting maybe a hindrance for many firms. This is because the design of environmental protection strategy and its implementation may cost a fortune and in turn increase firms’ cost of product which may affect its financial performance (Ebieri, 2018).

Theorists like Friedman, John Dewey and Clarence Ayres have argued that it is not at the best interest of shareholders that a firm spends resources beyond compliance. According to the classical view of companies’ performance, firms only need to use the resources at their disposal efficiently in order to meet the demand of the society by providing just the needed goods and services (Daferighe, Akpanuko & Offiong, 2019). Quite a good number of previous studies have investigated the motivation for disclosure of environmental information by companies (Olaleye & Ibektoy, 2020; Bednárová, Klimko, & Rievajová, 2019; Ali & Hafez, 2014). Overall examination of the findings of these studies showed that there exist significant association between environmental reporting and regulatory requirements; expectations of stakeholders and society pressures; reputations and economic factors. Also, large portions of previous research have debated the relationship between corporate profitability and firms’ environmental accounting practices but there have been mixed result. Some are of the opinion that there is a positive relationship between firm profitability and environmental accounting practices (Yahaya, 2018; Peter & Mbu-Ögar, 2018; Achoki, Kule & Shukula, 2016) while some studies have found negative relationship (Nwaiwu & Oluka, 2018; Kamal, 2016; Odia & Imagbe, 2015; Magali, Nicholas & Jinghui, 2015; Makori & Jangogo, 2013; Bassey, Sunday & Okon, 2013; Suttipun & Stanton, 2012; Echave & Bhati, 2010).

The disparity in opinion and findings of these studies may be tied to different perception of company’s stakeholders on the social and economic consequence of environmental reporting practices and as well the scope of coverage by these studies. Due to the indecisive nature of results from previous studies, the study aimed at investigating how firms’ profitability and liquidity as financial performance affect firms’ commitment to environmental sustainability responsibility through reporting. In this study, manufacturing firms were made the focus because it is a highly environmentally sensitive industry and moreover, they are being exposed to greater societal pressure due to noticeable ecological distress created by their production activities. The study is discussed under five sections which are; Introduction, literature and theoretical review, data and methods, results and discussion, conclusion and recommendations.

2. Literature and Theoretical Review

Basically, the concept of environmental sustainability reporting means communication of an organization’s environmental performance. Ayşenur (2016) describes environmental sustainability reporting as the communication of an organization’s ability to maintain the productivity and green condition of the environment while carrying out its activities with the aim to proffer solution to existing environmental problems; improve environmental performance and show respect for environmental concern of stakeholders. Krivačić and Janković (2017) refer to environmental reporting as the logical and holistic statements of environmental efforts of an organization through its activities such as environmental policies, objectives, programs and their outcomes. It is a means of releasing information that assist external users of company’s report to assess the efficiency of organizations in their use of available natural and economic resources and the degree at which they perform their environmental responsibilities (Ali & Hafez, 2014). It is essential for companies to render their stewardship to environmentally concerned stakeholders about the companies’ interface with natural environment (Ebieri, 2018). Environmental
sustainability reporting is an assessment tool for environmental apologists and firms' indication of their accountability regarding environmental issues. Actually, the expectations of social responsibility from companies have necessitated the need for them to report their social and environmental dealings to significant stakeholders (Moses, Jatau, Ande & Okwoli, 2014).

According to Malik and Mittal (2015), there are expected factors that needed to be assessed and disclosed thereof while giving environmental sustainability report. They include; environmental policy, strategy for energy conservation, implemented environmental initiatives, waste management practices, water management, workplace health and safety, environmental liabilities and environmental assets. In recent times, there has been an increasing expectation from different stakeholders (government, investors, lenders, banks, employees, non-governmental organizations etc.) to have financial data on the environmental performance of different organizations (Igbodo, Uwague, & Aigbadon, 2018). For firms to meet the environmental needs of stakeholders and as well realize the financial and economic values attached to environmental responsibilities, they usually make effort to ensure that relevant stakeholders are able to understand, recognize and assess their environmental commitment (Moratis, 2018). This is majorly been achieved through environmental reporting.

Financial performance literacy denotes the level of efficiency and effectiveness of an entity in managing its economic resources to achieve desired returns. It also denotes the degree of a firm's financial wellbeing over a period of time (Naz, Ijaz & Najvi, 2016). In a clearer term, the financial wellbeing of a company depicts the competence of a company to generate profit from its production and investment activities and as well meet its financial obligations. In accounting, financial evaluation is done by examining firm’s financial performance which is measured by: profitability of companies in terms of return on assets, profit after tax, returns on equity, earnings per share and lots more; liquidity of firms in terms of current ratio, quick ratio, cash asset ratio; market value of shares; firm growth in terms total assets and returns on capital employed (Ahmad, Simon & Mohammed, 2017). The two dominants indicators considered by primary stakeholders like management, creditors, shareholders and customers are profitability and liquidity capability of firms because they give details of their information needs. In this light, the study will evaluate financial performance of sampled firms by considering their profitability and liquidity status. Two measurements (Profit after Tax and Earnings per Share) were considered for profitability while liquidity ratio was used to capture firm’s liquidity.

The profitability of an organization on the one hand connotes their earning power or operating performance. It shows how efficiently the management can make profit by using all the resources at its disposal in the available market (Pallavi, 2018). According to Karambu and Joseph (2016), profitability is the earnings or profits made by a firm in order to survive and grow over a period of time. After studying the nature of relationship that exist between environmental reporting and oil companies' performance in Nigeria by considering 11 quoted oil companies selected through simple random sampling technique, Umoren, Akpan and Okafor (2018) found insignificant relationships between environmental reporting and performance variables, that is, return on capital employed, net profit margin, earnings per share and dividend per share. The major limitation of the study is that the measurements concentrates and captures only shareholders expectation on investment.

Liquidity on the other hand depicts firm's ability to pay all short-term financial liabilities at maturity using the available current assets (Nasution, Erlina & Tamizi, 2018). Liquidity ratio indicates the easiness at which a corporate entity can meet both its expected and unexpected obligations at a reasonable cost (Olatunde, 2015). It further describes the ability of a firm to finance a desired increase in its asset without incurring damaging losses that can lead to its insolvency. The higher the liquidity ratio, the better it is for companies. This is because the companies are exposed to lower risk of failure. Conversely, this means a liquid firm has the ability to carry out environmental responsibility by which they could send out signal that the firm is doing well because a company with strong financial condition tends to reveal more information.

Several empirical studies have been carried out to analyze the relationship between environmental sustainability practice and financial performance of Nigerian firms. Egbunike and Okoro (2018) investigated whether green accounting matters to the profitability of Nigerian firms or not. Towards achieving this, an ex- post facto research design was adopted and 10 non-consumer goods firms listed on the Nigerian Stock Exchange were selected over the period of 2012-2016. The study revealed that there was no significant relationship between green accounting and profitability measures among the non-consumer goods firms. In the same vein, Abdullah (2018) examined the effect of social and environmental accounting on companies' profit. The objective of the study is to find out if there is a relationship between environmental accounting and profitability and to know whether the firms
actually care about any social or environmental practice or it's been neglected. The study employed survey research design, and sourced the qualitative data from distributed questionnaire to 50 local and international firms located in Erbil. The outcomes of the study showed that there exists a critical relationship between environmental accounting and company's benefit.

Ahmad, Simon and Mohammad (2017) in their findings indicate that larger companies disclosed more environmental information because firm size influence the extent of environmental disclosure. Return on Asset (ROA), Return on Equity (ROE), and Earnings per Share (EPS) were used as proxies for measuring performance. The empirical result indicates that quantitative environmental disclosure has a positive but insignificant effect on ROA and EPS respectively. While examining the relevance of environmental accounting practices to sustainable development and performance of listed manufacturing companies in Nigeria, Osemene, Kolawole and Oyelakun (2016) found a significant positive relationship between environmental accounting and returns on equity (ROE) of thirty-six quoted companies randomly selected in Nigeria. Also, Huey Shi Tho and Boon Heng Teh (2016) examined the relationship between environmental disclosure and financial performance of public listed companies in Malaysia. Content analysis approach was adopted to determine the quantity and quality of environmental disclosures in the annual reports of 100 companies listed on the Main board of Bursa Sarhan Malaysia for the year 2009 until 2013. The result showed that only the quality of the environmental information has positive relationship with companies’ earnings per share (EPS).

**Theoretical Review and Hypothesis Development**

One of the most influential theories that discuss organizational and strategic management is the Freeman’s stakeholder theory (1983). It explains better the relationship that is expected between a firm and its stakeholders that are capable of influencing its decision. This is important because focusing exclusively on the need of the shareholders expose firms to complicated conflict of interest that can affect the firms’ resources and reputation (Iheduru & Chukwuma, 2019). Stakeholders’ theory proposed an improved level of corporate planning which includes the non-traditional stakeholders like customers, local community and regulatory groups in order to adapt to changing social demands. Since accountability towards the range of stakeholders in business is the message of stakeholders theory and perhaps the standard that is expected to meet societal expectations, companies will have difficulty in accomplishing environmental goals if the resources are not available or if it will result in monetary losses for the shareholders since they still remain the financial sponsors of the company.

In this era of sustainable developments, the expectations of stakeholders like shareholders and creditors who are the main financial sponsors of the company is that companies should manage resources properly in an environmentally friendly way that will result in direct returns such as cost savings and indirect returns such as better goodwill and image for the organization (Igbodo, Uwague, & Aigbadon, 2018). This shows that shareholders do pay attention to economic consequences of environmental behaviour of their company because of the direct or indirect impacts it will have on the returns of their investment (Eze, Nweze and Enekwe, 2016). In the study of Ebieri (2018), it was revealed that sustainability costs have significant effect on the net worth of 20 listed firms on Nigeria Stock Exchange after examining the effect of sustainability costs on net-worth of firms listed on Nigeria Stock Exchange. Hence, the financial capability of a firm may dictate its environmental responsibility including its reporting practices.

Signaling theory argues firm’s motivation for providing information to their relevant stakeholders. The theory implies that a firm tends to provide information that is useful for individuals or groups of individuals who form impressions about the company values and its future performance based on the information at their disposal (Jones & Murell, 2001). Hence, firms that are socially responsible emit signals that identify and explain their underlying qualities. For the past two decades, it is observed that large companies are more exposed to public scrutiny which made voluntary reporting a justification and means of legitimization for their practices (Bednárová, Klimko, & Rievajová, 2019).

In relating environmental reporting with profitability, it is being argued that managers of profitable companies are more likely to provide more voluntary environmental disclosure in their annual reports to support continuation of their current position and to boost the level of current and future compensation. It is also being done to utilize the financial resources of firm to influence administration’s choice to take part in environmental sustainability. However, some believe that the relationship between environmental accounting and profitability is non-monotonic (Bassey, Sunday & Okon, 2013). This is because less profitable firms may disclose more information to explain the reasons for the negative performance and reassure the shareholders about future growth. Also, high liquidity firms are more likely to report more voluntary information to distinguish their companies from low liquidity firms.
(Khaled, Mohammed & Marwa, 2011). Therefore, one might argue that corporate managers of companies with low liquidity ratio may publish more voluntary information in their annual reports to satisfy the information requirements of stakeholders. Critical examination of previous studies have inclined that researchers have not satisfactorily juxtaposed the relationship between firm’s financial performance and environmental reporting as to whether it support the signaling assumption or it is merely a resource dependence perspective.

Based on the conceptual and empirical review, it is noticed that many researchers (Ogar, 2018; Achoki, Kule & Shukula, 2016; Nwaiwu & Oluka, 2018; Kamal, 2016; Odia & Imagbe, 2015; Magali, Nicholas & Jinghui, 2015; Makori & Jangogo, 2013; Bassey, Sunday & Okon, 2013; Suttipun & Stanton, 2012; Echave & Bhati, 2010) have succeeded in examining the influence of environmental reporting on other variables like financial performance and they have stressed the prospective value and benefit environmental reporting can add to a firms’ financial performance. However, only few examined how the financial capability of a firm will influence its environmental sustainability practice as most studies used financial performances as a dependent variable. Also many studies concentrate only on a particular sector of the manufacturing industry. So, with an unpretentious effort to close the gap in literature, the study has made attempt to use the concept as dependent variable in other to assess the influence of financial performance determinants on environmental sustainability reporting. The study also expands the scope of previous studies by drawing sample from all sub-sectors of the manufacturing industry. In lieu of the aforementioned, it is hypothesized in a null form that;

\[ H_01: \text{Financial performances do not have significant effect on environmental sustainability reporting} \]

3. Research Methods

The study adopted ex-post facto research design and content analysis to generate quantitative data from the annual reports of selected firms in order to achieve the stated objectives. The annual reports were obtained from the website of these firms and the Nigerian Stock Exchange factbook. Data gathered were analyzed using descriptive and inferential statistics. The descriptive statistics showed the mean, median, standard deviation, skewness and kurtosis and others. In order to test for multicollinearity of the data collected, heteroskedasticity test and auto-Correlation were conducted. Hausman Specification, LM test and Shapiro-Wilk test for data normality were also used to test the validity and reliability of the data before regression analysis was conducted.

The population consist of all the 67 manufacturing firms listed on the Nigerian Stock Exchange as at the year ended 2018. On the Nigeria Stock Exchange, manufacturing firms cut across 7 sectors which are; oil and gas, conglomerates, agriculture, consumable goods, industrial goods, healthcare and natural resources. The environmental and social effects which the industrial operations of these manufacturing firms have on the environment have made them a subject of focus. Twenty three firms (23) which represent 30% of the population were proportionally selected from the stratified sector to ensure each sub-sector have equal chance of being represented in proportion of their sizes.

<table>
<thead>
<tr>
<th>Classification of Companies</th>
<th>Total</th>
<th>Sample size (30%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer goods</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Industrial goods</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Conglomerates</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Healthcare</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Agriculture</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Oil and gas</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Natural resources</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>67</td>
<td>23</td>
</tr>
</tbody>
</table>

Source: Authors’ compilation 2020

The period covered by the study was 11 years (2008 to 2018). The base year, 2008 was selected because it marks the beginning of the period that witnessed high awareness on issues of environmental sustainability in Nigeria, following the establishment of National Environmental Standards and Regulations Enforcement Agency (NESREA) Act in year 2007. The proposed model is premised on the idea of signaling theory which contends that firm’s social performance and reporting practices is influenced by its financial capability and performance. The explanatory
variables are Profit after Tax (PAT), Earnings per Share (EPS) and Liquidity Ratio (LR). How the variables are measured is shown in table 2.

In order to assess the effect of firms’ financial performance on environmental sustainability reporting of listed manufacturing firms in Nigeria, the model is stated thus;

\[ ESR_{it} = f (FPD_{it}) \]
\[ ESR_{it} = f (PAT_{it}, EPS_{it}, LR_{it}) \]  
\[ ESR_{it} = a + \beta_1 PAT_{it} + \beta_2 EPS_{it} + \beta_3 LR_{it} + e_{it} \]  

Where;  
ESR = Environmental sustainability reporting  
FPD = Financial performance  
PAT = Profit after Tax  
EPS = Earnings per Share  
LR = Liquidity ratio

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Description</th>
<th>Measurement</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Environmental Sustainability Reporting (dependent)</td>
<td>It refers to drawing up reports regarding environmental responsibilities, environmental costs and other information relating to the environment and climate from a financial standpoint for the external users of the annual report.</td>
<td>If there is separate disclosure score, 3 was allotted; if it is in the chairman/director statement 2; if it is disclosed in the footnote to financial statement 1 and if not disclosed, the firm scored 0 (ESR indicators- environmental research &amp; development, pollution control policy, waste management, water management, environmental award etc.)</td>
<td>Khaled, Mohamed &amp; Marwa, 2011</td>
</tr>
<tr>
<td>2</td>
<td>Profit after Tax (Independent)</td>
<td>It is the earnings of a business after income taxes have been deducted</td>
<td>Net profit less income tax</td>
<td>Beredugo, 2014</td>
</tr>
<tr>
<td>3</td>
<td>Earnings per share (Independent)</td>
<td>It is the portion of a company’s profit that is allocated to every individual share of the firm</td>
<td>Total earnings after interest, tax, and preferred dividend divided by total numbers of ordinary shares outstanding.</td>
<td>Ahmad, Waseer, Hussain, &amp; Ammara, 2018; Ahmed, Simon, &amp; Mohammed, 2017</td>
</tr>
<tr>
<td>4</td>
<td>Liquidity Ratio (Independent)</td>
<td>It is a financial metric used to determine firms’ ability to pay off debt obligation without raising external capital</td>
<td>Current assets divided by current liabilities</td>
<td>Khaled, Mohamed and &amp; Marwa, 2011</td>
</tr>
</tbody>
</table>

4. Results and Discussion of Findings

Table 3 presents the summary of the interactions between environmental sustainability reporting (ESR), profit after tax (PAT), earnings per share (EPS) and liquidity ratio (LR). As obtained from table 3, the extent of average for environmental reporting practice (ESR) of the sampled listed manufacturing firms is 1.305 with standard deviation of 1.077 which indicates low variability across the sampled firms. The average of profit after tax (PAT) was N7.32billion, with the standard deviation of N16.billion which shows high variation in the level of profit earned across the sampled firms. The minimum and maximum were – N34.6billion and N85.1billion respectively. The average of earnings per share (EPS) is N4.285, with the standard deviation of N6.274 which indicates wide dispersion across sampled firms. The minimum and maximum of earnings per share of listed manufacturing firms as captured in table 3 were –N6.37 and N42.55 respectively. Finally, the mean of liquidity ratio (LR) as indicated from table 3 was 1.35, with the standard deviation of 0.689 which indicates moderate variability across sampled firms. The minimum and maximum were 0.06 and 3.5 respectively. With respect to the values of the Skewness as obtained in the result, it means that the data is expected to be normally distributed and the kurtosis value also indicated that the peak of the distribution is expected to be normal.
Table 3: Descriptive statistics of proxies for financial performance & environmental sustainability reporting practices

<table>
<thead>
<tr>
<th>Financial Performance</th>
<th>OBS</th>
<th>Mean</th>
<th>St.Dev</th>
<th>Min</th>
<th>Max</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESR</td>
<td>253</td>
<td>1.305</td>
<td>1.077</td>
<td>0</td>
<td>3</td>
<td>-.228</td>
<td>1.449</td>
</tr>
<tr>
<td>PAT</td>
<td>253</td>
<td>7.32e+09</td>
<td>1.60e+10</td>
<td>-3.46e+10</td>
<td>8.51e+10</td>
<td>2.716</td>
<td>10.514</td>
</tr>
<tr>
<td>EPS</td>
<td>253</td>
<td>4.285</td>
<td>6.274</td>
<td>-6.37</td>
<td>42.55</td>
<td>2.57</td>
<td>11.564</td>
</tr>
<tr>
<td>LR</td>
<td>253</td>
<td>1.35</td>
<td>.687</td>
<td>.06</td>
<td>3.5</td>
<td>.849</td>
<td>3.751</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation 2020

The result from the correlation matrix on table 4 showed that financial performance determinants (FPD) being proxied by profit after tax (PAT), earnings per share (EPS) and liquidity ratio (LR) have coefficient of 0.348, 0.325 and 0.529 respectively. This suggest that the three independent variables can be well fitted into one regression model and there exist no case of multicollinearity. According to Gujarati and porter (2009), a correlation coefficient between two independent variables above ± 0.8 is considered excessive and may indicate the existence of multicollinearity.

To further ensure the validity and reliability of the statistical inference of the regression model, advanced measures for assessing multicollinearity among the variables; profit after tax (PAT), earnings per share (EPS) and liquidity ratio (LR) was done using the variance inflation factor (VIF) and Tolerance Value (TV). The reliability results obtained shows a mean VIF of (1.028) with tolerance value of 0.96; 0.963; 0.997 respectively, implying that the issue of multi-collinearity does not exist as the VIF values for all the variables are less than 10 and the tolerance values for all the variables are greater than 0.10 (rule of thumb) (Mayers, 1990).

Data for the study was also tested for both auto-correlation and heteroskedasticity using Modified group-wise test. Based on the result, it can be concluded that there is no problem of Auto-correlation as indicated with p-value of 0.2644. However, the modified group-wise for heteroskedasticity test revealed that there is a problem of heteroskedasticity as the result showed chi square value of 3.9e+07 with p-value of 0.0000 which signifies that the model is significant at 1%. Also, the normality test on the residuals of the model was conducted using shapiro-wilk and the result obtained showed that the residuals of the models are normally distributed.

Table 4: Correlation Matrix

<table>
<thead>
<tr>
<th>FP and ESR</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) ESR</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) PAT</td>
<td>0.174</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) EPS</td>
<td>0.088</td>
<td>0.191</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>(4) LR</td>
<td>-0.061</td>
<td>-0.008</td>
<td>-0.058</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2020) **10%, **5%

Regression Results and Discussions

The result of the regression model showed that financial performance determinants proxies for sampled firms does not influence environmental sustainability reporting practices with a chi-square of 8.61 and a P-value of 0.035 which is statistically non-significant at 5%. The regression result of financial performance determinants on environmental sustainability reporting of listed manufacturing firms was presented on table 6 after meeting the basis for a Best Linear Un-bias Estimate (BLUE). The Hausman specification test conducted produced p-value of 0.1010 which indicates its non-significance at 5%. This implies that the variation across entities is assumed to be random and correlated with the independent variables included in the model. However, Breusch and Pagan Langragian multiplier test for random effect was conducted so as to determine whether to interpret the pool Ordinary Least Square (OLS) or random effect model. The result revealed a Chi of 171.92 and the P-value of 0.0000 which is significant at 1%. This implies that the random effect should be used. The regression results were subjected to a further test where feasible general least square was run in order to take care of the heteroskedasticity problem which made the results of the regression suitable for analysis purpose. The basis of judgment used is the correlation coefficient and P-Value.

The result from Table 6 showed that profit after tax and earnings per share which are measurement for firms’ profitability have a coefficient of 0.028 and 0.009 with the p-value of 0.014 and 0.422. This implies that profit after tax has a positive and significant relationship with environmental sustainability reporting while earnings per share have positive relationship but insignificant effect on environmental sustainability reporting of sampled manufacturing firms in Nigeria. Finally liquidity ratio has negative and insignificant relationship with environmental sustainability reporting as indicated with the coefficient of -0.088 and p-value of 0.382 respectively. The results indicate that companies with larger profits tend to report more on environment even though profitability of a firm
via its earnings per share does not significantly influence the environmental sustainability reporting of listed manufacturing firms. The findings simply imply that the financial status of a firm has little to do concerning its involvement in environmental sustainability reporting. Its profitability may be of influence but its liquidity status and returns on its shares made no difference. The overall results indicate that firms’ performance does not necessarily translate to their commitment to cater for the environment in the course of doing business; neither does it influence their annual report to incorporate how its business activities affect the ecological sphere in order for concerned and interested stakeholders to make informed decision.

The findings support the analysis result of Umoren, Akpan, and Okafor (2018) that there exist an insignificant relationships between environmental reporting and performance variables which earnings per share is one of the variables used. The findings also corroborate the conclusion of Ahmad, Simon and Mohammad (2017) which found out that quantitative environmental disclosure has a positive but insignificant effect on ROA and EPS respectively. The results of the study also support the findings of Abdullah (2014) that indicated a negative relationship between environmental accounting and firm profitability. It is also consistent with the study of Sanusi and Sanusi (2019) and Huey Shi Tho and Boon Heng Teh (2016) who found positive relationship between earnings per share (EPS) and environmental sustainability reporting. The findings negate the findings of Makori and Jangogo (2013) that found a significant negative relationship between environmental accounting and Earnings per Share (EPS) among selected firms listed in Bombay Stock Exchange, India.

Table 5: Regression Results

<table>
<thead>
<tr>
<th>Financial Performance</th>
<th>Fixed Effect</th>
<th>Random Effect</th>
<th>Ordinary Least Square</th>
<th>Hausman</th>
<th>LM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CO-EFF.</td>
<td>P-VALUE</td>
<td>CO-EFF.</td>
<td>P-VALUE</td>
<td></td>
</tr>
<tr>
<td>PAT</td>
<td>-0.006</td>
<td>0.951</td>
<td>-0.122</td>
<td>0.959</td>
<td>-0.028</td>
</tr>
<tr>
<td>EPS</td>
<td>-0.009</td>
<td>0.000</td>
<td>-0.005**</td>
<td>0.696</td>
<td>-0.009</td>
</tr>
<tr>
<td>LR</td>
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<td>0.000</td>
<td>-0.066**</td>
<td>0.501</td>
<td>-0.088</td>
</tr>
<tr>
<td>Constant</td>
<td>1.578</td>
<td>0.002</td>
<td>-1.450**</td>
<td>0.000</td>
<td>0.864</td>
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<td>R²</td>
<td>0.093</td>
<td></td>
<td>0.001</td>
<td>0.0365</td>
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<tr>
<td>Adj-R²</td>
<td></td>
<td></td>
<td>-0.0236</td>
<td></td>
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<tr>
<td>Chi</td>
<td>0.44</td>
<td></td>
<td>0.62</td>
<td>2.82</td>
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<tr>
<td>P-value</td>
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<td>0.8925</td>
<td>0.0399</td>
<td>16.40</td>
<td>171.92</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2020) **10%, **5%

Table 6: Feasible Generalize Least Square

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<tr>
<th>Financial Performance</th>
<th>Feasible Generalize Least Square</th>
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</thead>
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<tr>
<td></td>
<td>CO-EFF.</td>
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<tr>
<td>PAT</td>
<td>0.028**</td>
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<tr>
<td>EPS</td>
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<tr>
<td>LR</td>
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<tr>
<td>Constant</td>
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</tr>
<tr>
<td>Chi</td>
<td>8.61</td>
</tr>
<tr>
<td>P-value</td>
<td>0.035</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2020) **10%, **5%

The study was conducted to evaluate the predictive power of firms’ financial performance regarding environmental sustainability reporting practice. After analyzing the effect of firms’ financial performance on environmental sustainability reporting practices, it was revealed that only profit after tax of a firm has the capability to influence and determine the practice of environmental sustainability reporting practices of firms. This implies that not all indicators of financial performance explain corporate practices of the company. Based on the findings of the study, it is concluded that good financial performance of manufacturing firms in Nigeria does not necessarily translate into effective environmental sustainability reporting practices because it is more of ethical practice rather than resource based practice. It is therefore recommended that management of listed manufacturing firms should report more on the environmental sustainability practices they carried out as expected of a socio-economic entity since their financial performance has little influence on the practice. It is also suggested that environmentally sensitive industries like manufacturing firms should go beyond stipulated regulatory compliance in their environmental sustainability without being drained financially but rather rebrand the company’s image.


