



## RELATIONSHIP BETWEEN ENVIRONMENTAL ACCOUNTING DISCLOSURES AND FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS IN NIGERIA

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### ABSTRACT

*This study on the environmental accounting disclosures and performance of selected manufacturing firms in Nigeria was prompted as a result of mixed, inconsistent and contradictory results from various studies carried out in this area and also because of the increasing stakeholders demand for the disclosure of the management of environmental issues in the annual reports and accounts of manufacturing firms. Thus, the study examined the relationship between environmental accounting disclosures of selected manufacturing firms and their return on assets, net profit margin and earnings per share. Correlation research design was employed in the study and time series data of 40 randomly selected quoted manufacturing firms were collected from their annual reports and analyzed using point bi-serial correlation analytical tool with the help of SPSS version 23. The findings revealed that there exists a significant and positive association between environmental accounting disclosures and earnings per share, return on assets, net profit margin, firm's age and audit firm type. We concluded based on the findings that environmental accounting disclosures influences performance of firms and It was recommended that government and standard setters should develop a standard framework for the mandatory disclosure of corporate environmental information to ensure uniformity, consistency and comparability of environmental information, enhance performance of firms and allow stakeholders to know when these firms are environmentally responsible.*

*Keywords: Environmental accounting disclosures, earnings per share, financial performance, net profit margin, return on assets.*

### 1.0 INTRODUCTION

Globally, proper disclosure of environmental management practices is of paramount importance to business organizations, hosting community, other stakeholders to the organization and nations at large. This importance is as a result of increased awareness of the interaction between firms and environment in which they operate; concerns about resources depletion, resources scarcity, environmental degradation, oil spillages, water pollution, air and noise pollution, health hazards, pollution of the communities. The result of the business organizations activities on the environment has led to the depletion of the ozone layer and thereby causing imbalance in the environmental system. These increasing concern about the environmental degradation, resources depletion and quest for sustainability of economic activity have made the development of environmental accounting and reporting an area of significant interest in Nigeria (Adediran & Alade, 2013). Proper management of the environment has thus become one of the key missions of many manufacturing



companies and nations in general; as the success and accomplishments of most manufacturing companies and other business organizations are now largely built upon the positive impact of the activities of the organizations on their hosting communities and other stakeholders (employees, suppliers, customers, the government and others), not only on products and services of the organizations. Positive responses to environmental and societal issues by way of accounting and disclosure leave the investors and other stakeholders with the confidence that the organizations they are dealing with are transparent and socially responsible.

Government regulations, social pressures groups and green consumer pressure are some of the current trends and recent developments reawakening firm's attention to the management of environmental cost so as to enhance performance and attain competitive advantage. Weak legal and regulatory frameworks do not encourage proper environmental management within the communities hosting some of the high powered companies (Ifeanyi 2012; Eneh & Okezie 2009; Eneh 2008,2011).

In view of all these environmental challenges facing manufacturing firms such as management of green house gas emissions from burning of fossils, pollution emissions, sewage pollution from factories, toxic waste disposals embodied resources issues chemical contamination, agricultural and industrial waste management etc. and the fact that the manufacturing have a profound production impact on the environment triggered this study on the relationship between environmental accounting disclosures and performance of forty (40) selected manufacturing firms in Nigeria.

### **1.1 Statement of the Problem**

The challenges facing the manufacturing companies concerning the management of environmental issues and its disclosure in the annual reports has now become a global issue and these expanding stakeholder base needs the information provided in the report to access whether a firm is being socially, financially and environmentally responsible.

Numerous qualitative and quantitative studies have examined the relationship between environmental accounting disclosures and performance of firms in different countries and sectors over the last few decades providing mixed, inconsistent and often contradictory results ranging from positive to negative or no relationship and even statistically insignificant relationships. This is due to the usage different research methodologies, varied sample composition and different measures of environmental accounting disclosures. Therefore, these diverse views and conflicting results creates a knowledge gap in the study; and it is against this background that the study examined empirically the relationship between environmental accounting disclosures (using GRI G4 index and ISO 26000 as a standard measure of environmental disclosure) and financial performance of selected manufacturing firms quoted in the Nigerian stock exchange.

The broad objective of this study is to investigate on the relationship between environmental accounting disclosure and performance of manufacturing firms in Nigeria. Specifically, the research objectives are:

- i. To examine the relationship between environmental accounting disclosures (EAD) and financial

- performance of manufacturing firms proxy by earnings per share (EPS).
- ii. To ascertain the connection between environmental accounting disclosures (EAD) and financial performance of manufacturing firms proxy by return on assets (ROA).
  - iii. To establish the association between environmental accounting disclosures (EAD) and financial performance of manufacturing firms proxy by net profit margin (NPM).

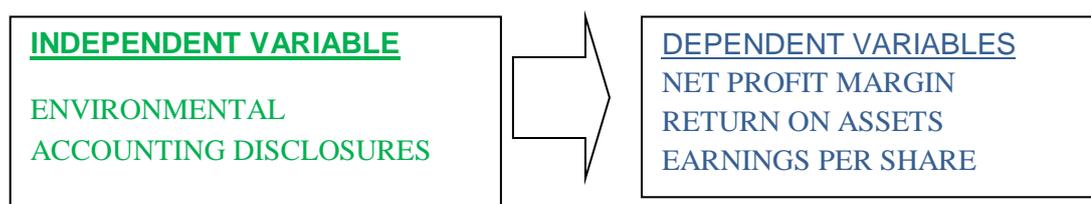
### 1.1.1 Research Hypotheses

The following null hypotheses will be tested at 5% level of significance:

- i. The relationship between environmental accounting disclosures (EAD) and earnings per share (EPS) is not significant.
- ii. The connection between environmental accounting disclosures (EAD) and return on assets (ROA) is not significant.
- iii. Environmental accounting disclosures (EAD) and net profit margin (NPM) are not significantly related.

## 2. Review of Related Literature

### 2.1 Conceptual Framework



### Environmental Accounting Disclosures

Environmental accounting disclosure is in stages ranging from ad-hoc comment in the annual report to stand-alone environment reports. Environmental investments is no longer seen as an additional cost but they are seen as of corporate social responsibility therefore, environmental reports are seen as necessary in communicating with stakeholders to address their environmental concerns( Levine, 2016).

Companies are realizing that it is their corporate responsibility to achieve sustainable development whereby they meet the present needs without compromising the ability of future generations to meet their needs. Economic growth is important for both shareholders and stakeholder alike in that it provides the condition in which protection of the environment can best be achieved. However, how many oil companies operating in the Niger Delta always include in their annual report, environmental report as part of their social responsibility? (Adediran & Atu, 2010). According to Levine, (2016) there are two types of disclosures namely mandatory disclosures and voluntary disclosures. However, Uwaloma (2011) suggested another type of disclosure, the involuntary disclosure. Mandatory disclosure is where companies disclose sustainability information as per requirements of the legal rules and regulations of the country (Levine, 2016). However, voluntary



environmental accounting disclosure refers to where a company discloses environmental information on voluntary terms that is they are not obliged by the law. They do these from pressures from financial institutions, investors and the community at large, culture of the organization may also influence such disclosures as maybe the preference of the dominant management and CEOs. Organization do this as a way of remaining legitimate on the eyes of the society as there may be benefits to be reaped in the long run (Eltaib, 2012). Involuntary disclosures are types of disclosures that go against the will of the company. Permission has not been granted by the company against such disclosure. This disclosure is done by the media, civil society groups and green group activists as a result of the detrimental actions of the company toward the society or environment (Uwaloma, 2011). It is mainly exposed after the adverse action has occurred.

However, for the purpose of this study, a combination of Global Reporting Initiative G4 and ISO 26000 checklist was employed to measure the level of environmental disclosures of manufacturing firms in Nigeria. GRI is an international independent organization that helps businesses, government and other organizations understand and communicate their impacts on issues such as climate change, environmental, human right and corruption, it was founded in Boston, US in the year 1997 and termed a non- government establishment for the purpose of sustainability ([www.globalreporting.org](http://www.globalreporting.org),2015). Under increasing pressure on organization from different stakeholder groups to be more transparent about their environmental, economic and social impacts, many companies publish sustainability report using GRI's framework which helps to gather, identify and report this information in a clear and comparable manner (Pedersen & Esben, 2015). So far 77 countries have adopted the GRI reporting initiative including Nigeria and a host of other African countries but in Africa, Nigeria accounts for a significant 2% of GRI based report with South Africa leading with 96% and other 2% scattered around the rest of the continent (KPMG survey, 2014). G4 guidelines which is universally applicable to all organizations of all types and sector, large and small across the world and have 56 standard disclosure checklist divided into specific disclosures such as economic, environmental and social disclosure. However, the environmental section was employed to measure the environmental accounting disclosures of manufacturing firms in the course of this study.

ISO 26000 provides guidance on how businesses and organizations can operate on a socially responsible way. This means acting in an ethical and transparent way that contributed to health and welfare of the society. This standard was launched in 2010 following five years of negotiations between many different stakeholders across the world. Representations from government, NGOs, industries, consumer groups and labor organizations around the world were involved in its development which means it represents an international consensus ([www.iso26000.info.com](http://www.iso26000.info.com)). See Appendix C for GRI G4 index and ISO26000 check list items used to access companies that disclose environmental accounting issues in their annual reports.

The most common measure of financial performance in firms are return on assets, return on equity, net profit margin, return on capital employed, earnings per share and so on, although such other measures like output and capacity utilization could be employed as measures of performance particularly in manufacturing outfits (Malik and Nadeem 2014). In this study, return on assets, net profit margin and earnings per share were used as proxies financial performance of manufacturing firms.



## **2.2 Theoretical Framework**

This study is anchored on the stakeholders' theory, though it has some relationship with the legitimacy and institutional theories. The stakeholders' theory holds that company's stakeholders include just about anyone affected by the company and its working. This theory holds that firms should not only care about the shareholders in the conduct of its business activities but also consider all stakeholders without whose support the organization ceases to exist and some of those stakeholders are the hosting community, government, environmental groups, suppliers, customers and so on. The firms should consider the effects of their activities on the environment and disclose the environmental management issues on their annual report for use by the stakeholders.

On the other hand, the legitimacy theory holds that businesses are bound by the social contract in which the firm agrees to perform various socially desired actions in return for approval of its objectives and rewards, and this ultimately guarantee its existence. In other words, the action of an entity are desirable, proper or appropriate if it acts within some socially constructed system of norms, values, beliefs and definition (Suchman, 1995). The theory holds that an organization is more likely to survive if it obtains legitimate and social support from either external constituents of its institutional environment ( Baum & Oliver, 1991) or if it behaves, or appears to behave in a similar way to other comparable organization's within its institutional environment (Deephouse, 1997). The emphasis in this institutional theory is for manufacturing firms to maintain social worthiness (Oliver, 1991).

## **2.3 Empirical Review**

Numerous qualitative and quantitative studies have examined the relationship between environmental accounting disclosures and performance of firms in different countries and sectors over the last few decades providing mixed, inconsistent and often contradictory results ranging from positive to negative or no relationship and even statistically insignificant relationships.

Russo and Fouts (1997) examined the effects of environmental performance on profitability of firms in Ghana and found that good environmental performance led to higher return on assets. Waddock and Graves (1997) carried out a study on environmental responsibility and performance of firms, results showed a one year lagged environmental responsibility has a significant explanatory power for return on assets, limited power for return on sales and none for return on equity. In the same vein, Kassinis and Soterious (2003) examined the effect of environmental performance on firms profitability, and the result showed that good environmental performance improved revenue, market share and profitability as a result of improved product demand and customer loyalty. In their study on the link between environmental accounting, environmental performance and economic performance, Al-Tuwaijri, Christensen and Hughes (2004) revealed that a positive relationship existed between the variables measured in the study. Bassey, Effiok, Okon, (2013) examined the impact of environmental accounting and reporting on organizations performance of selected oil and gas companies in Niger Delta region of Nigeria, findings revealed that environmental related cost management positively influence firms profitability and enhance organizational performance. Adediran, and Alade, (2013); Makari and Jangogo



(2013), in their diverse studies on the relationship between environmental accounting on corporate performance, found a significant negative relationship between environmental accounting and return on capital employed and earnings per share; and a significant positive relationship between environmental accounting and net profit and dividend per share.

Agbiogwu, Ihendinihu and Okafor (2016) examined the impact of environmental and social costs on performance of manufacturing firms in Nigeria, findings revealed that environmental and social costs significantly affect net profit margin, earnings per share, return on capital employed of manufacturing firms. Furthermore, Fahria, Sahibzad and Abdul (2016), investigated the impact of environmental disclosure on firm's performance in USA for the year 2015 using greenhouse gas emission, water consumption and waste disposal was used to measure the independent variable while market share was used to measure the dependent variable; findings revealed that reduction in greenhouse gas emission, water consumption and waste disposal has a significant positive relationship with performance of firms by increasing firm's value and demand for products.

Brammer, Brooks and Pavelin, (2006) investigated the relationship between environmental accounting disclosure and performance, findings showed a negative relationship between environmental performance and stock returns which was largely attributed to large amount of expenditure in environmental disclosure.

Some other researchers have also carried out studies in this area with mixed findings, Gonzalez-Benito and Gonzalez-Benito (2005) carried out an investigation on the relationship between environmental responsibility and performance of firms, the study showed mixed results revealing no significant association between environmental responsibility and business performance while some environmental practice have negative impact on business performance and no evidence was found to support that environmental practices ends in higher profitability. In a similar study, Cornier and Magnan (2007) examined the effect of environmental disclosure and firms' performance, the study showed mixed results also and they argued that the level of association between environmental disclosure and firms performance proxy by stock value of the company is highly dependent on the regulatory reporting environment faced by the company. Nurhasimah, Nurhabibi, Nor Ameira, Sheh and Inalialh,(2016) examined the effects of environmental disclosure on financial performance of firms in Malaysia, and the findings showed a significant relationship between environmental disclosure and profit margin while return on assets, earnings per share and return on equity showed no significant relationship with environmental disclosures.

The study by Egbunike and Okoro (2018) on "Does green accounting matter to the profitability of firms?" revealed that there was no significant relationship between green accounting and profitability measures among non- consumer goods firms.

These variations in findings could be as a result of the variables used to proxy environmental disclosures, some of the variables used are expenditure on environmental protection, green house emission, water consumption and waste disposal, environmental index, percentage of waste generated and recycled, environmental policies and questionnaire on environmental management practices. There was no much variations in the variables used to proxy financial performances, they include return on assets, return on sales, return on equity, net profit



margin, Tobin Q, earnings per share, dividend per share, stock returns, revenue and market shares. In this study similar financial performance proxies were used but we used GRI G4 index and ISO 26000 as a standard measure of environmental disclosure.

### 3. Research Methodology

This study employed correlation research design approach. The use of correlation design was deemed appropriate because it enabled the researchers to examine the relationship between two or more non-manipulated variables and allowed for prediction of outcomes based on causative relationship between the variables. Time series data on environmental accounting disclosures, return on asset, earnings per share and net profit margin for a period of 6 years (2012-2017) were generated from annual reports and accounts of 40 randomly selected manufacturing companies quoted on the Nigerian Stock Exchange as at 2017. The data were analyzed using Pearson Point bi-serial correlation analytical tool.

*Decision Rule:* Accept the null hypothesis ( $H_0$ ) if the p-value (**Sig.**) is greater or equal to the pre-set level of significant (0.05) level or otherwise reject  $H_0$  and accept the alternate hypothesis ( $H_a$ ) if the P-value is less than 5% (0.05).

### 4. Data Analysis and Results

See Appendix A and B for data from 40 manufacturing companies used for the study.

- i. The relationship between environmental accounting disclosures (EAD) and earnings per share (EPS) is not significant.

Table 1. Point-Biserial Correlation between Environmental Accounting Disclosures (EAD) and Earnings per Share (EPS).

| Variables          |                     | Environmental Accounting Disclosures |
|--------------------|---------------------|--------------------------------------|
| Earnings Per Share | Pearson Correlation | .153*                                |
|                    | N                   | 240                                  |

**Source:** Researcher’s computation via SPSS version23.

Table 1 shows the Pearson Point-Biserial correlation analysis performed to establish the connection between Environmental Accounting Disclosures (EAD) and EPS. There was a moderate positive correlation between Environmental Accounting Disclosures (EAD) and earnings per share (EPS), ( $r_{pbi} = .153, n = 240$ ). Can we conclude that there is positive significant relationship between Environmental Accounting Disclosures (EAD) and earnings per share (EPS)? This impelled us to test of hypothesis.



**Table 2:** Point-Biserial Correlation between Environmental Accounting Disclosures (EAD) and Earnings per Share (EPS).

| Variables          | Environmental Accounting Disclosures |       |
|--------------------|--------------------------------------|-------|
| Earnings Per Share | Pearson Correlation                  | .153* |
|                    | Sig. (2-tailed)                      | .017  |
|                    | N                                    | 240   |

**Source:** Researcher’s computation via SPSS version23.

Table 2 indicates the Pearson Point-Biserial correlation analysis performed to establish the connection between Environmental Accounting Disclosures (EAD) and EPS. There was a significant positive correlation between Environmental Accounting Disclosures (EAD) and earnings per share (EPS), ( $r_{pbi} = .153, n = 240, p=.017$ ).

ii. The connection between environmental accounting disclosures (EAD) and return on assets (ROA) is not significant.

**Table 3.** Point-Biserial Correlation between Environmental Accounting Disclosures (EAD) and return on assets (ROA).

| Variables       | Environmental Accounting Disclosures |       |
|-----------------|--------------------------------------|-------|
| Return on Asset | Pearson Correlation                  | .153* |
|                 | N                                    | 240   |

**Source:** Researcher’s computation via SPSS version23.

Table 3 displays the Pearson Point Bi-serial correlation analysis performed to determine the connection between Environmental Accounting Disclosures (EAD) and financial performance proxy with return on assets (ROA). There was a weak positive correlation between Environmental Accounting Disclosures (EAD) and return on assets (ROA)., ( $r_{pbi} = .153, n = 240$ ). Can we conclude that there is positive significant relationship between Environmental Accounting Disclosures (EAD) and return on assets (ROA)? This urged us to test of hypothesis.

**Table 4:** Point-Biserial Correlation between Environmental Accounting Disclosures (EAD) and return on assets (ROA).

| Variables       | Environmental Accounting Disclosures |       |
|-----------------|--------------------------------------|-------|
| Return on Asset | Pearson Correlation                  | .153* |
|                 | Sig. (2-tailed)                      | .017  |
|                 | N                                    | 240   |

**Source:** Researcher’s computation via SPSS version23.

Table 4 presented the Pearson Point-Biserial correlation analysis performed to assess the relationship between Environmental Accounting Disclosures (EAD) and financial performance proxy with return on assets (ROA).



There is significant positive correlation between Environmental Accounting Disclosures (EAD) and return on assets (ROA) ( $r_{pbi} = .153, n = 240, p=.017$ ).

- iii. Environmental accounting disclosures (EAD) and net profit margin (NPM) are not significantly related.
- iv.

Table 5. Point-Biserial Correlation between Environmental Accounting Disclosures (EAD) and Net Profit Margin (NPM).

| Variables         | Environmental Accounting Disclosures |       |
|-------------------|--------------------------------------|-------|
| Net Profit Margin | Pearson Correlation                  | .153* |
|                   | N                                    | 240   |

Source: Researcher’s computation via SPSS version23.

Table 5 displayed the Pearson Point Bi-serial correlation analysis performed to determine the relationship between Environmental Accounting Disclosures (EAD) and financial performance proxy with Net Profit Margin (NPM). There was a positive correlation between Environmental Accounting Disclosures (EAD) and Net Profit Margin (NPM) ( $r_{pbi} = .153, n = 240$ ). Can we conclude that there is positive significant relationship between Environmental Accounting Disclosures (EAD) and Net Profit Margin (NPM)? This pressed us to test of hypothesis.

Table 6: Point-Biserial Correlation between Environmental Accounting Disclosures (EAD) and net profit margin (NPM).

| Variables         | Environmental Accounting Disclosures |       |
|-------------------|--------------------------------------|-------|
| Net Profit Margin | Pearson Correlation                  | .153* |
|                   | Sig. (2-tailed)                      | .018  |
|                   | N                                    | 240   |

Source: Researcher’s computation via SPSS version23.

Table 6 shown the Pearson Point-Biserial correlation analysis performed to evaluate the relationship between Environmental Accounting Disclosures (EAD) and financial performance proxy with net profit margin (NPM). There is significant positive correlation between Environmental Accounting Disclosures (EAD) and net profit margin (NPM) ( $r_{pbi} = .153, n = 240, p=.018$ ).

**Summary of findings**

The result of the analysis showed a positive correlation between Environmental Accounting Disclosures (EAD) and Earnings Per Share, which was statistically significant at 5% level of significance ( $r_{pbi} = .153, n = 240, p=.017$ ). It was also revealed that there exists a positive correlation between Environmental Accounting Disclosures (EAD) and Return on Assets (ROA) which was statistically significant at 5% level of significance



( $r_{pbi} = .153, n = 240, p=.017$ ). There was positive correlation between Environmental Accounting Disclosures (EAD) and Net Profit Margin (NPM) which was statistically significant at 5% level of significant ( $r_{pbi} = .153, n = 240, p=.018$ ).

### **Discussion of findings**

A significant positive correlation existed between environmental accounting disclosures and earnings per share. This implies that disclosure of the management of environmental issues in the manufacturing organizations has tendency to positively influence how much is earned during the period of one year on behalf of each outstanding share of common stock (EPS). This finding aligns with Agbiogwu et al (2016), who found that environmental and social costs significantly affect net profit margin, earnings per share and return on capital employed of manufacturing firms. However, this findings runs contrary to that of Muhannad et al (2018), Adediran et al (2013), Makari et al (2013) and Nurhasimah et al (2016).

Nigerian manufacturing firms' environmental accounting disclosures has a significant positive correlation with the firms' reported return on assets. The implication being that Nigerian manufacturing firms environmental accounting disclosures have significantly and positively affected the organization's earnings over its assets or profits generated by the assets of manufacturing companies annually. This result agrees with Al-tuwaijri et al (2004) which affirmed that a positive relationship existed between environmental accounting, environmental performance and economic performance. This finding is also in harmony with the empirical evidence provided by Russo et al (1997), Shehu (2010), Temitope (2011), Rashid et al (2012), Ifurueze et al (2013). It however disagrees with Nnamani et al (2017), Nurhasimah et al (2016), Chetty et al (2015), Yahya et al (2014) and Rahman et al (2013).

There is a significant positive correlation between environmental accounting disclosures and net profit margin which means that environmental accounting disclosures has a positive and significant association with the net profit percentage of the revenue generate for a period. However, this finding is in conformity with the findings of Basseyy et al (2013), Adediran et al (2013), Makari et al (2013), Norhasimah et al (2016), Agbiogwu et al (2016), but runs contrary to the findings of Dibia et al (2015), Omodera et al (2016) and Ezeagba et al (2017).

### **Conclusions and Recommendations.**

Given the above discussion of findings of the study, we conclude that disclosure of environmental issues in the annual reports will influence the performance of firms positively and boost the stakeholders confidence knowing that these firms are environmentally responsible.

Based on the conclusions of the study, it was recommended that:

1. Standard setting bodies should recommend a standard framework for mandatory disclosure of manufacturing firms environmental issues in the annual report to ensure consistency, uniformity and standardization.
2. Nigerian government should by way of green tax policies, encourage manufacturing firms to disclose environmental issues in the annual report.



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3. Manufacturing firms should also incorporate environmental management system to assist them in the assessment, evaluation and measurement of environmental issues to enhance proper disclosure so as to improve their financial performance as evident in the study.



## REFERENCES

- Adediran, S.A. & Atu O.K. (2010). Corporate environmental responsibility as a means of alleviating Niger Delta crises. *Academic Scholarship Journal* 2 (1), 22-39.
- Adediran, S.A., & Alade, S. O.,(2013). Impact of environmental accounting on corporate performance in Nigeria: *European Journal of Business & Management* 5 (23), 1-46.
- Agbiogwu, A.A., Ihendinihu, J.U., & Okafor, M.C., (2006). Impact of environmental and social cost on performance of Nigerian manufacturing companies: *International Journal of Economics and Finance* 8 (9), 40-67.
- Agbiogwu, A.A., Ihendinihu, J.U., & Okafor, M.C, (2016). Impact of environmental and social costs on performance of Nigerian manufacturing companies: *International Journal of Economics and Finance* 8 (9), 173-180, DOI: [org/10.5539/ijef.v8n9p173](https://doi.org/10.5539/ijef.v8n9p173).
- Al-Matari, E.M., Al-Swidi, A.K. & Fadzil, F.H.B, (2004). The measurement of firm's performance's dimensions: *Asian Journal of Finance and Accounting* 6 (1), 24-49.
- Al-Tuwaijri,S.A, Christensen, T.E. & Hughes, I.K., (2004). The relationship among environmental disclosure, environmental performance and economic performance: A simultaneous equation approach. *Accounting, Organization and Society* 29, 447-471.
- Bassey, E., Sunday, O. & Okon, E. (2013). The impact of environmental accounting and reporting on organizations performance in Niger delta region of Nigerian. *Research Journal of Finance and Accounting* 4 (3), 16-28.
- Bassey, E.B., Oba, U.E.U, & Onyah, G.E., (2013). An analysis of the extent of implementation of environmental cost management and its impact on output of oil and gas companies in Nigeria, (2001-2010). *European Journal of Business and Management* 5 (1), 13- 40.
- Baum, J.A.C. & Oliver, C., (1991). Institutional linkages and organizational mortality. *Administrative Science Quarterly*. 36 (7), 187-219.
- Brammer, S., Brooks, C., & Pavelin, S. (2006). Corporate social performance and stock returns. *UK Evidence from Disaggregate Measures, Financial management*. 35 (3), 97-166.
- Cornier, D., & Magnam, M., (2007). The revisited contribution of environmental reporting to investors' valuation of a firms earnings: An international perspective. *Ecological Economics*, 62 (34), 613-626.
- Deephouse, D.L., (1997). Does Isomorphism legitimate? *Academy of Management Journal*. 39 (4), 1024-1039.
- Donaldson & Preston, (1995). "The stakeholder theory of the corporation; Concepts and experience": *Journal of Management Review*. 20 (1), 65-92.
- Dowling, G. & Pfeffer, J., (1978). The external control of organizations: A resource dependence perspective, New York, NY.7 (4), 3-10.
- Eltaib, E.E., (2012). Environmental accounting disclosures of Australian oil and gas companies: Unpublished master's thesis; University of Wollongong.
- Eneh & Okezie (2009). Effect of environmental accounting on performance of firms: *World Journal of Entrepreneurship, Management and Sustainability development*; 8 (1), 36-59
- Eneh (2008). Impact of corporate social responsibility on corporate performance: *Journal of Business and Management. (IOSR-JBM)*. 13(3), 1-5.



- Eneh, (2011). The effects of corporate social responsibility activity disclosure on corporate profitability; empirical evidence from Nigerian commercial banks, *JOSR journal of economics and finance*. 2 (6), 17-25, e-ISSN: 2321-5933.
- Fahria, T., Sahibzada, M. & Abdul, B., (2016). The impact of environmental reporting on firm's performance: *International Journal of Accounting and Business Management*. 4(2), 22-45. DOI: 10.24924/ijabm/2016.11/v41ss2/285.301.
- Freeman, R.E (1984). Strategic Management: A Stakeholder Approach(Pitman Series in Business and Public Policy, Pitman Publishing; 13(3), 1-5.
- Freeman, R.E. & Reed, D.L., (1983). Stockholder and Stakeholder: a new perspective on corporate performance. *California Management Review*. 25(3), 88-106.
- Gonzalez-Benito, J., & Gonzalez-Benito, O., (2005). Environmental proactivity and business performance: An empirical analysis. *Omega*, 33(10), 1-15.
- International Organization for Standardization (2010). ISO 26000: Social Responsibility Available :<https://www.iso26000.info.org> (Accessed March 7, 2019)
- Global Reporting Initiative (2017). Sustainability Reporting Standards. Available: <https://www.globalreporting.org/information/about-gri/pages/default.aspx>.
- Investopedia <https://www.investopedia.com>
- Ifeanyi,(2012). The Impact of corporate social responsibility on firms financial performance in South Africa, University of Witwatersrand - *School of Economics and Business Science*;7(4),5.
- Inform (1992) *Cutting Chemical Waste New York Quorum*.
- Kassins,G.I, & Soteriou, A. (2003). 'Greening the service profit chain: The impact of environmental management practices'. *Production and Operation Management*; 12(3), 386-403.
- KPMG (2017). Survey report of corporate responsibility accounting.
- Malik,M.S. & Nadeem, M. (2014). Impact of corporate social responsibility on the financial performance of banks in Pakistan. *International Letters of Social and Humanistic Sciences*; 21, 9-19.
- Muhammad, A., Wastif,A., Shabbir,H., & Ume, A. (2018). Relationship between environmental accounting and non-financial performance in Pakistan. *Advances in Social Sciences Research Journal*. 5(2), 1-13, DOI:10.14738/assrj.51.4139.
- Neely, A. (2007). *Business Performance Measurement Unifying theories and integrating practice* (2<sup>nd</sup> Ed). NY, USA : Cambridge University Press.
- Nigerian Stock Exchange (2010). Annual financial report of quoted manufacturing companies. Retrieved from <http://www.toforeignstock.com/stock-lists/the-list-of-listed-companies-in-nig.html>.
- Nigerian Stock Exchange (2018). Fact Book: Financial Statemnts; <http://www.nse.gov.ng/financial/annualreports.asp>.
- Norhasimah, M., Norhabibi, S., Nor Amiera, A., Sheh, M., Inaliah, M. (2016). The effect of environmental disclosures on financial performance of firms in Malaysia: *Procedia of Economics and Finance*. 35 (16), 117-136. DOI: org/10.1016/s2212-5671(16)00016-2.
- Okoye,A.E., & Ngwakwe, C.C. (2013). Environmental accounting: A Convergence of antecedents, divergence, Accountancy: Management companion, edited by Ezejelue, A.C and Okoye, A.E in Nigeria; Nigerian Accounting Association (NAA).



- Oliver, C., (1991). Strategic responses to institutional processes: *Academy of Management Review*; 16(1), 145-179.
- Pandey, I. (2005). Financial management finance, New Delhi: Vikas publishing house. pp.29-35.
- Pederson & Esben, R.G., (2015). Corporate Social Responsibility, London. SAGE publishing, p.107. ISBN 9780857022448
- Pramanik A, Shil N., & Das B. Environmental accounting and reporting with special reference to India: *Munich Personal Rep Ec Archive*.2007; 77-12.
- “Profit margin Definition”. Investor words. InvestorsGuide.com. Retrieved December 17, 2009.
- Russo, M.V. & Fouts, P.A., (1997). A revenue based perspective on corporate environmental performance and profitability; *Academy of management journal*, 40(3), 534-559.
- Schaltegger, S. & Burritt, R.L. (2010) “Sustainability accounting for companies: Catchphrase or decision support for business leaders?”; *Journal of World Business*. 45(4):375-384.
- Schaltegger, S. & Burritt, R. (2010) *Contemporary Environmental Accounting*. Sheffield, UK: Greenleaf Publishing.
- Shane, P.B., (2008). Market Response of Environmental Information produced outside the firm, *Accounting Review*. Jan, 94(1).
- Suchman, M.C, (1995), Managing Legitimacy: Strategic and Institutional Approaches: *The Academy of Management Review*; 20(3), 571-610.
- United States Environmental Protection Agency (1995), *An Introduction to Environmental accounting as a Business Management tool; key concepts and terms*. EPA 742-R-95001, USA SEC. (2018) “Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures”: [www.sec.gov](http://www.sec.gov).USA. Retrieved 24 January 2018.
- USEPA (United States Environmental Protection Agency). *An Introduction to Environmental Accounting as a Business Management Tool: Key Concepts and terms*. EPA 742-R-95-001. Washington D.C; 1995
- Uwaloma, U., (2011). Corporate Environmental Reporting Practices. *A corporate study of Nigeria and South African firms*: Covenant university Ota, Ogun State; unpublished Phd thesis.
- Uwalomwa, U. (2012). Web-Based corporate environmental reporting in Nigeria: *Journal of Informatica Economica*; 16, 27-44.
- Waddock, S.A., & Graves, S.B., (1997). The Corporate Social Performance- Finance performance link, *Strategic management journal*. 18(4), 303-319.
- World Bank, (2008). Sustainability reporting practices. Retrieved from: <http://web.worldbank.org/WEBSITE/ENVIRONMENTAL/REPROTING/0menupk:463847-page6>.
- World Bank, Development reports (2009). World Development Indicators, Oxford: Oxford University Press.
- “World Population Prospects: The 2017 revision”. ESA.UN.org (custom data acquired via website). United Nations Department of Economic and Social Affairs, Population Division. Retrieved 10 September 2017.
- Wikipedia: <https://en.wikipedia.org/wiki/environmentalaccounting/nigeria>. Retrieved: 6/19/2018

## Appendix-A

### Logarithm of Financial and Non-financial Data for Nigeria Listed Manufacturing Companies

| S/N | Company               | EAD | Age of Coy | AUDTYP | LOG NPM | log ROA | LOG EPS | Firm size (log of asset) |
|-----|-----------------------|-----|------------|--------|---------|---------|---------|--------------------------|
| 1   | A.G Levent            | 1   | 59         | 1      | 0.948   | 1.076   | 0.987   | 10.308                   |
| 2   | A.G Levent            | 1   | 58         | 1      | #NUM!   | #NUM!   | #NUM!   | 10.352                   |
| 3   | A.G Levent            | 1   | 57         | 1      | #NUM!   | #NUM!   | #NUM!   | 10.376                   |
| 4   | A.G Levent            | 1   | 56         | 1      | 0.827   | 1.246   | 0.834   | 10.312                   |
| 5   | A.G Levent            | 1   | 55         | 1      | 0.849   | 1.206   | 0.856   | 10.358                   |
| 6   | A.G Levent            | 1   | 54         | 1      | 0.846   | 1.215   | 0.851   | 10.358                   |
| 7   | Beta Glass            | 1   | 43         | 1      | 0.929   | 1.101   | 0.924   | 10.521                   |
| 8   | Beta Glass            | 1   | 42         | 1      | 0.932   | 1.098   | 0.927   | 10.434                   |
| 9   | Beta Glass            | 1   | 41         | 1      | 0.911   | 1.122   | 0.908   | 10.430                   |
| 10  | Beta Glass            | 1   | 40         | 1      | 0.918   | 1.112   | 0.919   | 10.434                   |
| 11  | Beta Glass            | 1   | 39         | 1      | 0.903   | 1.138   | 0.904   | 10.351                   |
| 12  | Beta Glass            | 1   | 38         | 1      | 0.902   | 1.124   | 0.904   | 10.351                   |
| 13  | PZ CUSSONS NIG.       | 1   | 69         | 1      | 0.858   | 1.162   | 0.888   | 10.851                   |
| 14  | PZ CUSSONS NIG.       | 1   | 68         | 1      | 0.895   | 1.118   | 0.915   | 10.851                   |
| 15  | PZ CUSSONS NIG.       | 0   | 67         | 1      | 0.893   | 1.118   | 0.915   | 10.389                   |
| 16  | PZ CUSSONS NIG.       | 0   | 66         | 1      | 0.894   | 1.119   | 0.912   | 10.851                   |
| 17  | PZ CUSSONS NIG.       | 0   | 65         | 1      | 0.896   | 1.111   | 0.917   | 10.859                   |
| 18  | PZ CUSSONS NIG.       | 0   | 64         | 1      | 0.866   | 1.152   | 0.885   | 10.809                   |
| 19  | VITAFOAM              | 0   | 55         | 1      | 0.812   | 1.221   | 0.858   | 10.125                   |
| 20  | VITAFOAM              | 0   | 54         | 1      | #NUM!   | #NUM!   | #NUM!   | 10.109                   |
| 21  | VITAFOAM              | 0   | 53         | 1      | 0.640   | 1.545   | 0.690   | 9.998                    |
| 22  | VITAFOAM              | 0   | 52         | 1      | 0.634   | 1.544   | 0.683   | 9.998                    |
| 23  | VITAFOAM              | 0   | 51         | 1      | 0.843   | 1.161   | 0.907   | 10.011                   |
| 24  | VITAFOAM              | 0   | 50         | 1      | 0.856   | 1.151   | 0.919   | 9.968                    |
| 25  | Inter. Breweries Plc. | 1   | 46         | 0      | 0.857   | 1.182   | 0.889   | 10.525                   |
| 26  | Inter. Breweries Plc. | 1   | 45         | 0      | 0.909   | 1.117   | 0.929   | 10.480                   |
| 27  | Inter. Breweries Plc. | 0   | 44         | 0      | 0.901   | 1.128   | 0.921   | 10.387                   |
| 28  | Inter. Breweries Plc. | 0   | 43         | 0      | 0.908   | 1.114   | 0.875   | 10.362                   |
| 29  | Inter. Breweries Plc. | 1   | 42         | 0      | 0.915   | 1.106   | 0.878   | 10.155                   |



|    |                                 |   |    |   |       |       |       |        |
|----|---------------------------------|---|----|---|-------|-------|-------|--------|
| 30 | Inter. Breweries Plc.           | 1 | 41 | 0 | 0.887 | 1.032 | 0.928 | 10.917 |
| 31 | Austin laza plc                 | 0 | 35 | 0 | 0.739 | 1.086 | 0.924 | 9.246  |
| 32 | Austin laza plc                 | 0 | 34 | 0 | #NUM! | #NUM! | #NUM! | 9.271  |
| 33 | Austin laza plc                 | 0 | 33 | 0 | #NUM! | #NUM! | #NUM! | 9.310  |
| 34 | Austin laza plc                 | 1 | 32 | 0 | 1.178 | 0.895 | 1.125 | 11.058 |
| 35 | Austin laza plc                 | 0 | 31 | 0 | 1.185 | 0.897 | 1.125 | 11.058 |
| 36 | Austin laza plc                 | 0 | 30 | 0 | 1.056 | 0.904 | 1.115 | 9.906  |
| 37 | Lafarge Africa Plc              | 1 | 43 | 1 | #NUM! | #NUM! | #NUM! | 11.701 |
| 38 | Lafarge Africa Plc              | 1 | 42 | 1 | 0.902 | 1.144 | 0.897 | 11.656 |
| 39 | Lafarge Africa Plc              | 1 | 41 | 1 | 0.913 | 1.117 | 0.928 | 11.486 |
| 40 | Lafarge Africa Plc              | 1 | 40 | 1 | 0.923 | 1.090 | 0.934 | 10.829 |
| 41 | Lafarge Africa Plc              | 1 | 39 | 1 | 0.911 | 1.150 | 0.838 | 10.828 |
| 42 | Lafarge Africa Plc              | 1 | 38 | 1 | 0.914 | 1.145 | 0.885 | 10.828 |
| 43 | CAP plc                         | 1 | 52 | 1 | 0.931 | 1.057 | 0.981 | 9.692  |
| 44 | CAP plc                         | 1 | 51 | 1 | 0.936 | 1.053 | 0.984 | 9.533  |
| 45 | CAP plc                         | 1 | 50 | 1 | 0.938 | 1.032 | 1.006 | 9.489  |
| 46 | CAP plc                         | 1 | 49 | 1 | 0.937 | 1.029 | 1.016 | 9.482  |
| 47 | CAP plc                         | 1 | 48 | 1 | 0.935 | 1.036 | 1.005 | 9.487  |
| 48 | CAP plc                         | 1 | 47 | 1 | 0.931 | 1.049 | 0.983 | 9.401  |
| 49 | Chellarams Plc                  | 0 | 70 | 0 | 0.839 | 1.224 | 0.894 | 10.141 |
| 50 | Chellarams Plc                  | 0 | 69 | 0 | 0.795 | 1.237 | 0.895 | 10.268 |
| 51 | Chellarams Plc                  | 0 | 68 | 0 | 0.765 | 1.291 | 0.878 | 10.188 |
| 52 | Chellarams Plc                  | 0 | 67 | 0 | 0.762 | 1.281 | 0.826 | 10.169 |
| 53 | Chellarams Plc                  | 0 | 66 | 0 | 0.767 | 1.278 | 0.839 | 10.018 |
| 54 | Chellarams Plc                  | 0 | 65 | 0 | 0.808 | 1.193 | 0.887 | 9.955  |
| 55 | Transactional Corp of Nig. Plc. | 0 | 13 | 1 | 0.996 | 1.175 | 0.884 | 10.366 |
| 56 | Transactional Corp of Nig. Plc. | 0 | 12 | 1 | #NUM! | #NUM! | #NUM! | 11.307 |
| 57 | Transactional Corp of Nig. Plc. | 1 | 11 | 1 | 0.877 | 1.215 | 0.851 | 11.232 |
| 58 | Transactional Corp of Nig. Plc. | 1 | 10 | 1 | 0.897 | 1.180 | 0.869 | 11.175 |
| 59 | Transactional Corp of Nig. Plc. | 0 | 9  | 1 | 0.958 | 1.135 | 0.900 | 10.879 |
| 60 | Transactional Corp of Nig.      | 0 | 8  | 1 | 0.932 | 1.153 | 0.888 | 10.789 |



|    |                         |   |    |   |       |       |       |        |
|----|-------------------------|---|----|---|-------|-------|-------|--------|
|    | Plc.                    |   |    |   |       |       |       |        |
| 61 | Berger Paints Nig. Plc. | 1 | 58 | 1 | 0.887 | 1.128 | 0.886 | 9.613  |
| 62 | Berger Paints Nig. Plc. | 1 | 57 | 1 | 0.887 | 1.151 | 0.887 | 9.591  |
| 63 | Berger Paints Nig. Plc. | 0 | 56 | 1 | 0.899 | 1.126 | 0.905 | 9.561  |
| 64 | Berger Paints Nig. Plc. | 0 | 55 | 1 | 0.861 | 1.170 | 0.870 | 9.549  |
| 65 | Berger Paints Nig. Plc. | 0 | 54 | 1 | 0.891 | 1.137 | 0.895 | 9.455  |
| 66 | Berger Paints Nig. Plc. | 0 | 53 | 1 | 0.881 | 1.141 | 0.897 | 9.463  |
| 67 | Flour mill of Nig. Plc. | 0 | 57 | 1 | 0.863 | 1.156 | 0.910 | 11.549 |
| 68 | Flour mill of Nig. Plc. | 0 | 56 | 1 | 0.881 | 1.137 | 0.925 | 11.473 |
| 69 | Flour mill of Nig. Plc. | 0 | 55 | 1 | 0.847 | 1.179 | 0.892 | 11.473 |
| 70 | Flour mill of Nig. Plc. | 0 | 54 | 1 | 0.845 | 1.179 | 0.892 | 11.447 |
| 71 | Flour mill of Nig. Plc. | 0 | 53 | 1 | 0.860 | 1.159 | 0.906 | 11.367 |
| 72 | Flour mill of Nig. Plc. | 0 | 52 | 1 | 0.870 | 1.130 | 0.931 | 11.367 |
| 73 | First Aluminium Plc.    | 1 | 57 | 0 | 0.771 | 1.307 | 0.787 | 9.970  |
| 74 | First Aluminium Plc.    | 1 | 56 | 0 | 0.825 | 1.214 | 0.847 | 9.928  |
| 75 | First Aluminium Plc.    | 1 | 55 | 0 | 0.746 | 1.328 | 0.772 | 9.933  |
| 76 | First Aluminium Plc.    | 1 | 54 | 0 | 0.751 | 1.329 | 0.773 | 9.948  |
| 77 | First Aluminium Plc.    | 0 | 53 | 0 | 0.805 | 1.245 | 0.827 | 9.998  |
| 78 | First Aluminium Plc.    | 0 | 52 | 0 | #NUM! | #NUM! | #NUM! | 10.022 |
| 79 | Guinness Nig. Plc       | 1 | 67 | 1 | 0.836 | 1.203 | 0.873 | 11.195 |
| 80 | Guinness Nig. Plc       | 1 | 66 | 1 | #NUM! | #NUM! | #NUM! | 11.137 |
| 81 | Guinness Nig. Plc       | 1 | 65 | 1 | 0.848 | 1.228 | 0.854 | 11.122 |
| 82 | Guinness Nig. Plc       | 0 | 64 | 1 | 0.904 | 1.114 | 0.937 | 11.083 |
| 83 | Guinness Nig. Plc       | 0 | 63 | 1 | 0.909 | 1.100 | 0.945 | 10.965 |
| 84 | Guinness Nig. Plc       | 0 | 62 | 1 | 0.916 | 1.079 | 0.959 | 11.011 |
| 85 | Nestle Nig. Plc.        | 1 | 56 | 1 | 0.937 | 1.047 | 1.002 | 11.229 |
| 86 | Nestle Nig. Plc.        | 1 | 55 | 1 | 0.879 | 1.134 | 0.944 | 11.125 |
| 87 | Nestle Nig. Plc.        | 1 | 54 | 1 | 0.928 | 1.072 | 0.957 | 11.125 |
| 88 | Nestle Nig. Plc.        | 0 | 53 | 1 | 0.927 | 1.075 | 0.954 | 11.081 |
| 89 | Nestle Nig. Plc.        | 0 | 52 | 1 | 0.930 | 1.071 | 0.958 | 11.101 |
| 90 | Nestle Nig. Plc.        | 0 | 51 | 1 | 0.933 | 1.075 | 0.957 | 11.101 |
| 91 | Nigerian Breweries Plc. | 1 | 71 | 1 | 0.912 | 1.100 | 0.935 | 11.565 |
| 92 | Nigerian Breweries Plc. | 1 | 70 | 1 | 0.909 | 1.106 | 0.932 | 11.565 |
| 93 | Nigerian Breweries Plc. | 0 | 69 | 1 | 0.911 | 1.106 | 0.932 | 11.543 |
| 94 | Nigerian Breweries Plc. | 0 | 68 | 1 | 0.930 | 1.086 | 0.946 | 11.544 |
| 95 | Nigerian Breweries Plc. | 0 | 67 | 1 | 0.930 | 1.086 | 0.962 | 11.404 |



|     |                           |   |    |   |       |       |       |        |
|-----|---------------------------|---|----|---|-------|-------|-------|--------|
| 96  | Nigerian Breweries Plc.   | 0 | 66 | 1 | 0.928 | 1.078 | 0.964 | 11.372 |
| 97  | Champ. Brew. Nig. Plc.    | 1 | 43 | 1 | 0.895 | 1.154 | 0.875 | 9.998  |
| 98  | Champ. Brew. Nig. Plc.    | 1 | 42 | 1 | 0.910 | 1.146 | 0.883 | 10.014 |
| 99  | Champ Brew. Nig. Plc.     | 0 | 41 | 1 | 0.826 | 1.270 | 0.801 | 9.982  |
| 100 | Champ Brew Nig. Plc.      | 0 | 40 | 1 | #NUM! | #NUM! | #NUM! | 9.961  |
| 101 | Champ Brew Nig. Plc.      | 0 | 39 | 1 | #NUM! | #NUM! | #NUM! | 9.832  |
| 102 | Champ BrewNig. Plc.       | 0 | 38 | 1 | #NUM! | #NUM! | #NUM! | 9.850  |
| 103 | Nasco Allied Industries   | 1 | 44 | 1 | 0.932 | 1.077 | 0.967 | 10.391 |
| 104 | Nasco Allied Industries   | 1 | 43 | 1 | 0.914 | 1.107 | 0.953 | 10.212 |
| 105 | Nasco Allied Industries   | 1 | 42 | 1 | 0.913 | 1.095 | 0.946 | 10.099 |
| 106 | Nasco Allied Industries   | 1 | 41 | 1 | 0.993 | 1.012 | 1.045 | 9.042  |
| 107 | Nasco Allied Industries   | 1 | 40 | 1 | 1.006 | 0.992 | 1.061 | 9.042  |
| 108 | Nasco Allied Industries   | 1 | 39 | 1 | 0.932 | 1.060 | 0.998 | 8.906  |
| 109 | Unilever Nig. Plc.        | 1 | 94 | 1 | 0.866 | 1.168 | 0.872 | 10.860 |
| 110 | Unilever Nig. Plc.        | 1 | 93 | 1 | 0.875 | 1.145 | 0.942 | 10.660 |
| 111 | Unilever Nig. Plc.        | 1 | 92 | 1 | 0.871 | 1.136 | 0.950 | 10.660 |
| 112 | Unilever Nig. Plc.        | 1 | 91 | 1 | 0.873 | 1.136 | 0.950 | 10.641 |
| 113 | Unilever Nig. Plc.        | 1 | 90 | 1 | 0.898 | 1.100 | 0.970 | 10.562 |
| 114 | Unilever Nig. Plc.        | 1 | 89 | 1 | 0.907 | 1.084 | 0.975 | 10.509 |
| 115 | Honeywell Flour Mill Plc. | 1 | 32 | 0 | 0.898 | 1.147 | 0.899 | 10.881 |
| 116 | Honeywell Flour Mill Plc. | 1 | 31 | 0 | 0.862 | 1.207 | 0.866 | 10.881 |
| 117 | Honeywell Flour Mill Plc. | 0 | 30 | 0 | 0.865 | 1.186 | 0.898 | 10.805 |
| 118 | Honeywell Flour Mill Plc. | 0 | 29 | 0 | 0.887 | 1.134 | 0.924 | 10.744 |
| 119 | Honeywell Flour Mill Plc. | 0 | 28 | 0 | 0.887 | 1.136 | 0.921 | 10.464 |
| 120 | Honeywell Flour Mill Plc. | 0 | 27 | 0 | 0.891 | 1.109 | 0.927 | 10.653 |
| 121 | JOHN HOLT Plc.            | 0 | 56 | 0 | #NUM! | #NUM! | #NUM! | 9.930  |
| 122 | JOHN HOLT Plc.            | 0 | 55 | 0 | 0.847 | 1.262 | 0.792 | 10.038 |
| 123 | JOHN HOLT Plc.            | 0 | 54 | 0 | #NUM! | #NUM! | #NUM! | 10.013 |
| 124 | JOHN HOLT Plc.            | 0 | 53 | 0 | 0.928 | 1.142 | 0.921 | 10.063 |
| 125 | JOHN HOLT Plc.            | 0 | 52 | 0 | 0.840 | 1.263 | 0.857 | 10.077 |
| 126 | JOHN HOLT Plc.            | 0 | 51 | 0 | 0.914 | 1.168 | 0.856 | 10.077 |
| 127 | MCNICHOLS Plc.            | 0 | 13 | 0 | 0.883 | 1.109 | 0.919 | 11.677 |
| 128 | MCNICHOLS Plc.            | 0 | 12 | 0 | 0.894 | 1.085 | 0.938 | 11.623 |
| 129 | MCNICHOLS Plc.            | 0 | 11 | 0 | 0.898 | 1.078 | 0.944 | 11.578 |
| 130 | MCNICHOLS Plc.            | 0 | 10 | 0 | 0.905 | 1.091 | 0.935 | 10.635 |
| 131 | MCNICHOLS Plc.            | 0 | 9  | 0 | 0.927 | 1.087 | 0.942 | 10.604 |



|     |                            |   |    |   |       |       |       |        |
|-----|----------------------------|---|----|---|-------|-------|-------|--------|
| 132 | MCNICHOLS Plc.             | 0 | 8  | 0 | 0.906 | 1.112 | 0.926 | 10.527 |
| 133 | Premier Paints Plc.        | 0 | 35 | 0 | #NUM! | #NUM! | #NUM! | 8.505  |
| 134 | Premier Paints Plc.        | 0 | 34 | 0 | #NUM! | #NUM! | #NUM! | 8.533  |
| 135 | Premier Paints Plc.        | 0 | 33 | 0 | #NUM! | #NUM! | #NUM! | 8.461  |
| 136 | Premier Paints Plc.        | 0 | 32 | 0 | 1.024 | 0.965 | 0.919 | 8.448  |
| 137 | Premier Paints Plc.        | 0 | 31 | 0 | 0.943 | 1.060 | 0.835 | 9.042  |
| 138 | Premier Paints Plc.        | 0 | 30 | 0 | 1.026 | 1.048 | 0.846 | 9.042  |
| 139 | Portland Paint&Product Plc | 0 | 32 | 1 | 0.829 | 1.199 | 0.878 | 9.279  |
| 140 | Portland Paint&Product Plc | 0 | 31 | 1 | 0.746 | 1.338 | 0.784 | 9.357  |
| 141 | Portland Paint&Product Plc | 0 | 30 | 1 | #NUM! | #NUM! | #NUM! | 9.081  |
| 142 | Portland Paint&Product Plc | 1 | 29 | 1 | 0.865 | 1.111 | 0.757 | 9.101  |
| 143 | Portland Paint&Product Plc | 0 | 28 | 1 | 1.030 | 0.806 | 1.047 | 9.057  |
| 144 | Portland Paint&Product Plc | 0 | 27 | 1 | 1.017 | 0.812 | 1.037 | 9.378  |
| 145 | Curtix Plc.                | 0 | 35 | 0 | 0.879 | 1.114 | 0.934 | 9.277  |
| 146 | Curtix Plc.                | 0 | 34 | 0 | 0.876 | 1.120 | 0.926 | 9.294  |
| 147 | Curtix Plc.                | 0 | 33 | 0 | 0.872 | 1.137 | 0.921 | 10.660 |
| 148 | Curtix Plc.                | 0 | 32 | 0 | 0.890 | 1.282 | 0.940 | 9.838  |
| 149 | Curtix Plc.                | 0 | 31 | 0 | 0.881 | 1.301 | 0.932 | 9.802  |
| 150 | Curtix Plc.                | 0 | 30 | 0 | 0.946 | 1.063 | 0.925 | 9.615  |
| 151 | 7-up bottling              | 0 | 58 | 1 | #NUM! | #NUM! | #NUM! | 10.831 |
| 152 | 7-up bottling              | 1 | 57 | 1 | #NUM! | #NUM! | #NUM! | 10.822 |
| 153 | 7-up bottling              | 0 | 56 | 1 | 0.799 | 1.256 | 0.829 | 10.747 |
| 154 | 7-up bottling              | 1 | 55 | 1 | 0.901 | 1.096 | 0.958 | 10.711 |
| 155 | 7-up bottling              | 0 | 54 | 1 | 0.984 | 1.007 | 1.053 | 11.544 |
| 156 | 7-up bottling              | 1 | 53 | 1 | 0.932 | 1.081 | 1.082 | 11.544 |
| 157 | UACN                       | 0 | 86 | 1 | 1.064 | 1.107 | 0.872 | 10.470 |
| 158 | UACN                       | 0 | 85 | 1 | 0.924 | 1.111 | 0.923 | 11.115 |
| 159 | UACN                       | 0 | 84 | 1 | 0.924 | 1.107 | 0.923 | 11.115 |
| 160 | UACN                       | 0 | 83 | 1 | 0.918 | 1.107 | 0.923 | 11.097 |
| 161 | UACN                       | 0 | 82 | 1 | 0.917 | 1.110 | 0.940 | 11.090 |
| 162 | UACN                       | 0 | 81 | 1 | 0.909 | 1.126 | 0.932 | 11.085 |
| 163 | SCOA Plc.                  | 0 | 48 | 0 | #NUM! | #NUM! | #NUM! | 10.126 |
| 164 | SCOA Plc.                  | 0 | 47 | 0 | 0.711 | 1.540 | 0.760 | 9.966  |
| 165 | SCOA Plc.                  | 0 | 46 | 1 | 0.855 | 1.207 | 0.970 | 9.966  |
| 166 | SCOA Plc.                  | 0 | 45 | 1 | 0.841 | 1.207 | 0.871 | 9.893  |
| 167 | SCOA Plc.                  | 0 | 44 | 1 | 0.821 | 1.230 | 0.850 | 9.850  |



|     |                                   |   |    |   |       |       |       |        |
|-----|-----------------------------------|---|----|---|-------|-------|-------|--------|
| 168 | SCOA Plc.                         | 0 | 43 | 1 | 0.804 | 1.252 | 0.827 | 9.783  |
| 169 | Dangote Flour Mills Nig. Plc      | 0 | 11 | 1 | 0.915 | 1.100 | 0.973 | 10.885 |
| 170 | Dangote Flour Mills Nig. Plc      | 0 | 10 | 1 | 0.909 | 1.087 | 0.965 | 10.851 |
| 171 | Dangote Flour Mills Nig. Plc      | 0 | 9  | 1 | #NUM! | #NUM! | #NUM! | 10.819 |
| 172 | Dangote Flour Mills Nig. Plc      | 0 | 8  | 1 | 0.929 | 1.097 | 0.965 | 10.819 |
| 173 | Dangote Flour Mills Nig. Plc      | 0 | 7  | 1 | 0.941 | 1.105 | 0.948 | 10.819 |
| 174 | Dangote Flour Mills Nig. Plc      | 0 | 6  | 1 | #NUM! | #NUM! | #NUM! | 10.638 |
| 175 | Dangote Cement Plc                | 0 | 25 | 1 | 0.971 | 0.804 | 1.281 | 10.048 |
| 176 | Dangote Cement Plc                | 0 | 24 | 1 | 0.702 | 1.110 | 0.929 | 9.046  |
| 177 | Dangote Cement Plc                | 0 | 23 | 1 | 0.706 | 1.095 | 0.937 | 11.926 |
| 178 | Dangote Cement Plc                | 0 | 22 | 1 | 0.976 | 1.056 | 0.962 | 11.926 |
| 179 | Dangote Cement Plc                | 0 | 21 | 1 | 0.975 | 1.046 | 0.974 | 11.926 |
| 180 | Dangote Cement Plc                | 0 | 20 | 1 | 0.972 | 1.050 | 0.972 | 11.818 |
| 181 | Cadbury Nigeria Plc               | 1 | 52 | 1 | 0.806 | 1.233 | 0.838 | 10.453 |
| 182 | Cadbury Nigeria Plc               | 0 | 51 | 1 | #NUM! | #NUM! | #NUM! | 10.454 |
| 183 | Cadbury Nigeria Plc               | 1 | 50 | 1 | 0.922 | 1.154 | 0.898 | 10.192 |
| 184 | Cadbury Nigeria Plc               | 0 | 49 | 1 | 0.876 | 1.110 | 0.912 | 10.635 |
| 185 | Cadbury Nigeria Plc               | 0 | 48 | 1 | 0.923 | 1.092 | 0.938 | 10.600 |
| 186 | Cadbury Nigeria Plc               | 0 | 47 | 1 | 0.919 | 1.090 | 0.942 | 10.600 |
| 187 | Northern Nigeria Flour Mills Plc. | 0 | 46 | 1 | #NUM! | #NUM! | #NUM! | 9.240  |
| 188 | Northern Nigeria Flour Mills Plc. | 0 | 45 | 1 | #NUM! | #NUM! | #NUM! | 11.473 |
| 189 | Northern Nigeria Flour Mills Plc. | 0 | 44 | 1 | 0.684 | 1.460 | 0.721 | 11.473 |
| 190 | Northern Nigeria Flour Mills Plc. | 0 | 43 | 1 | 0.667 | 1.494 | 0.704 | 11.447 |
| 191 | Northern Nigeria Flour Mills Plc. | 0 | 42 | 1 | 0.860 | 1.159 | 0.906 | 11.367 |
| 192 | Northern Nigeria Flour            | 0 | 41 | 1 | 0.870 | 1.130 | 0.931 | 11.367 |



|     |                                      |   |    |   |       |       |       |        |
|-----|--------------------------------------|---|----|---|-------|-------|-------|--------|
|     | Mills Plc.                           |   |    |   |       |       |       |        |
| 193 | Nig. Enamelware Plc.                 | 0 | 56 | 0 | 0.814 | 1.276 | 0.836 | 9.657  |
| 194 | Nig. Enamelware Plc.                 | 0 | 56 | 0 | 0.860 | 1.188 | 0.888 | 9.024  |
| 195 | Nig. Enamelware Plc.                 | 0 | 55 | 0 | 0.836 | 1.146 | 0.734 | 9.042  |
| 196 | Nig. Enamelware Plc.                 | 0 | 54 | 1 | 1.012 | 0.949 | 1.047 | 9.060  |
| 197 | Nig. Enamelware Plc.                 | 0 | 53 | 1 | 1.006 | 0.958 | 1.042 | 9.056  |
| 198 | Nig. Enamelware Plc.                 | 0 | 52 | 0 | 1.004 | 0.960 | 0.826 | 9.056  |
| 199 | Dangote Sugar Refinery Plc           | 1 | 12 | 1 | 0.936 | 1.068 | 0.980 | 11.245 |
| 200 | Dangote Sugar Refinery Plc           | 1 | 11 | 1 | 0.907 | 1.088 | 0.930 | 10.920 |
| 201 | Dangote Sugar Refinery Plc           | 0 | 10 | 1 | 0.912 | 1.088 | 0.940 | 10.920 |
| 202 | Dangote Sugar Refinery Plc           | 0 | 9  | 1 | 0.914 | 1.088 | 0.940 | 10.920 |
| 203 | Dangote Sugar Refinery Plc           | 0 | 8  | 1 | 0.911 | 1.088 | 0.940 | 10.919 |
| 204 | Dangote Sugar Refinery Plc           | 0 | 7  | 1 | 0.834 | 1.083 | 0.947 | 10.919 |
| 205 | Greif Nig. Plc.                      | 1 | 77 | 1 | 0.874 | 1.144 | 0.911 | 8.859  |
| 206 | Greif Nig. Plc.                      | 1 | 76 | 1 | 0.826 | 1.192 | 0.872 | 8.855  |
| 207 | Greif Nig. Plc.                      | 1 | 75 | 1 | 0.830 | 1.198 | 0.867 | 9.316  |
| 208 | Greif Nig. Plc.                      | 0 | 74 | 1 | 1.040 | 0.916 | 1.156 | 9.565  |
| 209 | Greif Nig. Plc.                      | 0 | 73 | 1 | 1.029 | 0.918 | 1.150 | 9.316  |
| 210 | Greif Nig. Plc.                      | 0 | 72 | 1 | 1.051 | 0.899 | 1.185 | 9.193  |
| 211 | Paint and Coating Manufacturing Plc. | 1 | 16 | 1 | 0.804 | 1.233 | 0.826 | 9.387  |
| 212 | Paint and Coating Manufacturing Plc. | 1 | 15 | 1 | 0.776 | 1.279 | 0.794 | 9.365  |
| 213 | Paint and Coating Manufacturing Plc. | 1 | 14 | 1 | 0.853 | 1.156 | 0.875 | 9.461  |
| 214 | Paint and Coating Manufacturing Plc. | 1 | 13 | 1 | 0.872 | 1.178 | 0.868 | 9.444  |
| 215 | Paint and Coating Manufacturing Plc. | 1 | 12 | 1 | 0.898 | 1.131 | 0.907 | 9.400  |
| 216 | Paint and Coating Manufacturing Plc. | 1 | 11 | 1 | 0.891 | 1.127 | 0.906 | 9.400  |
| 217 | CCNN PLC                             | 1 | 55 | 0 | 0.924 | 1.093 | 0.936 | 10.302 |
| 218 | CCNN PLC                             | 1 | 54 | 0 | 0.896 | 1.132 | 0.904 | 10.326 |
| 219 | CCNN PLC                             | 0 | 53 | 0 | 0.913 | 1.105 | 0.925 | 10.776 |
| 220 | CCNN PLC                             | 0 | 52 | 0 | 0.861 | 1.164 | 0.852 | 10.776 |
| 221 | CCNN PLC                             | 0 | 51 | 0 | 0.876 | 1.145 | 0.829 | 10.213 |



|     |            |   |    |   |       |       |       |        |
|-----|------------|---|----|---|-------|-------|-------|--------|
| 222 | CCNN PLC   | 0 | 50 | 0 | 0.780 | 1.284 | 0.701 | 10.213 |
| 223 | Total Oil  | 1 | 61 | 1 | 0.864 | 1.114 | 0.948 | 11.135 |
| 224 | Total Oil  | 1 | 60 | 1 | 0.887 | 1.095 | 0.981 | 10.922 |
| 225 | Total Oil  | 1 | 59 | 1 | 0.849 | 1.137 | 0.941 | 10.980 |
| 226 | Total Oil  | 1 | 58 | 1 | 0.859 | 1.129 | 0.953 | 10.980 |
| 227 | Total Oil  | 1 | 57 | 1 | 0.855 | 1.129 | 0.968 | 10.881 |
| 228 | Total Oil  | 1 | 56 | 1 | 0.853 | 1.125 | 0.967 | 10.769 |
| 229 | B.O.C Gas  | 1 | 58 | 1 | 0.891 | 1.150 | 0.892 | 9.560  |
| 230 | B.O.C Gas  | 1 | 57 | 1 | 0.848 | 1.213 | 0.844 | 9.507  |
| 231 | B.O.C Gas  | 1 | 56 | 1 | 0.869 | 1.176 | 0.867 | 9.534  |
| 232 | B.O.C Gas  | 1 | 55 | 1 | 0.894 | 1.141 | 0.898 | 9.460  |
| 233 | B.O.C Gas  | 1 | 54 | 1 | 0.903 | 1.124 | 0.909 | 9.216  |
| 234 | B.O.C Gas  | 1 | 53 | 1 | 0.906 | 1.086 | 0.921 | 9.186  |
| 235 | Conoil plc | 1 | 57 | 0 | 0.831 | 1.174 | 0.897 | 10.844 |
| 236 | Conoil plc | 1 | 56 | 0 | 0.865 | 1.147 | 0.921 | 10.841 |
| 237 | Conoil plc | 1 | 55 | 0 | 0.858 | 1.158 | 0.914 | 10.942 |
| 238 | Conoil plc | 1 | 54 | 0 | 0.803 | 1.227 | 0.874 | 10.916 |
| 239 | Conoil plc | 1 | 53 | 0 | 0.856 | 1.151 | 0.925 | 10.920 |
| 240 | Conoil plc | 1 | 52 | 0 | 0.801 | 1.233 | 0.869 | 10.791 |

**Appendix-B**

**Financial and Non-financial Data for Nigeria Listed Manufacturing Companies**

| S/N       | Company           | Year        | Assets             | Equity             | Net Income        | Revenue            |
|-----------|-------------------|-------------|--------------------|--------------------|-------------------|--------------------|
| 1         | A.G Levent        | 2017        | 18435611000        | 4644323000         | 3476859000        | 11487542000        |
| 2         | A.G Levent        | 2016        | 20343549000        | 6344043000         | -2566280000       | 12777906000        |
| 3         | A.G Levent        | 2015        | 22501905000        | 9090982000         | -176986000        | 12535861000        |
| 4         | A.G Levent        | 2014        | 23760920000        | 9532660000         | 211813000         | 11793715000        |
| 5         | A.G Levent        | 2013        | 20493625000        | 9750380000         | 356357000         | 11918512000        |
| <b>6</b>  | <b>A.G Levent</b> | <b>2012</b> | <b>20969378000</b> | <b>9678268000</b>  | <b>314870000</b>  | <b>11052231000</b> |
| 7         | Beta Glass        | 2017        | 38211613000        | 25145114000        | 4115142000        | 22186258000        |
| 8         | Beta Glass        | 2016        | 33190672000        | 21474964000        | 3799393000        | 19091192000        |
| 9         | Beta Glass        | 2015        | 27171069000        | 17578125000        | 1991127000        | 15953224000        |
| 10        | Beta Glass        | 2014        | 26928387000        | 15952981000        | 2390223000        | 16632879000        |
| 11        | Beta Glass        | 2013        | 27166481000        | 13753157000        | 1467344000        | 14096123000        |
| <b>12</b> | <b>Beta Glass</b> | <b>2012</b> | <b>18021590000</b> | <b>12455803000</b> | <b>1328580000</b> | <b>12932549000</b> |



|           |                                     |             |                    |                    |                    |                     |
|-----------|-------------------------------------|-------------|--------------------|--------------------|--------------------|---------------------|
| 13        | PZ CUSSONS NIG. PLC.                | 2017        | 73039610000        | 34076230000        | 2235631000         | 79630111000         |
| 14        | PZ CUSSONS NIG. PLC.                | 2016        | 70965735000        | 40574761000        | 5082747000         | 69527537000         |
| 15        | PZ CUSSONS NIG. PLC.                | 2015        | 70965735000        | 40574761000        | 5082747000         | 73126070000         |
| 16        | PZ CUSSONS NIG. PLC.                | 2014        | 72296420000        | 44116061000        | 5082747000         | 72905679000         |
| 17        | PZ CUSSONS NIG. PLC.                | 2013        | 64406797000        | 40929117000        | 5321187000         | 71343088000         |
| <b>18</b> | <b>PZ CUSSONS NIG. PLC.</b>         | <b>2012</b> | <b>68926529000</b> | <b>42868042000</b> | <b>2538846000</b>  | <b>72154601000</b>  |
| 19        | VITAFOAM                            | 2017        | 12974483000        | 4463200000         | 190540000          | 15921022000         |
| 20        | VITAFOAM                            | 2016        | 13345369000        | 3508459000         | -32032000          | 13569873000         |
| 21        | VITAFOAM                            | 2015        | 12849555000        | 3029068000         | 3500000            | 16853042000         |
| 22        | VITAFOAM                            | 2014        | 9961038000         | 3029068000         | 3000000            | 16712922000         |
| 23        | VITAFOAM                            | 2013        | 9961038000         | 3110025000         | 410313000          | 16338823000         |
| <b>24</b> | <b>VITAFOAM</b>                     | <b>2012</b> | <b>10258661000</b> | <b>2911739000</b>  | <b>501594000</b>   | <b>14479781000</b>  |
| 25        | International Breweries Plc.        | 2017        | 44962735000        | 13878760000        | 1034357000         | 32711218000         |
| 26        | International Breweries Plc.        | 2016        | 33482106000        | 13997391000        | 2652748000         | 23269364000         |
| 27        | International Breweries Plc.        | 2015        | 30171590000        | 12168259000        | 1946490000         | 20649295000         |
| 28        | International Breweries Plc.        | 2014        | 24370540000        | 45061717000        | 2105500000         | 18493907000         |
| 29        | International Breweries Plc.        | 2013        | 23036762000        | 46039111000        | 2327342000         | 17388632000         |
| <b>30</b> | <b>International Breweries Plc.</b> | <b>2012</b> | <b>14288312000</b> | <b>40283492000</b> | <b>6953539000</b>  | <b>126288184000</b> |
| 31        | Austin laza plc                     | 2017        | 1699093000         | 1584979000         | 315000000          | 312730000000        |
| 32        | Austin laza plc                     | 2016        | 1760775000         | 1584664000         | -146126000         | 217428000           |
| 33        | Austin laza plc                     | 2015        | 1867988000         | 1730790000         | -59092000          | 261055000           |
| 34        | Austin laza plc                     | 2014        | 2041290000         | 1789882000         | 25485219000        | 686911000           |
| 35        | Austin laza plc                     | 2013        | 2379017000         | 1948824000         | 28544492000        | 667332000           |
| <b>36</b> | <b>Austin laza plc</b>              | <b>2012</b> | <b>2240441000</b>  | <b>1885944000</b>  | <b>22108084000</b> | <b>6260655000</b>   |



|           |   |             |                    |                    |                   |                    |
|-----------|---|-------------|--------------------|--------------------|-------------------|--------------------|
| 37        | Lafarge Africa Plc                            | 2017        | 108333886000       | 264768895000       | -12223626000      | 177170362000       |
| 38        | Lafarge Africa Plc                            | 2016        | 502491000000       | 248953000000       | 16899000000       | 219714000000       |
| 39        | Lafarge Africa Plc                            | 2015        | 453012397000       | 176151729000       | 26998273000       | 267234239000       |
| 40        | Lafarge Africa Plc                            | 2014        | 305878828000       | 191642524000       | 34660666000       | 260810463000       |
| 41        | Lafarge Africa Plc                            | 2013        | 67423536000        | 171025075000       | 2616387000        | 21694657000        |
| <b>42</b> | <b>Lafarge Africa Plc</b>                     | <b>2012</b> | <b>65211835000</b> | <b>46726932000</b> | <b>2784554000</b> | <b>21825927000</b> |
| 43        | CAP plc                                       | 2017        | 5013990000         | 2242220000         | 1498730000        | 7113950000         |
| 44        | CAP plc                                       | 2016        | 4915999000         | 2283490000         | 1603357000        | 6813984000         |
| 45        | CAP plc                                       | 2015        | 3409300000         | 1520133000         | 1739559000        | 7056876000         |
| 46        | CAP plc                                       | 2014        | 3080881000         | 1180573000         | 1662425000        | 6987604000         |
| 47        | CAP plc                                       | 2013        | 3035012000         | 1268148000         | 1416795000        | 6195824000         |
| <b>48</b> | <b>CAP plc</b>                                | <b>2012</b> | <b>3067146000</b>  | <b>1598672000</b>  | <b>1115554000</b> | <b>5231330000</b>  |
| 49        | Chellarams Plc                                | 2017        | 13849376000        | 1854828000         | 193798000         | 7466457000         |
| 50        | Chellarams Plc                                | 2016        | 13849376000        | 1431175000         | 157019000         | 20086943000        |
| 51        | Chellarams Plc                                | 2015        | 18535524000        | 1165847000         | 90407000          | 25063961000        |
| 52        | Chellarams Plc                                | 2014        | 15415668000        | 4339513000         | 90407000          | 27380315000        |
| 53        | Chellarams Plc                                | 2013        | 14759478000        | 3064948000         | 90407000          | 23311109000        |
| <b>54</b> | <b>Chellarams Plc</b>                         | <b>2012</b> | <b>10417699000</b> | <b>2940543000</b>  | <b>251162000</b>  | <b>25000300000</b> |
| 55        | Transactional Corporation of Nig. Plc.        | 2017        | 232160731000       | 86448597000        | 4668177000        | 5121992000         |
| 56        | Transactional Corporation of Nig. Plc.        | 2016        | 232160731000       | 86448597000        | -1126998000       | 59424619000        |
| 57        | Transactional Corporation of Nig. Plc.        | 2015        | 202883949000       | 87505231000        | 2031557000        | 40753506000        |
| 58        | Transactional Corporation of Nig. Plc.        | 2014        | 170755362000       | 89754851000        | 3304260000        | 41338136000        |
| 59        | Transactional Corporation of Nig. Plc.        | 2013        | 149464413000       | 86676507000        | 6957902000        | 18825278000        |
| <b>60</b> | <b>Transactional Corporation of Nig. Plc.</b> | <b>2012</b> | <b>75604202000</b> | <b>41434947000</b> | <b>2710701000</b> | <b>13244845000</b> |



|           |                                   |             |                     |                    |                    |                     |
|-----------|-----------------------------------|-------------|---------------------|--------------------|--------------------|---------------------|
| 61        | Berger Paints Nig. Plc.           | 2017        | 2641145000          | 2641145000         | 224007000          | 2602844000          |
| 62        | Berger Paints Nig. Plc.           | 2016        | 4102265000          | 2604181000         | 224007000          | 2602824000          |
| 63        | Berger Paints Nig. Plc.           | 2015        | 3895870000          | 2587330000         | 330316000          | 3022264000          |
| 64        | Berger Paints Nig. Plc.           | 2014        | 3640145000          | 2459830000         | 148808000          | 3082930000          |
| 65        | Berger Paints Nig. Plc.           | 2013        | 3536641000          | 2435702000         | 251346000          | 2708448000          |
| <b>66</b> | <b>Berger Paints Nig. Plc.</b>    | <b>2012</b> | <b>2848115000</b>   | <b>1735483000</b>  | <b>192008000</b>   | <b>2513664000</b>   |
| 67        | Flour mill of Nigeria Plc.        | 2017        | 354348326000        | 95765774000        | 9829046000         | 375225284000        |
| 68        | Flour mill of Nigeria Plc.        | 2016        | 354348326000        | 95765774000        | 14420284000        | 342586459000        |
| 69        | Flour mill of Nigeria Plc.        | 2015        | 297249445000        | 79922659000        | 5367875000         | 308756526000        |
| 70        | Flour mill of Nigeria Plc.        | 2014        | 297249445000        | 79922659000        | 5367875000         | 332142685000        |
| 71        | Flour mill of Nigeria Plc.        | 2013        | 280137992000        | 79570397000        | 7539810000         | 301941329000        |
| <b>72</b> | <b>Flour mill of Nigeria Plc.</b> | <b>2012</b> | <b>163261865000</b> | <b>45223295000</b> | <b>8376656000</b>  | <b>258268251000</b> |
| 73        | First Aluminium Plc.              | 2017        | 9254990000          | 4944615000         | 42264000           | 7878319000          |
| 74        | First Aluminium Plc.              | 2016        | 9328163000          | 4944615000         | 163513000          | 9154586000          |
| 75        | First Aluminium Plc.              | 2015        | 8476056000          | 4800085000         | 29807000           | 10478233000         |
| 76        | First Aluminium Plc.              | 2014        | 8570793000          | 4639385000         | 29807000           | 8901618000          |
| 77        | First Aluminium Plc.              | 2013        | 8866267000          | 4610450000         | 97123000           | 8390463000          |
| <b>78</b> | <b>First Aluminium Plc.</b>       | <b>2012</b> | <b>9952145000</b>   | <b>5945331000</b>  | <b>-1014720000</b> | <b>1839132000</b>   |
| 79        | Guinness Nig. Plc                 | 2017        | 146038216000        | 42943015000        | 1923720000         | 125919817000        |



|            |                                     |             |                     |                    |                    |                     |
|------------|-------------------------------------|-------------|---------------------|--------------------|--------------------|---------------------|
| 80         | Guinness Nig. Plc                   | 2016        | 156669580000        | 36239692000        | -4667969000        | 59490583000         |
| 81         | Guinness Nig. Plc                   | 2015        | 136992444000        | 41660605000        | 1172137000         | 49836351000         |
| 82         | Guinness Nig. Plc                   | 2014        | 132328273000        | 45061717000        | 9573480000         | 109202120000        |
| 83         | Guinness Nig. Plc                   | 2013        | 121060621000        | 46039111000        | 11863726000        | 122463538000        |
| <b>84</b>  | <b>Guinness Nig. Plc</b>            | <b>2012</b> | <b>92227824000</b>  | <b>40283492000</b> | <b>14671195000</b> | <b>126288184000</b> |
| 85         | Nestle Nig. Plc.                    | 2017        | 146804128000        | 44878177000        | 46828682000        | 244151411000        |
| 86         | Nestle Nig. Plc.                    | 2016        | 169585932000        | 30878075000        | 7924968000         | 181910977000        |
| 87         | Nestle Nig. Plc.                    | 2015        | 133450000000        | 70130000000        | 23736777000        | 151271526000        |
| 88         | Nestle Nig. Plc.                    | 2014        | 133450000000        | 70130000000        | 22235640000        | 143328982000        |
| 89         | Nestle Nig. Plc.                    | 2013        | 120442000000        | 62575000000        | 22258279000        | 133084076000        |
| <b>90</b>  | <b>Nestle Nig. Plc.</b>             | <b>2012</b> | <b>126229000000</b> | <b>60947000000</b> | <b>21137275000</b> | <b>116707394000</b> |
| 91         | Nigerian Breweries Plc.             | 2017        | 367639915000        | 178151000000       | 33009000000        | 344563000000        |
| 92         | Nigerian Breweries Plc.             | 2016        | 367146468000        | 165913768000       | 28416965000        | 313743147000        |
| 93         | Nigerian Breweries Plc.             | 2015        | 367639915000        | 165805542000       | 28396777000        | 293905792000        |
| 94         | Nigerian Breweries Plc.             | 2014        | 349229163000        | 171882830000       | 42520253000        | 266372000000        |
| 95         | Nigerian Breweries Plc.             | 2013        | 349676784000        | 112359000000       | 43080349000        | 268614000000        |
| 96         | Nigerian Breweries Plc.             | 2012        | 253633629000        | 93447892000        | 38042714000        | 252674000000        |
| <b>97</b>  | <b>Champion Breweries Nig. Plc.</b> | <b>2017</b> | <b>10088861000</b>  | <b>8135460000</b>  | <b>464600000</b>   | <b>4777313000</b>   |
| 98         | Champion Breweries Nig. Plc.        | 2016        | 9961240000          | 7670860000         | 530389000          | 3864943000          |
| 99         | Champion Breweries Nig. Plc.        | 2015        | 10329160000         | 7121637000         | 77140000           | 3501845000          |
| 100        | Champion Breweries Nig. Plc.        | 2014        | 9592381000          | 5870431000         | -754523000         | 3302383000          |
| 101        | Champion Breweries Nig. Plc.        | 2013        | 9137716000          | -4608386000        | -1178025000        | 2233259000          |
| <b>102</b> | <b>Champion Breweries Nig. Plc.</b> | <b>2012</b> | <b>6799200000</b>   | <b>3430000000</b>  | <b>-1336690000</b> | <b>1785345000</b>   |
| 103        | Nasco Allied                        | 2017        | 30123247000         | 11535212000        | 5343592000         | 27064325000         |



|            |                                  |             |                    |                    |                   |                    |
|------------|----------------------------------|-------------|--------------------|--------------------|-------------------|--------------------|
|            | Industries                       |             |                    |                    |                   |                    |
| 104        | Nasco Allied Industries          | 2016        | 24603267000        | 7088233000         | 2415183000        | 18291792000        |
| 105        | Nasco Allied Industries          | 2015        | 16294826000        | 7088233000         | 2105646000        | 16178197000        |
| 106        | Nasco Allied Industries          | 2014        | 12555885000        | 3530404000         | 9573480000        | 11250544000        |
| 107        | Nasco Allied Industries          | 2013        | 9961038000         | 3110025000         | 11863726000       | 10258661000        |
| <b>108</b> | <b>Nasco Allied Industries</b>   | <b>2012</b> | <b>10258661000</b> | <b>2911739000</b>  | <b>2766308000</b> | <b>13414185000</b> |
| 109        | Unilever Nig. Plc.               | 2017        | 121084365000       | 75908375000        | 3071885000        | 90771306000        |
| 110        | Unilever Nig. Plc.               | 2016        | 72491309000        | 11689943000        | 3071885000        | 69777061000        |
| 111        | Unilever Nig. Plc.               | 2015        | 45736255000        | 7478808000         | 2412343000        | 59221748000        |
| 112        | Unilever Nig. Plc.               | 2014        | 45736255000        | 7478808000         | 2412343000        | 55754309000        |
| 113        | Unilever Nig. Plc.               | 2013        | 43754114000        | 9347922000         | 4724429000        | 60004119000        |
| <b>114</b> | <b>Unilever Nig. Plc.</b>        | <b>2012</b> | <b>36497624000</b> | <b>10043523000</b> | <b>5597613000</b> | <b>55547798000</b> |
| 115        | Honeywell Flour Mill Plc.        | 2017        | 113151714000       | 52334665000        | 4304955000        | 53227891000        |
| 116        | Honeywell Flour Mill Plc.        | 2016        | 102371000000       | 34117000000        | 1323000000        | 37974000000        |
| 117        | Honeywell Flour Mill Plc.        | 2015        | 76046000000        | 16362000000        | 1485000000        | 39775000000        |
| 118        | Honeywell Flour Mill Plc.        | 2014        | 63830439000        | 20605248000        | 3351564000        | 55084305000        |
| 119        | Honeywell Flour Mill Plc.        | 2013        | 55437478000        | 18553083000        | 2843520000        | 45709382000        |
| <b>120</b> | <b>Honeywell Flour Mill Plc.</b> | <b>2012</b> | <b>29137607000</b> | <b>15130733000</b> | <b>2702431000</b> | <b>38071502000</b> |
| 121        | JOHN HOLT Plc.                   | 2017        | 6902000000         | 579000000          | -755000000        | 2262000000         |
| 122        | JOHN HOLT Plc.                   | 2016        | 12085000000        | 12085000000        | 97000000          | 2665000000         |
| 123        | JOHN HOLT Plc.                   | 2015        | 10921000000        | 10921000000        | -254000000        | 2425000000         |
| 124        | JOHN HOLT Plc.                   | 2014        | 10304000000        | 3339000000         | 591000000         | 2815000000         |
| 125        | JOHN HOLT Plc.                   | 2013        | 11567000000        | 1966000000         | 93000000          | 3038000000         |
| <b>126</b> | <b>JOHN HOLT Plc.</b>            | <b>2012</b> | <b>11931000000</b> | <b>11931000000</b> | <b>424000000</b>  | <b>2764000000</b>  |
| 127        | MCNICHOLS Plc.                   | 2017        | 539237536000       | 325778773000       | 38227647000       | 967193655000       |



|            |   |             |                     |                    |                     |                     |
|------------|---|-------------|---------------------|--------------------|---------------------|---------------------|
| 128        | MCNICHOLS Plc.                            | 2016        | 475140932000        | 301533497000       | 57848754000         | 1093805288000       |
| 129        | MCNICHOLS Plc.                            | 2015        | 420149791000        | 260454359000       | 60337718000         | 1009806763000       |
| 130        | MCNICHOLS Plc.                            | 2014        | 378273495000        | 221947942000       | 40538746000         | 519799955000        |
| 131        | MCNICHOLS Plc.                            | 2013        | 43172624000         | 23994931000        | 6023219000          | 35760753000         |
| <b>132</b> | <b>MCNICHOLS Plc.</b>                     | <b>2012</b> | <b>40156508000</b>  | <b>20039356000</b> | <b>3454991000</b>   | <b>33550501000</b>  |
| 133        | Premier Paints Plc.                       | 2017        | 281248000           | -7683000           | -33556000           | 37377000            |
| 134        | Premier Paints Plc.                       | 2016        | 320042000           | -7683000           | -33556000           | 281841000           |
| 135        | Premier Paints Plc.                       | 2015        | 341289000           | 25873000           | -29497000           | 236439000           |
| 136        | Premier Paints Plc.                       | 2014        | 288982000           | 3530404000         | 591000000           | 365378000           |
| 137        | Premier Paints Plc.                       | 2013        | 280388000           | 3530404000         | 93000000            | 279977000           |
| <b>138</b> | <b>Premier Paints Plc.</b>                | <b>2012</b> | <b>1100793000</b>   | <b>15928510000</b> | <b>424000000</b>    | <b>257886000</b>    |
| 139        | Portland<br>Paint&Product Plc             | 2017        | 2033902000          | 691617000          | 58170000            | 2316289000          |
| 140        | Portland<br>Paint&Product Plc             | 2016        | 1899281000          | 691617000          | 8597000             | 1971170000          |
| 141        | Portland<br>Paint&Product Plc             | 2015        | 2277558000          | 924603000          | -232985000          | 2168480000          |
| 142        | Portland<br>Paint&Product Plc             | 2014        | 1204420000          | 62575000000        | 148642000           | 2798165000          |
| 143        | Portland<br>Paint&Product Plc             | 2013        | 1262290000          | 60947000000        | 196678391000        | 92373000000         |
| <b>144</b> | <b>Portland<br/>Paint&amp;Product Plc</b> | <b>2012</b> | <b>1140910000</b>   | <b>56797000000</b> | <b>142714089000</b> | <b>92324000000</b>  |
| 145        | Curtix Plc.                               | 2017        | 2329793000          | 1013970000         | 257498000           | 3675712000          |
| 146        | Curtix Plc.                               | 2016        | 1891718000          | 870216000          | 190551000           | 2835863000          |
| 147        | Curtix Plc.                               | 2015        | 1968814000          | 743711000          | 149209000           | 2358412000          |
| 148        | Curtix Plc.                               | 2014        | 45736255000         | 699703000          | 207116000           | 2234959000          |
| 149        | Curtix Plc.                               | 2013        | 43754114000         | 597554000          | 151423000           | 1929477000          |
| <b>150</b> | <b>Curtix Plc.</b>                        | <b>2012</b> | <b>36497624000</b>  | <b>55279690000</b> | <b>8665000000</b>   | <b>32279958000</b>  |
| 151        | 7-up bottling                             | 2017        | 87096647000         | 13225471000        | -10562376000        | 108277000000        |
| 152        | 7-up bottling                             | 2016        | 67796611000         | 24779594000        | -2897369000         | 75899025000         |
| 153        | 7-up bottling                             | 2015        | 66431175000         | 24402413000        | 410319000           | 60226131000         |
| 154        | 7-up bottling                             | 2014        | 55863209000         | 17328695000        | 6434601000          | 77888548000         |
| 155        | 7-up bottling                             | 2013        | 51370170000         | 12577980000        | 42976212000         | 64088879000         |
| <b>156</b> | <b>7-up bottling</b>                      | <b>2012</b> | <b>266372475000</b> | <b>5903118000</b>  | <b>37497651000</b>  | <b>223852222000</b> |
| 157        | UACN                                      | 2017        | 32174633000         | 75077731000        | 3079827000          | 826507000           |



|            |                                 |             |                     |                     |                     |                     |
|------------|---------------------------------|-------------|---------------------|---------------------|---------------------|---------------------|
| 158        | UACN                            | 2016        | 142558160000        | 75082731000         | 10949795000         | 73150987000         |
| 159        | UACN                            | 2015        | 130360660000        | 75077731000         | 10944795000         | 73145987000         |
| 160        | UACN                            | 2014        | 130360660000        | 75077731000         | 10944795000         | 85654346000         |
| 161        | UACN                            | 2013        | 125015494000        | 42936088000         | 9902858000          | 78714437000         |
| <b>162</b> | <b>UACN</b>                     | <b>2012</b> | <b>122975593000</b> | <b>37026184000</b>  | <b>7102951000</b>   | <b>69632321000</b>  |
| 163        | SCOA Plc.                       | 2017        | 12135665000         | 210498100           | -1904700000         | 1798351000          |
| 164        | SCOA Plc.                       | 2016        | 9104558000          | 324737000           | 2945000             | 1265219720          |
| 165        | SCOA Plc.                       | 2015        | 9244204000          | 324737000           | 179477000           | 4528303000          |
| 166        | SCOA Plc.                       | 2014        | 9244204000          | 3019289000          | 179477000           | 6440132000          |
| 167        | SCOA Plc.                       | 2013        | 7812470000          | 2944087000          | 110738000           | 6226919000          |
| <b>168</b> | <b>SCOA Plc.</b>                | <b>2012</b> | <b>7074635000</b>   | <b>3261104000</b>   | <b>73406000</b>     | <b>6018968000</b>   |
| 169        | Dangote Flour Mills Nig.        | 2017        | 129341940000        | 24186306000         | 12557722000         | 108086289000        |
| 170        | Dangote Flour Mills Nig.        | 2016        | 78979982000         | 24186306000         | 10569287000         | 105765324000        |
| 171        | Dangote Flour Mills Nig.        | 2015        | 70965735000         | -2435869000         | -12679305000        | 480266764000        |
| 172        | Dangote Flour Mills Nig.        | 2014        | 65877662000         | 16311182000         | 7217001000          | 41268771000         |
| 173        | Dangote Flour Mills Nig.        | 2013        | 78386719000         | 24914350000         | 7217001000          | 29960419000         |
| <b>174</b> | <b>Dangote Flour Mills Nig.</b> | <b>2012</b> | <b>43454596000</b>  | <b>26440128000</b>  | <b>-1854490000</b>  | <b>31801982000</b>  |
| 175        | Dangote Cement Plc              | 2017        | 1475441000          | 797345000           | 254630000000        | 552364000000        |
| 176        | Dangote Cement Plc              | 2016        | 1527908000          | 797345000           | 186624000           | 615103000000        |
| 177        | Dangote Cement Plc              | 2015        | 1110943000          | 644720000           | 181323000           | 491725000000        |
| 178        | Dangote Cement Plc              | 2014        | 843203275000        | 545064392000        | 196678391000        | 371534000000        |
| 179        | Dangote Cement Plc              | 2013        | 658200733000        | 397301934000        | 196678391000        | 386177220000        |
| <b>180</b> | <b>Dangote Cement Plc</b>       | <b>2012</b> | <b>518534667000</b> | <b>295827810000</b> | <b>142714089000</b> | <b>298454068000</b> |
| 181        | Cadbury Nigeria Plc             | 2017        | 28423122000         | 12958119000         | 299998000           | 33079446000         |
| 182        | Cadbury Nigeria Plc             | 2016        | 30696601000         | 12958119000         | -672822000          | 7121164000          |
| 183        | Cadbury Nigeria Plc             | 2015        | 28417005000         | 12285297000         | 1153295000          | 6731694000          |
| 184        | Cadbury Nigeria Plc             | 2014        | 15572159000         | 11542026000         | 1512687000          | 30518586000         |
| 185        | Cadbury Nigeria Plc             | 2013        | 43172624000         | 23994931000         | 5498851000          | 35760753000         |
| <b>186</b> | <b>Cadbury Nigeria</b>          | <b>2012</b> | <b>32642612000</b>  | <b>17376786000</b>  | <b>4401907000</b>   | <b>31231751000</b>  |



|            |  |             |                     |                     |                    |                      |
|------------|--|-------------|---------------------|---------------------|--------------------|----------------------|
|            | <b>Plc</b>                               |             |                     |                     |                    |                      |
| 187        | Northern Nigeria Flour Mills Plc.        | 2017        | 4337444000          | 95765774000         | -11359000          | 940521000            |
| 188        | Northern Nigeria Flour Mills Plc.        | 2016        | 354348326000        | 95765774000         | -197240000         | 342586459000         |
| 189        | Northern Nigeria Flour Mills Plc.        | 2015        | 297249445000        | 79922659000         | 72045000           | 308756526000         |
| 190        | Northern Nigeria Flour Mills Plc.        | 2014        | 297249445000        | 79922659000         | 47803138           | 332142685000         |
| 191        | Northern Nigeria Flour Mills Plc.        | 2013        | 280137992000        | 79570397000         | 7539810000         | 301941329000         |
| <b>192</b> | <b>Northern Nigeria Flour Mills Plc.</b> | <b>2012</b> | <b>163261865000</b> | <b>45223295000</b>  | <b>8376656000</b>  | <b>258268251000</b>  |
| 193        | Nig. Enamelware Plc.                     | 2017        | 5826562000          | 1427112000          | 45058000           | 2528319000           |
| 194        | Nig. Enamelware Plc.                     | 2016        | 4539683000          | 1410566000          | 133475000          | 2795190000           |
| 195        | Nig. Enamelware Plc.                     | 2015        | 1056027000          | 53341966000         | 74357000           | 2608286000           |
| 196        | Nig. Enamelware Plc.                     | 2014        | 1102465000          | 1241581000          | 3351564000         | 2569751000           |
| 197        | Nig. Enamelware Plc.                     | 2013        | 1146921000          | 1183938000          | 2843520000         | 2516038000           |
| <b>198</b> | <b>Nig. Enamelware Plc.</b>              | <b>2012</b> | <b>1137213000</b>   | <b>266372475000</b> | <b>2702431000</b>  | <b>2490376000</b>    |
| 199        | Dangote Sugar Refinery Plc               | 2017        | 196064664000        | 62265836000         | 37822608000        | 198120639000         |
| 200        | Dangote Sugar Refinery Plc               | 2016        | 83159877000         | 62265836000         | 10856673000        | 115253189000         |
| 201        | Dangote Sugar Refinery Plc               | 2015        | 83159877000         | 47159173000         | 10856673000        | 101057905000         |
| 202        | Dangote Sugar Refinery Plc               | 2014        | 83159877000         | 47159173000         | 10856673000        | 94855203000          |
| 203        | Dangote Sugar Refinery Plc               | 2013        | 83159877000         | 47159173000         | 10856673000        | 103153735000         |
| <b>204</b> | <b>Dangote Sugar Refinery Plc</b>        | <b>2012</b> | <b>72814721000</b>  | <b>39491515000</b>  | <b>10735450000</b> | <b>1066868054000</b> |



|            |   |             |                    |                     |                    |                     |
|------------|---|-------------|--------------------|---------------------|--------------------|---------------------|
| 205        | Greif Nig. Plc.                             | 2017        | 766665000          | 337584000           | 58362000           | 768603000           |
| 206        | Greif Nig. Plc.                             | 2016        | 722490000          | 337584000           | 27106000           | 999150000           |
| 207        | Greif Nig. Plc.                             | 2015        | 715714000          | 336062000           | 24624000           | 805370000           |
| 208        | Greif Nig. Plc.                             | 2014        | 2072320000         | 633310000           | 14904000000        | 6113864000          |
| 209        | Greif Nig. Plc.                             | 2013        | 1559245000         | 519846000           | 10445000000        | 5433057000          |
| <b>210</b> | <b>Greif Nig. Plc.</b>                      | <b>2012</b> | <b>1076658000</b>  | <b>300703000</b>    | <b>11060000000</b> | <b>3623939000</b>   |
| 211        | Paint and Coating Manufacturing Plc.        | 2017        | 2657364000         | 1789476000          | 44210000           | 3223088000          |
| 212        | Paint and Coating Manufacturing Plc.        | 2016        | 2440617000         | 1769199000          | 21831000           | 2895447000          |
| 213        | Paint and Coating Manufacturing Plc.        | 2015        | 2315817000         | 1787014000          | 125574000          | 3090076000          |
| 214        | Paint and Coating Manufacturing Plc.        | 2014        | 2891079000         | 1780209000          | 106924000          | 1628395000          |
| 215        | Paint and Coating Manufacturing Plc.        | 2013        | 2782488000         | 1630429000          | 225823000          | 2016522000          |
| <b>216</b> | <b>Paint and Coating Manufacturing Plc.</b> | <b>2012</b> | <b>2512330000</b>  | <b>1612822000</b>   | <b>220318000</b>   | <b>2331450000</b>   |
| 217        | CCNN PLC                                    | 2017        | 24648675929        | 14412206190         | 3223853347         | 19588260886         |
| 218        | CCNN PLC                                    | 2016        | 20030222016        | 11493271843         | 1253805355         | 14087553499         |
| 219        | CCNN PLC                                    | 2015        | 21202155488        | 12533688200         | 2211477830         | 17300255589         |
| 220        | CCNN PLC                                    | 2014        | 59637822000        | 73966000000         | 1820000000         | 56230137000         |
| 221        | CCNN PLC                                    | 2013        | 59637822000        | 223852222000        | 2584000000         | 56230137000         |
| <b>222</b> | <b>CCNN PLC</b>                             | <b>2012</b> | <b>16338823000</b> | <b>225533169000</b> | <b>90023977</b>    | <b>15928510000</b>  |
| 223        | Total Oil                                   | 2017        | 107981873000       | 28225551000         | 8019297000         | 288062650000        |
| 224        | Total Oil                                   | 2016        | 136928160000       | 23570097000         | 14797095000        | 290952520000        |
| 225        | Total Oil                                   | 2015        | 83653555000        | 16242481000         | 4047051000         | 208027688000        |
| 226        | Total Oil                                   | 2014        | 95512428000        | 15930170000         | 5290458000         | 208027688000        |
| 227        | Total Oil                                   | 2013        | 95512428000        | 11301913000         | 5334091000         | 240618693000        |
| <b>228</b> | <b>Total Oil</b>                            | <b>2012</b> | <b>76067065000</b> | <b>10026215000</b>  | <b>4670917000</b>  | <b>217843731000</b> |
| 229        | B.O.C Gas                                   | 2017        | 4248556000         | 2392187000          | 233946000          | 2450355000          |
| 230        | B.O.C Gas                                   | 2016        | 3630953000         | 2172701000          | 76289000           | 1983767000          |
| 231        | B.O.C Gas                                   | 2015        | 3214476000         | 2111298000          | 121190000          | 1987524000          |
| 232        | B.O.C Gas                                   | 2014        | 3418552000         | 2027083000          | 227201000          | 2212896000          |
| 233        | B.O.C Gas                                   | 2013        | 2887279000         | 1823426000          | 262757000          | 2091618000          |
| <b>234</b> | <b>B.O.C Gas</b>                            | <b>2012</b> | <b>1643918000</b>  | <b>1643918000</b>   | <b>304632000</b>   | <b>2325714000</b>   |



|            |                   |             |                    |                    |                  |                     |
|------------|-------------------|-------------|--------------------|--------------------|------------------|---------------------|
| 235        | Conoil plc        | 2017        | 62855084000        | 17892936000        | 1578507000       | 115513246000        |
| 236        | Conoil plc        | 2016        | 69833464000        | 18465551000        | 2837884000       | 85023546000         |
| 237        | Conoil plc        | 2015        | 69387364000        | 17709653000        | 2307557000       | 82919220000         |
| 238        | Conoil plc        | 2014        | 87526687000        | 16096047000        | 834421000        | 128352614000        |
| 239        | Conoil plc        | 2013        | 82372026000        | 18037434000        | 3070091000       | 121803182000        |
| <b>240</b> | <b>Conoil plc</b> | <b>2012</b> | <b>83095975000</b> | <b>15661295000</b> | <b>714981000</b> | <b>114772431000</b> |

**Appendix-C**

| Indicator           | GRI G4 disclosure  | Level of reporting |
|---------------------|--|--------------------|
| <b>Materials</b>    |  |                    |
| EN1                 | Material used by weight and volume   |                    |
| EN2                 | Percentage of materials used that are recycled input materials   |                    |
| <b>Energy</b>       |  |                    |
| EN3                 | Direct energy consumption by primary energy source   |                    |
| EN4                 | Indirect energy consumption by primary source  |                    |
| EN5                 | Energy saved due to conservation and efficiency improvements   |                    |
| EN6                 | Initiatives to provide energy-efficient or renewable energy based products and services and reductions in energy requirements as a result of these initiatives |                    |
| EN7                 | Initiatives to reduce indirect energy consumption and reductions achieved  |                    |
| <b>Water</b>        |  |                    |
| EN8                 | Total water withdrawal from source   |                    |
| EN9                 | Water sources significantly affected by withdrawal of water  |                    |
| EN10                | Percentage and total volume of water recycled and reused   |                    |
| <b>Biodiversity</b> |  |                    |
| EN11                | Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas              |                    |



- 
- EN12 Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas
  - EN13 Habitats protected or restored
  - EN14 Strategies, current actions and future plans for managing impacts of biodiversity
  - EN15 Number of IUCN red list species and national conservation list species with habitats in areas affected by operations by level of extinction risk

Emissions,  
effluents and  
waste

- EN16 Total direct and indirect greenhouse gas emissions by weight
- EN17 Other relevant indirect greenhouse gas emissions by weight
- EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved
- EN19 Emissions of ozone-depleting substances by weight
- EN20 NO<sub>x</sub>, SO<sub>x</sub> and other significant air emissions by type and weight
- EN21 Total water discharge by quality and destination
- EN22 Total weight of waste by type and disposal method
- EN23 Total number and volume of significant spills
- EN24 Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel convention annex I, II, III and VIII and percentage of transported waste shipped internationally
- EN25 Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the reporting organizations discharges of water and runoff

Products and  
services

- EN26 Initiatives to mitigate environmental impacts of products and services and extent of impact mitigation



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EN27 Percentage of products sold and their packaging materials that are reclaimed by category

Compliance

EN28 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations

EN29 Significant environmental impacts of transporting products and other goods and materials used for the organizations operations and transporting members of the workforce.

Overall

EN30 Total environmental protection expenditures and investment by types.

ISO 26000 disclosure requirements

- 1 Communication with local communities
- 2 Product manufacture
- 3 Product development
- 4 Environmental policies
- 5 Environmental sustainability management
- 6 Increasing green shared value
- 7 Supply chain CSR initiatives