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FIRM LEVERAGE AND PROFITABILITY ON ENVIRONMENTAL REPORTING OF LISTED CONSUMER GOODS FIRMS IN NIGERIA

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ABSTRACT

The criticism of traditional reporting framework created opportunities for new reporting models and institutional innovations, causing growing numbers of organizations to disclose information on how their entities interact with local communities, employee and other stakeholders. Therefore, the study examined firm leverage and profitability on environmental reporting of listed consumer goods firms in Nigeria covering the period of fourteen (14) year 2010-2023. The study adopted ex-post facto research design and secondary data was used for analysis which was obtained from Nigerian Exchange Group. Panel regression analysis technique was used to analyse the research data. The finding showed that firm profitability has a positive and significant effect on environmental reporting index of consumer goods firm in Nigeria while firm leverage has a positive but insignificant effect on environmental reporting index of consumer goods firm in Nigeria. The study therefore concludes that firm leverage and profitability has significant effect on environmental reporting of consumer goods firm in Nigeria. The study recommend that Management of consumer goods firms should maintain and continue to increase firm profitability of the firm which has efficiency improve the performance of the firm through environment reporting.

Keywords: Firm Leverage, Firm Profitability, Environmental Reporting Index, Investor, Managerial Ownership.

1. INTRODUCTION

Environmental reporting entails voluntary or statutorily disclosure or reporting of information relating to environmental management and environmental development costs. Abubakar (2017) stated that corporate environmental disclosure is about reporting the impact of organizations' activities on the natural environment. Environmental disclosure is important because it may provide information on environmental conservatism. The disclosure may also provide information on specific quantities and quality of environmental resources that have been put to use. Furthermore, the disclosure may reduce information asymmetry on the quantum of environmental resources consumed per time. Corporate environmental disclosure is a form of information released in terms of waste generated and controlled; it could be in the form of pollution control or climate change and the mitigations adopted to minimize the risk of climate change. This information is needed to give clarity on the environmental ethical conduct of the firm and to give confidence to the stakeholders that the organization is environmentally friendly. The information is further important if the firm wants to belong to firms that imbibe the culture of environmental best practices. The rhetoric surrounding environmental responsibility and corporate sustainability

has acquired significant global traction in recent years, leading to heightened scrutiny of companies' environmental practices and reporting. Since production processes, supply chains, and product life cycles have a substantial environmental impact, the consumer goods industry is crucial in this perspective (Adams *et al.*, 2014).

Firm Leverage and profitability in the context of corporate environmental reporting refer to aspects of an organization which identifies measures and relates to that organization. There is evidence that firm leverage and profitability influence the firm's choice of internal governance mechanism especially with respect to performance measures including environmental reporting. Therefore, it is crucial to comprehend the elements that affect environmental reporting in Nigerian consumer products firms that are listed. With an emphasis on business profitability and leverage in particular, this study attempts to explore the relationship between firm leverage and profitability on environmental reporting procedures (Aerts *et al.*, 2014). Nigeria's consumer goods industry is leaving a larger environmental footprint, which calls for greater responsibility and transparency in environmental reporting. The criticism of traditional reporting framework created opportunities for new reporting models and institutional innovations, causing growing numbers of organizations to disclose information on how their entities interact with local communities, employee and other stakeholders (Chukwu *et al.*, 2017). A few researchers have carried out research by examining firm leverage and profitability on environmental reporting of listed consumer goods in Nigeria. Douye and Gospel (2023) carried out a study in this line but only covers a period between 2010 to 2020, this study intends to cover the period between 2010 to 2023. The objective of the study is to examine effect of firm leverage and profitability on environmental reporting of listed consumer goods firm in Nigeria.

Ho_1: Profitability ratio has no significant effect on environmental reporting index of listed consumer goods firm in Nigeria.

Ho_2: Leverage ratio has no significant effect on on environmental reporting index of listed consumer goods firm in Nigeria.

2. LITERATURE REVIEW

2.1. Conceptual Framework

2.1.1. Firm Leverage

Leverage finance refers to the funding of a company or business entity with debt with the hope of improving the firm’s financial performance. Leverage financing is commonly employed by a company to achieve a specific or temporary objective, such as acquisition of another business, to effect a buy-out, to purchase shares or fund a one-time dividend, or to invest in self-sustaining cash-generating assets (Comfort *et al* 2023). Leverage financing on the other hand refers to the ratio of debt to equity capital of a company. As a result of the payment of interest and repayment of principal amount of the debt a large part of the firm’s cash flow would decrease (Nguyen & Bui, 2020). Financial leverage also involved the use of debt to acquire additional assets. It can be financial or operating leverage.

2.1.2 Firm Leverage ratios

Charles (2013) explains leverage ratios as tools used to assess the proportion of debt in a company's

capital structure. He highlights that these ratios are essential for evaluating the financial risk associated with debt financing and for understanding how effectively a company is managing its debt obligations.

2.1.3 Firm Profitability

Profitability shows the relationship of the absolute amount of revenue that indicates the ability of a bank to raise its loans to its customers and boost their profit (Saheed, 2018). Profitability, which is frequently used as measure of financial performance, is one of the main objectives for the existence of many companies. Profit is an essential prerequisite for any company operating in today's increasingly competitive and globalized market. In addition, profit does not only serve as a means of attraction to investors; it also improves the level of solvency, and thus, strengthens consumers' confidence (Ismail, 2013).

A crucial financial indicator, profitability shows how well a business can turn a profit in comparison to its outlays and other costs during a given time frame. It is a key indicator of financial effectiveness and profitability that shows how well a company's operations produce profits for its owners. A key indicator of the financial state of an organization is firm profitability, which is the amount of money the business can make from its ongoing operations. Awareness of a company's performance and capacity to maintain operation and growth over time requires an understanding of this factor. Numerous financial ratios, including net profit margin (NPM), return on equity (ROE), and return on assets (ROA), are frequently used to assess profitability. Increased profitability is a symptom of successful cost control, efficient management, and an edge over competitors in the marketplace (Titman & Wessels, 1988). Myers and Majluf (1984) presented the theory of pecking order, which states that profitable companies are more likely to rely on internal funding sources such retained earnings than on external debt. Because managers have greater knowledge of the company's future than investors do, they prefer to use retained revenues to finance investment initiatives rather than taking out loans, which explains their preference for internal financing. It is measure by return on equity.

2.1.4 Firm Profitability ratios

Firm Profitability ratios are financial metrics used to evaluate a company's ability to generate profit relative to its revenue, assets, or equity. These ratios are essential in assessing how efficiently a company converts resources into profit and provides valuable insights for investors, analysts, and management. According to Bragg (2024), profitability ratios are used to measure the ability of a business to generate earnings. These ratios are favorable when they show improvement over time or are better than the results of competitors.

2.1.5 Environmental Reporting

According to Douye and Gospel (2023), environmental reporting is the open dissemination of an organization's environmental policies, activities, performance indicators, and compliance with environmental laws. It gives businesses a way to show stakeholders how committed they are to environmental sustainability and responsibility. A variety of formats are available for environmental reporting, such as sustainability reports, yearly reports, and corporate social responsibility (CSR) disclosures. Stakeholders such as investors, clients, staff, and government agencies can learn more about the company's environmental performance and policies via these

reports. Transparency guarantees that stakeholders may easily obtain information about the company's environmental effect, objectives, and strategy. Environmental reporting is essential for increasing stakeholder participation, strengthening corporate accountability, and building credibility. Companies may reduce the risk of environmental liabilities, strengthen their relationships with stakeholders, and stand out as socially conscious businesses in the marketplace by being open and honest about their environmental policies.

2.1.6 Environmental Reporting Index

Environmental reporting index is a concept that refers to the measurement and evaluation of the quality and comprehensiveness of environmental reporting by organizations. It aims to assess and rank the level of transparency and disclosure of environmental information in corporate sustainability reports, annual reports, and other relevant publications (GRI, 2021). According to Sustainability Accounting Standards Board (2021), the purpose of an environmental reporting index is to promote accountability, transparency, and sustainable practices by encouraging organizations to disclose their environmental impacts, risks, and performance. By providing a standardized framework for evaluating and comparing environmental reporting practices, it enables stakeholders such as investors, regulators, and the public to make informed decisions and assessments about an organization's environmental practices and commitments.

2.1.7 Managerial Ownership

Rudiger and Rene (2007) examined theories of the determinants of managerial ownership and their implications on firm value and managerial ownership. They consider three theories: the agency theory, the contracting theory, and the managerial discretion theory. Rudiger and Rene (2007) postulates that agency theory takes managerial ownership as follows; greater managerial ownership aligns the interests of management better with the interests of shareholders. The contracting agency view portrays that shareholders face trade-off. As the managers stake in the firm increases, their incentives become better aligned with those of shareholders in that, if they increase firm value by one dollar, their wealth increases by a greater fraction of that dollar. The separation of ownership and control begets questions of managers' incentives to take action in the best interest of owners. The extent of proportion of share held by management may affect control over the firms' decision (Jensen & Meckling, 1976). Managerial ownership refers to an ownership fraction or stake in a firm that is held by managers. Managerial ownership is not only meant to increase the equity of the organization but also to serve as incentives to managers to align managers' interests with those of the interests of the organization.

2.2. Empirical Review

Lambe *et al*. (2024), examines the effect of governance sustainability reporting and social sustainability reporting on financial performance of listed oil and gas firms in Nigeria. The ex-po facto research design was adopted with reliance on secondary data from annual report of listed oil and gas firms. The Judgemental sampling technique was employed in selecting the 9 firms out of 10 oil and gas firms in Nigeria for 2011-2022 financial year. Panel regression estimation was used which is random effect by Hausman test which was analyzed using E-views 10. The findings show that governance sustainability reporting and social sustainability reporting has positive significant effect on return on equity of oil and gas firms in Nigeria. The study concludes that that governance

sustainability reporting and social sustainability reporting has a positive significant effect on financial performance of listed oil and gas firms in Nigeria. The recommendation is based on the findings of this study that management of listed oil and gas firms in Nigeria should compliance with governance sustainability reporting and social sustainability reporting and be made mandatory for firms and the guidelines for sustainability reporting assessment should be established to compel companies to accommodate sustainability reporting disclosure because of the multiplier effect on financial performance of the firm. The researcher believe that if a robust data analysis was used the finding could have given a good result and conclusion

Lankwagh *et al* (2023), investigated the effect of firm characteristics on environmental disclosure of listed Oil and Gas companies in Nigeria. Specifically, the study examined the effect of corporate structure attribute, market attribute, performance attribute and governance attribute on environmental disclosure of listed Oil and Gas companies in Nigeria. The study adopted the expost facto research design. The study used a sample of (7) seven from a population of (10) ten Oil and Gas companies listed on the Nigerian Exchange Group using the filtering method. Data were sourced from annual reports of the sampled companies in Nigeria. The study period covered (10) ten years from 2012-2021. The results of the study suggested that corporate structure attribute and market structure attribute proxied by firm size and auditor type respectively, have negative and significant effect on environmental disclosure of listed Oil and Gas companies in Nigeria. The result of the study also established that performance attribute, proxied by profitability positively but insignificantly affects environmental disclosure of listed Oil and Gas companies in Nigeria. The findings of the study also revealed that governance attribute proxied by board size negatively and significantly affects environmental disclosure of listed Oil and Gas companies in Nigeria. The study, therefore, recommended that listed Oil and Gas companies should maintain a low board size in order to save costs associated with sustenance of board members. The result cannot generalize for consumer goods firm because it focuses on oil and gas companies in Nigeria.

Douye and Gospel (2023), investigated the effect of corporate attributes (especially firm size, firm age and leverage) on social sustainability performance disclosures in Nigeria. A checklist based on the global reporting index was used in analysing social sustainability performance disclosures (SSPD) in the sustainability reports of thirty manufacturing firms. The firms were drawn from the consumer goods, industrial goods, agriculture and health care sectors of the Nigerian economy, and the data used covered the period 2010 to 2020. The study was anchored on the legitimacy theory perspective. Information on firm attributes was extracted from the annual reports of the selected firms for the same period. Regression technique with Newey West robust standard errors was used to analyse the data collected. Findings showed that firm size, firm age and leverage, each had a positive effect on social sustainability performance disclosures in manufacturing firms in Nigeria, leading to the conclusion that firm characteristics have significant effect on sustainability disclosures. The study recommend that social interactions between a firm and its societal environment increases over time, and this helps to enhance the legitimacy of the firm in its community. The researcher believe that if a robust data analysis was used the finding could have given a better result and conclusion.

Comfort *et al* (2023), firms' specific characteristics on the market value of listed manufacturing

companies in Nigeria. This was anchored on the fact that firms' specific characteristics usually reveal the efforts of managers in the performance of entities. The *ex-post facto* research design was adopted because the study was quantitative and required secondary data. The population of this study was fifty-six (56) manufacturing companies from four (4) sub-sectors consumer goods, industrial goods, oil and gas and healthcare sub-sectors listed on the floor of Nigerian stock market as at 31st December, 2020. Forty-two (42) listed manufacturing entities were sampled for the study based on availability of data. Panel data were collected from the financial statements of the manufacturing companies sampled for the study. The variables of this study were Market Value (MV) and firms' specific characteristics. The dependent variable was firm's value measured by Tobin's Q and the independent variables, the firms' specific characteristics were Liquidity (LQ) and Operating Efficiency (OE). Inflation rate (IFR) was used as a control variable. Data were analyzed using descriptive statistics and multiple linear regression statistical tools. The fixed effect regression approach was employed in the study. From the analyses, it was revealed that LQ and OE had positive and significant influence on MV of listed manufacturing companies in Nigeria. In line with the findings, it was concluded that firms' specific factors had significant influence on the value of listed manufacturing companies in Nigeria. It was recommended that total assets of listed manufacturing companies in Nigeria should be acquired in accordance with the revenue generated over the years to raise the operative efficiency of the managers. The result cannot generalize for consumer goods firm because it focuses on manufacturing firm in Nigeria.

Ayuba and Mathias (2023), examined the firm characteristics and financial performance of selected Pension Fund Administrators in Nigeria. The population of the study consist of all the Pension Fund Administrators (PFAs) for the period of five years 2018 to 2022. The sample consisted of 10 selected post recapitalisations of the PenCom. A purposive sampling was used in selecting the sample size of the study. The study used secondary data extracted from the published annual reports and accounts of sampled PFAs. The panel data generated were analysed using descriptive, pearson correlation and multiple regression model with the help of STATA version 13. The result shows that the firm age has a significant positive effect on financial performance which is measured by Unit Price. The study revealed that Density of contributions, Liquidity, Firm age, Board size, and Expenditure of the fund are jointly responsible for about 97% of the changes in financial performance. Thus, the study concluded that firm characteristics has a significant effect on financial performance of PFAs. Based on these findings the study recommended that the PFAs should manage the density of contributions, firm age, board size, liquidity, and expenditure of the fund for better financial performance in the pension industry. The study result cannot be generalize for firm specific attributes of consumer goods firm in Nigeria because it scope is limited by five years.

Ofoegbu and Uzoka's (2019) investigation focused on the factors that influence capital structure in Nigerian businesses. Their research revealed several crucial elements that, in the Nigerian context, have a major impact on leverage decisions. They specifically noted that three factors were critical in determining capital structure: firm size, profitability, and growth prospects. This suggests that larger businesses prefer to use different leverage tactics to finance their business operations since they are more profitable and have better growth possibilities. The report also stressed how important the regulatory environment is in influencing enterprises' leverage

decisions, especially with regard to credit availability and the growth of the banking industry. These legislative elements have a big impact on how easily accessible funding is for Nigerian businesses, which affects how they decide to arrange their capital.

Adelakun *et al.* (2018) focused on examining the influence of financial management techniques on the financial performance of small and medium-sized enterprises (SMEs) in Nigeria in another study. This study offered insightful information about the elements that promote small and medium-sized enterprises' profitability, which is important for job creation and economic growth in Nigeria. The researchers discovered several important factors that influence SME profitability, such as access to financing, technological investment, and efficient working capital management. Optimizing resource usage and minimizing financing costs are two ways that effective working capital management, such as inventory and receivables management, benefits SME profitability. Furthermore, it was noted that technological innovation boosts productivity, efficiency, and competitiveness, making technology investment a critical component driving SME profitability. Furthermore, the study emphasized the role that financial institutions and government policies play in promoting the growth and profitability of small and medium-sized enterprises (SMEs) by highlighting the significance of financial access. All things considered, these results offer insightful information about the elements that influence SME profitability in the Nigerian setting, emphasizing the role that financial management techniques and financial availability play in promoting economic expansion and business success.

Ojeaga and Odejimi (2018) carried out a thorough analysis of the impact of quality of regulation on the performance of Nigerian firms. Their study attempted to clarify the connection between the financial outcomes of businesses functioning in Nigeria's economic environment and the caliber of regulatory frameworks. Their study's conclusions showed a strong correlation between corporate profitability and regulatory quality. This indicates that enterprises in Nigeria may find it easier to grow their businesses and improve their financial performance if there is a favorable regulatory environment that is defined by frameworks that are transparent, effective, and consistent. Strong regulatory frameworks encourage venture capital, creative thinking, and sustainable growth by giving businesses a level playing field, boosting investor confidence, and cultivating trust in the company's environment. The report also emphasizes how crucial it is to implement regulatory reforms that will boost corporate growth and economic success in Nigeria by lowering bureaucratic red tape, increasing regulatory efficiency, and enhancing the quality of regulations.

Ajide *et al.* (2017) conducted an empirical analysis to investigate the factors that influence business profitability in Nigeria's manufacturing industry. Their research provided insight into a number of variables that have a big impact on how profitable Nigerian manufacturing companies are. The effect of business-specific factors on profitability, such as firm size, leverage, and export intensity, was one important finding. The researchers found that, perhaps as a result of economies of scale and increased market power, larger businesses tended to be more profitable. The study also emphasized the importance of leverage, implying that a company's profitability may be impacted by the amount of debt included in its capital structure. This research emphasizes how crucial it is to keep both equity and debt financing in the ideal ratio to optimize profits and reduce financial

risk. The researchers also stressed the importance of regulatory changes and macroeconomic stability in creating a favorable business climate that promotes firm profitability. For the Nigerian manufacturing sector to attract investment, spur economic growth, and eventually increase business profitability, favorable financial circumstances and advantageous regulatory regulations are critical.

2.3. Theoretical Framework

2.3.1. Agency Theory

Agency theory was developed by (Jensen & Meckling 1976) as the theory that addresses the relationship where in a contract the principal engages another person called the agent to perform some service on their behalf which involves delegating some decision making authority to the agent. Agency problem occurs when the objectives of the principal and agent contradict and it is difficult and costly for the principal to detect what the agent is actually doing. Also, due to this separation of ownership, managers usually focus on their own personal gains and interests and forget about the shareholder's interest which ultimately leads to the agency problem as well as incurring costs that the owners bare at the end, and this is referred to the agency cost. It is added by (Jensen & Meckling 1976) that these contradictions are because of the inability of the shareholders to monitor the actions and the performance of the management. Moreover, Nguyen and Bui (2020), state that the pursuit of self-interest by the managers, increases costs to the firm, like the costs of forming a contract, loss due to decisions being taken by the agents and the costs of observing and controlling the actions of the agents.

2.3.2 Legitimacy Theory

Legitimacy theory was developed by Dowling and Pfeffer (1975). The theory holds that organisations always ensure that their operations are within the bounds and norms of the respective societies they operate in. In adopting a legitimacy theory perspective, an organisation would voluntarily report on the activities its management perceive as been expected by the communities in which it operates. Legitimacy theory relies on the notion that there is a 'social contract' between a company and the society in which it operates (Deegan 2000; Deegan 2002; Mathew 1993; Patten 1991; 1992). Legitimacy theory suggests that whenever managers consider the supply of a particular resource as vital to their organization's survival, they should pursue the strategies necessary to ensure the continued supply of the resource. Such strategies may include targeted disclosures, or perhaps, controlling or collaborating with other parties who in themselves are considered to be legitimate. Companies need to be fair in their environmental dealings and therefore, legitimacy theory provides disclosing approaches that organizations may apply to improve their existence in the most possible and best way.

Legitimacy theory underpinning this study because it voluntarily report on the activities its management perceive as been expected by the communities in which it operates. Legitimacy theory relies on the notion that there is a 'social contract' between a company and the society in which it operates and ensure its realization and reporting.

3. METHODOLOGY

This study adopted the ex post facto research design and secondary data for the study. Population of the study consists of twenty one (21) listed consumer goods firms operating on the Nigeria, Nigeria Exchange Group (NGX) as at 31st May 2024. The sample size is fifteen (15) and Judgemental sampling techniques was adopted. Data required for this study were obtained from audited financial statements and annual reports of the listed consumer goods firms in Nigeria 10 years (2010-2023). The inferential analyses also involve the application of the appropriate statistical technique of Panel Regression Analysis. The study adapting the model of Lankwagh *et al* (2023).

The Panel regression model

$$ERI = \beta_0 + \beta_1 FL_{it} + \beta_2 FP_{it} + \beta_3 MO_{it} + \varepsilon_{it} \quad \text{.....} \quad (1)$$

Where:

β_0 = The autonomous parameter estimate (Intercept or constant term)

$\beta_1 - \beta_3$ = Parameter coefficient of Firm Specific Attribute

ER = Environmental Reporting Index

FS = Firm Leverage

FG = Firm Profitability

MO = Managerial Ownership

ϵ_{it} = Stochastic Error term

Study Variables and their Measurement

Variable Acronym	Variable Name	Variable types	Measurement	Source
ERI	Environmental Reporting Index	Dependent	GRI 300 (Actual environmental disclosure/Expected environmental disclosure)	Global Reporting Initiative (2021)
FL	Firm Leverage Ratio	Independent	Total debt ratio (Total debt/Total Assets)	Ofoegbu and Uzoka's (2019)
FP	Firm Profitability Ratio	Independent	Net profit after taxes divided by shareholders' equity	Lankwagh *et al*. (2023)
MO	Managerial Ownership	Control	The proportion of shares owned by the firm's directors to total number of shares issued.	Adebayo *et al.* (2020)

Source: *Author's Compilation, (2024)*

4. RESULT AND DISCUSSION

4.1: Descriptive Statistics

Descriptive statistics gives a presentation of the mean, maximum and minimum values of variables applied together with their standard deviations obtainable.

Table 4.1: Descriptive Statistics Result

	ERI	FL	FP	MO
Mean	0.380433	2.196905	16.70790	0.031714
Median	0.333000	2.210000	15.87000	0.030000
Maximum	0.916667	3.390000	27.54000	0.090000
Minimum	0.083333	1.010000	10.10000	0.010000
Std. Dev.	0.196000	0.509242	4.096872	0.021183
Skewness	0.891445	-0.191155	0.592717	0.961026
Kurtosis	2.828932	2.359674	2.561518	3.111699
Jarque-Bera	28.06968	4.866559	13.97830	32.43415
Probability	0.000001	0.087749	0.000922	0.000000
Sum	79.89100	461.3500	3508.660	6.660000
Sum Sq. Dev.	8.028975	54.19949	3507.931	0.093783
Observations	210	210	210	210

Source: E-View 12 Output, (2024)

Table 4.1 presents the descriptive statistics effect of firm leverage and profitability on environmental reporting of listed consumer goods firms in Nigeria during the period of 2010 to 2023. The table shows that environmental reporting index (ERI) as a measure of environmental reporting has a mean of 0.38043, with a standard deviation of 0.196000 as well as a minimum value of 0.08333 and maximum value of 0.91666 respectively. Given that the range between the minimum and maximum is not quite wide, it implies a stable environmental disclosure as the standard deviation indicated that there is no much slightly wide dispersion of the data from the mean value. For the other measure of firm specific attributes which are firm leverage and firm profitability shows a mean of value of 2.19690 and 16.70790 with standard deviation of 0.50924, 4.09687 and a minimum and maximum value of 1.01000, 10.1000, 3.39000 and 27.54000 respectively. This implies firm leverage and firm profitability witnessed a marginal increase during the study period, as the standard deviation is not so large compared to the mean, together with the low range between the minimum and maximum values. Managerial ownership as control variable has a mean of 0.031714 with minimum value of 0.01000 and maximum value of 0.09000.

Table 4.2: Correlation Matrix

The correlation matrix table presents correlation between dependent and independent variables and the correlation among the independent variables themselves.

Covariance Analysis: Ordinary
Date: 05/31/24 Time: 21:28
Sample: 2010 2023
Included observations: 210

Correlation Probability	ERI	FL	FP	MO
ERI	1.000000 -----			
FL	-0.064662	1.000000		

	0.3511	-----		
FP	0.134138	0.024559	1.000000	
	0.0523	0.7235	-----	
MO	0.105489	0.021740	0.144182	1.000000
	0.1276	0.7541	0.0368	-----

Source: E-View 12 Output, (2024)

In table 4.2 correlation analysis, which is used to quantify the association between two continuous variables. In correlation analysis, we estimate a sample correlation coefficient, more specifically the Pearson Product Moment correlation coefficient. The result presented above confirms that firm leverage and firm profitability has a negative and positive correlation which are -0.06466 and 0.134138 with environmental reporting index while managerial ownership as control variable has a positive correlation with environmental reporting at value of 0.105489.

Multicollinearity Test (VIF)

The Multicollinearity test was carried out to check if there is strong correlation among the independent variables that may produce misleading result.

Table 4.3: Multicollinearity Test (VIF)

Variance Inflation Factors
Date: 05/31/24 Time: 21:29
Sample: 2010 2023
Included observations: 210

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.006528	36.27539	NA
FL	0.000698	19.71878	1.000942
FP	1.10E-05	18.09587	1.021709
MO	0.411648	3.322361	1.021575

Source: E-View 12 Output (2024)

***Decision rule**: Centred VIF of less than 10 is an indication of absence of multi-collinearity, while the centred VIF of more than 10 is an indication of presence of multi-collinearity. As stated above, the decision rule for the multicollinearity test using the variance inflation factor is that Centred VIF of less than 10 shows the absence of multi-collinearity, while the centred VIF of more than 10 is an indication of presence of multi-collinearity. Table above clearly shows that there is absence of multicollinearity among the independent variables, given that all the independent variable (FL, FP and MO) have a center VIF that is less than 10.

Heteroskedasticity Test

In order to validate the robustness of the estimates, the Heteroskedasticity test was conducted as a diagnostic check. Heteroskedasticity happens when the standard errors of a variable, monitored over a specific amount of time, are non-constant.

Table 4.4: Heteroskedasticity Test

Panel Cross-section Heteroskedasticity LR Test
Null hypothesis: Residuals are homoscedastic
Equation: UNTITLED
Specification: ERI C FL FP MO

	Value	df	Probability
Likelihood ratio	73.10915	15	0.0000

LR test summary:

	Value	df
Restricted LogL	47.99136	206
Unrestricted LogL	84.54594	206

Source: E-View 12 Output, (2024).

Table 4.4 shows the results of the panel cross-section Heteroskedasticity regression test. The decision rule for the panel cross-section Heteroskedasticity test is stated thus:

***Decision Rule: At 5% level of Significance**
H_0: No conditional Heteroskedasticity (Residuals are homoskedastic)
H_1: There is conditional Heteroskedasticity

The null hypothesis of the test states that there is no Heteroskedasticity, while the alternate hypothesis states that there is Heteroskedasticity. The null hypothesis is to be accepted if the P value is greater than 5% level of significance. From the result in table 4.4 above with a ratio value of 73.10915 and a corresponding probability value of 0.0000 which is less than 5%, the study therefore posits that, there is reason to reject the null hypothesis, while the alternative hypothesis that states there is conditional Heteroskedasticity problem is accepted. Consequently, based on the diagnostic probability 0.0000 the null hypothesis is rejected, thus there is conditional heteroskedasticity, indicating that residuals are not homoskedastic and as such the samples does not give a true reflection of the population. This is corrected by logging dependent variable as independent variable to correct the present of heteroscedasticity

Hausman Test

The Hausman test is a test for model specification in panel data analysis and this test is employed to choose between fixed effects model and the random effects model. Due to the panel nature of the data set utilized in this study, both fixed effect and random effect regressions were run. Hausman specification test was then conducted to choose the preferred model between the fixed effect and the random effect regression models. The test basically checked if the error terms were correlated with the regressors. Thus, the decision rule for the Hausman specification test is stated thus; at 5% Level of significance.

Table 4.5: Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.925314	3	0.5881

Source: E-View 12 Output, (2024)

The Result of Hausman test shows that chi-square statistics value is 1.925314 while the probability values of it is 0.5881. This implies that there is enough evidence to accept the null hypothesis which states that random effect is most appropriate for the Panel Regression analysis. It thus stands that error component model (Fixed effect) estimator is not most appropriate because the fixed effects are not well correlated with the regressors. Thus, the most consistent and efficient estimation for the study is the random effect cross-sectional model. Consequently, the result suggests that the random effect regression model is most appropriate for the sampled data because the Hausman test statistics as represented by corresponding probability value is greater than 5%.

Langranger Multiplier Test

The langranger multiplier test is a test for model specification in panel data analysis and this test is employed to choose between pooled effect model and the random effects model.

Table 4.6: Breusch-Pagan Langranger Multiplier Tests

Residual Cross-Section Dependence Test
Null hypothesis: No cross-section dependence (correlation) in residuals
Equation: Untitled
Periods included: 14
Cross-sections included: 15
Total panel observations: 210
Note: non-zero cross-section means detected in data
Cross-section means were removed during computation of correlations

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	123.5171	105	0.0004

Source: E-View 12 Output, (2024)

***Decision Rule: At 5% level of Significance, if probability value is less than 5% we accepted random but greater than 5% is pooled will be accepted**

H_0: Pooled Effect is more appropriate

H_1: Random Effect is more appropriate

Based on the probability value of the Breusch-Pagan Langranger Multiplier Test at 0.0004, the null hypothesis is rejected, thus random effect is most appropriate when compared to pooled effect.

Table 4.7: Panel Regression Result (Random Effect)

Dependent Variable: ERI
Method: Panel EGLS (Cross-section random effects)
Date: 05/31/24 Time: 21:35
Sample: 2010 2023
Periods included: 14
Cross-sections included: 15
Total panel (balanced) observations: 210
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.740760	0.025203	29.39172	0.0000
FL	0.004625	0.007327	0.631207	0.5286
FP	0.002021	0.001014	1.992831	0.0476
MO	-0.062648	0.176875	-0.354194	0.7236
LOGERI	0.367777	0.007355	50.00166	0.0000

Effects Specification

	S.D.	Rho
Cross-section random	0.021757	0.1714
Idiosyncratic random	0.047838	0.8286

Weighted Statistics

R-squared	0.926894	Mean dependent var	0.192741
Adjusted R-squared	0.855468	S.D. dependent var	0.174031
S.E. of regression	0.047511	Sum squared resid	0.462753
F-statistic	649.7890	Durbin-Watson stat	1.590917
Prob(F-statistic)	0.000000		

Source: E-View 12 Output, (2024)

This study examined effect of firm leverage and profitability on environmental reporting of listed consumer goods firms in Nigeria. From table 4.7 above, the coefficient of multiple determinations (R^2) is 0.92 and in line with the panel nature of the data used in this study, the regression model shows that the range of values between adjusted R^2 and R^2 falls between 92%, and 92% respectively. This indicates that about 92% of the total variations in environmental reporting index (ERI) is explained by the variations in the independent variables (FL, FP and MO), while the remaining 8% of the variation in the model is captured by the error term, which further indicates that the line of best fit is highly fitted. The panel regression result for the sampled consumer goods firm showed that there is a negative and significant relationship between firm leverage and environmental reporting index with a corresponding negative probability value of 0.5286 which is greater than 5%. While firm profitability has positive and significant relationship between

environmental reporting index with a corresponding positive probability value of 0.0476 which is less than 5%. However, when taken collectively, the regressors (OC and BGD) against the regressed (ER), the value of F-statistic is 649.7890 and the value of the probability of F-statistic is 0.00000. This result implies that the overall regression is both positive and statistically significant at 5%.

5. DISCUSSION OF FINDINGS

This study examines effect of firm leverage and profitability on environmental reporting of listed consumer good firms in Nigeria. The findings of this study is on the basis of formulated hypotheses, models and analysis carried out. This study found that generally, firm leverage and firm profitability has positive and negative significant effect on environmental reporting index of listed consumer goods firm in Nigeria and the findings from this study are compared with empirical review.

Firstly, assess effect of firm leverage on environmental reporting of listed consumer goods firm in Nigeria revealed that a negative have significant on environmental reporting index of listed consumer goods firm in Nigeria, The findings do disagree with the findings of Douye and Gospel (2023), investigated the effect of corporate attributes (especially firm size, firm age and leverage) on social sustainability performance disclosures in Nigeria but agree with the work of Ofoegbu and Uzoka's (2019) investigation focused on the factors that influence capital structure in Nigerian businesses. Secondly, examine on effect of firm profitability on environmental disclosure of listed consumer goods firm in Nigeria revealed that firm growth has a positive significant effect on environmental reporting index of listed consumer goods firm in Nigeria. The result disagrees to the findings of Lankwagh *et al* (2023), investigated the effect of firm characteristics on environmental disclosure of listed Oil and Gas companies in Nigeria who found negative relationship between profitability and environmental disclosure in Nigeria

6. CONCLUSION AND RECOMMENDATIONS

The study was undertaken to examine effect of firm specific attributes on environmental reporting of listed consumer good firms in Nigeria from 2010-2023 in Nigeria. The study conclude that firm specific attributes has significant effect on environmental reporting of consumer goods firm in Nigeria. Based on the findings of this study and the conclusion made, the following recommendations are made to management of manufacturing firm in Nigeria:

i. Management of consumer goods firm should maintain the level of firm leverage of firm because it does not have effect on environmental reporting firms in Nigeria

ii. Management of consumer goods firms should maintain and continue to increase firm profitability of the firm which has efficiency improve the performance of the firm through environment reporting.

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RAW DATA

COMPANY	CODE	YEARS	ERI	FL	FP	MO
Cadbury Nigeria Plc	1	2010	0.511	1.11	21.64	0.01
Cadbury Nigeria Plc	1	2011	0.667	1.23	13.90	0.01
Cadbury Nigeria Plc	1	2012	0.333	1.75	14.86	0.02
Cadbury Nigeria Plc	1	2013	0.333	1.54	16.08	0.03
Cadbury Nigeria Plc	1	2014	0.751	1.25	18.56	0.01
Cadbury Nigeria Plc	1	2015	0.251	2.35	19.65	0.01
Cadbury Nigeria Plc	1	2016	0.333	1.42	20.40	0.01
Cadbury Nigeria Plc	1	2017	0.251	1.51	21.70	0.02
Cadbury Nigeria Plc	1	2018	0.511	1.58	22.86	0.01
Cadbury Nigeria Plc	1	2019	0.583	2.62	23.87	0.03
Cadbury Nigeria Plc	1	2020	0.167	2.68	14.97	0.01
Cadbury Nigeria Plc	1	2021	0.333	2.73	14.98	0.02
Cadbury Nigeria Plc	1	2022	0.251	1.64	15.75	0.07
Cadbury Nigeria Plc	1	2023	0.251	3.39	15.87	0.01
Champion Breweries Plc	2	2010	0.251	1.44	16.34	0.01
Champion Breweries Plc	2	2011	0.251	1.43	16.34	0.01
Champion Breweries Plc	2	2012	0.251	1.33	17.98	0.02
Champion Breweries Plc	2	2013	0.251	1.45	16.94	0.02
Champion Breweries Plc	2	2014	0.251	1.78	18.45	0.03
Champion Breweries Plc	2	2015	0.583	1.87	19.47	0.02
Champion Breweries Plc	2	2016	0.167	1.91	12.89	0.01
Champion Breweries Plc	2	2017	0.333	1.88	13.86	0.01
Champion Breweries Plc	2	2018	0.251	2.45	15.86	0.05
Champion Breweries Plc	2	2019	0.667	1.53	16.97	0.01
Champion Breweries Plc	2	2020	0.667	2.60	17.97	0.06
Champion Breweries Plc	2	2021	0.667	2.64	18.90	0.08
Champion Breweries Plc	2	2022	0.667	2.46	20.76	0.02
Champion Breweries Plc	2	2023	0.251	2.45	23.97	0.02
Flour Mills Nigeria Plc	3	2010	0.167	1.55	24.97	0.03
Flour Mills Nigeria Plc	3	2011	0.167	1.78	27.54	0.02
Flour Mills Nigeria Plc	3	2012	0.167	1.67	10.80	0.02
Flour Mills Nigeria Plc	3	2013	0.167	1.89	11.86	0.02
Flour Mills Nigeria Plc	3	2014	0.167	2.45	12.54	0.01
Flour Mills Nigeria Plc	3	2015	0.167	2.45	13.54	0.01
Flour Mills Nigeria Plc	3	2016	0.333	1.44	12.54	0.02
Flour Mills Nigeria Plc	3	2017	0.333	1.45	13.54	0.02
Flour Mills Nigeria Plc	3	2018	0.333	1.84	14.64	0.01

Flour Mills Nigeria Plc	3	2019	0.333	1.83	15.65	0.03
Flour Mills Nigeria Plc	3	2020	0.167	2.96	16.09	0.02
Flour Mills Nigeria Plc	3	2021	0.251	2.98	17.85	0.02
Flour Mills Nigeria Plc	3	2022	0.333	2.01	10.98	0.01
Flour Mills Nigeria Plc	3	2023	0.417	3.00	10.86	0.01
Dangote Sugar Refinery Plc	4	2010	0.251	1.34	11.76	0.03
Dangote Sugar Refinery Plc	4	2011	0.251	1.67	12.65	0.05
Dangote Sugar Refinery Plc	4	2012	0.251	1.98	12.43	0.04
Dangote Sugar Refinery Plc	4	2013	0.417	2.01	12.54	0.05
Dangote Sugar Refinery Plc	4	2014	0.333	2.00	13.65	0.01
Dangote Sugar Refinery Plc	4	2015	0.333	2.02	15.75	0.04
Dangote Sugar Refinery Plc	4	2016	0.333	2.84	16.78	0.03
Dangote Sugar Refinery Plc	4	2017	0.333	2.80	18.98	0.06
Dangote Sugar Refinery Plc	4	2018	0.333	1.85	12.98	0.09
Dangote Sugar Refinery Plc	4	2019	0.333	1.94	13.65	0.03
Dangote Sugar Refinery Plc	4	2020	0.333	1.89	14.65	0.04
Dangote Sugar Refinery Plc	4	2021	0.333	1.82	14.89	0.06
Dangote Sugar Refinery Plc	4	2022	0.333	1.74	15.76	0.08
Dangote Sugar Refinery Plc	4	2023	0.417	1.69	16.54	0.04
Golden Guinea Plc	5	2010	0.167	2.34	17.54	0.03
Golden Guinea Plc	5	2011	0.833	2.65	18.65	0.06
Golden Guinea Plc	5	2012	0.833	2.46	19.65	0.05
Golden Guinea Plc	5	2013	0.833	2.55	11.90	0.01
Golden Guinea Plc	5	2014	0.333	2.90	11.00	0.09
Golden Guinea Plc	5	2015	0.333	2.11	12.00	0.08
Golden Guinea Plc	5	2016	0.333	2.08	12.60	0.09
Golden Guinea Plc	5	2017	0.333	2.70	12.76	0.02
Golden Guinea Plc	5	2018	0.417	2.76	13.65	0.02
Golden Guinea Plc	5	2019	0.167	1.89	13.98	0.03
Golden Guinea Plc	5	2020	0.167	2.79	12.65	0.04
Golden Guinea Plc	5	2021	0.667	1.86	13.54	0.05
Golden Guinea Plc	5	2022	0.251	1.92	12.65	0.06
Golden Guinea Plc	5	2023	0.751	1.92	14.90	0.05
Unilever Nigeria Plc	6	2010	0.251	1.77	11.00	0.01
Unilever Nigeria Plc	6	2011	0.251	1.79	12.00	0.02
Unilever Nigeria Plc	6	2012	0.751	1.88	13.00	0.03
Unilever Nigeria Plc	6	2013	0.251	1.89	13.56	0.05
Unilever Nigeria Plc	6	2014	0.583	1.97	12.65	0.03

Unilever Nigeria Plc	6	2015	0.667	1.01	12.90	0.04
Unilever Nigeria Plc	6	2016	0.251	1.25	13.87	0.03
Unilever Nigeria Plc	6	2017	0.417	1.29	14.76	0.03
Unilever Nigeria Plc	6	2018	0.417	1.24	15.76	0.04
Unilever Nigeria Plc	6	2019	0.333	2.71	16.45	0.05
Unilever Nigeria Plc	6	2020	0.667	1.88	10.10	0.03
Unilever Nigeria Plc	6	2021	0.417	1.04	11.98	0.03
Unilever Nigeria Plc	6	2022	0.511	1.14	11.45	0.02
Unilever Nigeria Plc	6	2023	0.333	2.16	12.65	0.02
PZ Cussons Nigeria Plc	7	2010	0.333	1.99	12.76	0.04
PZ Cussons Nigeria Plc	7	2011	0.833	2.01	13.65	0.05
PZ Cussons Nigeria Plc	7	2012	0.251	2.11	14.87	0.02
PZ Cussons Nigeria Plc	7	2013	0.251	2.22	15.86	0.03
PZ Cussons Nigeria Plc	7	2014	0.251	2.21	16.54	0.03
PZ Cussons Nigeria Plc	7	2015	0.583	2.37	17.76	0.03
PZ Cussons Nigeria Plc	7	2016	0.251	2.45	10.23	0.04
PZ Cussons Nigeria Plc	7	2017	0.333	2.47	10.34	0.03
PZ Cussons Nigeria Plc	7	2018	0.417	2.54	11.32	0.02
PZ Cussons Nigeria Plc	7	2019	0.417	2.54	11.45	0.04
PZ Cussons Nigeria Plc	7	2020	0.417	1.68	11.67	0.03
PZ Cussons Nigeria Plc	7	2021	0.250	2.61	11.78	0.05
PZ Cussons Nigeria Plc	7	2022	0.167	1.78	11.89	0.04
PZ Cussons Nigeria Plc	7	2023	0.167	2.86	13.54	0.05
Nigeria Breweries Plc	8	2010	0.250	2.34	14.34	0.06
Nigeria Breweries Plc	8	2011	0.500	2.44	15.80	0.05
Nigeria Breweries Plc	8	2012	0.250	2.55	13.67	0.02
Nigeria Breweries Plc	8	2013	0.333	2.56	12.98	0.03
Nigeria Breweries Plc	8	2014	0.250	2.86	14.86	0.02
Nigeria Breweries Plc	8	2015	0.250	2.87	14.86	0.01
Nigeria Breweries Plc	8	2016	0.333	2.89	15.87	0.04
Nigeria Breweries Plc	8	2017	0.333	2.96	16.74	0.05
Nigeria Breweries Plc	8	2018	0.417	2.03	17.54	0.04
Nigeria Breweries Plc	8	2019	0.333	2.08	18.45	0.06
Nigeria Breweries Plc	8	2020	0.417	2.12	19.76	0.07
Nigeria Breweries Plc	8	2021	0.417	2.09	20.65	0.06
Nigeria Breweries Plc	8	2022	0.417	3.14	15.80	0.05
Nigeria Breweries Plc	8	2023	0.250	3.16	17.54	0.04
Nestle Nigeria Plc	9	2010	0.250	1.88	18.76	0.03

Nestle Nigeria Plc	9	2011	0.583	1.89	19.45	0.02
Nestle Nigeria Plc	9	2012	0.417	1.99	20.65	0.02
Nestle Nigeria Plc	9	2013	0.167	2.16	21.60	0.03
Nestle Nigeria Plc	9	2014	0.833	2.19	22.56	0.05
Nestle Nigeria Plc	9	2015	0.917	1.37	23.34	0.07
Nestle Nigeria Plc	9	2016	0.500	2.48	24.65	0.06
Nestle Nigeria Plc	9	2017	0.583	2.46	25.80	0.08
Nestle Nigeria Plc	9	2018	0.583	2.65	16.18	0.02
Nestle Nigeria Plc	9	2019	0.583	1.74	17.04	0.03
Nestle Nigeria Plc	9	2020	0.583	2.81	17.76	0.05
Nestle Nigeria Plc	9	2021	0.583	2.83	20.15	0.07
Nestle Nigeria Plc	9	2022	0.750	2.88	21.25	0.04
Nestle Nigeria Plc	9	2023	0.750	2.05	21.43	0.05
Honeywell Flour Mill Plc	10	2010	0.750	2.05	22.16	0.06
Honeywell Flour Mill Plc	10	2011	0.417	2.35	24.34	0.04
Honeywell Flour Mill Plc	10	2012	0.417	2.13	22.65	0.09
Honeywell Flour Mill Plc	10	2013	0.167	2.50	24.80	0.06
Honeywell Flour Mill Plc	10	2014	0.167	3.10	15.80	0.01
Honeywell Flour Mill Plc	10	2015	0.167	2.97	16.54	0.01
Honeywell Flour Mill Plc	10	2016	0.167	2.80	18.56	0.02
Honeywell Flour Mill Plc	10	2017	0.500	2.22	19.55	0.03
Honeywell Flour Mill Plc	10	2018	0.417	2.71	20.75	0.01
Honeywell Flour Mill Plc	10	2019	0.417	2.34	21.60	0.01
Honeywell Flour Mill Plc	10	2020	0.333	2.16	21.56	0.01
Honeywell Flour Mill Plc	10	2021	0.500	2.16	24.34	0.02
Honeywell Flour Mill Plc	10	2022	0.333	2.36	25.65	0.01
Honeywell Flour Mill Plc	10	2023	0.583	1.39	25.80	0.03
Guinness Nig Plc	11	2010	0.417	2.12	16.80	0.02
Guinness Nig Plc	11	2011	0.250	2.13	20.54	0.03
Guinness Nig Plc	11	2012	0.833	2.24	21.66	0.05
Guinness Nig Plc	11	2013	0.333	2.01	20.43	0.07
Guinness Nig Plc	11	2014	0.333	2.48	19.07	0.04
Guinness Nig Plc	11	2015	0.083	2.52	20.78	0.05
Guinness Nig Plc	11	2016	0.083	2.65	22.56	0.06
Guinness Nig Plc	11	2017	0.167	2.49	24.08	0.04
Guinness Nig Plc	11	2018	0.250	2.25	25.32	0.09
Guinness Nig Plc	11	2019	0.417	2.35	26.44	0.06
Guinness Nig Plc	11	2020	0.417	2.42	21.64	0.01

Guinness Nig Plc	11	2021	0.417	2.51	13.90	0.01
Guinness Nig Plc	11	2022	0.833	1.58	14.86	0.02
Guinness Nig Plc	11	2023	0.250	2.62	16.08	0.03
Nascon Allied Industries Plc	12	2010	0.833	1.88	18.56	0.01
Nascon Allied Industries Plc	12	2011	0.750	2.45	19.65	0.01
Nascon Allied Industries Plc	12	2012	0.333	2.11	20.40	0.01
Nascon Allied Industries Plc	12	2013	0.333	2.32	21.70	0.02
Nascon Allied Industries Plc	12	2014	0.750	2.68	22.86	0.01
Nascon Allied Industries Plc	12	2015	0.750	1.73	23.87	0.03
Nascon Allied Industries Plc	12	2016	0.750	2.64	14.97	0.01
Nascon Allied Industries Plc	12	2017	0.750	2.39	14.98	0.02
Nascon Allied Industries Plc	12	2018	0.500	2.78	15.75	0.07
Nascon Allied Industries Plc	12	2019	0.750	2.87	15.87	0.01
Nascon Allied Industries Plc	12	2020	0.750	2.91	16.34	0.01
Nascon Allied Industries Plc	12	2021	0.750	2.88	16.34	0.01
Nascon Allied Industries Plc	12	2022	0.167	2.30	17.98	0.02
Nascon Allied Industries Plc	12	2023	0.333	2.03	16.94	0.02
Nigerian Enamalware plc	13	2010	0.250	1.89	18.45	0.03
Nigerian Enamalware plc	13	2011	0.250	1.67	19.47	0.02
Nigerian Enamalware plc	13	2012	0.417	1.99	12.89	0.01
Nigerian Enamalware plc	13	2013	0.500	1.89	13.86	0.01
Nigerian Enamalware plc	13	2014	0.417	2.06	15.86	0.05
Nigerian Enamalware plc	13	2015	0.333	2.10	16.97	0.01
Nigerian Enamalware plc	13	2016	0.417	2.21	17.97	0.06
Nigerian Enamalware plc	13	2017	0.417	2.39	18.90	0.08
Nigerian Enamalware plc	13	2018	0.167	2.48	20.76	0.02
Nigerian Enamalware plc	13	2019	0.167	2.48	23.97	0.02
Nigerian Enamalware plc	13	2020	0.250	2.42	24.97	0.03
Nigerian Enamalware plc	13	2021	0.250	2.50	27.54	0.02
Nigerian Enamalware plc	13	2022	0.250	2.46	10.80	0.02
Nigerian Enamalware plc	13	2023	0.250	2.65	11.86	0.02
Union Dicon salt Plc	14	2010	0.333	2.55	12.54	0.01
Union Dicon salt Plc	14	2011	0.250	2.23	13.54	0.01
Union Dicon salt Plc	14	2012	0.167	2.35	12.54	0.02
Union Dicon salt Plc	14	2013	0.167	2.55	13.54	0.03
Union Dicon salt Plc	14	2014	0.167	2.78	14.64	0.01
Union Dicon salt Plc	14	2015	0.167	2.89	15.65	0.01
Union Dicon salt Plc	14	2016	0.167	2.95	16.09	0.01

Union Dicon salt Plc	14	2017	0.167	3.05	17.85	0.02
Union Dicon salt Plc	14	2018	0.250	3.03	10.98	0.01
Union Dicon salt Plc	14	2019	0.417	3.08	10.86	0.03
Union Dicon salt Plc	14	2020	0.417	2.23	11.76	0.01
Union Dicon salt Plc	14	2021	0.583	2.17	12.65	0.02
Union Dicon salt Plc	14	2022	0.583	2.21	12.43	0.07
Union Dicon salt Plc	14	2023	0.583	2.88	12.54	0.01
Vita Foam Nigerian Plc	15	2010	0.250	2.65	13.65	0.01
Vita Foam Nigerian Plc	15	2011	0.167	1.45	15.75	0.01
Vita Foam Nigerian Plc	15	2012	0.250	2.34	16.78	0.02
Vita Foam Nigerian Plc	15	2013	0.250	2.13	18.98	0.02
Vita Foam Nigerian Plc	15	2014	0.167	2.96	12.98	0.03
Vita Foam Nigerian Plc	15	2015	0.167	2.02	13.65	0.02
Vita Foam Nigerian Plc	15	2016	0.167	1.03	14.65	0.01
Vita Foam Nigerian Plc	15	2017	0.333	2.06	14.89	0.01
Vita Foam Nigerian Plc	15	2018	0.167	1.37	15.76	0.05
Vita Foam Nigerian Plc	15	2019	0.167	2.40	16.54	0.01
Vita Foam Nigerian Plc	15	2020	0.250	1.40	17.54	0.06
Vita Foam Nigerian Plc	15	2021	0.167	2.54	18.65	0.08
Vita Foam Nigerian Plc	15	2022	0.167	1.55	19.65	0.02
Vita Foam Nigerian Plc	15	2023	0.167	1.56	11.90	0.02

Source: *Audited Financial Report of the Firm (2023)*