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Employee Health & Safety Cost and Effluent Disclosure on Market Value of Listed Consumer and Industrial Firms in Nigeria

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ABSTRACT

The Current environmental trends couple the challenges of lack of adequate disclosures among pollution prone companies in Nigeria in their annual reports today is of serious concerned to stakeholders for sound decision making. Therefore the study examined effect of employee health and safety cost and effluent disclosure on market value of listed consumer and industrial goods firm in Nigeria covering the period of ten (10) years 2013-2022. The study adopted ex-post facto with focus on longitudinal Panel Series design and secondary data were used for analysis which were obtained from Nigerian Exchange Group. While panel regression analysis technique was used to analyse the research data. The result revealed that employee health and safety cost has a positive and significant effect on market value while effluent disclosure has a positive and insignificant effect on market value of listed consumer and industrial goods firm in Nigeria. The study therefore concludes that employee health and safety cost has significant effect on market value of consumer and industrial goods firm in Nigeria. The study recommend that management of consumer and industrial goods firm should continue to increase employee health and safety cost because the wellbeing of employee sustainable optimal productivity that will lead to enhanced market value of the firm

Keywords: Employee Health and Safety Cost, Effluent Disclosure, Market Value, Firm Age, Investor.

INTRODUCTION

Stakeholders of companies usually desire to know the true value of a firms, and as such, when environmental related issues are disclosed in their annual reports, such true values culminate in positively affecting the market value of a firm. Market value otherwise refers to as enterprise value is an economic concept that reflects the considerations buyers are willing to pay and sellers are willing to accept for a business. It is the value that a business is worth at a given date. It is an amount that one needs to pay to buy or take over a business entity. Like an asset, the value of a firm can be determined based on either book value or market value. The market value of firm is a collection of non- financial and financial measures that give information on the level of attainment of objectives as well as outcomes. Market value of a firm is affected by investors' perceptions of its managers' capability to foresee as well as respond to anticipated occurrence in the firm's economy environment (Emeka-Nwokeji, 2019).

Environmental reporting refers to any financial or nonfinancial disclosure made by firms on their business's social and environmental effects and remains mostly a voluntary activity (Hossain *et al*, 2017). It has become increasingly relevant to enterprises. Environmental disclosure practices have become an essential issue in the development process to ensure environmental protection. The rapid growth of industries in Nigeria has helped to raise economic development, but at the same time, it has brought many environmental problems, and these problems led to a conception on that the natural well-being of the employee is in danger such as global warming, pollution of water, air, soil, etc. (Qureshi *et al.*, 2012). This brings about the need for firms to disclose employee health and safety cost and how to improve safety in the workplace. However, majority of social sustainability disclosures are descriptive in character, with very little quantitative data. Disclosing social issues show linkages between firm's social and environmental dimensions of its activities, products and services. Environmental sustainability disclosure means reporting on company's practices designed to achieve dignity for human beings. Environmental challenges confronting the world at large and Nigeria in particular





are enormous. Our environment is more threatened now than ever before as evidenced increased pollution, emission, degradation, deforestation and other climate change effect heading to high mortality rate as a relation of deadly diseases across globe (Oshiole *et al*, 2020). The vulnerability of the environment could be linked to uncoordinated chain of human activities with total disregard for environmental laws and regulations. The current environmental picture is a consequence of human activities in the past and at present which will culminate into a poor the future outlook of the global community. The null hypothesis is formulated

Ho1: Annual Employee health and safety cost has no significant effect on Tobin Q of listed Industrial and consumer Goods firms in Nigeria

Ho2: Effluent disclosure has no significant effect on Tobin Q of listed Industrial and consumer Goods firms in Nigeria

LITERATURE REVIEW

Conceptual Framework

Employee Health and Safety Cost

Employee safety cost represent a company's expenditure on employee health and safety. Employee health and safety cost is a great way for employees to learn additional skills and knowledge and to reinforce quality work practices which will result in a change in workplace behaviour. Investing in effective employee training will increase skills, knowledge, productivity and morale as well as replace and avoid workplace incidents. Health and safety as a function focuses on securing and promoting safety and health of the persons working for the company including both physical and mental health (Nwambeke *et al.*, 2019). Like most other management function this includes developing and implementing health and safety strategies, measuring and following up on performance issues and report these issues to internal and external stakeholders. In emerging economies, workplace safety and health has been overlooked in their industrial development policy and strategies. They are mostly focused on the production volume or profit undermining the latent effect of dissatisfactory working environment. Safe workplaces are profitable workplaces, whether measured in a company's bottom line, its market share, its broader consumer reputation, or its ability to attract and retain workers, managers, or investors. Healthy people are expected to contribute more to productivity and innovation. However, absenteeism from workplace site causes productivity loss.

Effluent Disclosure

Effluent is sewage that has been treated in a septic tank or sewage treatment plant. It is also referred to as trade effluent or wastewater (Ryou *et al.*, 2022). Effluent is waste other than waste from kitchens or toilets, surface water or domestic sewage. It can be produced and discharged by any industrial or commercial premises (Okudo & Ndubuisi, 2021). Effluent is an outflow of water or gas to a natural body of water, from a structure such as a sewage treatment plant, sewer pipe, industrial wastewater treatment plant or industrial outfall. It is produced and discharged by any industrial or commercial premises, such as a food processing factory or manufacturing business. Effluents are harmful when they enter the environment, especially in freshwater, because of their polluting chemical composition (Tuser, 2020). Effluent is generally known as water pollution, the outflow of waste from facilities like sewage treatment plants. It can also refer to the wastewater that is expulsed by industrial facilities (Zhang 2021). There are cases where effluent can be classified as treated. This is common in wastewater treatment plants where the treated effluent is called secondary effluent. Other facilities that generate effluent include thermal power stations. They release effluent water that is warmer than the surrounding water

Market Value

Market value is a microeconomic concept that states that a firm exists and makes decisions to maximize profits. The stockholder wealth maximization goal states that management should seek to maximize the present market value of the expected future returns to the owners (shareholders) of the firm (Okwy & Oluwamayowa,





2018). The stock price is a relative and proportional value of a firm's worth. The stock's price only tells you a firm's current value or its market value. This is based on the perception that the higher the stock price, the more profitable it will be for shareholders. The high market value also does not only affect the smooth running of the current firm but also benefits the firm's prospects in the future. Therefore, the value of the company has increased. In addition to assets and profits, the company's debt policy also affects the company's value. The higher the debt, the higher the share price. The value of a firm is basically the sum of claims of its creditors and shareholders. Therefore, one of the simplest ways to measure firm value is by adding the market value of its debt, equity and non-controlling interest. But generally, it refers to the market value of a company. FV = market value of equity + market value of preference share + market value of debt + non- controlling interest – cash and investments. Firm value is determined based on the firm's asset earning power. If a firm has higher earning powers of the company, it has a positive impact on greater profit and more efficient company assets.

Tobin Q

Market Value is proxies by Tobin Q that expresses the relationship between market valuation and the book value or the replacement cost. It is normally used to compare how a company (shares) market valuation changes with added products and markets. Tobin Q comprises of two variables which are market value of firm and the replacement cost of the assets of the firm (Okwy & Oluwamayowa, 2018). Tobin's Q or the Q ratio is a financial ratio that measures the market value of a company relative to its book value or total asset replacement cost. Market value is centered around a company's stock price, while book value is based on the difference between total assets and total liabilities on a company's financial position.

Firm Age

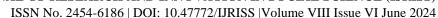
The firm age is the number of years a company is quoted on the Nigerian Exchange Group Firm age is defined as the number of years of incorporation of the company (Biodun *et al*, 2023). In line with legitimacy theory, for a company to carry out business activities in a community depends on the acceptance of the society where they operate. As is obvious, businesses can be impacted by society and also have an impact on society.

Empirical Review

Lawrence and Bernard (2023), investigates the relationship between environmental costs and financial performance of selected industrial goods firm in Nigeria. The main objective of the study is to empirically determine if waste management costs and communities development costs lead to better performance or not. The study covers the period between 2011 and 2020 and uses the Panel Estimated Generalized Least Squares (Panel EGLS) regression. Results show that waste management cost and communities development costs (CDC) as well as firm size (FSIZE) are positively significant while the moderated waste management costs (FS*WMC) and moderated communities development costs (FS*CDC) are negatively significant with NPM. The study recommends among others that the larger firms should be more involved and behave responsibly with respect to issues that demand environmental friendliness. The researcher is of the opinion that even small and medium firms should involved actively to environmental friendly matters. Because small and medium firm can constitute more numbers in the industry and their activities impacts the environment.

Yang *et al.*, (2022) used the panel data of 30 provinces and cities in China from 2004 to 2017, to empirically study the impact of environmental regulation on China's high-quality economic development and the mediating effect mechanism through the spatial Durbin model and threshold model. The results showed that China's high-quality economic development showed a fluctuating upward trend, and the east was higher than the middle and west. Environmental regulation significantly inhibited high-quality economic development, but its impact was moderated by accelerating industrial upgrading, promoting technological innovation, and enhancing foreign direct investment. As the primary driving force, technological innovation has a significant spatial spillover effect. The results showed that industrial upgrading has no threshold effect, and technological innovation and foreign direct investment have the characteristics of a 'U' single threshold. The researcher observed that the study was done in China in recommendation cannot be generalize for Nigeria environment.

Karia and Davadas (2022) focused on the impact of manufacturing environmental practices on social





performance, which is crucial for employees' wellbeing, human development, and quality of life that lacks empirical evidence. The study examined the hypotheses on the data sample of 120 Malaysian manufacturing firms from 2013-2020, with partial least squares structural equation modeling. Explicitly, the results revealed sustainable practices comprised of purchasing social responsibility (PSR), long term orientation (LTO), supplier assessment (SA), and environmental collaboration (EC) contribute almost 50% of social performance. Still, LTO and SA are the best practices. PSR, LTO, and SA significantly contribute 45% of EC, but LTO and PSR remain the best sustainable practices.

Obiora and Omaliko (2022) examined the impact of community development and waste management disclosure on corporate liquidity of finance institutions in Nigeria. The study's independent variables include community development disclosure and waste management disclosure while the dependent variable is company liquidity which was proxy as cash ratio. Two hypotheses were formulated for this study. An ex post facto design was used and data for the study were sourced from the published annual financial reports of all 41 companies listed on the financial sector of Nigerian Exchange Group (NGX) with the data covering the period of 2015-2020. Using Ordinary least square regression analysis, the study found that disclosures on community development and waste management have a significant impact on the liquidity of firms in Nigeria at 5% level of significance. Based on this, the study concluded that disclosures on community development and waste management have positively improved the liquidity of companies over the years.

Uddin *et al.*, (2022) analysed the volume of the environmental risk disclosure in the annual reports of firms in the pharmaceutical and chemical, tannery, telecommunications, and paper and printing industries listed on the Dhaka Stock Exchange (DSE) in Bangladesh from 2011-2020. The research used a content analysis of the annual reports of 43 companies that represented four DSE sectors. To quantify the level of environmental risk disclosure reporting practiced by corporations in the annual reports, the authors established the ERDIPCI for the pharmaceutical and chemical industry, the ERDITI for the tannery industry, the ERDITeI for the telecommunications industry, and the ERDIPPI for the paper and printing industry. Similarly, the machine learning clustering algorithm, k-means clustering, was used to cluster the companies based on the completion of different environmental indices. It was observed that from four sectors, the highest number of companies from the pharmaceutical and chemical industry disclosed environmental risk disclosures, and the lowest number of companies was from the tannery industry, followed by the telecommunications and the paper and printing industries. The enterprises differ significantly in their environmental risk disclosures, and the overall scenarios of the environmental reporting practices by companies in Bangladesh are quite poor.

Onyebuenyi and Ofoegbu (2022) examined the effect of environmental sustainability disclosure on financial performance of listed oil and gas companies in three countries within sub-Sahara Africa: Nigeria, Namibia, and Kenya. Based on descriptive and ex-post facto research design panel data set collected from fifteen (15) oil and gas listed firms in all three countries of interest within a nine (9) year time frame (2011 to 2019) were utilized. Six hypotheses were formulated, using content analyses procedure based on Global Reporting Initiative (GRI) standard to extract required information on environmental sustainability disclosure proxies: Emission and Energy disclosure, Effluent and Waste information disclosure, sustainability compliance policy disclosure, protection expenditure and investment disclosure and grievance policy disclosure been the independent variables of interest. Firm financial performance which is the dependent variable was measured in terms of return on equity, gross profit margin and earnings per share. The study employed Robust Least Square Regression analyses technique to test the stated hypotheses. The study found that emission and energy disclosure have significant negative and positive effect on performance measure of return on equity and gross profit after tax margin respectively. Particularly the effect of effluent and hazardous waste disclosure was seen to be statistically significant on performance measure of earnings per share. Further, it was found that biodiversity and water disclosure significantly affect performance measures of return on equity(positively) and gross profit margin(negatively) while the effect of environmental sustainability protection expenditure disclosure was seen to be positive and statistically significant on performance measure of gross profit margin.

Okafor *et al.*, (2022) ascertained the determinants of environmental disclosure of quoted Oil and Gas firms in Nigeria for a period of thirteen (13) years spanning from 2008 to 2020. Specifically, this study ascertained the relationship between Leverage, Firm Size and Audit Committee Size and Effluent Disclosure. Panel data were used in this study, which were obtained from the annual reports and accounts of eleven (11) sampled quoted





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Oil and Gas firms for the periods 2008-2020. *Ex-Post Facto* research design was employed. Descriptive statistics of the dataset from the sampled firms were used to describe using the mean, standard deviation, minimum and maximum values of the data for the study variables. Inferential statistics using Pearson correlation coefficient, Multicollinearity test, Panel Least Square (PLS) regression analysis and Hausman test were applied to test the hypotheses of the study. The results of the tested hypotheses revealed that there is a significant and positive relationship between Leverage and Effluent Disposal of quoted Oil and Gas firms in Nigeria at 5% level of significance there is a significant but negative relationship between Firm Size and Effluent Disposal of quoted Oil and Gas firms in Nigeria at 5% level of significance there is a significant and positive relationship between Audit Committee Size and Effluent Disposal of quoted Oil and Gas firms in Nigeria at 5% level of significance.

Arumona *et al.*, (2022) examined the effect of environmental disclosure on financial performance of quoted oil and gas companies in Nigeria, using panel series data and regression analysis approach. The focus variables of this study were environmental disclosure for independent variable and financial performance for dependent variable. The independent variable was proxied by research and development cost and estimated future expenditure while dependent variable is proxied by Net Profit Margin and Return on Asset. The secondary data obtained from the annual reports of 12 oil and gas companies quoted on the floor of the Nigeria Stock Exchange (NSE) for 10 years ranging from year 2010- 2019 were used. The study adopted the E-view as a statistical tool for analysis with focus on Ordinary Least Square (OLS) regression method. The study found that environmental disclosure has positive and statistically significant effect on financial Performance of quoted oil and gas companies in Nigeria during the period under review.

Ofurum and Iwunna (2022) evaluated the impact of environmental cost disclosure on the financial performance of oil and gas companies. The study used an ex-post facto research design and secondary data from companies' annual audited financial reports and the Department of Petroleum Resources (DPR) from 2008 to 2019. The study included 13 oil and gas companies listed on the Nigerian Stock Exchange and used a panel regression technique to estimate the study parameters. The results showed that waste management costs are positively and significantly related to the ROA of oil and gas companies in Nigeria. In addition, the study found that pollution control costs have a significant and negative impact on ROA. Consequently, the study concluded that environmental costs significantly impacted the financial performance of listed oil and gas companies during that period.

Obiora *et al.*, (2022) assessed the impact of environmental accounting disclosure on profitability of quoted firms in Nigeria from 2017 to 2021. Environmental disclosure index was employed as the independent variable while financial performance measures such as return on assets, return on equity and return on capital employed were employed as the dependent variable. Related conceptual, theoretical and empirical literatures were reviewed. The study was anchored on stakeholders' theory. Ex post facto research design was employed. Five firms from different sectors of the economy were sampled. The data used in this study were sourced from annual reports and statement of accounts of the selected firms. Descriptive statistics, correlation analysis and ordinary least square (OLS) regression were employed in analyzing the data. The study found that environmental accounting disclosure has a significant impact on return on assets of quoted firms in Nigeria. Environmental accounting disclosure was also found to have significant impact on return on equity of quoted firms in Nigeria. However, environmental accounting disclosure was found to have a non-significant impact on return on capital employed of quoted firms in Nigeria. The study concluded that environment accounting disclosure has significant impact on financial performance.

Mohammed *et al.*, (2022) investigated the association of environmental information disclosure and corporate financial performance for the manufacturing industry. The study focused on manufacturing industry listed companies in Nigeria Stock Exchange from 2012-2018. The environmental information disclosure includes environmental financial and non-financial information. The population of this study was the 41 listed manufacturing companies on the Nigerian Stock Exchange as at 2019. Sampling technique was used to sample all the 41 listed manufacturing companies as the sample size. The study used secondary data collected from the annual reports of the listed manufacturing companies in Nigeria and data from the Nigerian Stock Exchange fact book for the period of six (6). Content analysis and Ordinary Least Square regression analysis were employed for the test of hypothesis. The result disclosed that Disclosure on Material used (DMT) has non-





significant negative effect on financial performance (ROA) of listed pharmaceutical manufacturing companies in Nigeria. The study also found that disclosure on environmental compliance has significant positive effect on financial performance (ROE) of listed manufacturing companies in Nigeria.

THEORETICAL FRAMEWORK

Stewardship Theory

The stewardship theory was propounded by Donaldson and Davis (1991). The theory is based on the assumption that the interest of shareholders and the interest of management are aligned. Therefore, management is motivated to take decision that would maximize performance and the total value of the organization. The theory believes that there is greater utility in cooperative than individualistic behavour and hence whilst the actions of management would he maximizing shareholders' wealth, it would at same time meeting their personal needs, the managers protects and maximize shareholder's wealth through organization performance, because by so doing, their utility functions are maximized (Davis et al 1997) To achieve this goal congruent, the shareholders must put in place appropriate empowering governance structure and mechanisms, information and authority to facilitate the autonomy of management to take decisions that would maximize their utility as they achieve organizational objectives rather than self—serving objectives. For Chief Executives Officers (CEO) who are stewards, their pro-organizational actions are best facilitated when the corporate governance structure gives them high authority and discretion. (donaldson and davis, 1991).

Legitimacy Theory

Legitimacy theory is derived from the concept of organizational legitimacy, which has been defined by Dowling and Pfeffer (1975) as a condition or status which exists when an entity's value system is congruent with the value system of the larger social system of which the entity is a part. When a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy. Legitimacy theory posits that organizations continually seek to ensure that they operate within the bounds and norms of their respective societies. Silva (2021) refers to a legitimacy gap as the difference between the expectations of the relevant publics relating to how an organization should act, and how the organization does act. Silva, (2021) suggests that when a legitimacy gap occurs, there is a threat to the entity's legitimacy and when a disparity, actual or potential, exists between the two value systems, there is a threat to the entity's legitimacy. Dowling and Pfeffer (1975) indicate that legitimacy is a resource on which an organization is dependent for survival. Legitimacy theory suggests that whenever managers consider the supply of the particular resource is vital to organizational survival, they will pursue strategies to ensure the continued supply of that resource. Such strategies may include targeted disclosures, or perhaps controlling or collaborating with other parties who, in themselves, are considered to be legitimate (Gomez-Carrasco & Michelon, 2017). Where managers perceive that the organization's operations are not commensurate with the social contract, then, pursuant to legitimacy theory, organizations may take remedial action to become legitimate (Dowling and Pfeffer 1975). Since the theory is based on perceptions, for remedial action to have an effect on external parties, it must be accompanied by publicized disclosure. Hence the importance of publicized corporate disclosures, such as those made within annual reports and other publicly released documents (Argyres et al, 2020).

The underpinning theory for this study is the legitimacy theory perspective, because company would voluntarily report on activities if management perceived that those activities were 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.

METHODOLOGY

This study adopted the ex post facto research design and secondary data for the study. Population of the study consists of thirty four (34) listed industrial and consumer goods firms operating on the Nigeria Exchange Group (NGX) as at 31st December 2023. The sample size is twenty six (26) and purposeful sampling techniques was adopted. Data required for this study were obtained from audited financial statements and annual reports of the listed industrial and consumer goods firms in Nigeria 10 years (2013-2022). The

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inferential analyses also involve the application of the appropriate statistical technique of Panel Regression Analysis: this is due to the nature of the data. The study adapted the model of Onyebuenyi & Ofoegbu (2022).as stated below;

 $TQ = \beta_0 + \beta_1 EHSC + \beta_2 ED + \beta_3 FA + \epsilon_{it}$

Where:

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

 $\beta_1 - \beta_3$ = Parameter coefficient of Environmental Disclosure

TQ = Tobin Q

EHSC = Employee Health and Safety Cost

ERD = Effluent Disclosure

FA = Firm Age

 ϵ_{it} = Stochastic Error term

Table 4: Study Variables and their Measurement

Variable Acronym	Variable Name	Variable types	Measurement	Source
TQ	Tobin Q	Dependent	Total asset of firm divided by Total market value of the firm.	Okwy & Oluwamayowa (2018)
EHSC	Annual Employee Health and Safety Value	Independent	Amount spent on annual health and safety	Oshiole et al (2020)
ED	Effluent Disclosure Index	Independent	Coded 1 when reported and 0 if not reported	Onyebuenyi & Ofoegbu (2022)
FA	Firm Age	Control	Age of the company form incorporation	Obiora <i>et al.</i> , (2022)

Source: Author's Compilation (2024)

RESULT AND DISCUSSION

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

	TQ	EHSC	ED	FA
Mean	0.838344	0.361200	0.844000	37.05200
Median	0.825000	0.300000	1.000000	41.00000
Maximum	9.600000	2.030000	1.000000	72.00000





Minimum	-0.960000	0.090000	0.000000	3.000000
Std. Dev.	0.818901	0.292265	0.363583	17.73232
Skewness	9.768438	3.294188	-1.896072	-0.135249
Kurtosis	105.8400	15.28031	4.595091	2.024273
Jarque-Bera	114143.4	2023.049	176.2987	10.67928
Probability	0.000000	0.000000	0.000000	0.004798
Sum	209.5860	90.30000	211.0000	9263.000
Sum Sq. Dev.	166.9790	21.26924	32.91600	78294.32
Observations	250	250	250	250

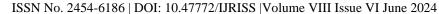
Source: E-View 12 Output, (2024)

Table 4.1 presents the descriptive statistics effect of employee health and safety cost, effluent disclosure on market value of listed consumer and industrial goods firms in Nigeria during the period of 2013 to 2022. The table shows that Tobin q (TQ) as a measure of market value has a mean of 0.83834, with a standard deviation of 0.81890 as well as a minimum value of -0.9600 and maximum value of 9.6000 respectively. Given that the range between the minimum and maximum is quite wide, it implies unstable market value 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 employee health and safety cost and effluent disclosure shows a mean of value of 0.36120 and 0.84400 with standard deviation of 0.29226, 0.36358 and a minimum and maximum value of 0.09000, 0.0000, 2.0300 and 1.0000 respectively. This implies that employee health and safety cost and effluent disclosure 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. Firm age as control variable has a mean of 37.0520 with minimum value of 3.0000 and maximum value of 72.0000.

Table 4.2: Correlation Matrix

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

Covariance Analysis: Ordinary				
Date: 02/24/24 Time: 04:	26			
Sample: 2013 2022				
Included observations: 250)			
Correlation				
Probability	TQ	EHSC	ED	FA
TQ 1.000000				
EHSC	0.248170	1.000000		





	0.0001			
ED	0.066572	-0.013349	1.000000	
	0.2944	0.8337		
FA	-0.072174	-0.002724	0.113389	1.000000
	0.2556	0.9658	0.0735	

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 employee health and safety cost and effluent disclosure has a positive correlation which are 0.2481 and 0.0665 with Tobin Q while firm age as control variable has a negative correlation with Tobin Q at value of -0.0721.

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 Facto			
Date: 02/24/24 Time: 0			
Sample: 2013 2022			
Included observations: 2	50		
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
С	0.028747	11.42001	NA
EHSC	0.029594	2.533954	1.000180
ED	0.019371	6.494865	1.013199
FA	8.14E-06	5.453748	1.013026

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 (EHSC, ED and FA) 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 l	Heteroskedasticity	y LR Test		
Null hypothesis: Res	iduals are homoso	cedastic		
Equation: UNTITLE	D			
Specification: TQ C	EHSC ED FA			
	Value	df	Probability	
Likelihood ratio	685.2954	25	0.0000	
LR test summary:		1		
	Value	df		
Restricted LogL	-294.8287	246		
Unrestricted LogL	47.81893	246		

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

H₀: No conditional Heteroskedasticity (Residuals are homoskedastic)

H₁: 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 685.2954 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 - H			
Equation: Untitled			
Test cross-section random effect			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.453567	3	0.1414

Source: E-View 12 Output, (2024)

The Result of Hausman test shows that chi-square statistics value is 5.4535 while the probability values of it is 0.1414. 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: 10						
Cross-sections included: 25	Cross-sections included: 25					
Total panel observations: 250						
Note: non-zero cross-section means	detected in data					
Cross-section means were removed during computation of correlations						
Test	Prob.					
Breusch-Pagan LM	489.0190	300	0.0000			

Source: E-View 12 Output, (2024)

*Decision Rule: At 5% level of Significance

H₀: Pooled Effect is more appropriate

H₁: Random Effect is more appropriate





Based on the probability value of the Breusch-Pagan Langranger Multiplier Test at 0.0000, the null hypothesis

Table 4.7: Panel Regression Result (Random Effect)

is rejected, thus random effect is most appropriate when compared to pooled effect.

Dependent Variable: TQ					
Method: Panel EGLS (Cr	ross-section rand	om effects)	L		
Date: 02/24/24 Time: 04	4:32				
Sample: 2013 2022					
Periods included: 10					
Cross-sections included:	25				
Total panel (unbalanced)	Total panel (unbalanced) observations: 250				
Swamy and Arora estima	tor of componen	t variances			
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
С	1.231664	0.101622	12.12010	0.0000	
EHSC	0.222535	0.100360	2.217365	0.0275	
ED	0.006497	0.080367	0.080842	0.9356	
FA	4.41E-05	0.001635	0.026963	0.9785	
LOGTQ	1.824655	0.085734	21.28266	0.0000	
	Effects Sp	pecification			
			S.D.	Rho	
Cross-section random			0.000000	0.0000	
Idiosyncratic random			0.451688	1.0000	
	Weighted	d Statistics			
R-squared	0.641506	Mean depende	ent var	0.852000	
Adjusted R-squared	0.635605	S.D. depender	nt var	0.807796	
S.E. of regression	0.487627	Sum squared r	resid	57.78055	
F-statistic	108.7090	Durbin-Watso	n stat	1.710037	
Prob(F-statistic)	0.000000				

Source: E-View 12 Output, (2024)

This study evaluated effect employee health and safety cost and effluent disclosure on market value of listed consumer and industrial goods firms in Nigeria. From table 4.7 above, the coefficient of multiple determinations (R^2) is 0.64 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 64%, and 63% respectively. This indicates that about 64% of the total variations in Tobin Q (TQ) is explained by the variations in the





independent variables (EHSC, ED and FA), while the remaining 36% 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 and industrial goods firm showed that there is a positive and negative relationship between employee health and safety cost, effluent disclosure and Tobin Q with a corresponding positive probability value of 0.0275 and 0.9356 which is less and greater than 5%. However, when taken collectively, the regressors (EHSC and ED) against the regressed (TQ), the value of F-statistic is 108.7090 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%.

DISCUSSION OF FINDINGS

This study evaluates effect of employee health and safety cost, effluent disclosure on market value of listed consumer and industrial goods firms in Nigeria. The findings of this study is on the basis of formulated hypotheses, models and analysis carried out. Firstly, study found that generally that employee health and safety cost on market value of listed consumer and industrial goods firm in Nigeria have a positive and significant effect on Tobin Q as measure of market value. This agrees with the study of Lawrence and Bernard (2023) who examined effect of environmental disclosure on financial performance of listed industrial goods companies in Nigeria. The study is in contrast with the study of Andriana and Anisykurlillah (2019) who examined the effect of environmental disclosure on financial performance of oil and gas companies listed on the Indonesia Stock Exchange. Secondly, study found that effluent disclosure on market value of listed consumer and industrial goods firm in Nigeria have a positive and insignificant effect on Tobin Q as measure of market value This agree with the study of Mohammed *et al* (2022) who examined effect of environmental disclosure on financial performance of listed manufacturing firms in Nigeria. The study disagree with the study of Okafor *et al* (2022) who examined positive effect of environmental disclosure on financial performance of listed oil and gas companies in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study examine employee health and safety cost and effluent disclosure on market value of listed consumer and industrial goods firms in Nigeria from 2013-2022 in Nigeria. The study conclude that employee health and safety cost and effluent disclosure has significant effect on market value of consumer and industrial goods firm in Nigeria. Based on the findings of this study and the conclusion made, the following recommendations are made to management of consumer and industrial goods firm in Nigeria:

- i. Management of consumer and industrial goods of firm should continue to increase employee health and safety cost because the wellbeing of employee sustainable optimal productivity that will lead to enhanced market value of the firm
- ii. Management of consumer and industrial goods firms should maintain the effluent disclosure in the firm report even it has insignificant effect on the market value of the firm in Nigeria.

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RAW DATA

COMPANY	CODE	YEARS	TQ	EHSC	ED	FA
Cadbury Nigeria Plc	1	2013	0.44	0.12	0	3
Cadbury Nigeria Plc	1	2014	0.59	0.11	0	4
Cadbury Nigeria Plc	1	2015	0.65	0.14	1	5
Cadbury Nigeria Plc	1	2016	0.68	0.23	1	6
Cadbury Nigeria Plc	1	2017	0.76	0.11	1	7
Cadbury Nigeria Plc	1	2018	0.67	0.24	1	8
Cadbury Nigeria Plc	1	2019	0.56	0.16	1	9
Cadbury Nigeria Plc	1	2020	0.75	0.32	1	10
Cadbury Nigeria Plc	1	2021	0.86	0.45	1	11
Cadbury Nigeria Plc	1	2022	0.76	0.12	1	12
Champion Breweries Plc	2	2013	0.65	0.13	0	46
Champion Breweries Plc	2	2014	0.65	0.23	0	47
Champion Breweries Plc	2	2015	-0.75	0.13	1	48



nois ··						
Champion Breweries Plc	2	2016	0.76	0.24	1	49
Champion Breweries Plc	2	2017	0.56	0.23	1	50
Champion Breweries Plc	2	2018	0.67	0.23	1	51
Champion Breweries Plc	2	2019	0.89	0.45	1	52
Champion Breweries Plc	2	2020	0.86	1.55	1	53
Champion Breweries Plc	2	2021	0.88	0.17	1	54
Champion Breweries Plc	2	2022	0.20	0.45	1	55
Flour Mills Nigeria Plc	3	2013	0.57	0.46	1	37
Flour Mills Nigeria Plc	3	2014	0.67	0.37	1	38
Flour Mills Nigeria Plc	3	2015	0.75	0.24	1	39
Flour Mills Nigeria Plc	3	2016	0.80	0.56	1	40
Flour Mills Nigeria Plc	3	2017	0.88	0.28	1	41
Flour Mills Nigeria Plc	3	2018	0.89	0.34	1	42
Flour Mills Nigeria Plc	3	2019	0.97	0.23	1	43
Flour Mills Nigeria Plc	3	2020	0.96	0.56	1	44
Flour Mills Nigeria Plc	3	2021	0.98	0.23	1	45
Flour Mills Nigeria Plc	3	2022	0.99	0.26	1	46
DN Tyre & Rubber Plc	4	2013	0.65	0.25	0	6
DN Tyre & Rubber Plc	4	2014	0.88	0.26	0	7
DN Tyre & Rubber Plc	4	2015	0.76	0.44	1	8
DN Tyre & Rubber Plc	4	2016	0.67	0.23	1	9
DN Tyre & Rubber Plc	4	2017	0.56	0.34	1	10
DN Tyre & Rubber Plc	4	2018	0.75	1.07	1	11
DN Tyre & Rubber Plc	4	2019	0.86	0.45	1	12
DN Tyre & Rubber Plc	4	2020	0.76	0.28	1	13
DN Tyre & Rubber Plc	4	2021	0.54	0.34	1	14
DN Tyre & Rubber Plc	4	2022	0.66	0.25	1	15
Golden Guinea Plc	5	2013	0.76	0.34	1	51



RSIS V						
Golden Guinea Plc	5	2014	0.76	0.36	1	52
Golden Guinea Plc	5	2015	0.88	0.45	1	53
Golden Guinea Plc	5	2016	0.89	0.23	1	54
Golden Guinea Plc	5	2017	0.67	0.33	1	55
Golden Guinea Plc	5	2018	0.57	0.34	1	56
Golden Guinea Plc	5	2019	0.66	0.35	1	57
Golden Guinea Plc	5	2020	0.69	0.45	1	58
Golden Guinea Plc	5	2021	0.87	0.45	1	59
Golden Guinea Plc	5	2022	0.90	0.67	1	60
Unilever Nigeria Plc	6	2013	0.94	0.34	1	61
Unilever Nigeria Plc	6	2014	0.95	0.23	1	62
Unilever Nigeria Plc	6	2015	0.98	0.23	1	63
Unilever Nigeria Plc	6	2016	0.95	0.23	1	64
Unilever Nigeria Plc	6	2017	0.98	0.23	1	65
Unilever Nigeria Plc	6	2018	0.97	0.12	1	66
Unilever Nigeria Plc	6	2019	0.66	0.13	1	67
Unilever Nigeria Plc	6	2020	0.98	0.41	1	68
Unilever Nigeria Plc	6	2021	0.65	0.34	1	69
Unilever Nigeria Plc	6	2022	0.98	0.32	0	70
PZ Cussons Nigeria Plc	7	2013	0.92	0.22	0	26
PZ Cussons Nigeria Plc	7	2014	0.94	0.24	0	27
PZ Cussons Nigeria Plc	7	2015	-0.96	0.23	0	28
PZ Cussons Nigeria Plc	7	2016	0.98	0.34	0	29
PZ Cussons Nigeria Plc	7	2017	0.99	0.36	1	30
PZ Cussons Nigeria Plc	7	2018	0.88	0.23	1	31
PZ Cussons Nigeria Plc	7	2019	0.87	0.23	1	32
PZ Cussons Nigeria Plc	7	2020	0.88	0.34	1	33
PZ Cussons Nigeria Plc	7	2021	0.76	0.45	1	34



* RSIS Y						
PZ Cussons Nigeria Plc	7	2022	0.79	0.23	1	35
Nigeria Breweries Plc	8	2013	0.98	0.34	1	40
Nigeria Breweries Plc	8	2014	0.88	0.34	1	41
Nigeria Breweries Plc	8	2015	0.67	0.45	1	42
Nigeria Breweries Plc	8	2016	0.78	0.26	1	43
Nigeria Breweries Plc	8	2017	0.76	0.23	1	44
Nigeria Breweries Plc	8	2018	0.87	0.45	1	45
Nigeria Breweries Plc	8	2019	0.87	0.25	1	46
Nigeria Breweries Plc	8	2020	0.88	0.26	1	47
Nigeria Breweries Plc	8	2021	0.67	0.24	1	48
Nigeria Breweries Plc	8	2022	0.87	0.43	1	49
Nestle Nigeria Plc	9	2013	0.77	0.32	0	7
Nestle Nigeria Plc	9	2014	0.78	0.23	0	8
Nestle Nigeria Plc	9	2015	0.88	0.34	1	9
Nestle Nigeria Plc	9	2016	0.98	0.22	1	10
Nestle Nigeria Plc	9	2017	0.95	0.23	1	11
Nestle Nigeria Plc	9	2018	0.99	0.43	1	12
Nestle Nigeria Plc	9	2019	0.76	0.33	1	13
Nestle Nigeria Plc	9	2020	0.78	0.23	1	14
Nestle Nigeria Plc	9	2021	0.87	0.32	1	15
Nestle Nigeria Plc	9	2022	0.88	0.34	1	16
International Breweries Plc	10	2013	0.31	0.34	1	40
International Breweries Plc	10	2014	0.34	0.21	1	41
International Breweries Plc	10	2015	0.35	0.23	1	42
International Breweries Plc	10	2016	0.36	0.34	1	43
International Breweries Plc	10	2017	0.45	0.32	1	44
International Breweries Plc	10	2018	0.76	0.43	1	45
International Breweries Plc	10	2019	0.76	0.23	1	46



International Breweries Plc	10	2020	0.54	0.32	1	47
International Breweries Plc	10	2021	0.90	0.23	1	48
International Breweries Plc	10	2022	0.87	0.43	1	49
Guinness Nig Plc	11	2013	0.82	0.32	1	38
Guinness Nig Plc	11	2014	0.84	0.12	1	39
Guinness Nig Plc	11	2015	0.85	0.23	1	40
Guinness Nig Plc	11	2016	0.92	0.23	1	41
Guinness Nig Plc	11	2017	0.94	0.22	1	42
Guinness Nig Plc	11	2018	0.86	1.25	1	43
Guinness Nig Plc	11	2019	0.65	0.34	1	44
Guinness Nig Plc	11	2020	0.78	0.34	1	45
Guinness Nig Plc	11	2021	0.97	0.38	1	46
Guinness Nig Plc	11	2022	0.87	0.32	1	47
Nascon Allied Industries Plc	12	2013	0.56	0.12	0	42
Nascon Allied Industries Plc	12	2014	0.55	0.11	0	43
Nascon Allied Industries Plc	12	2015	0.53	0.14	0	44
Nascon Allied Industries Plc	12	2016	0.62	0.23	1	45
Nascon Allied Industries Plc	12	2017	0.64	0.11	1	46
Nascon Allied Industries Plc	12	2018	0.74	0.24	1	47
Nascon Allied Industries Plc	12	2019	0.84	0.16	1	48
Nascon Allied Industries Plc	12	2020	0.83	0.32	1	49
Nascon Allied Industries Plc	12	2021	0.99	0.45	1	50
Nascon Allied Industries Plc	12	2022	0.76	0.12	1	51
Nigerian Enamalware plc	13	2013	0.71	0.13	0	15
Nigerian Enamalware plc	13	2014	0.83	0.23	0	16
Nigerian Enamalware plc	13	2015	0.84	0.13	0	17
Nigerian Enamalware plc	13	2016	0.85	0.24	1	18
Nigerian Enamalware plc	13	2017	0.89	0.23	1	19
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Nigerian Enamalware plc	13	2018	9.60	0.23	1	17
Nigerian Enamalware plc	13	2019	0.98	0.45	1	17
Nigerian Enamalware plc	13	2020	0.99	1.55	1	17
Nigerian Enamalware plc	13	2021	0.87	0.17	1	13
Nigerian Enamalware plc	13	2022	0.76	0.45	1	14
Union Dicon sait Plc	14	2013	0.43	0.46	0	63
Union Dicon sait Plc	14	2014	0.42	0.37	0	64
Union Dicon sait Plc	14	2015	0.45	0.24	0	65
Union Dicon sait Plc	14	2016	0.56	0.56	1	66
Union Dicon sait Plc	14	2017	0.66	0.28	1	67
Union Dicon sait Plc	14	2018	0.67	0.34	1	68
Union Dicon sait Plc	14	2019	0.89	0.23	1	69
Union Dicon sait Plc	14	2020	0.87	0.56	1	70
Union Dicon sait Plc	14	2021	0.95	0.23	1	71
Union Dicon sait Plc	14	2022	0.99	0.26	1	72
Vita Foam Nigerian Plc	15	2013	0.74	0.25	0	38
Vita Foam Nigerian Plc	15	2014	0.76	0.26	0	39
Vita Foam Nigerian Plc	15	2015	0.75	0.44	1	40
Vita Foam Nigerian Plc	15	2016	0.77	0.23	1	41
Vita Foam Nigerian Plc	15	2017	0.87	0.34	1	42
Vita Foam Nigerian Plc	15	2018	0.98	1.07	1	43
Vita Foam Nigerian Plc	15	2019	0.87	0.45	1	44
Vita Foam Nigerian Plc	15	2020	0.76	0.28	1	45
Vita Foam Nigerian Plc	15	2021	0.65	0.34	1	46
Vita Foam Nigerian Plc	15	2022	0.67	0.25	1	47
AutinLAZ Coy Plc	16	2013	0.94	0.34	1	49
AutinLAZ Coy Plc	16	2014	0.95	0.36	0	50
AutinLAZ Coy Plc	16	2015	0.98	0.45	0	51
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AutinLAZ Coy Plc	16	2016	0.95	0.23	1	52
AutinLAZ Coy Plc	16	2017	0.98	0.33	1	53
AutinLAZ Coy Plc	16	2018	0.97	0.34	1	54
AutinLAZ Coy Plc	16	2019	0.66	0.35	1	55
AutinLAZ Coy Plc	16	2020	0.98	0.45	1	56
AutinLAZ Coy Plc	16	2021	0.65	0.45	1	57
AutinLAZ Coy Plc	16	2022	0.98	0.67	1	58
Berger Paint Plc	17	2013	0.92	0.34	1	16
Berger Paint Plc	17	2014	0.94	0.23	1	17
Berger Paint Plc	17	2015	0.96	0.23	1	18
Berger Paint Plc	17	2016	0.98	0.23	1	19
Berger Paint Plc	17	2017	0.99	0.23	1	20
Berger Paint Plc	17	2018	0.88	0.12	1	21
Berger Paint Plc	17	2019	0.87	0.13	1	22
Berger Paint Plc	17	2020	0.88	0.41	1	23
Berger Paint Plc	17	2021	0.76	0.34	1	24
Berger Paint Plc	17	2022	0.79	0.32	1	25
Beta Glass Plc	18	2013	0.98	0.22	1	40
Beta Glass Plc	18	2014	0.88	0.24	0	41
Beta Glass Plc	18	2015	0.67	0.23	0	42
Beta Glass Plc	18	2016	0.78	0.34	1	43
Beta Glass Plc	18	2017	0.76	0.36	1	44
Beta Glass Plc	18	2018	0.87	0.23	1	45
Beta Glass Plc	18	2019	0.87	0.23	1	46
Beta Glass Plc	18	2020	0.88	0.34	1	47
Beta Glass Plc	18	2021	0.67	0.45	1	48
Beta Glass Plc	18	2022	0.87	0.23	1	49
Cap Plc	19	2013	0.77	0.34	1	17
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Cap Plc	19	2014	0.78	0.34	1	18
Cap Plc	19	2015	0.88	0.45	1	19
Cap Plc	19	2016	0.98	0.26	1	20
Cap Plc	19	2017	0.95	0.23	1	21
Cap Plc	19	2018	0.99	0.45	1	22
Cap Plc	19	2019	0.76	0.25	1	23
Cap Plc	19	2020	0.78	0.26	1	24
Cap Plc	19	2021	0.87	0.24	1	25
Cap Plc	19	2022	0.88	0.43	1	26
Cutix Plc	20	2013	0.31	0.32	1	56
Cutix Plc	20	2014	0.34	0.23	1	57
Cutix Plc	20	2015	0.35	0.34	1	58
Cutix Plc	20	2016	0.36	0.22	1	59
Cutix Plc	20	2017	0.45	0.23	1	60
Cutix Plc	20	2018	0.76	0.43	1	61
Cutix Plc	20	2019	0.76	0.33	1	62
Cutix Plc	20	2020	0.54	0.23	1	63
Cutix Plc	20	2021	0.90	0.32	1	64
Cutix Plc	20	2022	0.87	0.34	1	65
Greif Nig	21	2013	0.82	0.34	0	32
Greif Nig	21	2014	0.84	0.21	0	33
Greif Nig	21	2015	0.85	0.23	0	34
Greif Nig	21	2016	0.92	0.34	1	35
Greif Nig	21	2017	0.94	0.32	1	36
Greif Nig	21	2018	0.86	0.43	1	37
Greif Nig	21	2019	0.65	0.23	1	38
Greif Nig	21	2020	0.78	0.32	1	39
Greif Nig	21	2021	0.97	0.23	1	40



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Greif Nig	21	2022	0.87	0.43	1	41
Larfarge Africa Plc	22	2013	0.56	0.32	1	42
Larfarge Africa Plc	22	2014	0.55	0.12	1	43
Larfarge Africa Plc	22	2015	0.53	0.23	1	44
Larfarge Africa Plc	22	2016	0.62	0.23	1	45
Larfarge Africa Plc	22	2017	0.64	0.22	1	46
Larfarge Africa Plc	22	2018	0.74	1.25	1	47
Larfarge Africa Plc	22	2019	0.84	0.34	1	48
Larfarge Africa Plc	22	2020	0.83	0.34	1	49
Larfarge Africa Plc	22	2021	0.99	0.38	1	50
Larfarge Africa Plc	22	2022	0.76	0.32	1	51
Meryer Plc	23	2013	0.71	0.09	1	26
Meryer Plc	23	2014	0.83	0.87	0	27
Meryer Plc	23	2015	0.84	0.65	0	28
Meryer Plc	23	2016	0.85	1.65	1	29
Meryer Plc	23	2017	0.89	1.55	1	30
Meryer Plc	23	2018	9.60	1.98	1	31
Meryer Plc	23	2019	0.98	1.09	1	32
Meryer Plc	23	2020	0.99	1.34	0	33
Meryer Plc	23	2021	0.87	1.35	0	34
Meryer Plc	23	2022	0.76	2.03	0	35
Premier Paint Plc	24	2013	0.43	0.86	1	6
Premier Paint Plc	24	2014	0.42	0.65	1	7
Premier Paint Plc	24	2015	0.45	0.87	1	8
Premier Paint Plc	24	2016	0.56	0.65	1	9
Premier Paint Plc	24	2017	0.66	0.12	1	10
Premier Paint Plc	24	2018	0.67	0.11	1	11
Premier Paint Plc	24	2019	0.89	0.14	1	12
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Premier Paint Plc	24	2020	0.87	0.23	1	13
Premier Paint Plc	24	2021	0.95	0.11	1	14
Premier Paint Plc	24	2022	0.99	0.24	1	15
Tripple Gee Company	25	2013	0.74	0.16	1	20
Tripple Gee Company	25	2014	0.76	0.32	1	21
Tripple Gee Company	25	2015	0.75	0.45	0	22
Tripple Gee Company	25	2016	0.77	0.12	0	23
Tripple Gee Company	25	2017	0.87	0.13	0	24
Tripple Gee Company	25	2018	0.98	0.23	1	25
Tripple Gee Company	25	2019	0.87	0.13	1	26
Tripple Gee Company	25	2020	0.76	0.24	1	27
Tripple Gee Company	25	2021	0.65	0.23	1	28
Tripple Gee Company	25	2022	0.67	0.23	1	29

Source: Audited Financial Report (2023)