

Effect of Environmental Cost Disclosure on Financial Performance of Listed Consumer Goods Firms in Nigeria

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ABSTRACT

The intention to inquire into the effect of environmental cost disclosure on the financial performance of listed consumer goods firms in Nigeria motivated this study. The study adopted an ex-post factor research design, The Panel data were sourced from annual reports and fact books of listed consumer goods firms for the period of ten (10) years spanning from 2012-2021. Regression analysis was carried out with the aid of EVIEWS 10.0. Waste Management Cost was used as proxy to Environmental Cost Disclosure (independent variable) while Net Profit Margin (NPM) and Earning Per Share (EPS) served as proxies to Financial Performance (dependent variable). Results from the analysis carried out proved that Environmental Cost Disclosure significantly affect Financial Performance of listed consumer goods firms in Nigeria. The study recommends that disclosure should be quantitative in nature, in other to have an overall view of firms' performance and that single report of environmental disclosure and financial performance should be made available to stakeholders.

Keywords: *Environmental Cost Disclosures, Financial Performance, Net Profit Margin, Earnings Per Share, Waste Management Cost, Leverage, Consumer Goods Firms*

1.0 Introduction

Financial performance is used as a tool to measure current development and potential growth of an organisation. Although there are many indicators estimating financial performance, the choice of applicable ratios depends on the features of studied objects and study purposes (Kim, Duvernay & Thanh, 2021). Profitability is a commonly used indicator of firm performance. Consequently, it is in the best interest of every organization to maximize their profit to please shareholders,

attract new capital and to ensure continued operations (Kant, 2018). The profitability of corporations is significantly influenced by the types of businesses they engage in as well as any relevant legal, political, and environmental regulations, which are important elements of public policy within the context of their operations (Acti, Ifurueze, Lyndon & Bingilar, 2013). The environment practically affect business operations which in turn could either have favorable or adverse effect on the profitability of an entity as well as distort

natural endowment and the living condition of the society where the organization is situated as evidenced in the oil and gas crises of the Niger Delta region of Nigeria. According to Igbekoyi, Solanke, Adeusi, Alade&Agbaje (2021), the resultant effects of the activities of these corporations negatively affect the social and ecological well-being of the society. Environmental alterations, such as global warming, health care, and poverty, are increasingly posing severe challenges. Nature fragmentation and loss of biodiversity, freshwater shortages, overfishing of the seas, global climate change, extreme weather events, air pollution, environmental pollution, environmental noise, and absolute disdain for the immediate surroundings, much less the future environment, are all causes for concern (Alhassan, Anwarul-Islam and Haque, 2021; Solomon, 2020). Ojiakor and Obodoekwe (2018) explained Environmental Cost Disclosure deals with environmental costs in order to reach the full cost accounting. Conventional accounting disclosure in financial reports of companies is limited to the extent of performance information such that environmental impacts are not included, thus may not show a true and fair view of aggregate organizational performance. As a result, the adverse effect of business activities on the stakeholders has necessitated the clamour for more information disclosure requirements in conformity with global best business practices (Ndlovu & Dzomira, 2021).

Since the 1970s, the need for organization to improve on the environment in order to continue in business as well as the living standard of the people living within which the organization is established has been a great concern to researchers and governments of many nations. Environmental Protection Agencies of most countries are saddled with the responsibilities of protecting people and the environment from significant health risks, sponsoring and conducting research, as well as

developing and enforcing environmental regulations. Nigeria is one of the many nations in the globe that have enacted a number of environmental protection laws and rules. In response to the rising awareness of the need to protect the environment, legislation such as the Environmental Impact Assessment Act of 1992 was passed (Aina, Adedipe & Federal Environmental Protection Agency (1991).

In view of the above, various environmental theories such as the legitimacy, stakeholders and polluter pays principles theories among others have been incorporated in research studies to address the need for organizations to disclose more information regarding their activities as it affects their environment and the society. Thus, Environmental Management Systems (EMS) have emerged as a means of systematically applying business management to environmental costs to enhance a firm's long-run financial performance in order to develop processes and products that can simultaneously improve competitive and environmental performance (Falope and Offor 2021).

Based on the idea that organizations have obligations beyond just maximizing shareholders' value, this extension calls for a reasonable level of environmental cost disclosure. In this situation, robust corporate governance is ensured through a comprehensive strategy that also includes openness in the company's social initiatives.

The fact that environmental cost disclosure concept and methodology are so little understood presents a critical problem that has to be resolved. Financial statements of a firm cannot be claimed to give a "true and fair picture of events" if serious environmental issues and practices that have an impact on the firm are not mentioned. It is important to remember that moral investors will only back morally pure companies, thus they will look

out for these firms. It is on the premise of the above background that this study is set out to explore the effect of environmental cost disclosure on financial performance of listed consumer goods firms in Nigeria.

The broad objective of this study is to analyze the financial performance of listed consumer goods firms in Nigeria based on the effect of environmental cost disclosure. Specifically, the objectives of the study are to: (i) to ascertain the extent to which environmental cost affects net profit margin of listed consumer goods firms in Nigeria and (ii) to determine the effect of environmental cost disclosures on earnings per share of listed consumer goods firms in Nigeria. Achieving the above objectives would have both theoretical and practical implications. Theoretically, ascertaining the effect of environmental cost disclosure on the financial performance of corporate firms would make this work to stand as a veritable reference material for future researchers who are working on environmental cost disclosure, hereby advancing the frontiers of knowledge. Practically, the findings of this study would be useful to policy makers, prospective investors and other stakeholders in the Nigerian consumer goods sub-sector of the Nigerian economy.

To better realize the essence of this study, we hereby advance the following questions for an appropriate review of the objectives of this study. They are: (a) how has environmental cost disclosure effected the net profit margin of a listed consumer goods firms in Nigeria? (b) how has environmental cost disclosure effected the earnings per share of listed consumer goods firms in Nigeria?

The null hypotheses of the study are expressed as follows:

H₀₁: Environmental cost disclosure has no significant effect on Net Profit Margin

(NPM) of listed consumer goods firms in Nigeria.

H₀₂: Environmental cost disclosure has no significant effect on Earning Per Share (EPS) of listed consumer goods firms in Nigeria.

2.0 Literature Review

The main objective of this study is to examine the effect of environmental cost disclosure on financial performance of listed consumer goods firms in Nigeria. This section covers review on prior studies on the subject matter as regard the concept of Environmental Cost Disclosure, financial performance concept, and theoretical framework. This review shows what has been done on the subject matter which has informed this study.

2.1 Conceptual Review

Environmental Cost disclosure (ECD) Concept

Environmental Cost Disclosure (ECD) is a complex term. Other terms such as environmental disclosure, environmental cost accounting, environmental accounting, Environmental accounting disclosure etc have been used interchangeably by various researchers to mean same. But Ojo and Balogun (2019) are of the opinion that the term is diversified in meaning. According to Bello and Ogungbenle (2022) Environment Cost Disclosure, though, viewed from different perspectives, it is however focused towards the same direction. But for the purpose of this study, the term Environmental Cost Disclosure (ECD) would be adhered to.

Nwambeke, Udama and Oko (2019) described ECD as a practice of integrating environmental management principles and conservation principles into reporting practice and cost/benefit analysis. According to Lyndon and Otuya (2018), ECD is the process of communicating the social and environmental effects of an organisation's economic actions

to particular interest groups and the society at large through the annual report.

From the view point of Bartolomeo et al. (2000), Environmental Cost Disclosure (ECD) plays significant roles of generating, analyzing and using financial and non-financial environment related information so as to improve organizational financial and environmental performance. Also, Burritt, Hahu, Schaltegger (2001), reported that Environmental Cost Disclosure (ECD) is able to generate information about the use of resources with environmentally related impacts on the financial position and performance of companies.

Solomon (2020) summarized ECD as the information that relates to the environmental activities, which could be in the past, present or future, and should be made available to the public on annual bases. The nature of this information could be financial and non-financial information and quantitative or qualitative. ECD covers all information relating to the environment, this information is disclosed or made available through the company's annual report. ECD entails that a company is required by law to voluntarily or statutorily provide environmental information in annual reports. It can be inferred also that ECD communicates relevant information as a result of the companies operations as it affects the environment to stakeholders and society as a whole.

Waste Management Cost (WMC)

Waste product is a general phenomenon carried out in both private (human) and public (industrial) world and if not managed properly, could lead to environmental and human hazard. Waste according to the GRI Standard Glossary (2020), is anything that the holder discards, intends to discard, or is required to discard and the waste disposal method is the method by which waste is treated or disposed

of which could include composting, reuse, recycling, recovery, incineration, landfill, deepwell injection, and on-site storage. It further explained that Environmental protection expenditures also include expenditures on disposal, treatment, sanitation, and clean-up

Nwaiwu and Oluka (2018) posited that handling of the waste constitutes environmental costs. The cost of waste transportation is also considered an environmental cost to include depletion of natural resources, noise and aesthetic impacts. Residual air and water emissions, long-term waste disposal.

Financial Performance Concept

Magara, Aming'a and Momanyi (2015) asserted that financial performance is a measure used by management of a firm as a proof of stewardship to shareholders such that it is used as an indicator of firms' financial health over a given period of time and could be measured in different ways including profitability, liquidity, market share growth, gauge return, return on equity and return on investment. Financial performance is a measure of how an organization is able to satisfy the owners typically by way of profit maximization or shareholders wealth; it could also be seen as a measure of both financial and non-financial performance by way of satisfying all the stakeholders of the firm (Jaroslava, 2014 cited in Mohammed, Alhassan and Mohammed, 2022). In this study, financial performance is measured by Net Profit Margin (NPM) and Earnings Per Share (EPS).

Net Profit Margin (NPM)

The net profit margin is a measure of a company's overall profitability. It is the ratio of net profits to revenues of a firm, expressed as a percentage. The net profit margin shows how much profit is generated from every ₦1 in

sales, after accounting for all business expenses involved in earning those revenues. Larger profit margins mean that more of every naira in sales is kept as profit.

Earnings Per Share (EPS)

EPS in simple terms shows the theoretical value per share that a firm is worth. It is used by investors and analysts to assess company performance, to predict future earnings, and to estimate the value of the company's shares. The higher the EPS, the more profitable the firm is considered to be and the more profits are available for distribution to its shareholders.

2.2 Empirical Review

In order to draw sound findings to improve the attainment of the specified objectives, this study looked through a sizable amount of regional and worldwide literature on the topic.

Malarvizhi and Ranjani (2016) in their studies determine whether there is any correlation between Corporate Environmental Disclosure (CED) and firm performance of particular businesses listed on the Bombay Stock Exchange (BSE), India. By creating an environmental disclosure index (EDI) and establishing hypotheses, the authors employ content analysis methods to investigate the relationship between corporate performance and the extent of environmental disclosure. Primary data were gathered utilizing a questionnaire tool. In the same vein, Shehu (2014) uses selected firm financial statements from all quoted oil companies listed on the Nigerian Stock Exchange to assess the impact of environmental expenditure on the performance of mentioned Nigerian oil companies during a twelve-year period (1999-2010). The author used ROA and three independent variables, the cost of environmental remediation and pollution control (ERPC), the cost of environmental laws compliance and penalties (ELCP), and

donations and charitable contributions in Nigeria. The data was analyzed using multiple regressions (DCC).

More so, Bassey et al. (2013), conducted research on the effects of environmental accounting and organizational performance on the oil and gas industry in the Niger Delta. The analysis made use of the Pearson product moment of the correlation coefficient. The study found a connection between environmental expenses and economic profitability. The study concluded that in order to maintain control and track performance, firms should have a consistent reporting and disclosure strategy for environmental issues. Similarly, Arong et al. (2014) investigated how environmental expenses impacted Nigeria's oil sector's profitability. The analysis was carried out using analytical multiple regression. According to the report, there is a significant link between the oil industry's profitability in Nigeria and the effect of environmental costs. Consistency in policies was advised by the study in order to improve external reporting and statistics on environmental costs.

Pek and Luky (2012) investigated how environmental spending affected the performance of publicly traded Nigerian oil businesses. For its data analysis, the study used multiple regressions and correlation. The study found that the performance of Nigerian oil businesses that are publicly traded is significantly impacted by environmental investment. Triggered by the above perspective, Tapang, Bassey, and Bessong (2012) explored how environmental practices affected the profitability of Nigerian oil businesses. Data gathered from an internal management report were analyzed using the ordinary least squares approach. The study discovered a link between environmentally friendly practices and financial success. The study concluded that in order to boost their profitability, Nigerian petroleum businesses

need assure appropriate control of environmental costs.

Agbiogwu et al. (2016) looked into the impact of environmental sustainability-related spending on Nigerian business performance. Regression analysis was employed in the study. The study found that while environmental expenditures have a negative influence on corporate organizations' income, they also have a positive impact on their profitability. The study concluded that in order to maintain organizational performance, local and international businesses should make sure that strict environmental accounting standards are strictly followed.

Magara et al. (2015) investigated the link between Indian companies' environmental performance and financial success. In the investigation, the Granger causality test was used. The study found a clear correlation between a firm's return on equity (ROE), return on asset (ROA), return on sales (ROS), and energy intensity, but an inverse association between return on capital employed (ROCE) and energy intensity (EI). The study concluded that policymakers and practitioners should adopt environmentally friendly technologies and encourage Indian businesses to do the same.

Acti, et al. (2013) looked into how Niger Delta oil company performance was impacted by environmental costs. The analysis of multiple regressions was used in the study. The study discovered a strong correlation between corporate performance and sustainable business strategies. In order to provide a conflict-free workplace environment, the study recommended that management of oil corporations in the Niger Delta adopt a well-articulated environmental costing system. In the same vein, Aert et al. (2016) examined the impact of environmental accounting on the financial performance of Nigerian firms. The

study employed the traditional least squares regression methodology. The study found a strong association between environmental accounting disclosure and firms' profitability since environmental accounting is influenced by firm-specific factors such as firm size and industry type. According to the study, both individual and environmental disclosures may have an impact on firm-specific financial performance measures.

Oluwafemi, David, Yetunde, Olayinka, Adetunmbi and Simon (2018) investigated the impact of environmental cost on the financial performance of listed manufacturing companies in Nigeria for the period 2008 - 2016 using panel data. Descriptive statistics of trend analysis was adopted in examining the pattern of environmental cost (measured by employee benefit, donation and staff training) and financial performance (measured by return on equity) of manufacturing companies in Nigeria from the period of 2008 – 2016. Their study concluded that environmental cost variables (employee benefit and staff training) and firm size have positive and significant outcome on financial performance as measured by return on equity of the sample listed manufacturing companies.

Solomon (2020) carried out a review on literature regarding environmental disclosure and financial performance of listed oil and gas companies in Nigeria. The aim of the study was to identify the possible factors responsible for the mixed results obtained from existing empirical works. According to her, the disparity in results could be due to the voluntary nature of environmental disclosure in Nigeria, in presenting environmental information, to ensure consistency in reporting environmental issues, there is no definite accounting standards but rather guidelines in Nigeria. She however recommended that government should come up with clearly

defined policies, standards on environmental disclosure and ensure its implementation.

Erinoso and Oyedokun (2022) in their study to investigate the effect of environmental disclosure and audit on the financial performance of eleven (11) listed and sampled oil and gas companies on the Nigerian Stock Exchange (NSE) from the period of 2011-2020 found out that environmental disclosure has a significant effect on returns on assets (ROA), Profits After Tax (PAT) and returns on equity (ROE) of listed oil and gas companies in Nigeria and that environmental Audit has no significant effect on returns on assets (ROA) and Profits After Tax (PAT), but it significantly affects the returns on equity (ROE). They concluded that environmental disclosure and audit advances the financial performance of the selected oil and gas companies.

Tiamiyu, Oyedokun and Adeyemo (2021) conducted a study on environmental accounting disclosure and financial performance of 15 listed manufacturing companies in Nigeria, gotten from the NSE, (from the period of 2010 – 2019) using panel regression model as data analysis and found that a positive significant relationship exist between financial performance and environmental disclosure. The listed companies include, Flour Mills of Nigeria Plc, Glaxo Smithkline Consumer Nigeria (Glaxo) Plc, Guinness Nigeria Plc, May & Baker Nigeria Plc, Berger Paints Plc, Dangote Cement Plc, PZ Cussons Nigeria (PZ Industries) Plc, Nestlé Nigeria Plc among others. Profit after tax (PAT) was used as proxy for financial performance while age, size and firm growth served as control variables.

Lyndon and Orivri (2021) examined the effect of environmental accounting and financial performance of quoted food and beverage companies in Nigeria from the period of 2010

- 2019. Their study targeted the entire quoted companies in the food and beverage sector of the industry with a sample size of ten (10) quoted food and beverage manufacturing firms in Nigeria namely, Cadbury Nig. Plc, Gunnies Plc, Honeywell Flour Mills Plc, Northern Nigeria Flour Mills Plc, National Salt Company Plc, Flour Mills of Nigeria Plc, Champion Breweries Plc, Dangote Sugar Refinery Plc, Flour Mills of Nigeria Plc and Nestlé Nigeria Plc. In their study, Net profit margin, earnings per share and dividend per share were proxies for financial performance, while environmental cost and waste management cost were used as proxies for the independent variables. Ordinary Least Square method used to examine the degree to which environmental accounting influence the performance of food and beverage manufacturing firms. The regression coefficient found that environmental cost have positive and non-significant effect on net profit margin, earnings per share and dividend per share, while waste management cost have positive and significant effect on the net profit margin, dividend per share and earnings per share. They concluded that environmental waste management had significant effect on financial performance of the quoted food and beverage companies in Nigeria. Thus, the management of the quoted food and beverage companies should make more investment in environmental waste management practices to sustain and improve upon their current level of financial performance.

2.3 Theoretical Framework

This study will be predicated on the assumption of Legitimacy Theory. This theory was put out by O'Donovan and Gary in 2000. The theory contends that organizations continuously endeavor to ensure that they operate within the bounds and norms of their specific cultures. If management thought that the communities it serves would expect certain acts, a company might voluntarily report on

them. The notion that a company and the society in which it operates share a "social compact" is the cornerstone of legitimacy theory (Dowling & Pfeffer, 1975). A legitimacy gap, according to Gunningham, Kagan, and Thornton (2004), occurs when an organization's actions differ from what "relevant publics" anticipate of it. According to Hybels (1995), the legitimacy of an entity is threatened when there is a legitimacy gap and when there is a mismatch between the two value systems, whether actual or projected.

Legitimacy is a resource that is crucial to an organization's survival, claims Mobus (2005). The legitimacy hypothesis, according to Owen (2008), holds that managers would take steps to ensure the ongoing availability of a resource whenever they believe it is important for the existence of their company. This is consistent with resource dependence theory (Scott, 2001). Making just certain disclosures, persuading or collaborating with persons who are viewed as legitimate in and of themselves, or all three of these strategies, might be used.

According to the legitimacy hypothesis, if management believes that an organization's actions are inconsistent with the social compact, the business may take corrective action to become legitimate (Suchman, 1995). Since the idea is dependent on perceptions, corrective action must be followed by public disclosure in order to affect third parties (Tilling & Tilt, 2010). This idea is pertinent to the study since a firm's performance level is dependent on the social norm.

3.0 Methodology

3.1 Research Design

This study employed content analysis and ex post facto research design as it investigates the link between an independent variable and a dependent variable in terms of cause and effect. In addition to this, ex post facto research design speculates how the independent

variable, which is the one that is not being controlled or modified, influences or affects the dependent variable (Asika, 2005).

3.2 Population, Sample Size and Sampling Technique

The population size for this study are the 21 consumer goods firms listed on the Nigerian Stock Exchange (NSE) as at December, 2021 out of five (5) firms constitutes the sample size. The firms are: Nestle Nigeria Plc, Cadbury Nigeria Plc, Dangote Sugar Refinery Plc, Unilever Nigeria Plc, and Guinness Nigeria Plc. Purposive sampling techniques was employed in selecting these firms based on size and age.

3.3 Source of Data

Secondary data were used in this study. The Panel data were sourced from annual reports and fact books for the period of ten (10) years spanning from 2012-2021.

3.4 Method of Data Analysis

This study took information disclosed by consumer goods firm from 2012 to 31 December 2019 into account. Standalone sustainability report, and annual report were used to generate data. First, this study examined whether a company has reported environmental cost. For those that did, the study would further evaluated the sustainability reporting level by generating a score using a measurement developed by Global Reporting Index (GRI) guidelines. The environmental cost disclosure index was calculated based on the number of indicators that are disclosed and the level of disclosure (quantitative and qualitative). If a company disclosed about any indicator, that is the occurrence of an indicator in the company's financial statement, the researcher assigned 1 or that company did not disclosed about any indicator, the researcher assigned 0. On the other hand if the level of the indicator disclosed is qualitative the researcher assigned

2 and a quantitative disclosure the researcher assigned 3.

$$\text{Environmental Cost Disclosure index} = \frac{\text{Total Level of Disclosure}}{\text{Total Occurrence (12x3)}} = 36$$

To ensure that the dataset was properly analyzed, this study employs the descriptive statistics and the Panel Regression analysis. With the descriptive statistics, this study measures and characterizes the fundamental aspects of a data set. More so, descriptive statistics serves as a starting point for data analysis, enabling researchers to organize, simplify, and summarize the data that they have collected. In a panel data model, the analysis accounts for both group and individual dynamics as this would allow for the detection and measurement of statistical effects that would be missed by using only pure time series data or cross-sectional data. In addition, the study has more information, variability, and efficiency. These statistical analyses would be carried out with the aid of EVIEWS 10.0.

3.5 Model Specification

To test H01, and H02, this study estimated the following regression equations. The equation examined the relation between Environmental cost disclosure and financial performance of listed consumer goods firms in Nigeria. To achieve, the regression model is estimated as follows:

$$\text{NPM} = \beta_0 + \beta_1 \text{WMC} + \beta_2 \text{LEV} + \mu \dots \text{H01}$$

$$\text{EPS} = \beta_0 + \beta_1 \text{WMC} + \beta_2 \text{LEV} + \mu \dots \text{H02}$$

Where,

NPM = Net Profit Margin representing the profit making of a consumer goods firms in Nigeria

EPS = Earnings per Share representing the corporate performance of consumer goods firms in Nigeria

WMC = Waste Management Cost, which is a proxy for Environmental Cost Disclosure

LEV = Leverage, which serves as a control variable.

β_0 , β_1 and β_2 are the parameters to be estimated while

μ is the error term.

4.0 Results and Discussion

4.1 Summary of Descriptive Analysis

Table 4.1

	NPM	EPS	WMC	LEV
Mean	0.079237	88.93520	0.412260	2.054622
Median	0.083450	29.01500	0.328700	1.435767

Maximum	0.279500	964.0000	0.925900	13.51190
Minimum	-0.122600	-574.0000	0.111100	0.473022
Std. Dev.	0.079841	226.3921	0.235509	2.202897
Skewness	-0.473272	1.713426	0.771112	3.320201
Kurtosis	3.549434	9.168437	2.331322	16.31385
Jarque-Bera	2.495464	103.7353	5.886639	461.1532
Probability	0.287155	0.000000	0.052691	0.000000
Sum	3.961851	4446.760	20.61300	102.7311
Sum Sq. Dev.	0.312357	2511416.	2.717756	237.7851
Observations	50	50	50	50

Source: Researchers' Computation obtained from EVIEWS 10.0.

Result from Table 4.1 above shows that all the employed variables have positive mean return. In this, the study noted a better performance analysis with the Earnings per Share. This explains that within the period under review, Earnings per Share of the listed consumer good firms outperformed other variables employed in this study. This is proved by the higher mean value of 88.93520. A further evaluation of the level of consistency in their performance, the above table informs that Waste Management Cost which is a proxy to Environmental Cost

Disclosure was more consistent in performance than other variables engaged in this study. This is proved by the deviation from its mean (with a low deviation value of 0.235509).

With the Jarque-Bera analysis, the study shows that only EPS and LEV were normally distributed, as the higher probability values of 0.287155 and 0.052691 for NPM and WMC respectively informs that the variables are relatively normally distributed.

4.2 Summary of Regression Analysis and Interpretation of Results

4.2.1 H₀₁: Environmental cost disclosure has no significant effect on Net Profit Margin (NPM) of listed consumer goods firms in Nigeria.

Table 4.2.1

Variable	Coefficient	Std. Error	t-Statistic	Prob.
WMC	-0.158816	0.047546	-3.340218	0.0017
LEV	-0.005624	0.004372	-1.286332	0.2052
C	0.156266	0.024150	6.470619	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.549821	Mean dependent var	0.079237
Adjusted R-squared	0.487005	S.D. dependent var	0.079841
S.E. of regression	0.057185	Akaike info criterion	-2.755865

Sum squared resid	0.140617	Schwarz criterion	-2.488182
Log likelihood	75.89662	Hannan-Quinn criter.	-2.653929
F-statistic	8.752915	Durbin-Watson stat	1.738152
Prob(F-statistic)	0.000003		

Source: Researchers' Computation obtained from EVIEWS 10.0.

Table 4.2.1 show the regression analysis result of the effect of environmental cost disclosure on the net profit margin of listed consumer goods firms Nigeria. The result informs the existence of a negative relationship. This proves that a unit change in Net Profit Margin (NPM) of listed consumer goods firms in Nigeria would cause a shortfall in the environment cost disclosure by 0.158816. With the R^2 value of 0.549821, this study informs that at least, 55% of the changes experienced in financial performance of listed consumer goods firms in Nigeria are explained by the independent variable employed in this study, with the remaining 45% being explained by other variables not included in the model and which the error term has taken care of. Thus, it shows a very strong determination of the model. With the F-value of 8.752915 and its

corresponding probability value of 0.000, it shows that the independent variables employed in this study were statistically significant in explaining the performance of the dependent variable within the period under review. With the t-value of -3.340218 and a corresponding p-value of 0.0017, it shows that environmental cost disclosure significantly affects Net Profit Margin (NPM) of a consumer goods firm in Nigeria within the period under review. This is proved by the probability value of 0.0017 which is less than the 5% Level of Significance, as such, the null hypothesis is rejected and the alternative hypothesis which expressed that environmental cost disclosure has significant effect on Net Profit Margin (NPM) of listed consumer goods firms in Nigeria is accepted.

4.2.2 H₀₂: Environmental cost disclosure has no significant effect on Earning Per Share (EPS) of listed consumer goods firms in Nigeria.

Table 4.2.2

Variable	Coefficient	Std. Error	t-Statistic	Prob.
WMC	-413.9952	165.3477	-2.503785	0.0162
LEV	-3.879876	15.20535	-0.255165	0.7998
C	267.5805	83.98452	3.186070	0.0027

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.322861	Mean dependent var	88.93520
Adjusted R-squared	0.228376	S.D. dependent var	226.3921
S.E. of regression	198.8676	Akaike info criterion	13.55233
Sum squared resid	1700578.	Schwarz criterion	13.82002
Log likelihood	-331.8083	Hannan-Quinn criter.	13.65427
F-statistic	3.417076	Durbin-Watson stat	1.151641
Prob(F-statistic)	0.007588		

Source: Researchers' Computation obtained from EVIEWS 10.0.

Table 4.2.2 show the regression analysis result of the effect of environmental cost disclosure on Earnings Per Share (EPS) of listed consumer goods firms in Nigeria. The result informs the existence of a negative relationship. This proves that a unit change in the EPS of listed consumer goods firms in Nigeria would cause a shortfall in the environment cost disclosure by 413.9952. With the R^2 value of 0.322861, this study informs that at least, 32% of the changes experienced in the corporate performance of listed consumer goods firms in Nigeria are explained by the independent variables employed in this study, with the remaining 68% being explained by other variables not included in the model and which the error term has taken care of. Thus, it shows a weak determination of the model. With the F-value of 3.417076 and its corresponding probability value of 0.007588, it shows that the independent variables employed in this study were statistically significant in explaining the performance of the dependent variable within the period under review. With the t-value of -2.503785 and a corresponding p-value of 0.0162, it shows that environmental cost disclosure significantly affects Earning Per Share (EPS) of listed consumer goods firms in Nigeria within the period under review. This is proved by the probability value of 0.0162 which is less than the 5% Level of Significance, as such, the null hypothesis is rejected and the alternative hypothesis which expresses that Environmental cost disclosure has significant effect on Earning Per Share (EPS) of listed consumer goods firms in Nigeria is accepted.

5.0 Conclusions and Recommendations

5.1 Conclusions

This study examined the effect of environmental cost disclosure on financial performance of listed consumer goods firms in

Nigeria. Results from the analysis carried out proved that Waste Management Cost (proxy to Environmental Cost Disclosure) significantly affects both Net Profit Margin (NPM) and Earning Per Share (EPS) (proxies to Financial performance) of listed consumer goods firms in Nigeria. This finding is consistent with the study carried out by (Emeke, Olaoye, & Ogundajo, 2021); (Ahmad, Simon & Mohammad, 2017); (Agbiogwu, Ihendinihu & Okafor, 2016). This shows that Environmental Cost Disclosure could raise the living standard of the of the host communities where the firms are established,

5.2 Recommendations

The findings of the study show that Environmental Cost Disclosure could raise the living standard of the host communities where the firms are established; hence the following recommendations are hereby put across for consideration and implementation by relevant stakeholders:

1. Environment Cost Disclosure should make mandatory.
2. In other to have an overall view of firms' performance single report of environmental disclosure and financial performance should be made available to stakeholders.
3. The audited annual reports of companies should include the term "environmental cost disclosure". This would present a truly "free and fair" of the companies.
4. Environment Cost Disclosure should be quantitative.
5. Waste management policies should be upgraded to accommodate meet yearning needs of the host communities.

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