

Full Length Research

An Evaluation of the Effects of Corporate Environmental Performance on Earnings Management in the Nigerian Insurance Sector.

Anusike N. Augustina¹ and Haliru. Y. Umar²

¹Internal Audit Unit, Rubber Research Institute of Nigeria, Benin City, Edo State

²Socio-Economic Division, Research Outreach Department; Rubber Research Institute of Nigeria, Benin City, Edo State
Correspondence email: haliru.umar@gmail.com

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The study evaluated the effects of Corporate Environmental Performance on Earnings Management in the Nigerian Insurance sectors. Both primary and secondary data were collected and used for the study. The sample population used in the study was ten (10) Insurance Companies deliberately selected due to availability of the information considered necessary for the study. Descriptive and Inferential statistics were both used in the analysis of the data collected. Findings in the study revealed that both Corporate Social Performance and Corporate Environmental Performance had negative effects on Earning Management in the Nigerian Insurance Companies; while the Corporate Economic performance had positive effects on Earning Management of the selected Insurance Companies in Nigeria.

Key words: Corporate, Environmental, Earnings, Management, Performance

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INTRODUCTION

In the last decade, both business practitioners and policy makers have placed an increasing attention on firms' social responsibility practices as these are of interest not only to firms but also to society as a whole (McWilliams & Siegel, 2020; Orlitzky, Schmidt, & Rynes 2022). Corporate Social Responsibility (CSR) as a concept has attracted worldwide attention and acquired a new significance in the global economy (Beatty, M. 2022). Keen interest in CSR in recent years has stemmed from the introduction of globalization and international trade, which have reflected in increased business complexities and new demands for enhanced transparency and corporate citizenship (Jamali & Mirshak, 2017). Moreover, while governments have traditionally assumed sole responsibility for the improvement of the living conditions of their populace, society's needs have exceeded the capabilities of governments to fulfill. In this context, the spotlight is increasingly turning to focus on the role of business in the society while companies are seeking to differentiate themselves through engagement in corporate social responsibility.

Corporate social responsibility has received growing interest from accounting scholars over the past couple of decades after the financial crisis that hit globe as a result of earning management by managers. The linkage between corporate social responsibility and earnings management has however, been a controversial issue among scholars as there has not been a consensus regarding the impact that corporate social responsibility would have on the firm. The classical view of corporate social responsibility was narrowly limited to philanthropy and then shifted to the emphasis on business-society relations particularly referring to the contribution that a corporation or firm provided for solving social

problems. In the early twentieth century, social performance was tied up with market performance. The pioneer of this view, Oliver Sheldon, 1923, cited in Bichat, (2023), however, encouraged management to take the initiative in raising both ethical standards and justice in society through the ethic of economizing that is to economize the use of resources under the name of efficient resource mobilization and usage.

Ostman, V. and Sharp, O.(2022) argue that corporate social responsibility activities may not however be wholly motivated by a firm's social standing – managers may report CSR in pursuit of their self-interest. Some schools of thought argue that managers use corporate social responsibility as a tool to protect their own careers. One way of achieving this is to use CSR reporting as a shield in covering earnings management (Ostman *et al.*, 2022).

Earnings management on the other hand, the employment of accounting methods to prepare financial report that presents an exaggeratedly affirmative view of a firm's business activities and financial position. Earnings management is termed management activities which lower the quality of the financial statements (Kinney Jnr, Palmrose & Scholz, 2020). Chen, D. and Hung (2021) explain that, earnings management takes place when the manager exercises choices over accounting numbers. Lev (2018) opined that managers will only engage in earnings management if they believe that users of accounting information (investors, government, managers) cannot completely adjust the accounting numbers to remove the effect of earnings management.

Dinmitropoulos, U. (2020) is of the opinion that earnings management lowers earnings quality and whittles down the predictive ability of future earnings and cash flows. Moreover, Ehsan, C. Begun, T. and Maulud, J. (2022) argue that managing earnings is more pronounced in manufacturing firms which, when compared to other similarly-sized firms in other sectors, tend to have more complex financial transactions and high volatility in cash flows. The manufacturing sector in the EU is declining (Marschinski & Martinez, 2019), and to exacerbate the situation, the sector happens to be constantly under pressure in the union to improve its environmental-friendly credentials (Masud, 2019). However, most studies on this subject matter tend to focus on the major listed manufacturing firms and very few focuses on the financial sector. While other prior studies view corporate social responsibility from holistic standpoint, Dinmitropoulos, U. (2020), disintegrated the concept into Corporate Environmental Performance, Corporate Social Performance and Corporate Economic Performance of which this study intend to relate these variables with earnings management, hence the need for this study.

RESEARCH METHODOLOGY

This study utilized a panel data design which is a combination of both cross-sectional and time-series design properties. Panel analysis permits the researcher to study the dynamics of change with short time series. This study also used the secondary information extracted from selected companies to analysis their annual financial report. The population for this study consists of all the 22 listed insurance companies in Nigerian Exchange group as at 31stDecember, 2022. However, a simple random sampling technique was employed to give all members of the population equal opportunity to be selected for the study. Thus, ten firms, whose financial reports have been published and made available to the public from amongst 22 firms were inevitably chosen. The selection of ten firms by the researchers was a deliberate decision as the researcher found it more convenient and convincing to work with those ones largely as a result of certain qualitative elements observed in and around their reports (such as timeliness of report, comparability and so on) for the period under review.

The data employed for the purpose of analysis in this study were basically secondary data.

Model Specification and Data Analysis:

The study used both descriptive and inferential statistics, such as correlation and multiple regression technique to analysis the data. Multiple regression technique has been proved to be a popular and powerful tool in developing business and economic models for analyzing relationships between variables. The reason behind the selection of multiple regressions in this study was that, it allows the calculation of values of the coefficients of the independent variables in the model to justify the relative contribution of each independent variable in determining the dependent variable.

Operationalization of Variables

Table 1: Variable Definition

	Variables	Proxy	Measurement	Sources
Dependent Variable (Firm Performance)				
	Earnings Management		Discretionary accrual	Jones (2011)
Independent Variables				
	Corporate Environmental Performance	CEnP	Fund spend on Environmental sustenance	Ullah and Kamal (2017)
	Corporate Social Performance	CSP	Fund spend on Social Welfare	Ullah& Kamal (2017)
	Corporate economic Performance	CEP	Funds spent on infrastructure	Ogundipe et al. (2012) Hackenback, 1993; &Ndaman, 2013.

Source: Researcher's Compilation (2023)

Data Presentation (Descriptive Statistics)

The descriptive statistics for the variables are shown in Table 1.

Table 1. Descriptive Statistics

	EM	CSP	CEP	CEnP
Mean	0.127400	19076.68	43552.73	10482.38
Maximum	0.380000	82912.00	254008.0	35988.00
Minimum	-0.100000	1743.000	1.040000	1032.000
Std. Dev.	0.096981	18505.19	35761.02	5821.671
Skewness	-0.178673	1.605933	2.113584	1.013559
Kurtosis	3.117046	5.025864	12.99533	5.558455
Jarque-Bera	8.589146	60.08420	490.7317	44.39543
Probability	0.0044849	0.000000	0.000000	0.000000

Source: Researcher's computation (2023)

This enables researchers to examine the predictor variables and see how much difference in performance they can explain. The variables' statistics are shown in Table 1. The EM is 0.127400, with a range from 0.3800 at the high end to -0.1000 at the low end. With a standard deviation of only 0.0969, it suggests that there is some concentration around the mean.

This indicates that the variable is leptokurtic, with a kurtosis (3.11706) value greater than 3. The p-value for the Jarque-Bera statistic is 8.5891, therefore it seems that the variable is normally distributed

Correlation Results (t-Statistic)

Table 2. t-Statistic

Probability	EM	CSP	CEP	CEnP
EM	1.000000 ----- -----			
CSP	0.037409 0.370588 0.7117	1.000000 ----- -----		
CEP	0.083709 0.831597 0.4077	0.225619 2.292633 0.0240	1.000000 ----- -----	
CEnP	0.276601 2.849380 0.0053	0.190241 1.918318 0.0580	0.317272 3.311941 0.0013	1.000000 ----- -----

Source: Researcher's computation 2023

The mean value of CSP is 19076.68, with a range from 82912.00 and 1743.000. During the time period under consideration, average annual spending on welfare is 19076.68. Standard deviation of 18505.19 implies there is cluster around the mean. Taking into account the Kurtosis value, we find that the distribution has a leptokurtic shape (5.0254). P-values (0.000) and Jarque-Bera values (60.08) both show that the variable follows a normal distribution.

The mean value of CEP is 43552.73 while maximum and minimum values are 254008.0, 104000.0 respectively. The standard deviation of 35761.02 implies that a cluster around the mean. A kurtosis coefficient in the range of 5.5584 denotes a leptokurtic shape distribution with a fat slope. This data is considered to be normal since the Jarque-Bera coefficient is 44.395, and the corresponding P-value is 0.000. The results of this study cannot be extrapolated to other situations because of outliers or selection bias.

CEnP has a median value of 10482.38 while maximum and minimum value of stood at 35988.00 and 1032.00 respectively. Standard deviation of 5821.67 indicates that the mean is surrounded by several data points. Kurtosis (.5584) coefficient less than 3 implies exhibits a fat-tailed and a leptokurtic, distribution. The Jarque-Bera statistic= 44.395, which measures the variability of a variable, the p-value is 0.00.

Table 2 presents the Pearson correlation coefficient results for the variables. It is observed that EM appears to be positively correlated with CSP as depicted by the correlation coefficient (0.0374). It implies that that CEP and EM move the same direction.

EM exhibits a positive association with CEP as depicted by correlation coefficient (0.08370). It implies that EM and CEP move in the same direction. CEnP exhibit positive association with EM as depicted by correlation coefficient values of (0.27660). This also implies that CEnP and EM move in the same direction.

Furthermore, the result shows that CEP exhibit positive association with CSP as depict by correlation coefficient of (0.2665). This implies that CEP and CSP move in the same direction. Additionally, the result shows that CSP has positive association with CEnP as depicted by correlation coefficient of 0.190241. This implies that CSP and CEnP move in the same direction.

Finally, the result revealed shows that CEnP has positive relationship with CEP as depicted by correlation coefficient of 0.31727. This also implies CEP and CEnP move in the same direction. The correlation coefficient results show that none of the variables is strongly correlated and this indicates that the problem of multicollinearity is unlikely and hence the variables are suitable for conducting regression analysis

Table 3. Regression Assumptions Test

Multicollinearity Test		
Variable	Coefficient Variance	Centred VIF
<i>EM</i>	5.1353	NA
<i>CSP</i>	1.5414	1.2199
<i>CEP</i>	3.1168	1.3293
<i>CEnP</i>	7.425071	1.4978
Heteroskedasticity Test: ARCH		
F-statistic = 3.7514	Prob. F(2,43)	0.061
Breusch-Godfrey Serial Correlation LM Test:		
F-statistic 4.200	Prob. F(2,94)	0.077
Ramsey Model Test		
F-statistic = 0.133	Prob. F(3,96)	0.939

Source: *Researcher's computation (2023)*

Test of Regression Assumptions

The heteroskedasticity of the residuals was tested with the ARCH statistic. Based on the findings, we can discount the possibility of heteroskedasticity in the residuals. The null hypothesis of zero residual autocorrelation was not rejected by the Lagrange Multiplier (LM) test. The problem was caused by probabilities (Prob. F and Chi-Square) that were larger than 0.05. The serial correlation in the model did not fail the LM test. There was no indication of mis-specification according to the findings of the Ramsey RESET test.

To confirm there was no multi-collinearity, we ran a residual diagnostic test on the variance inflation factor. The variance inflation factor (VIF) can be used to assess the extent to which the presence of additional variables or possible regressors is artificially inflating the coefficient estimate for a given variable. Calculation is as easy as multiplying the variance of a single coefficient by itself if no additional regressors is present. Contrary to what may be seen in the tolerance figures, greater VIF levels represent deeper participation in a relationship.

Table 4. Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.084692	0.004356	19.44251	0.0000
CSP	-7.650008	4.000009	-19.12309	0.0000
CEP	-5.840009	2.060009	-2.836414	0.0056
CEnP	4.380006	1.900007	23.06679	0.0000
F-statistic	268.5157	DW		2.042
Prob(F-statistic)	0.000000	Adjusted R-squared		0.890
		R-squared		0.893516

Source: *Researcher's computation (2023)*

For the most part, VIFs above 10 are considered to be a warning sign but variables have coefficient less than 10 (Landau & Everit, 2003). There is no reason to assume multicollinearity among the variables included in the multivariate regression analysis, therefore all of their VIFs are less than 10.

Analysis of Regression Results

The researcher used six models to investigate the interplay among the dependent, independent, and moderating variables. The result revealed that corporate social performance (CSP) has a negative effect on EM ($p= 0.0000$; $t = -19.123$). This effect is significant at the 5% level ($p=0.05$).

The result further revealed that corporate environmental performance has negative effect on earnings management of listed insurance firms in Nigeria ($t= -2.836$; $p=0.0056$). This effect is not significant at 5%.

Finally, the result revealed that corporate economic performance has positive effect on earnings management of listed insurance companies in Nigeria ($t=23.0667$; $p=0.0000$). This effect is significant at 5%.

Finally in evaluating the model (R^2) exhibits a value of 0.890. This suggest that the independent variables explain about 24.2% of the variation in dependent variable. $F(st) = 268.51$. $p(f) = 0.000$. Based on the F-values, it is not possible to rule out the possibility of a linear connection between the dependent and independent variables at the 5% level of significance. When looking for serial correlation in the residuals, the D.W= 2.042 statistic finds none.

Discussion of Findings

The apriori expectation is that corporate social performance (CSP), corporate environmental performance (CEP) and corporate economic performance (CEnP) will have positive impact on earnings management being the depended variable. This means that based on theoretical expectation a rise in any of this variable ought to bring an increase in earnings management (Efficient Generalized Least Square) and a reduction in any of them will reduce the value of earnings management since they have an apriori positive or direct relationship with earning management which is the explained or dependent variable.

The robust estimation results for the EGLS effect estimation revealed that corporate social performance has negative effect on earnings management in insurance companies in Nigeria. This result is at variance with a priori expectation. This result is also at variance with Mbonu and Amahalu (2022) which revealed that CSP have a positive impact on earnings management.

Furthermore, the EGLS results reveals that CEP has negative effect on earnings management of listed insurance companies in Nigeria. This result is at variance with a priori expectation. This result is also in line with Mbonu and Amahalu (2022) which revealed that CEP has positive impact on financial performance.

Finally, the EGLS estimation result consequently reveals expenditure on corporate economic performance has a positive effect on earnings management of listed insurance companies in Nigeria. This result is in line with a priori expectation.

From the estimated regression result CSP and CEP show a negative relationship with EGLS in Nigeria. Recall that CSP and CEP were proxied with funds expended on environmental sustenance and funds expended on social welfare; this means that spendings along these lines do not directly affect the level of EGLS in Nigeria insurance companies; this is an absolute contradiction to the a priori expectations. From the result also, CEnP which was proxied by funds expended on infrastructure has a positive relationship with EGLS. This means that expenditure on infrastructure directly affect earning management and in fact, an increase in infrastructural spending will increase the rate of earning management in the Nigeria insurance sector, this is in alignment with theoretical expectations and therefore validate the stated hypothesis.

The co-efficient of determination (R-squared) reveals that the formulated model was able to explain about 89% of the changes in the earning management, leaving only 11% of the variation in earning management unexplained, this is statistically adjudged as a good fit. The individual variables are also pass the test of significance at 5% significant level, which means that Corporate Social Performance (CSP), Corporate Environmental Performance (CEP) and Corporate Economic Performance (CEnP) all taken together correctly predicted the behavior of Earnings Management (EGLS) both as individual variables and collectively as revealed by the coefficient of determination.

RECOMMENDATIONS

Based on the findings in this study, the following recommendations were made:

A standardized check and balancing procedures should be put in place by the insurance firms, in order to ensure that all environmentally related expenditure are properly channeled and well accounted for. Social welfare and charity funds should be directly disbursed from source through a designated NGO in order to avoid the use things such as a pretext for earnings manipulation.

The firms should enter into more CSR commitment as it is more likely to lead companies to make more economically responsible operating decisions.

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