Sustainability Reporting and Corporate Performance of Quoted Companies in Nigeria

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Abstract

The study investigated the effect of sustainability reporting on the corporate performance of companies quoted on the Nigerian Stock Exchange. The measures for corporate performance used in the study are profit margin (PM) and market value indicated by share price (SP). The three dimensions of sustainability reporting examined are namely; economic, social, and environmental disclosures. The ex-post factor research design was employed and after filtering the population of listed companies, a sample of 70 listed companies drawn from oil and gas, telecommunication, and manufacturing industries in Nigeria with complete and comprehensive data for the period under review (2010-2019) was used for the study. A series of preliminary analyses such as descriptive statistics, correlation, and multicollinearity analysis were first conducted. Next, the panel co-integration test was conducted to examine the presence of a long-run relationship between the variables, and then finally the panel regression was conducted to examine the relationship between sustainability reporting and corporate performance. The findings of the study revealed that (i) Economic performance disclosure and social performance disclosure have a significant positive effect on the net profit margin of companies listed on the Nigeria Stock Exchange (ii) Environmental performance disclosure has no significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange, (iii) Economic performance disclosure and social performance disclosure has a significant positive effect on the market value of companies listed on the Nigeria Stock Exchange, (iv) Environmental performance disclosure has no significant effect on market value of companies listed on the Nigerian Stock Exchange The study recommends that environmental disclosures have been lagging critically behind economic and social disclosure, thus companies need to pay more attention to addressing and disclosing on their environment. The study also recommends that there should be some regulation on environmental disclosures by the government for companies in Nigeria and companies should endeavour to improve not just economic disclosures but the quality of these disclosures.

1. Introduction

The supreme objective of any business enterprise is to grow consistently, survive in the long run, and maximize value for shareholders. Business enterprises do not operate in isolation, as a result, their activities tend to have some level of impact on the environment and the society at large through their constant interaction with their environment. More often than not, the activities of these enterprises have adverse environmental effects on humans in the immediate environment in which they are located as well as the environment at large. Viek and Steg (2007), and Ezeabasili (2009) emphasized that as the human population continues to grow, material consumption intensifies, production technology further expands and constant reduction in the quality and quantity of environmental resources becomes evident. Following from the above, therefore, many are looking to businesses to be part of the solutions to these environmental challenges. Welford (1997) maintains that firms seem content to see the natural system on the planet disintegrating, people starving and social structures falling apart. Business is central to the problem and must be central to the solution. In recent times, sustainability has become an issue of major concern around the globe. As defined by Brundtland (1987) sustainability entails meeting the needs of the present generation without compromising the ability of future generations to meet their own needs.

The expectations of corporate responsibility on issues of environmental protection, human capital, human rights, and product safety are rapidly increasing. Major stakeholders like shareholders, employees, and financial institutions want businesses to be responsible, accountable, and transparent. In response to their sustainable development policies and practices, many companies claim that they recognize their social and environmental responsibilities, in addition to their economic responsibilities, and are seeking to manage and account for these activities appropriately. Corporate sustainability reporting has become such an important issue that most companies are now embracing this evolving corporate reporting system. Statistics from the Global Reporting Initiative (GRI) reflect this trend in Sustainability Reporting. The number of enterprises writing sustainability reports based on the GRI framework worldwide increased from 150 in 2002 to 750 in 2005. From 1 January to 31 December 2010, the number of sustainability reports registered on the GRI Reports list increased by 22 percent (GRI, 2011).

In Nigeria, companies are now reporting on their environment by voluntarily producing sustainability reports as an integral part of their annual reports. This study therefore focused on sustainability reporting and corporate performance of listed companies in selected sectors on the Nigerian Stock Exchange. Consequently, the broad objective of this study is to ascertain the effect of sustainability reporting on the corporate performance of selected quoted companies in Nigeria.

1.2 STATEMENT OF THE PROBLEM

From a methodological angle, the investigation of the relationship between sustainability reporting and financial performance casts doubt on the direction of this relationship and appears to have done poorly in achieving convergence. Recent literature (Mehmet et al., 2019) presents a gap in addressing the mechanism(s) of the relationship that hinders the convergence of the empirical findings and only recently the question of causality has been raised resulting in the identification of the existence of a potential endogeneity bias in the relationship between sustainability reporting and firm profitability. Due to the potential endogeneity problem in the relationship, an empirical strategy not adopting techniques to at least address these possibilities may result in inconclusive or misleading conclusions. A Huge number of the empirical studies conducted in Nigeria (Erhirhie & Ekwueme, 2019; Nze et al., 2016; Nnamani et al., 2017; Asuquo et al., 2018; Owolabi et al., 2016; Nwobu 2015; Oyewo & Badejo, 2014; Uwalomwa et al., 2018; Utile et al., 2017, Iheduru & Okoro, 2019, Akinlo & Iredele, 2014) failed to both acknowledge the inherent causality bias threats in the relationship between sustainability reporting and firm performance nor did these studies employ the requisite econometric techniques to address them and this constitutes a fundamental limitation and hence gap in prior studies.

A major incremental contribution of this study is that it addresses the concern about endogeneity by adopting econometric techniques to address the endogeneity bias. Following the direction of several foreign studies in the literature that addressed this question with significant results and explanations (Garcia-Castro et al., 2010, Surroca et al., 2010, Wagner & Blom, 2011, Eccles et al., 2014), this study employed a two-stage econometric procedure; first the panel estimation techniques was utilized and then the dynamic panel data estimation technique (Generalized Method of Moments (GMM)) was implemented to overcome these biases.

The results of most research conducted on sustainability reporting and financial performance are either inconclusive or contradictory, reporting positive or sometimes negative results. Concerning studies carried out in Nigeria, researchers like Olanyinka and Oluwamayowa (2014), Nze et al., (2016), Ajayi and Ovharhe (2016), Nnamani et al., (2017) found that sustainability reporting has a positive and significant effect on the financial performance of listed firms; while others like Oyewo and Badejo (2014), Shehu (2011), Asuquo et al., (2018), Erhirhie and Ekwueme (2019) found that corporate sustainable development practices of companies are negatively associated (non-significant effect) with the profitability of listed companies. Based on these contradictory empirical outcomes, it appears evident that the question of whether or not sustainability reporting affects firm performance remains an open question, hence there is a need for further investigation.

2. 1 Conceptual Review

2.1.1 An Overview of Sustainability Reporting

Sustainability Reporting has no single, generally accepted definition. It is a term generally used to describe a company's reporting on its economic, environmental, and social performance. It is synonymous with triple bottom line reporting, corporate sustainability reporting, and sustainable development reporting, but increasingly these terms are becoming more specific in meaning and therefore have become subsets of Sustainability Reporting (KPMG, 2008). GRI (2011) defines sustainability reporting as the practice of measuring, disclosing, and being accountable to internal and external stakeholders for organizational performance towards the goals of sustainable development. Dow Jones sustainability index in KPMG (2008) looks at sustainability reporting as a business approach that creates long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental, and social developments. Corporate sustainability leaders achieve long-term shareholder value by gearing their strategies and management to harness the market's potential for sustainability products and services while at the same time successfully reducing and avoiding sustainability costs and risks.

Arndt et al. (2006) assert that sustainability reporting has its roots in environmental or non-financial reporting respectively. Sustainability reporting is becoming more prevalent, driven by a growing recognition that sustainability-related issues can materially affect a company's performance, demands from various stakeholder groups for increased levels of transparency and disclosure, and the need for companies (and the business community more generally) to appropriately respond to issues of sustainable development (KPMG 2008 & Ivan 2009). Parliament of Australia (2010) states that sustainability reporting involves companies and organizations demonstrating their corporate responsibility through measuring and publicly reporting on their economic, social, and environmental performance and impacts.

2.1.2 Sustainable Development, the Context for Sustainability Reporting

Aras and Crowther (2008) stated that sustainable development is a development that attempts to bridge the divide between economic growth and environmental protection while taking into account other issues traditionally associated with development. It seeks to develop the means for supporting economic growth while supporting biodiversity, relieving poverty, and using up natural capital in the short term at the expense of long-term development. World Commission on Environment and Development (1987), Bell and Morse (2008), and Edwards (2005) define sustainable development as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Aras and Crowther (2008) maintain that sustainable development is often misinterpreted as focusing solely on environmental issues. In reality, the concept is much broader as sustainable development policies incorporate three policy areas which are economic, environmental, and social. In support of this Aras and Crowther (2008) emphasize that the 2005 World Summit outcome document, refers to the 'interdependent and mutually reinforcing pillars' of sustainable development as economic development, social development, and environmental protection.

2.2 Empirical Review

Abdulsalam et al. (2020) investigated the implication of corporate social cost on the profitability of oil marketing companies in Nigeria. Data were sourced from audited accounts and reports of three sampled firms for fifteen years (2004 to 2018). Panel regression analysis was used in analyzing the data while economic, social, environmental, and health costs were used as proxies for sustainability reporting. The study reveals that corporate social responsibility has a positive and significant effect on the profitability of firms studied. Based on this finding, they recommended that firms that prioritized returns on their investment should invest heavily in social issues.

Okolie and Igaga (2020) studied how sustainability reporting is useful for assessing the financial performance of listed Deposit Money Banks in Nigeria. Specifically, the study focused on the economic, environmental, and social dimensions of sustainability reporting using return on assets, return on equity, and earnings per share as proxies for the financial performance of Deposit Money Banks in Nigeria from 2012 to 2018. The sample of the study was restricted to seventeen deposit money banks out of twenty-one Banks quoted on the Nigerian Stock Exchange as of December 2018. The required data were collected from audited annual financial statements and sustainability reports of the selected Deposit Money Banks for the period. Descriptive and least squares regression analysis were adopted for the study considering the banks' sustainability reporting practices against the selected performance proxies. The study found that sustainability reporting practices of Banks in Nigeria have substantial impacts on the financial performances of Deposit Money Banks in Nigeria.

Inah et al. (2017) investigated the impact of triple bottom line (TBL) disclosure (economic, social, and environmental disclosure) on the financial performance (bottom line performance) of non-financial firms listed in the Nigerian stock exchange between the periods 2005 to 2016. TBL was measured by the level of disclosure of economic, social, and environmental initiatives, while bottom line or financial performance is measured by Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). Multivariate regression models were specified for testing formulated hypotheses and the results revealed that while TBL Disclosure has a significant impact on ROA and ROE, it does not have a significant impact on the NPM of companies quoted on the Nigeria Stock Exchange. It was recommended from the findings that firms should alongside economic performance disclosure, increase their disclosure of environmental and social initiatives and investments to improve their bottom lines and value.

Nze et al. (2016) examined the effect of corporate social responsibility on the earnings of quoted firms in Nigeria. Data for the study were secondary and were derived from firms' financial statements and the NSE fact book. The two firms studied were chosen from the oil and gas industry in Nigeria using the simple random sampling technique. The study covered ten years and data were analysed using the ordinary regression analysis. The results showed that CSR has a positive and significant effect on the earnings of the firms studied.

Chikwendu et al. (2016) ascertained the effect of sustainability reporting on a company's performance using twenty selected Nigerian companies over the period of five years with the GRI index as a proxy for sustainability and return on asset as a measure for performance. The specific objectives include determining the effect economic, environmental, and social performance disclosures have on return on assets. The study utilized secondary data obtained from annual reports of the companies under study and the hypotheses were tested using multiple regression analysis. The study revealed that economic performance disclosure and environmental performance disclosure have no significant effect on return on assets while social performance disclosure has significant effects on a company's performance. The study recommended that a mandatory localized reporting framework in line with international best practices should be put in place to encourage sustainability reporting.

Kwaghfan (2015) in his study examined the impact of sustainability reporting on firm performance in Nigeria. He sampled 64 companies quoted on the Nigerian stock exchange for 2002-2012 using GRI sustainability disclosure guidelines to represent sustainability reporting and ROA, ROE, EPS, and net profit margin to measure performance. He observed a positive relationship between sustainability reporting and ROA, ROE, EPS, and net profit margin.

2.3 Theoretical Review

Several theories could be used to explain the motivation for sustainability reporting, but this study utilized stakeholder theory.

2.2.1 Stakeholder Theory

A stakeholder is 'any group or individual who can affect or is affected by the achievement of the organization's objectives' (Freeman, 1984; Fontaine et al, 2006). These groups or individuals may include employees, customers, suppliers, competitors, banks, investors, governments, non-governmental organizations (NGOs), and may also include the society as a whole. The argument advocated by the stakeholder theory is that all stakeholders have the right to be treated reasonably by the organization. In general, the concept is about what the organization should be and how it should be conceptualized. Fontaine et al (2006) state that the organization itself should be thought of as a grouping of stakeholders and the purpose of the organization should be to manage their interests, needs, and viewpoints. The concern of the stakeholder's theory is to ascertain which stakeholders are more relevant to the organization, this is very vital to the management of the organization because it is believed that the success of the organization in terms of performance is dependent on the support of the stakeholders (Belinda, 2015). This stakeholder management is thought to be fulfilled by the managers of a firm. The managers should on the one hand manage the corporation for the benefit of its stakeholders to ensure their rights and participation in decision-making making and on the other hand, the management must act as the stakeholders' agent to ensure the survival of the firm to safeguard the long-term stakes of each group.

This theory concludes that sustainability practices are a way to show a good image to these stakeholders to boost long-term profits because it would help to retain existing customers and attract new ones. An organization contributing to sustainability is likely to remain profitable eventually because sustainability activities are expected to portray a good image of the organization, such as to attract customers' patronage, investors' interest, and goodwill of the society, which in turn will lead to favorable financial performance.

3. 0 METHODOLOGY

This study employed the ex post facto research design. Essentially, the researcher studied the independent variable or variables in retrospect for their possible relationship to, and effects on, the dependent variable. The population of the study comprises listed companies in three (3) sectors on the Nigerian Stock Exchange (NSE) which include the telecommunication sector, the oil and gas sector, and the manufacturing industries. At the time of this study, there were a total of 70 companies in these industries with adequate data for the study period. The entire population was studied; hence the sample constitutes the total population which is 70 companies with available data for the study period. The data from the companies studied covered a period of 10 years (2010 to 2019). Secondary data retrieved from corporate annual reports of the sampled companies listed on the Nigeria Stock Exchange for the period 2010-2019 financial years was used for this study. The independent variables were measured by scoring index based on performance indicators selected from Global Reporting Initiative (GRI) guidelines as applied in previous studies (Burhan & Rahmanti, 2012; Khaveh, et al, 2012). The independent variable which is proxied by economic, social, and environmental performance disclosure was calculated based on the number of indicators that were disclosed (occurrence). Where companies complied with these disclosures, the researcher assigned 1, and 0 was assigned for non-disclosure. The dependent variable which is corporate performance was measured by profit margin (PM).

3. 1 Model Specification

In line with the objectives of the study, the models are presented below;
Specifying the panel regression models for this study, the functional model is first presented
CP=f(SR) ---(1)
Where CP= Corporate performance
SR= Sustainability Reporting Decomposing both CP and SR into their sub-components and specifying the functional model in an econometric form is stated thus;

<u>Economic ***dimension Model***</u>

$PM_{it} = \psi_{it} + \psi_1 LEV_{it} + \psi_2 TA_{it} + \psi_3 DPS_{it} + \psi_4 EPS_{it} + \psi_5 REV_{it} + \varepsilon_{it}$ ----------- (1)

Aprori Signs:

$\psi_1 > 0$, $\psi_2, > 0$, $\psi_3 > 0$, $\psi_4 > 0$, and $\psi_5 > 0$,
Where: PM= Profit margin, LEV= Leverage, DPS= dividend per share, EPS= Earnings per share, REV= Revenue, TA= total assets.

Social ***dimension Model***

$PM_{it} = \beta_{it} + \gamma_1 CSR_{it} + \gamma_2 GD_{it} + \gamma_3 EMP_{it} + \gamma_4 HS_{it} + \varepsilon_{it}$ ----------- (2)

Aprori Signs:

$\gamma_1 > 0$, $\gamma_2, >0$, $\gamma_3 > 0$, and $\gamma_4 > 0$,

Where: PM= Profit margin CSR= Corporate social responsibility disclosures, GD= disclosures on gifts and donations, EMP= Employee welfare and investment-related disclosures, H/S= Health and safety disclosures.

Environmental dimension Model

$PM_{it} = \beta_{it} + \beta_1 ECP_{it} + \beta_2 EMS_{it} + \beta_3 ECON_{it} + \beta_4 EDON_{it} + \beta_5 EGHGE_{it} + \varepsilon_{it}$ --------- (3)

Aprori Signs:

$\beta_1 < 0$, $\beta_2, < 0$, $\beta_3 < 0$, $\beta_4 > 0$, and $\beta_5 < 0$,

Where: PM= Profit margin, ECP= disclosures on Environmental conservation policy, EMS= Disclosure on the environmental management system, EDON = environmental related donations, EGHGE= Disclosures on environmental greenhouse gas emission control, ECON= Environmental conservation disclosures.

The data for this study was analyzed using panel regression. This study employed descriptive statistical methods and included descriptive techniques such as the mean, standard deviation, range, and frequency distribution. More importantly, the random effects (RE) and fixed effects (FE) regression were estimated. In addition to addressing endogeneity bias, the study also employed the DPD (Dynamic Panel Data) approach which is usually considered in the work of Arellano and Bond (1991). It is based on the notion that the instrumental variables approach which is one of the techniques for dealing with endogeneity does not exploit all of the information available in the sample. By doing so in a Generalized Method of Moments (GMM) context, the study constructs more efficient estimates of the dynamic panel data model.

4.0 PRESENTATION AND ANALYSIS OF RESULTS

The preliminary analysis of the data was first conducted (descriptive and correlation analysis). Thereafter, the regression analysis was conducted. The results are presented and interpreted below;

4.0. DATA PRESENTATION

The results are presented below;

4.1 Economic Disclosures and Financial Performance

In this section, the results on the impact of economic disclosures on financial performance are presented and discussed below;

Table 4.1 Economic Performance Disclosure and Profit Margin Result

Variable	Apriori sign	Random Effects Estimates	Fixed Effects Estimates	GMM Estimates
C		0.2579* (0.0746) {0.001}	0.4961* (0.0201) {0.000}	
$PM_{(-1)}$				0.3087* (0.1393)

				{0.0272}
Log (REV)	+	0.0147* (0.0052) {0.0049}	0.0086* (0.0023) {0.0003}	0.0357 (0.0375) {0.3419}
Log(TASSET)	+	0.0022* (0.0071) {0.7607}	-0.0079* (0.0039) {0.039}	-0.02456 (0.0152) {0.1056}
LEV	+	-0.02551 (0.0196) {0.1925}	-0.0278** (0.0151) {0.0649}	-0.3257* (0.1534) {0.0342}
DPS	+	-0.0409* (0.0229) {0.0742}	-0.0296** (0.0151) {0.0508}	-0.4800* (0.1643) {0.0036}
EPS	+	-0.0253* (0.0367) {0.4917}	-0.0008 (0.0168) {0.9645}	0.7955* (0.0774) {0.000}
		Model Parameters		
R^2		0.0112	0.9088	
Adjusted R^2		0.003	0.8947	
F-statistic		1.4426	64.668	
Prob(F-stat)		0.2069	0.00	
Durbin-Watson		1.4	1.6	
J-statistic Prob (J-stat)				18.276 (0.248)
Instrument Rank				21
Model Diagnostics				
χ^2_{Hetero} $\chi^2_{Serial/Corr}$ $\chi^2_{Wald\text{-}Test}$		(0.621) (0.240) (0.00)	χ^2_{Norm} 0.144 $\chi^2_{Hausman}$ 14.051 (0.000)	
Ar(1)				0.0337
Ar(2)				0.1321

Source: Researcher's compilation (2021)

Table 4. 1 examines the estimation results for the impact of economic disclosure on the profit margin measure of firm corporate performance. The fixed effects model estimation based on the $\chi^2_{Hausman}$ statistic shows that the R^2 and adjusted R^2 stood at 90.88% and 89.47% respectively and this is also the highest model explanatory power compared with social and environmental disclosures regressed on profit margin and the likely reason for this has been indicated earlier. The estimation diagnostics reveal that the χ^2_{Hetero} p-value (0.621) implies the homoscedastic behavior of the errors and the $\chi^2_{Serial/Corr}$ p-value (0.240) also reveals the absence of serial correlation. In addition, the χ^2_{Norm} p-value (0.144) reveals that the series follows a normal distribution. The F-stat of 64.668 (p-value = 0.00) which is significant at 5% suggests that the hypothesis of a significant linear relationship between the dependent and independent

variables cannot be rejected. Evaluating the performance of the independent variables, the estimation results, reveal that revenue measured in its log (Log (REV)) has a positive and significant impact on profit margin at 5% (0.0086, p=0.000). The impact of log (TASSET) on PM is significant (p=0.000) with a negative coefficient (-0.0079). The impact of LEV on share price is negative (-0.0278) and significant (p=0.0649) at 10%. The impact of DPS is negative (-0.0296) and significant at 10% (p=0.0508) while that of EPS is not significant (p=0.000) at 5%.

The dynamic panel estimator results reveal that the log of SP (SP_{-1}) is negative (-0.7112) and significant at 5% (p=0.000). Looking at the performance of the economic disclosure indicators, the impact of LEV on profit margin is negative and significant (-0.3257, p=0.000), also DPS is observed to exert a significant (-0.4800, p=0.0036) impact on profit margin. Furthermore, EPS has a positive and significant (0.7955, p=0.000) impact on profit margin. However, Log (REV) and log (TASSET) did not show statistical significance. The J-stat test of over-identifying restrictions yields all *p*-values above 0.10, which means that a null hypothesis could not be rejected. Hence, over-identification restrictions are valid. The AR(1) tests indicate that the residuals in the first differences are correlated as expected, while the AR(2) tests give *p*-values above 0.10, which means that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model are valid. Hence, the study supports the significant effect of economic disclosure on firm performance. Consequently, the null hypothesis that Economic performance disclosure has no significant effect on the net profit margin of companies listed on the Nigeria Stock Exchange is rejected. The findings of this study align with those of Nze et al. (2016), Okolie and Igaga (2020), Kwaghfan (2015), and Nwobu (2015).

4.2 Social Performance Disclosure and Corporate Performance

In this section, the results on the impact of the environmental reporting dimension on corporate performance are presented and discussed below;

Table 4.2. **Social Performance Disclosure and Profit Margin Result**

Variable	Apriori sign	Random Effects Estimates	Fixed Effects Estimates	Dyn-GMM Estimates
C		0.4212* (0.0819) {0.000}	0.4751* (0.0201) {0.000}	
PM (-1)				0.3275* (0.0679) {0.000}
H/S	+	0.19033* (0.1057) {0.000}	0.1988* (0.0962) {0.0392}	1.2709* (0.6256) {0.0428}
GD	+	0.0593** (0.0322) {0.0660}	0.0353* (0.0105) {0.001}	0.0959 (0.0881) {0.2769}
EMP	+	-0.1432 (0.1175) {0.2235}	-0.2008* (0.0905) {0.0269}	-1.0534** (0.6040) {0.0818}
CSR		-0.0558*	-0.0283*	-0.1054

	+	(0.0154) {0.0003}	(0.0099) {0.0046}	(0.0647) {0.1036}
		Model Parameters		
R^2		0.0156	0.9088	
Adjusted R^2		0.0093	0.8947	
F-statistic		2.4829	64.668	
Prob(F-stat)		0.0426	0.00	
Durbin-Watson		1.4	1.6	
J-statistic Prob (J-stat)				8.9306 (0.9162)
Instrument Rank				21
Model Diagnostics				
χ^2_{Hetero} $\chi^2_{Serial/Corr}$ $\chi^2_{Wald\text{-}Test}$	(0.3927) (0.862) (0.00)		χ^2_{Norm} $\chi^2_{Hausman}$	0.6712 11.232 (0.000)
Ar(1)				
Ar(2)				

Source: Researcher's compilation (2021)

Table 4.2 examines the estimation results for the impact of the social disclosure dimension on the profit margin measure of firm corporate performance. The $\chi^2_{Hausman}$ statistic and p-value (8.322 p=0.024) indicate that the fixed effects model estimation is the appropriate estimation for the model indicating the existence of significant correlations between firms' specific disturbances and the beta's. The model reveals that R^2 and Adj R^2 stood at 60.88% and 59.47% respectively. The χ^2_{Hetero} p-value (0.3927) implies the homoscedastic behavior of the errors and the $\chi^2_{Serial/Corr}$ p-value (0.862) also reveals the absence of serial correlation. In addition, the χ^2_{Norm} p-value (0.6712) reveals that the series follows a normal distribution. The F-stat of 64.668 (p-value = 0.00) is significant at 5% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The analysis of the fixed effects estimation results, reveals that H/S has a positive (0.1988) and significant (p=0.039) impact on share price at 5%. The impact of GD on share price is positive (0.0353) and significant (p=0.0001) at 5%. The impact of EMP is negative (-0.2008) but also significant (p=0.0269) at 5%. Finally, the impact of CSR on profit margin is found to be negative (-0.0283) and significant (p=0.0046) at 5%. The diagnostic tests results confirm normality of the residuals (χ^2_{Norm} = 0.684), the absence of stochastic dependence ($\chi^2_{Serial/Corr}$ = 0.554) and heteroscedastic errors (χ^2_{Hetero} = 0.554)

The Arellano and Bond (1991) dynamic panel estimator results reveal that the lag of PM (PM_{-1}) is positive (0.3275) and significant at 5% (P=0.000) which implies that previous levels of profit margin performance levels affect current profit margin performance. Looking at the performance of the social disclosure indicators, H/S still maintains its positive impact (1.2709) on profit margin and is significant (p=0.0428) at 5% but the impact of GD on profit margin though is positive (0.0959) but is not significant (p=0.1036) at 5%. The impact of EMP is negative (-1.0534) and significant (p=0.0818) at 10%. Finally, the impact of CSR on PM still maintains its negative sign (-0.1054) though not significant (p=0.1036) at 5%. The J-stat test of over-identifying restrictions yields all *p*-values above 0.10, which means that a null hypothesis could not be rejected. Hence, over-identification restrictions are valid. The AR(1) tests indicate that the residuals in the first differences are correlated as expected, while the AR(2) tests give *p*-values above 0.10, which means that a null hypothesis of no second-order serial correlation could not be rejected. Therefore, all results of the GMM model are valid. Thus, the null hypothesis that Social performance disclosure has no significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange is rejected. This finding is consistent with the findings of Chikwendu et al., (2016), Kwaghfan (2015), Inah et al., (2017), and Okolie and Igaga (2020).

4.3. Environmental Performance Disclosure and Financial Performance

In this section, the results on the impact of the environmental reporting dimension on corporate performance are presented and discussed below;

Table 4.3. Environmental Performance Disclosure and Profit Margin Result

Variable	Apriori sign	Random Effects Estimates	Fixed Effects Estimates	Dyn-GMM Estimates
C		0.49116* (0.0257) {0.000}	0.4708* (0.0033) {0.000}	
PM(-1)				0.3250* (0.0568) {0.000}
ECON	+	-0.0459 (0.1128) {0.6842}	-0.0492 (0.0783) {0.5296}	-0.3317 (0.3534) {0.3484}
ECP	+	0.1040 (0.1622) {0.5214}	0.0705 (0.1248) {0.5727}	1.4882 (1.5389) {0.3341}
EDON	+	-0.1677 (0.1735) {0.3342}	0.2156 (0.1777) {0.2258}	-0.62551 (1.1612) {0.5904}
EMS	+	0.17113 (0.1722) {0.3208}	-0.2094 (0.1776) {0.2390}	0.5943 (1.1684) {0.6112}
EGHGE	+	-0.0590 (0.1917) {0.7583}	-0.0170 (0.1416) {0.2390}	-1.3905 (1.5935) {0.3833}
AR(1)	+		0.3343 (0.0383) {0.000}	
		Model Parameters		
R^2		0.0025	0.560	
Adjusted R^2		0.005	0.452	

F-statistic		0.3104	123.43	
Prob(F-stat)		0.9067	0.00	
Durbin-Watson		1.31	1.88	
J-statistic Prob (J-stat)				15.9111 (0.3879)
Instrument Rank				21
Model Diagnostics				
χ^2_{Hetero} $\chi^2_{Serial/Corr}$ $\chi^2_{Wald\text{-}Test}$	(0.658) (0.114) (0.00)		χ^2_{Norm} $\chi^2_{Hausman}$	0.097 11.232 (0.000)
Ar(1)				
Ar(2)				

Source: Researcher's compilation (2021)

Table 4.3 examines the estimation results for the impact of the environmental disclosure dimension on the profit margin measure of firm corporate performance. The $\chi^2_{Hausman}$ p-value = 0.034 indicates that the fixed effects estimation is used here. The R^2 for the FE model is 56% with an adjusted value of 45.2%. The F-stat is 123.43 (p-value = 0.00) is significant at 5% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. The analysis of coefficients reveals ECON has a negative (-0.0492) but not significant (p=0.5296) impact on profit margin at 5%. The impact of ECP on share price is positive (0.0705) but not significant (p=0.5727) at 5%. The impact of EDON is positive (0.2156) but also not significant (p=0.2258) at 5% and this is also the case with EMS where the impact is found to be negative (-0.2094) but not significant (p=0.2390) at 5%. Finally, the impact of EGHGE on profit margin is found to be negative (-0.0170) but not significant (p=0.2390) at 5%. Overall, the result reveals that environmental reporting does not have any significant impact on the profit margin performance of the selected firms used in the study. The diagnostic tests results confirm normality of the residuals (χ^2_{Norm} = 0.097), the absence of stochastic dependence ($\chi^2_{Serial/Corr}$ = 0.114) and heteroscedastic errors (χ^2_{Hetero} = 0.658)

The Arellano and Bond (1991) dynamic panel estimator results reveal that the lag of PM (PM-1) is positive (0.3250) and significant at 5% (P=0.000) which implies that previous profit margin performance levels affect current profit margin performance. Looking at the performance of the environmental disclosure indicators, ECON has a negative (-0.3317) but not significant (p=0.3484) impact on profit margin at 5%. The impact of ECP on PM is positive (1.4882) but not significant (p=0.3341) at 5%. Furthermore, EDON is observed to have a negative impact (-0.6255) though not significant (p=0.5904) at 5%. The effect of EMS on PM is positive (0.5943) though not significant (p=0.6112) at 5% and in the same vein, the effect of EGHGE on PM is negative (-1.39905) though not significant (p=0.3833) at 5%. The J-stat test of over-identifying restrictions yields all *p*-values above 0.10, which means that a null hypothesis could not be rejected. Hence, over-identification restrictions are valid. The dynamic-GMM estimates are similar to the FE estimates and further confirm that there is no established impact of environmental reporting on profit margin for the listed firms in the study. Therefore, the null hypothesis that Environmental performance disclosure has no significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange is accepted. This result is in tandem with Daniel and Ambrose (2013), Chikwendu et al., (2016), Nze et al. (2016), and Shehu (2011).

5.0 CONCLUSION

The study examined the effect of sustainability reporting on the corporate performance of companies quoted on the Nigerian Stock Exchange. The measure for corporate performance used in the study was profit margin (PM). The three dimensions of sustainability disclosures examined are economic, social, and environmental disclosures. The findings of the study reveal that (i) Economic performance disclosure has a significant positive effect on the net profit margin of companies listed on the Nigeria Stock Exchange and (ii) Social performance disclosure has a significant positive effect on the net profit margin of companies listed on the Nigeria Stock Exchange (iii) Environmental performance disclosure has no significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange. Based on the findings of the study, the following recommendations are made; The findings of the study revealed that economic performance disclosure has a significant effect on the net profit margin of companies listed on the Nigeria Stock Exchange. Therefore, the study recommends that companies should improve the comprehensiveness and quality of their economic disclosure. The outcome of the research also revealed that social performance disclosure has a significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange. This should serve as a motivation for companies to engage in more social performance disclosures. Thus, the study recommends that companies should expand both the extent and quality of their social disclosures in annual reports. The study also showed that environmental performance disclosure has no significant effect on the net profit margin of companies listed on the Nigerian Stock Exchange. Environmental disclosures have been lagging critically behind economic and social disclosure and ironically most of the global challenges faced such as global warming are environmentally related.

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