Effect of Environmental Disclosures on Dividend Payout of Firms in Nigeria

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Abstract
This work empirically investigated the effect of environmental disclosures on dividend payout of firms in Nigeria. The study is vital as it portrays the extent to which environmental disclosures influences firms' dividend payout. In order to determine the relationship between environmental disclosures and firms dividend payout, some key proxy variables were used in the study, namely Employees Health and Safety Disclosure, Waste Management Disclosure, Pollution Control Disclosure and Environmental Remediation Disclosure; firms' dividend payout is however represented by DPS/EPS. Four hypotheses were formulated to guide the investigation and the statistical test of parameter estimates was conducted using multiple regression model. The research design used is Ex Post Facto design and data for the study were obtained from the published annual financial reports of the entire 30 firms listed under consumer goods and industrial goods sector of NSE with data spanning from 2014-2018. The findings generally indicate that Employees Health and Safety Disclosure, Waste Management Disclosure, Pollution Control Disclosure and Environmental Remediation Disclosure have significantly influenced firms' dividend payout at 5% level of significant. Based on this, the study concludes that environmental disclosures have positively improved firms dividend payout over the years. The study however suggests that firms should have positive disposition towards environmental cost friendly practices and also disclose more of these information in their annual reports as the level of disclosure of these information have exerted significant influence on dividend payout of firms over the years.

Keyword: *Employees Health and Safety Disclosure; Waste Management Disclosures; Pollution Control Disclosures; Environmental Remediation Disclosures; Dividend Payout*

1.0 Introduction

The increase in global environmental awareness and the campaign for sustainable economic development is redirecting the attention of corporate organizations towards environmental sensitivity. The need for sustainability has caused an emergence of many global institutions enunciating varying norms that guide human interaction with the environment (Ngwakwe 2018 as cited in Omaliko, Nweze & Nwadialor, 2020)

In Nigeria, there are National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007, National-Environmental Standards and Regulations Enforcement

Agency (Establishment) Act 2008, Environmental Impact Assessment Act 2004, Harmful Waste (Special Criminal Provision) Act 2004, Nuclear Safety and Radiation Protection Act 2007 which centered on review of regulations on air and water quality, discharge of effluents and other harmful substances as well as control of other forms of environmental pollution.

At international level, environmental disclosures have attracted considerable interest from a number of key stakeholders such as the United Nations Global Compact, the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC), the Sustainability Accounting Standards Board (SASB), the Task Force on Climate-related Financial Disclosures (TFCD) and European Commission Guidelines on Non-Financial Reporting Studies on environmental disclosures in the developed nations could not be over stressed or over emphasized. However, only fewer studies established the influences of level of environmental disclosures on dividend payout of firms with mixed and conflicting results. For instance; Royet (2016), Brockman (2015), Deume and Knechel (2016), Fouts (2014), showed that environmental disclosures have significant positive effect on dividend payout of firms. On the contrary, the studies of Brown (2015), Gelb (2017), Vaishya (2014) showed insignificant negative effect. Thus, there was no agreement on the effect of environmental disclosures on dividend payout of manufacturing firms in the developed nations which calls for further investigation and clarifications. To achieve this purpose, the present study adapted and modified the models of Royet (2016) and Gelb (2017) in order to capture the real effect of environmental disclosures on dividend payout of manufacturing firms.

From the context of developing nations like Nigeria, studies done on environmental disclosures are as follows; Agbiogwu, Ihedinihu and Okafor (2016), environmental disclosures and firms' earnings, Dibua and Onwuchekwa (2015), environmental disclosures and corporate leverage, Ezejiofor, Rachael and Chigbo (2016), environmental disclosures and corporate revenue, Emeakponuzo and Udih (2015), environmental accounting and return on equity, Ifurueze, Lydon and Bingilar (2013), environmental costs and corporate performance, Okafor (2018), environmental disclosures and firms liquidity, Ngwakwe (2018), environmental disclosures and firms liquidity etc.

However, among the empirical studies reviewed by the researcher as shown above, none had concentrated on dividend payout of firms which would be worthwhile for the stakeholders of a firm to understand if environmental disclosures are one of the factors that influence company's dividend payout decisions. Thus the study investigated the effect of environmental disclosures on dividend payout within Nigerian corporate environment.

1.1 Objective of the Study

The main objective of this study is to examine the effect of Environmental Disclosures on Dividend Payout of manufacturing firms in Nigeria. Sub objectives are:

1. To examine the effect of Employee health and safety disclosure on dividend payout of firms
2. To determine the effect of Waste management disclosure on dividend payout of firms
3. To ascertain the effect of Pollution Control disclosure on dividend payout of firms
4. To examine the effect of Environmental Remediation disclosure on dividend payout of firms

In order to direct the flow of this study, the following hypotheses were formulated

H_{01}: Employee health and safety disclosure have no significant effect on dividend payout of firms

H_{02}: Waste management disclosure has no significant effect on dividend payout of firms

H_{03}: Pollution Control disclosure has no significant effect on dividend payout of firms

H_{04}: Environmental Remediation disclosure has no significant effect on dividend payout of firms

2.0 Review of Related Literature

2.1.1 The Concept of Environmental Disclosure

Environmental disclosure is a disclosure related to company's policies, attitudes or actions toward environmental impact, emissions, pollution, cleaning, planting, or energy efficiency. Environmental accounting serves as a provider of environmental information to internal and external parties. Environmental accounting functions internally (Environment Management Accounting or EMA) to provide information to assist management in improving environmental performance of company, while function of external environmental accounting (Environment Financial Accounting or EFAs) is present information to external parties or company stakeholders. Environmental disclosure is generated by environment accounting system which is part of overall environmental information that is disclosed by company (Ngwakwe, 2018).

Environmental disclosure may be defined as any information that a firm makes public, typically within or alongside its annual accounts or in a stand-alone report that relates to its performance, standards or activities under the corporate social responsibility umbrella. Such documents are most commonly known as sustainability reports, but they are also variously known as corporate social responsibility reports, eco-reports, and corporate accountability reports. The documents are believed to convey important information regarding the extent to which a firm's activities are sustainable, defined as one which can service the needs of all its stakeholders without limiting its ability to meet the needs of any potential future stakeholders by maintaining its base of environmental, social and economic capital (Dyllick and Hockerts, 2016).

The study of Royet (2016) measured environmental disclosure using the index of Employees' Health and Safety Disclosure (EHSD), Waste Management Disclosure (WMD) was also proxied for environmental disclosure by Prattern and Mashat (2014), Ijeoma (2015) measured environmental disclosure using the index of Community Development Disclosure (CDD), Gelb (2017) measured environmental disclosure using Pollution Control Disclosure (PCD) and Brown (2015) measured environmental disclosure using the index of Environmental Remediation Disclosure (ERD)

For the purpose of this research, the following Environmental Disclosure Indexes were used. Thus refers to the information on Employees health and safety disclosure (EHSD), Waste management disclosure (WMD), Pollution Control disclosure (PCD) and Environmental Remediation disclosure (ERD).

2.1.1.1 Employees Health and Safety Disclosure

According to Adedilan and Alade (2013), employees health and safety disclosure is one of the key disclosures relevant for environment accounting for stakeholders' consumption. It is a disclosure on occupational injury and illness which is a matter of health, but they are also matters of economics, since they stem from work, and work is an economic activity. The economic perspective on employees' safety and health encompasses both causes and consequences: the role of economic factors in the etiology of workplace ill-health and the effects this has on the economic prospects for workers, enterprises, nations, and the world as a whole. It is therefore a very broad perspective, but it is not complete, because neither the causation nor the human significance of EHS can be reduced to its economic elements.

Employees' health and safety disclosure is however measured using disclosure index adopted from the GRI as exposited in the study of Royet (2016), Brockman (2015).

2.1.1.2 Waste Management Disclosure

Waste produced by a process often has to be processed before being released to the environment. Some of the waste can be handled by the company itself, other waste is better handled by external waste treating companies. Handling of the waste causes environmental costs either way. 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 Ngwakwe (2018).

Waste management disclosure is however measured using disclosure index adopted from the GRI as exposited in the study of Prattern and Mashak (2014), Fouts (2014).

2.1.1.3 Pollution Control Disclosure

Pollution control is an essential task. There are four types of control: legal, social, economical, and technological measures, which help to prevent the pollution by various methods of operations. Waste products enter the environment in various forms and threaten the quality of the air, land, and water. The presence of waste products in water is especially serious, as many of these products can enter the food chain, where the biochemical processes can rapidly increase their concentration to toxic level. Hence, it is extremely important to study the methods of treating waste products and eliminating them from aqueous system (Thompson, 2017). According to Dibia and Onwuchekwa (2015), pollution control has almost become an integral part of the process of industrialization. Appropriate laws have been passed that restricts and regulates the growth of pollution intensive industries, especially in metropolitan cities. It has been made obligatory for industrial units to adopt measures to control pollution.

Pollution control disclosure is however measured using disclosure index adopted from the GRI as exposited in the study of Gelb (2017), Brown (2015).

2.1.1.4 Environmental Remediation Disclosure

Environmental Remediation Disclosure means the control of emissions and effluents into environment. It constitutes the use of materials, processes, or practices to reduce, minimize, or eliminate the creation of pollutants or wastes. It includes practices that reduce the use of toxic or hazardous materials, energy, water, and other resources (Ijeoma, 2015).

Environmental Remediation disclosure is however measured using disclosure index adopted from the GRI as used in the study of Brown (2015).

2.1.2 The Concept of Dividend Payout

In the words of Akinsulire (2014), dividend payout is the ratio of ordinary dividends to retained earnings. It indicates the extent of the net profits distributed to shareholders as dividends and a high payout ratio simply indicates a liberal distribution of profits while a low payout ratio reflects a conservative distribution policy. However, from the share valuation model, Simon (2009) asserts that the value of a share depends very much on the amount of dividend distributed to shareholders such that the higher the dividend payout ratio, the more attractive the share is to the shareholders.

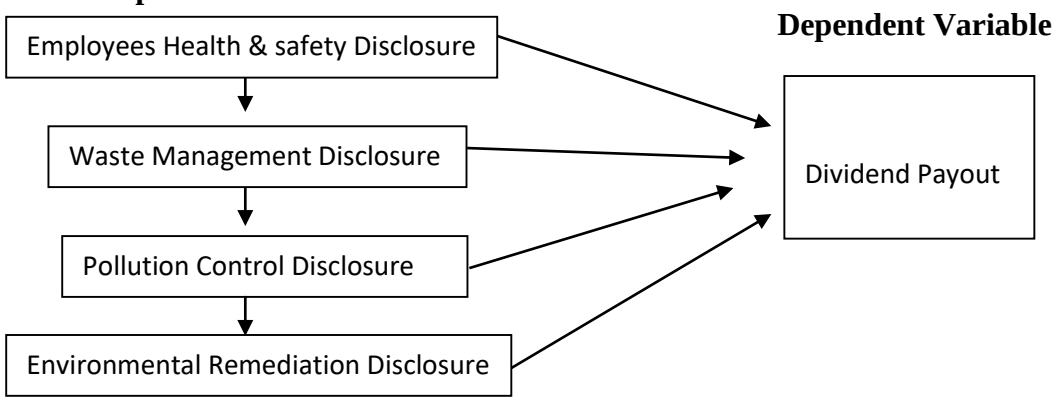
Dividend payout refers to the decisions regarding the magnitude of the dividend payment paid by the firms, the percentage of earnings paid to the stockholders in the form of dividends (Akinsulire, 2014). It is based on the answers to several important questions such as how much dividend should a company distribute to shareholders? What will the impact of the dividend policy be on the company's share price? What will happen if the amount of dividend changes from year to year? By implication, dividend policy of a firm is very important as it tells a firm when and how to make the payment and the extent of the payment to be made (Nickolas, 2011).

Dividend payout was used as a measurement for dividend payments in the prior expectations of Royet (2016), Gelb, (2017), Deume and Knechel (2016) etc. However, for the purpose of

this study, dividend payout was measured by dividend per share by earnings per share as used by Royet (2016) and Gelb (2017).
This is expressed mathematically as

$$DPO = \frac{DPS}{EPS}.$$

2.1.3 The Diagram of Conceptual Framework



Source: Researcher's Concept (2020)

2.2 Theoretical Framework

2.2.1 The Stakeholders' Theory

The theoretical foundation of this paper is anchored on the "Stakeholders Theory" and Dividend "Relevance Theory". Stakeholders Theory was propounded by Freeman in the year 1983. The theory sees corporate organizations as the elements of the social system or group where the firm's success is dependent upon the successful management of all the relationships that a firm has with its stakeholders; those groups without whose support the organization would cease to exist. Freeman's stakeholders' theory asserts that, managers must satisfy a variety of constituents (example, employees, customers, suppliers, local community and so on) who can influence the firm's outcomes. According to this view, it is not sufficient for managers to focus exclusively on the needs of stockholders, or the owners of the business. This implies that it can be beneficial for the firm to engage in certain environmental activities that non-financial stakeholders perceive important, because without this, these groups might withdraw their support from the business.
The stakeholders' theory proposed an increased level of environmental awareness which creates the need for companies to manage these interests (groups' interest) in order for them to become environmentally friendly towards the environment in which the business is domiciled. The main concern of the stakeholders' theory in environmental accounting is to address the environmental disclosure elements and valuation and its inclusion in the financial statements for external users consumption. The theory illustrates that the firm has one and only one goal – to satisfy the desires of shareholders by making profits. However, profit may not be attainable if the environment in which the business operates is neglected.

2.2.2 Dividend Relevance Theory

The dividend relevance theory was propounded by Walter (1963). He argued that the choice of dividend policies almost always affect the value of the firm. His model shows the importance of the relationship between the firm's rate of return and its cost of capital in determining the

dividend policy that will maximize the wealth of shareholders. Walter's model is based on the following assumptions: First, the firm finances all investment through retained earrings; that is, debt or new equity is not issued. Secondly, the firm's rate of return and its cost of capital are constant. Thirdly, all earnings are either distributed as dividends or re-invested internally immediately. Fourthly, the values of earning per share and dividend remain constant. Lastly, the firm has a very long or infinite life. It is believed that this model is quite useful to show the effects of dividend policy on an all equity firm under different assumptions about the rate of return. However, the simplified nature of the model can lead to conclusions which are not true in general, though true for Walter's model.

This study is therefore anchored on Stakeholders' Theory and Dividend Relevance Theory. Stakeholders' Theory is concerned to encourage business managers to carry out environmental practices which the non- financial stakeholders consider very important so as to maximize stakeholders' value as well as minimize environmental costs while dividend relevance theory points out the usefulness and relevance of dividend payouts to shareholders.

2.3 Empirical Review

The study of Royet (2016) on effect of environmental disclosures on dividend payout of listed manufacturing firms in France explored the test tool of multiple regression and found significant positive relation between environmental disclosures measured using employees' health and safety disclosure and environmental remediation disclosures with dividend payout of firms. Based on this, the study concludes that environmental disclosures have exerted significant influence on firm's dividend payout. Deume and Knechel (2016) whose study was on pollution control disclosures and dividend policies of listed manufacturing firms in Germany explored the test tool of OLS for the test of hypothesis and found that firms with a higher pollution propensity and greater media coverage of their environmental performance are more likely to disclose general environmental information, a result also consistent with improving dividend payout of firms.

Brockman (2015) on the same vein established the statistical test tool of regression model and collected data from the annual reports and accounts of the selected listed manufacturing firms in Italy and found significant positive association between environmental disclosures measured by employees' health and safety disclosure and environmental remediation with dividend policies of firms. This disagrees with the findings of the study of Vaishya (2014) who adopted ordinary least square as a statistical test tool and showed insignificant negative effect on effect of waste management disclosures on dividend policies of listed manufacturing firms in Australia. The study however concludes that environmental disclosures have not influenced firms' dividend payments over the years under review.

This is in tandem with the research by Fouts (2014) who found that environmental waste management disclosure does not significantly associated with firm's dividend policies measured by dividend cover. The study used simple regression and concludes that environmental waste management disclosure has no effect on firms' dividend policies. Gelb (2017) on the contrary argues that pollution control disclosure among firms has no effect on dividend payments in Japan. The study measured environmental disclosure using the proxy of pollution control disclosure and data were collected from the annual reports and accounts of the selected manufacturing firms in Japan and concludes that environmental disclosures are not one of the determinants of dividend payments in Japan. This agrees with the status quo of Brown (2015) who found that environmental remediation disclosure has insignificant relationship with firms' dividend policies measured by dividend cover. Mitchell (2016) examined the effect of environmental disclosures on performance of listed twenty Australian

firms covering the period of 2010-2014. Using content analysis and regression model; findings revealed that disclosures made by their sample firms exerted significant influence on firms performance over the years. Similarly, Gadenne (2015) used content analysis and found a tendency by their sample Australian firms to disclose higher levels of positive environmental news. The study explored logistic regression and found that environmental disclosures in Australia have effect on firms' performance e in Australia.

The study of Nnamani (2017) evaluated the effect of sustainability accounting on the financial performance of the listed manufacturing firms in Nigeria. These manufacturing firms were those belonging to the brewery sub-sector. The secondary data were obtained from the annual reports and accounts of the three brewery firms quoted on the Nigerian Stock Exchange and data for the study were analyzed using the ordinary least square estimation technique. The study found that sustainability reporting had a positive and significant effect on the financial performance of the brewery companies that had been subjected to investigation. Agbiogwu, Ihendinihu and Okafor (2016) analyzed the impact of environmental and social disclosures on the performance of manufacturing companies in Nigeria using the secondary data obtained from the ten randomly selected companies' annual reports and accounts in 2014, and the t-test statistical tool was employed in the analysis of those data. The findings showed that environmental and social costs significantly affect the net profit margin, earnings per share and return on capital employed.

Dibua and Onwuchekwa (2015) empirically analyzed the effect of environmental disclosures on corporate leverage in the oil and gas industry in Nigeria. The study variables were the size of the firm, its profit, leverage, the audit firm type, environmental remediation disclosures and pollution control disclosures. The cross-sectional design was adopted and a sample of fifteen companies was drawn from the oil and gas industry. The binary regression technique was employed in the analysis of the data. The finding suggests that there is no significant association between the size of the firm and corporate socially responsible disclosures. No significant relationship was accounted for with respect to the profit, leverage, audit type and corporate socially responsible disclosures, either. The study of Makori and Jagongo (2016) established whether there was any significant association between environmental disclosures and the profitability of the selected firms. The data for the study were obtained from the annual reports and accounts of the fourteen companies quoted on the Bombay Stock Exchange in India and the analysis were carried out via multiple regressions. The study found that there was a significant negative association between environmental disclosures and firms performance.

A similar study of environmental accounting and organizational performance among the oil and gas companies operating in the Niger Delta Region of Nigeria was conducted by Bassey, Effiok and Eton (2013). The primary and secondary data were obtained and Pearson's Product Moment Correlation Coefficient (PPMCC) was the statistical tool employed. The study found that the environmental cost significantly correlated with a firm's profitability. Okafor (2018) on the same note investigated firms liquidity and environmental disclosures using regression model and found insignificant effect. The study however concludes that environmental disclosures have no influence on firms' liquidity. Similarly, the recent study of Ngwakwe (2018) on the nexus between environmental disclosures and liquidity of manufacturing firms in Nigeria explored regression model and found significant positive effect between environmental disclosures and manufacturing firms' liquidity

3.0 Methodology

This study adopts ex-post facto design. This was adopted based on the fact that our data is secondary data that exists already which cannot be manipulated or controlled. The population of the study consists of all the firms quoted under consumer goods and industrial goods sector of NSE as at 2019 business list spanning from 2014-2018. It includes; (Nigerian Breweries Plc, Unilever Plc, Guinness Breweries Plc, International Breweries Plc, Cadbury Nig Plc, Nestle Nig Plc, Honeywell Flour Mill Plc, Dangote Flour Mill Plc, Champion Breweries Plc, Dangote Sugar Plc, Flour Mills Nig Plc, MCNichols Plc, Nascon Allied Ind Plc, PZ Cussons Plc, Union Dicon Salt Plc, Vitafoam Plc, Dangote Cement Plc, Meyer Paints Plc, Premier paints Plc, Austin Laz & Companies Plc, Cement co of North Plc, Portland Paints & Products Nig Plc, Notore Chemical Ind Plc, Lafarge Africa Plc, Greif Nig Plc, Beta Glass Plc, Berger Paints Plc, Cutix Cable Plc, Cap Plc and First Aluminum Plc). The study employed panel data from secondary sources which are quantitative in nature. The data were obtained from the NSE Factbook and annual reports and accounts of the firms. The technique of data analysis employed in this study is the multiple regression analysis. The study adopted this technique to ascertain the effect of the firm environmental disclosures on firms' dividend payout. The data was analyzed using SPSS V. 20 statistical package, and the outcome was used to test the hypothesis formulated for the study after conducting necessary tests. Various robustness tests such as test for multi-collinearity between the independent variables were carried out to improve the validity of the results obtained.

3.1 Operationalization and Measurement of Variables

3.1.1 Dependent Variable

The dependent variable in this study is Firms' Dividend Payout and it was proxy or measured using the logarithm of DPS/EPS. This is in harmony with the works of Royet (2016) and Gelb (2017).

3.1.2 Independent Variable

The independent variable for the study (environmental disclosures) was proxy using Employees Health and Safety Disclosure (EHSD) as used by Royet (2016), Waste Maintenance Disclosure (WMD) as used by Prattern and Mashat (2014), Pollution Control Disclosure (PCD) as used by Gelb (2017), and Environmental Remediation Disclosure (ERD) as used by Brown (2015).

The independent variables are therefore measured as follows:

3.1.2.1 Employee Health and Safety Disclosure (EHSD)

Employees' Health and Safety Disclosure is however measured using disclosure index adopted from the Global Reporting Initiative as exposited in the study of Royet (2016), Brockman (2015). A dichotomous procedure by (GRI) was applied in scoring the items whereby specifically, a "1-point" score is awarded for each item that is disclosed in the annual report and otherwise, a "0-point".

3.1.2.2 Waste Management Disclosure (WMD)

Waste management disclosure is however measured using disclosure index adopted from the Global Reporting Initiative as exposited in the study of Pratten and Mashak (2014), Fouts (2014). A dichotomous procedure by (GRI) was applied in scoring the items whereby specifically, a "1-point" score is awarded for each item that is disclosed in the annual report and otherwise, a "0-point".

3.1.2.3 Pollution Control Disclosure (PCD)

Pollution control disclosure is however measured using disclosure index adopted from the Global Reporting Initiative as exposited in the study of Gelb (2017), Brown (2015). A dichotomous procedure by (GRI) was applied in scoring the items whereby specifically, a "1-point" score is awarded for each item that is disclosed in the annual report and otherwise, a "0-point".

3.1.2.4 Environmental Remediation Disclosure (ERD)

Environmental Remediation disclosure is however measured using disclosure index adopted from the Global Reporting Initiative as exposited in the study of Brown (2015). A dichotomous procedure by (GRI) was applied in scoring the items whereby specifically, a "1-point" score is awarded for each item that is disclosed in the annual report and otherwise, a "0-point".

3.2 Model Specification

In line with the previous researches, the researcher adapted and modified the Models of Royet (2016) and Gelb (2017) in determining the effect of environmental disclosures on dividend payout of firms. This is shown below as thus:

Royet (2016): $\mathbf{DPO = \beta_0 + \beta_1 EHSD + \beta_1 ERD + \mu}$ ----------**1**

Gelb (2017): $\mathbf{DPO = \beta_0 + \beta_1\ PCD + \mu}$ ----------**11**

Where

DPO = Dividend Payout

EHSD = Employees Health and Safety Disclosure

ERD = Environmental Remediation Disclosure

PCD = Pollution Control Disclosure

The explicit form of the regression modified for this study is expressed as thus:

$\mathbf{DPO_{it} = \beta_0 + \beta_1\ EHSD_{it} + \beta_2\ ERD_{it} + \beta_3\ PCD_{it} + \beta_4\ WMD_{it} + \mu}$ ----------**111**

Where; WMD = Waste Management Disclosure

Decision Rule: accept Ho if P-value > 5% significant level otherwise reject Ho

4.0: Results and Discussion

This section presents the results from the analysis of data and its interpretation

Table 1: Descriptive Statistics

	Mean	Std. Deviation	N
DPO	.6980	.33082	150
ERD	4.4000	7.82169	150
WMD	3.9600	1.83433	150
PCD	4.6280	6.27319	150
EHSD	3.1200	6.11341	150

Source: SPSS Computational Results (2020).

The table 1 above shows that the mean value of dividend payout (DPO) among the sampled firms was 0.6980. This implies that about 69.80% of the observations for our model had environmental disclosure items in their annual reports.

The mean value of environmental remediation disclosure (ERD) for the sampled firms' was 4.40. This means that firms with ERD values of 4.40 extremely disclosed this information in their annual reports. This justifies the need for this study as we assume that firms with higher

ERD values are higher profit making firms than those firms with low ERD values at a high degree risk of 7.82%. The mean value of waste management disclosure (WMD) for the sampled firms' was 3.90. This means that firms with WMD values of 3.90 moderately disclosed this information in their annual reports. This justifies the need for this study as we assume that firms with higher WMD values are higher profit making firms than those firms with low WMD values at a high degree risk of 1.83%.

The mean value of pollution control disclosure (PCD) for the sampled firms' was 4.6. This means that firms with PCD values of 4.6 extremely disclosed this information in their annual reports. This justifies the need for this study as we assume that firms with higher PCD values are higher profit making firms than those firms with low PCD values at a high degree risk of 6.27%. The mean value of employees' health and safety disclosure (EHSD) for the sampled firms' was 3.1. This means that firms with EHSD values of 3.1 moderately disclosed this information in their annual reports. This justifies the need for this study as we assume that firms with higher EHSD values are higher profit making firms than those firms with low EHSD values at a high degree risk of 6.1%.
In an effort to establish and ascertain whether or not multi-collinearity exists as a result of the correlation between variables, table 2 is incorporated for such purpose.

Table 2: Collinearity Statistics

Tolerance Value	VIF
.239	4.176
.376	2.658
.707	1.415
.504	1.983

Source: SPSS Computational Results (2020).

From the table above TV ranges from 0.239 to 0.504 which suggests non multi-collinearity feature. The VIF which is simply the reciprocal of TV ranges from 1.415 to 4.176 also indicates non multi-collinearity feature. Multi-collinearity feature according to Sabo, Rabi, Usman, Fatima, and Tjjani (2015) exists when the value of TV is less than 0.20 or where VIF exceeds 10 i.e VIF>10

Test of Hypotheses
H_{01}: Employee health and safety disclosure has no significant effect on dividend payout of firms
H_{02}: Waste management disclosure has no significant effect on dividend payout of firms
H_{03}: Pollution control disclosure has no significant effect on dividend payout of firms
H_{04}: Environmental remediation and disclosure has no significant effect on dividend payout of firms
Model: $DPO_{it} = \beta_0 + \beta_1 EHSD_{it} + \beta_2 ERD_{it} + \beta_3 PCD_{it} + \beta_4 WMD_{it} + \mu$
Decision Rule: accept Ho if P-value > 5% significant level otherwise reject Ho

Table 3: Result on Effect of Environmental Disclosures on Dividend Payout of Firms

Coefficients[a]					
Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig.	Collinearity Statistics

		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.923	1.436		2.454	.029		
	EHSD	0.301	0.003	0.138	1.376	.031	.239	4.176
	WMD	0.641	0.161	0.423	1.104	.034	.376	2.658
	PCD	0.505	0.007	0.340	1.411	.032	.707	1.415
	ERD	0.774	1.845	0.661	1.628	.021	.504	1.983

a. Dependent Variable: DPO

R^2 0.640, Adjusted R^2 0.583, Prob (F-statistics) 0.039, F Stat 2.868, Durbin-Watson Stat 2.090
Source: SPSS Computational Results (2020).

The coefficient of determination R^2 shows 0.640 indicating that the overall model explained 64 percent of the total variations in the dependent variable. Thus shows that these variables (ERD, WMD, PCD & EHSD) can only explain 64 percent of change in firms' Dividend Payout leaving 36 percent unexplained. This is to say that there are other determinants of dividend pay out to firms' other than that of environmental disclosures.
The sig. (or p-value) is .039 which is below the .05 level; hence, we conclude that the overall model is statistically significant, or that the variables have a combined or joint effect on the dependent variable. Durbin Watson Statistics of 2.090 shows non-auto correlation of the regressors. With this, the researcher affirms the validity of the regression model adopted in this study.

4.1: Discussion of Findings.
The results of the regression are therefore slated below as follows:

H_{01}: Employee Health and Safety Disclosure has no significant effect on DPO of firms'
This hypothesis was tested and the result of this regression as exposited on table 3 indicates that the relationship between EHSD and DPO is positive and significant; this can be justified with the P-value (significance) of 0.031 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.138 is proving that, an increase in EHSD while other remaining variables remain constant increases firms' DPO. Thus implies that companies that make public known about being environmental friendly attract much more investors and restores investors' confidence and when such disclosures are adequately given, it influences firms' dividend payments
We therefore rejected null hypothesis and accepted alternate hypotheses which contends that corporate firms' EHSD has a significant impact on firms' DPO. This observation is in agreement with the findings of Ifurueze, Lydon and Bingilar (2013) and Royet (2016) whose studies were carried out in Nigeria and France respectively. Ifurueze et al (2013) noted that employees' health and safety ensures firms performance. Royet (2016) on the same note found significant positive association between EHSD and DPO. This also agrees with the priori expectations of Brockman (2015) on the nexus between environmental disclosures and dividend policies among the listed Italian manufacturing firms who found significant positive effect between Employees Health and Safety Disclosures and dividend payout decision.

H_{02}: Waste Management Disclosure has no significant effect on DPO of firms'

This hypothesis was tested and the result of this regression as exposited on table 3 indicates that the relationship between WMD and DPO is positive and significant; this can be justified with the P-value (significance) of 0.034 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.423 is proving that, an increase in WMD while other remaining variables remain constant increases firms' DPO.

We therefore rejected null hypothesis and accepted alternate hypotheses which contends that corporate firms' WMD has a significant impact on firms' DPO. This is in tandem with the study of Fouts (2014) who found positive relationship on waste management disclosure and dividend policies of manufacturing firms. This is not in agreement with the priori expectations of Makori and Jagongo (2013) whose study argues that waste management disclosure has significant negative association with firm's performance. This also sees agreeable with the findings of Prattern and Mashat (2014) who is opinion that waste management disclosure has no significant impact on firms' dividend payments.

H_{03}: Pollution Control Disclosure has no significant effect on DPO of firms'

This hypothesis was tested and the result of this regression as exposited on table 3 indicates that the relationship between PCD and DPO is positive and significant; this can be justified with the P-value (significance) of 0.032 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.340 is proving that, an increase in PCD while other remaining variables remain constant increases firms' DPO. Thus implies that firms should have positive disposition towards pollution control and when such disclosures are adequately given, it influences firms' dividend payouts as more investors shall be attracted to invest in such firm.

We therefore rejected null hypothesis and accepted alternate hypotheses which contends that corporate firms' PCD has a significant impact on firms' DPO. This agrees with the status quo of Deume and Knechel (2016) who opines that Environmental pollution control disclosure has positively influenced the dividend policies of manufacturing firms listed in Germany.

This disagrees with the Gelb (2017) who also found pollution control disclosure insignificantly and negatively related to firms dividend payout

H_{04}: Environmental Remediation Disclosure has no significant effect on DPO of firms'

This hypothesis was tested and the result of this regression as exposited on table 3 indicates that the relationship between ERD and DPO is positive and significant; this can be justified with the P-value (significance) of 0.021 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of .0661 is proving that, an increase in ERD while other remaining variables remain constant ensures firms' firms' DPO. Thus implies that firms should have positive disposition towards environmental remediation and when such disclosures are adequately given, it increases firms' dividend payouts as more investors shall be attracted to invest in such firm.

We therefore rejected null hypothesis and accepted alternate hypotheses which contends that corporate firms' ERD has a significant impact on firms' DPO. This is in agreement with the priori expectations of Royet (2016) who found environmental remediation disclosures significantly associated with dividend payout of listed manufacturing firms in France. This is also in tandem with the priori expectations of Brockman (2015) who conclude that environmental remediation disclosure has influenced firms' dividend payments positively over the year.

5.0 Conclusion

This study notes that among the four categories of Environmental Disclosures by GRI (EHSD, WMD, ERD & PCD) that were examined, ERD disclosure has the highest influence on firms' performance followed by WMD disclosure, PCD disclosure and EHSD disclosure.

The study having developed a model fit on environmental disclosures using (EHSD, WMD, ERD & PCD) captured that EHSD, WMD, ERD and PCD have joint effect on dividend payout of firms. Based on this, the study concludes that environmental disclosures have exerted significant influence on firms' dividend payments over the years.

5.1: Recommendations

1. The study established a positive association between Employees' Health and Safety Disclosures and firms Dividend Payouts. Based on this, the study suggests that firms should have positive disposition towards environmental cost friendly practices and also disclose more of this information in their annual reports on her commitment of business to contribute to sustainable economic development, working with employees, their families and the local communities as the level of disclosure of this information has influenced dividend payout of firms over the years.

2. The study suggests that firms should disclose more of quality Waste Management information in its financial reporting as it ensures higher dividend payout. Government should also establish an agency in charge of monitoring firms' level of compliance with environmental laws and also give tax credit to such an organizations that comply with its environmental laws and Waste management disclosure. Thus would encourage discretional disclosures.

3. The study also established that the level of Pollution Control Disclosure improves firms' dividend payout. Based on this, the study suggests the need for listed manufacturing firms to disclose more of this information in their reporting as it is essential for investors' for investment decision making.

4. The study found Environmental Remediation Disclosure having significant influence on firms' dividend payout, thus the study recommends that firms should continue to improve on its voluntary disclosure on environmental remediation in order to uphold their market value, guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity.

5.2: Contribution to Knowledge

The study adapted and modified the Models of Royet (2016) and Gelb (2017) in order to develop a model fit on environmental disclosures based on GRI so as to capture the joint effect of these variables (EHSD, WMD, PCD and ERD) on firms dividend payout which calls for further investigation in the developed nations based on mixed & conflicting results found; also in the developing nations like Nigeria, no study had established on the relation between environmental disclosures and dividend payout of firms. The adapted models are shown below as thus:

Royet (2016): $\mathbf{DPO = \beta_0 + \beta_1 EHSD + \beta_1 ERD + \mu}$

Gelb (2017): $\mathbf{DPO = \beta_0 + \beta_1\ PCD + \mu}$

The explicit form of the regression modified for this study is expressed as thus:

$\mathbf{DPO_{it} = \beta_0 + \beta_1\ EHSD_{it} + \beta_2\ ERD_{it} + \beta_3\ PCD_{it} + \beta_4\ WMD_{it} + \mu}$

$\mathbf{DPO_{it} = \beta_0 + \beta_1\ EHSD_{it}\ (0.301\{0.031\}) + \beta_2\ ERD_{it}\ (0.774\{0.021\}) + \beta_3\ PCD_{it}\ (0.505\{0.032\}) + \beta_4\ WMD_{it}\ (0.641\{0.034\}) + \mu}$

By this implication, the study asserts that the overall model is statistically significant. The variables (EHSD, WMD, PCD and ERD) have significant effect on the dependent variable (DPO).

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Acknowledgement

The Rector of Anambra State Polytechnic, Dr. (Mrs) Nneka Mefoh is highly acknowledged and appreciated for her positive contribution in seeing this research through. Secondly, all the staff of Accountancy department of Anambra State Polytechnic and Nnamdi Azikiwe University Awka are highly appreciated too for their earnest contribution in this work.