



EFFECT OF ENVIRONMENTAL REPORTING ON LIQUIDITY OF FIRMS IN NIGERIA

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ABSTRACT

This study empirically examined the effect of environmental reporting on corporate liquidity in Nigeria. The study's independent variables include employee health and safety disclosure, pollution control disclosure, and environmental remediation disclosure, which were used as proxies for the environmental reporting, while the dependent variable is company liquidity and was proxy as a current ratio. Three hypotheses were formulated for this study. An ex post facto design was used and the data for the study comes from the published annual financial reports of all 41 companies listed on the sectors of Nigerian Exchange Group ranging from Consumer Goods Sector, Oil & Gas Sector and Industrial Goods Sector, with the data covering the period of 2015-2021. However, the study found that employee health and safety disclosure, pollution control disclosure and environmental remediation disclosure have significant impact on companies' liquidity proxy, as the current ratio at 1% significant level. On this basis, the study concludes that environmental reporting has positively improved companies' liquidity over the years. In lieu of the study results, it was recommended that companies disclose more of this information in their annual reports, as the level of disclosure of environmental practices over the years has a significant impact on companies' liquidity.

Keywords: Employees health and safety disclosure; pollution control disclosure and environmental remediation disclosure; liquidity.

1. INTRODUCTION

According to Otuya and Etale [1] environmental reporting issues have recently attracted the interest of the business community and the general public. As concerns about environmentally friendly practices increase, business organizations face the challenge of disseminating information on environmental issues in their annual reports. Environmental disclosure addresses the awareness that actions taken in the

present will impact options available in the future. Thus, when resources are used in the present, they become unavailable in the future, and this is of particular concern when resources are finite in quantity. However, environmental reporting is the process of communicating the social and environmental impacts of an organization's economic actions to specific stakeholders and to society at large. The study on environmental reporting and corporate liquidity in developed countries remained unresolved

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despite the efforts of the previous studies. It was also noted that no specific study had examined the relationship between the extent of corporate environmental reporting and liquidity in developing countries.

In the developed nations, studies on environmental disclosure could not be overemphasized. However, few studies have identified the impact of environmental reporting levels on company liquidity, with mixed and conflicting results. For example; Philips [2], Smart [3], Dang and Knechel [4], Petrovits [5] showed that environmental disclosures have a significant and positive effect on companies' liquidity. On the contrary, the studies by Nasir and Omar [6] Vogel [7] Waddock and Graves [8] showed insignificant negative effects. Therefore, there was no agreement on the impact of environmental reporting on the liquidity of companies in developed countries, which requires further investigation and clarification. To achieve this goal, the present study adapted and modified the Philips [2] model to capture the actual impact of environmental reporting on firms' liquidity.

From the context of developing countries like Nigeria, the studies on environmental reporting are as follows: Agbiogwu, Ihedinihu and Okeke [9]. Environmental disclosures and corporate profits, Dibua and Onwuchekwa [10]. Environmental disclosures and corporate levers, Ezejiolor, Rachael and Chigbo [11]. Environmental disclosures and Corporate Revenue, Emeakponuzo and Udih [12]. Environmental Accounting and Return on Equity, Ifurueze, Lydon and Bingilar [13], Environmental Cost and Corporate Performance, Okeke (2018), Environmental Reporting and Corporate Dividend Payment, Ngwakwe [14], Environmental Reporting and Corporate Dividend Payment, Omaliko and Okpala [15]. Environmental disclosures and dividend payout etc. Hence the need for the present study to examine the impact of environmental reporting on liquidity of firms in the Nigerian business environment, as no study is known to have examined the impact of environmental reporting on corporate liquidity in Nigeria.

To achieve this purpose, the following null hypotheses were formulated:

- H₀₁:** Employees Health and safety Disclosure has no significant effect on firms Liquidity.
- H₀₂:** Environmental Remediation Disclosure has no significant effect on firms Liquidity.
- H₀₃:** Pollution Control Disclosure has no significant effect on firms Liquidity .

2. LITERATURE REVIEWS AND HYPOTHESES

2.1 Environmental Reporting

Environmental reporting can be defined as any information that a company discloses, typically within or alongside its financial statements or in a standalone report, related to its performance, standards or corporate social responsibility activities. Such documents are most commonly known as sustainability reports, but they are also known as corporate social responsibility reports, environmental reports, and corporate accountability reports. The documents are believed to convey important information about the extent to which a company's activities are sustainable, and also their activities could serve the needs of all of its stakeholders without limiting its ability to meet the needs of potential future stakeholders by enhancing its environmental base maintains social and economic capital [16]. Environmental reporting can be mandatory, a legal obligation to provide this information, or voluntary, with the scope and nature of reporting varying significantly from company to company. Over time, mandatory reporting requirements have been introduced in a large number of countries as disclosure requirements have evolved, leading to a predictable increase in disclosure levels in the countries concerned [17].

The study of Philips [2] measured environmental reporting using the index of Employees' Health and Safety Disclosure (EHSD), Vogel [7] measured environmental disclosure using Pollution Control Disclosure (PCD) and Nasir and Omar measured environmental disclosure using the index of Environmental Remediation Disclosure (ERD)

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

2.2 Employees Health and Safety Disclosure

According to Odua and Ikeh (2017), one of the basic principles of occupational health and safety is risk assessment, which identifies all hazards and potential for harm during work. Employers must provide information and training on workplace risks and safe work practices. Employees, on the other hand, must comply with workplace safety requirements and take all reasonable precautions to ensure safety. According to Adedilan and Alade [18] disclosure of employee

health and safety is one of the most important disclosures relevant to environmental accounting of stakeholder consumption. It is a disclosure of accidents at work and occupational diseases, which are a health issue but also an economic one, since they stem from work and work is an economic activity. The involvement of economic considerations in the aetiology of occupational diseases, as well as the influence this has on the economic prospects of workers, companies, nations, and the globe at large, are covered in the economic viewpoint on worker safety and health. As a result, while this is a broad perspective, it is not exhaustive, because neither the causality nor the human importance of EHS can be reduced to its economic components.

Hence, the study hypothesized that;

H₀₁: Employees health and safety disclosure has no significant effect on firms liquidity

2.3 Environmental Remediation Disclosure

Environmental remediation, according to Nasir and Omar, is the process of removing pollution or pollutants from environmental media such as soil, groundwater, sediment, or surface water. Remedial action is generally subject to a set of regulatory requirements and may also be based on human health and environmental risk assessments where statutory standards do not exist or where standards are advisory. Environmental remediation disclosure means controlling emissions and effluents into the environment. It refers to the use of materials, procedures, or activities to reduce, decrease, or eliminate pollution or waste formation. It encompasses methods for conserving poisonous or hazardous materials, energy, water, and other resources.

In this view, it was hypothesized that;

H₀₂: Environmental remediation disclosure has no significant effect on firms liquidity

2.4 Pollution Control Disclosure

Pollution is the introduction of pollutants into the natural environment that cause adverse changes. Pollution can come in the form of chemical substances or energy such as noise, heat or light. Pollutants, the components of environmental pollution, can be foreign matter/energies as well as naturally occurring pollutants. Pollution is often classified as point source or non-point source pollution [18]. According to the study, the main forms of pollution include: air pollution, light pollution, litter pollution, noise pollution, plastic pollution, soil

pollution, radioactive contamination, thermal pollution, visual pollution, water pollution. Environmental protection is an essential task. There are four sorts of controls that help avoid pollution from diverse processes: legal, social, economic, and technological. Waste products enter the environment in a variety of ways, posing a hazard to air, land, and water quality. Waste products in water are especially dangerous because many of them can enter the food chain, where biochemical reactions can quickly raise their concentration to hazardous levels. As a result, it is critical to research strategies for processing waste products and eliminating them from aqueous systems [19].

Pollution control has practically become an intrinsic element of the industrialisation process, according to Dibua and Onwuchekwa [10]. Appropriate legislation has been enacted to limit and regulate the expansion of pollution-intensive sectors, particularly in metropolitan areas. Pollution control measures must now be implemented by all industrial facilities. Thus, it was hypothesized that;

H₀₃: Pollution control disclosure has no significant effect on firms liquidity

2.5 The Concept of Liquidity

Liquidity metrics are used to support liquidity management in an organization in the form of stream metrics and quick metrics with the intention of extremely influencing the organization's profitability. Thus, the entity will have sufficient liquid funds (cash, bank) to meet the payment program by comparing payment obligations to cash and cash-like payment obligations (Walsh, 2016). According to Vogel [7] liquidity is the amount of money that is readily available for investment and spending. It consists of cash, treasury bills, debentures and bonds, and any other asset that can be quickly sold or easily converted into cash. Liquidity can be measured by current ratio, quick ratio, liquidity ratio, etc. According to Ibenta (2005) the current ratio is a ratio that expresses the ratio between current assets and current liabilities. It measures the extent to which a company might be able to properly meet its obligations. Mathematically, CR is expressed as CA/CL.

Mathematically, CR is expressed as CA/CL

Current ratio, cash ratio and acidic test ratio were used as a measurement for liquidity in the prior expectations of Philips [2] Vogel, [7], Dang and Knechel [10] Omaliko and Okpala [20] etc. However, for the purpose of this study, liquidity was measured by current ratio as used by Philips [2].

This is expressed mathematically as

$$CUR = \frac{CA}{CL}$$

2.6 Theoretical Framework

The theoretical foundation of this study is anchored on the “Stakeholders’ Theory” and Trade off Theory of Liquidity.

2.6.1 The Stakeholders’ Theory

In the year 1983 [21], Freeman proposed this hypothesis. According to the theory, business organisations are elements of a social system or group whose existence is dependent on the successful management of all of a firm's interactions with its stakeholders; those groups without whose support the organisation would cease to exist. Stakeholder theory proposed increased environmental awareness creating the need for companies to manage these interests, i.e. the interests of the financial stakeholders and the interests of the non-financial stakeholders; otherwise the company would not survive

2.6.2 Trade off Theory Liquidity

The liquidity trade-off theory was proposed by Jensen in 1986 [22]. Under perfect capital market assumptions, holding cash neither creates nor destroys value. The trade-off theory states that companies seek optimal levels of liquidity to balance or offset the benefits and costs of holding cash. The costs of holding cash include: low return on assets due to liquidity premium and possible tax disadvantage. On the other hand, holding cash has two advantages: a. Businesses save on transaction costs to raise funds and don't have to liquidate assets to make payments. b. The Company may use cash to fund its operations and investments when other sources of funding are unavailable or extremely expensive.

The study is however anchored on both stakeholders’ theory and Tradeoff theory of Liquidity as Stakeholders theory is concerned to encourage business managers to carry out environmental practices which the non- financial stakeholders consider very important and also relevant for investors decision making. Tradeoff theory of liquidity on the other hand is concerned with the optimal liquidity of firms.

2.7 Empirical Review

2.7.1 Employee health and safety disclosure and firms liquidity

Smart [3] introduced the regression model statistical test tool in the same way and collected data from the

annual accounts and accounts of the selected listed manufacturing companies in Italy and found a significant positive association between environmental claims, as measured by employee health and safety disclosures, and the environment noted reorganization with liquidity of companies. Agbiogwu, Ihedinihu, and Okeke (2016) study of environmental and social costs in manufacturing companies found a positive correlation between environmental reporting and financial performance.

Agbola (2012) conducted a study on "impact of health and safety management on performance the Ghana ports and harbor authority". Findings show that an organization is afflicted with poor health and safety management practices, poor safety literacy training, lack of information about hazardous chemicals and hazardous materials, lack of monitoring and enforcement of safety regulations, unavailability of essential safety equipment, and adverse impacts on organizational performance. He also recommended that the GPHA must increase education and awareness of the importance of health and safety; Ensuring the collection and storage of data to effectively monitor and evaluate safety performance.

Another study conducted by Wumoo [23] examining the impact of health and safety policies on the performance of Ghana's timber industry and a case study approach were adopted for the study. The study showed that company health and safety measures are positively correlated with performance, although the correlation is weak. There is also an inverse relationship between reducing the number of accidents and injuries through health and safety promotion and performance. From the results, it was concluded that organizations need to pay a lot of attention to their health and safety measures because, apart from the fact that they are enshrined in law and required in other jurisdictions, they are classified as a vital need for which there are other motivating factors for the performance improve employees and company.

Looking at the impact of occupational health and safety policies on company performance, Lim [24] added that when workers understand the health and safety rules and procedures of their work and the tools used for better company performance, it helps them to work effectively and efficiently. It also reduces employee absenteeism and employee turnover and this directly affects the increase in productivity, employee/customer relationship, subordinate/management relationship, whereby the end result will be an increase in profitability for the organization. The study used a regression model and concluded that occupational health and safety measures have an impact on organizational performance. Hudson [25]

also sees that promoting health and safety at work has a direct positive impact on the performance of companies in Sudan. Good health and safety practices have been identified in relation to the performance of all employees. The study concludes that promoting health and safety in the workplace has a direct positive impact on organizational performance. There is also room for high employee performance, which encourages creativity and innovation.

2.7.2 Environmental remediation disclosure and firms liquidity

The current study by Philips [2] found a significant positive correlation between the disclosure of environmental remediation and the liquidity of companies. The study focused on environmental disclosures and liquidity from manufacturing companies and recommends appropriate disclosures of this information to stakeholders. This contradicts the status quo of Nasir and Omar (2015) on environmental disclosures and corporate liquidity, who found that disclosure of environmental cleanup has an insignificant relationship to corporate performance as measured by liquidity. Contributions to this topic tend to support the existence of a positive relationship between environmental sustainability and economic-financial performance. In particular, some studies claim that a greater focus on the environment creates competitive advantages and thereby improves the profitability of companies [26]. The study found that waste management has influenced the performance of companies in Germany over the years.

Despite the difficulties related to identifying the economic-financial impact of more responsible environmental management, which may therefore be underestimated, some authors claim that the introduction of pollution prevention systems can help improve a company's operational efficiency and profitability [27]. The results show that the best environmental performances go hand in hand with the highest economic-financial performances in Italy and that the positive nature of the relationship becomes even clearer as the sector grows. Ameer and Othman [28] observe the link between environmental sustainability and economic-financial performance in a population of 100 Deutsche Boerse-listed companies, considered the most sustainable in the world. Both the direction of the relationship between environmental investment and profitability and the independent variable of this relationship are unclear. Hart and Ahuja (2016) also identified a link between certain economic-financial performance indicators of South African companies, including ROA, and other environmental-related indicators. However, the study concludes that companies that focus more on environmental disclosures are more profitable.

Watson [29] analyzed the impact of multiple environmental management systems (EMS) on business performance using accounting and market indicators and concluded that there is no evidence of a positive correlation between the introduction of an EMS and UK economic-financial performance. In addition, there is also scientific evidence of how different impacts on economic-financial performance correspond to different environmental indicators in terms of sign and value. Jaffe [30] notes in her article that there are numerous reasons why the impact of new environmental regulations on company performance may be modest, and in any case concludes that disclosure of environmental remediation has a significant impact on company performance company listed on Bombay over had years.

2.7.3 Pollution control disclosure and firms liquidity

Dang and Knechel [4] whose study looked at environmental disclosures at manufacturing companies in Germany, found that companies with higher polluting propensities and greater media coverage of their environmental performance are more likely to disclose general environmental information, a finding that is also consistent In the same vein on the impact of environmental disclosures on the liquidity of listed manufacturing companies, Nasir and Omar (2015) argue in the same vein on the impact of environmental disclosures on the liquidity of listed manufacturing companies that disclosure of environmental protection measures between companies has no impact on the liquidity of companies. King and Lenox (2016) found that the reduction Pollution through waste prevention is profitable (albeit moderately) in Malaysia, in contrast to ex-post waste treatment, to which they attribute no positive economic effect. Similar results were obtained by Hart and Ahuja (2016), who concluded that the introduction of pollution prevention systems has a positive impact on company performance (return on sales and return on investment).

Guenster (2017) proposes that eco-efficient firms have higher returns on equity, proving the existence of a positive, albeit non-linear, relationship between Tobin's Q and environmental disclosure performance of firms does not affect liquidity in Japan. The study measures environmental disclosure using the Proxy of Environmental Control Disclosure and data was collected from the annual reports and accounts of the selected manufacturing companies in Japan and concludes that environmental disclosures are not one of the determinants of liquidity in Japan. Waddock and Graves (2014) adopted the least squares method as a statistical test tool and showed insignificant adverse

effects on the impact of environmental disclosures on the liquidity of listed manufacturing companies in Australia. However, the study comes to the conclusion that environmental information has not influenced the liquidity of the companies in the years examined.

2.8 Summary of Empirical Literature

In the developed nations, studies on environmental disclosures could not be over stressed or over emphasized. However, only fewer studies established the influences of the level of environmental reporting on liquidity of firms with mixed and conflicting results. For instance; Philips [2], Smart [3], Dang and Knechel (2016), Petrovits (2014), showed that environmental disclosures have significant positive effect on liquidity of firms. On the contrary, the studies of Nasir and Omar (2015), Vogel [7] Waddock and Graves (2014) showed insignificant negative effect. Thus, there was no agreement on the effect of environmental disclosures on liquidity of firms in the developed nations which calls for further investigation and clarifications. To achieve this purpose, the present study adapted and modified the model of Philips [2] in order to capture the real effect of environmental reporting on liquidity of firms.

From the context of developing nations like Nigeria, studies done on environmental reporting are as follows; Agbiogwu, Ihedinihu and Okeke (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, Okeke (2018), environmental disclosures and firms dividend payout, Ngwakwe (2018), environmental disclosures and firms dividend payout etc.

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

3. METHODOLOGY

The study used Ex Post Facto design and used the entire firms quoted on industrial goods, consumer goods and oil and gas sector of Nigerian Stock Exchange. Out of 43 firms that formed our sample

size, 2 had incomplete figures and was removed (*Golden Guinea Breweries Plc, and Nigerian German Chemical Plc*) which reduced our sample size to 41 firms. Panel regression model was applied using STAT 15. For test of auto correlation and multi collinearity checks, variance inflation factor and tolerance value were applied.

3.1 Operationalization and Measurement of Variables

3.1.1 Dependent variable

The dependent variable in this study is Firms' liquidity and it was measured using current ratio. This is in harmony with the works of Philips (2016).

3.1.2 Independent variable

The independent variable for the study (environmental reporting) were measured using the proxy of Employees Health and Safety Disclosure (EHSD) as used by Philips [2] Pollution Control Disclosure (PCD) as used by Vogel [7] and Environmental Remediation Disclosure (ERD) as used by Nasir and Omar (2015), Omaliko, Uzodimma and Ogbuagu [31].

The independent variables are therefore were measured as follows:

3.1.2.1 Employee Health and Safety Disclosure (EHSD)

Employees' Health and Safety Disclosure was measured using the disclosure index adopted from the Global Reporting Initiative. The disclosure index however consists of 5 items. A dichotomous procedure by (GRI) was applied in scoring the items whereby specifically, a "1-point" score is shall be awarded for each item that is disclosed in the annual report and otherwise, a "0-point".

3.1.2.2 Environmental Remediation Disclosure (ERD)

Environmental Remediation disclosure was measured using the disclosure index adopted from the Global Reporting Initiative. The disclosure index however consists of 5 items. 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 was measured using the disclosure index adopted from the Global Reporting

Initiative. The disclosure index however consists of 5 items. A dichotomous procedure by (GRI) was applied in scoring the items whereby specifically, a “1-point” score is to be 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 Philips [2] for the study. This is shown below as thus:

$$\text{Philips (2016): } \text{CUR} = \beta_0 + \beta_1\text{EHSD} + \beta_1\text{ERD} + \mu \quad (1)$$

Where

CUR = Current Ratio

EHSD = Employees Health and Safety Disclosure

ERD = Environmental Remediation Disclosure

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

$$\text{Model 1: } \text{CUR}_{it} = \beta_0 + \beta_1 \text{EHSD}_{it} + \beta_2 \text{ERD}_{it} + \beta_3 \text{PCD}_{it} + \mu$$

Where; PCD = Pollution Control Disclosure

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

4. RESULTS AND DISCUSSION

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

The Table 1 above shows that the mean value of current ratio among the sampled firms was 0.637. This implies that about 63.7% of the observations had

current assets and current liabilities items in their financial report.

The average employees’ health and safety disclosure (EHSD), environmental remediation disclosure (ERD) and pollution control disclosure (PCD) for the sampled firms’ were 4.58, 2.59 and 3.89 respectively. This implies that firms’ with EHSD values of 4.58 extremely disclosed this information in their annual reports, firms with ERD values of 2.59 moderately disclosed this information in their annual reports while firms with CGD values of 3.89 moderately disclosed this information in their annual reports.

In an effort to establish the nature of the correlation between the dependent and the independent variables and also to ascertain whether or not multi-collinearity exists as a result of the correlation between the variables, table 2 was incorporated which provides an insights into the nature and extent of correlation among the independent variables and how they are related to the dependent variable.

The relationship between all pairs of independent variables and dependent variables utilised in the regression model is shown in Table 2. It shows that all of the independent variables have a positive correlation with the dependent variable (CUR), and that several of the environmental reporting components have both positive and negative relationships with one another. The diagonal values are all 1.0000, indicating that each variable has a perfect correlation with itself. We discovered that no two explanatory factors were fully connected when we checked for multi-collinearity. Our models do not have multi-collinearity, which means they are not multi-collinear. The calculated model coefficients may have incorrect signs or implausible magnitudes due to multi-collinearity between the explanatory variables, as well as bias in the standard errors of the coefficients.

Table 1. Descriptive Statistics

Variables	Observations	Mean	Standard Deviation	Minimum	Maximum
CUR	287	0.637323	2.0895	1.0895	12.983
EHSD	287	4.584443	1.0945	0.8948	17.095
ERD	287	2.59374	1.8789	1.0953	21.033
PCD	287	3.89759	0.9895	2.4955	11.012

Source: STATA 15 Computational Results (2022).

Table 2. Correlation Matrix for the Model

Variables	CUR	EHSD	ERD	PCD
CUR	1.0000			
EHSD	0.0340	1.0000		
ERD	0.2660	0.0732	1.0000	
PCD	0.2651	0.3100	-0.0267	1.0000

Source: STATA 15 Computational Results (2022)

Table 3. Collinearity statistics

Variable	VIF	1/VIF (TV)
ICD	1.04	0.963155
RMD	1.03	0.972895
CGD	1.01	0.988405
Mean VIF	1.03	

Source: STATA 15 Computational Results (2022)

From the table above TV ranges from 1.04 to 1.01 which suggests non multi-collinearity feature. The VIF which is simply the reciprocal of TV ranges from 0.963 to 0.988 also indicates non multi-collinearity feature.

4.1 Test of Hypotheses

A look at the p-value of the Hausman test as shown above gives 0.0001 for the Model. Thus implies that we should reject the null hypothesis and accept the alternative hypothesis that random effect model is not preferred to fixed effect model at 1% level of significance.

The R² value for the model shows 75% indicating that the variables considered in the model accounts for about 75% change in the dependent variable of CUR. Thus implies that the remaining 25% is as a result of other variables not addressed by this model. The within R² of the Model indicates that the model could account for 57.9% variations within the panel units. Also the between R² of 61.2% % for model shows that the model could account for just 61.2% variations between the separate panel units.

The p-value for the Model is .0000 which is below the .05 level. Based on this, we affirm that the overall model is statistically significant, or that the variables have a combined or joint effect on the dependent variable.

4.2 Discussion of Findings

The results of the fixed effect model are shown below as:

H₀₁: Employee health and safety disclosure have no significant effect on liquidity of firms in Nigeria.

The result of the above hypothesis test as shown on table 4 indicates that the relationship between EHSD and CUR is positive and significant with a P-value of 0.000 for model 1 which is less than the 5% level of significance adopted.

This could be justified with the positive coefficient of 0.077 for the model which indicates that an increase

in firms EHSD improves CUR. Thus implies that companies that make public known their environmental practices have optimal liquidity. We therefore rejected null hypothesis and accepted alternate hypotheses which contends that employees health and safety disclosure has significant effect on liquidity of firms in Nigeria.

This seems consistent with the results of Philips [2], Smart [3], Agbiogwu, Ihedinihu and Okeke (2016), Agbola (2012), Wumoo (2013), Omaliko, Nwadiolor and Nweze [32] Lim (2012) who found a significant positive relationship between employee health and safety disclosures and company liquidity. This agreement justifies the stakeholder theory enshrined in the study, which states that companies that neglect the environment in which the domicile's business is based do not perform better.

H₀₂: Environmental Remediation disclosure has no significant effect on liquidity of firms Nigeria.

The result of the above hypothesis test as shown on table 4 indicates that the relationship between ERD and CUR is positive and significant with a P-value of 0.000 for model 1 which is less than the 5% level of significance adopted. This could be verified with result of the positive coefficient of 0.179 for the model which proves that an increase in firms' ER practices while other variables remain constant increases CUR by 17.9%. Thus implies that firms with effective environmental remediation policies have optimal liquidity. We consequently rejected null hypothesis and accepted alternate hypotheses which contends that environmental remediation disclosure has significant effect on liquidity of firms in Nigeria.

This agrees with Philips [2], Klassen and McLaughlin (2016), Omaliko, Nweze and Nwadiolor [33], Ameer and Othman (2012), Hart and Ahuja (2016), Jaffe (2015) who established a positive relationship between the two variables. The agreement also supports stakeholders theory that environment where business is domiciled should be remediated based on the activities of the business on the environment otherwise, the business fails.

H₀₃: Pollution Control disclosure has no significant effect on liquidity of firms in Nigeria.

Table 4. Panel Regression Result

Variable	CUR FIXED EFFECT			CUR RANDOM EFFECT		
	Co-efficient	T-value	P-value	Co-efficient	Z-value	P-value
CONSTANT	.4583446	2.90	0.000**	0.4567384	3.98	0.002
EHSD	.0767483	4.19	0.000**	0.1678948	3.04	0.000
ERD	.1789287	3.92	0.000**	0.8674764	7.89	0.000
PCD	.5735674	4.67	0.000**	1.0746774	6.71	0.000
R-Sq:						
Within	0.5790			0.4531		
Between	0.6120			0.6108		
Overall	0.7505			0.5896		
Prob > F	0.0000			0.0000		

HAUSMAN TEST: Prob > Chi2 = 0.0001

Note: * 5%, **1% level of significance

The result of the above hypothesis test as shown on Table 4 indicates that the relationship between PCD and CUR is positive and significant with a P-value of 0.000 for model 1 which is less than the 5% level of significance adopted.

Likewise, the result of the positive coefficient of 0.573 proves that an increase in corporate PC practices, while other variables remain constant, increases the CUR by 57.3%. This implies that companies with adequate control of the pollution arising from their operations have optimal liquidity. We consequently rejected the null hypothesis and accepted alternative hypotheses that claim that pollution disclosure has a significant impact on corporate liquidity in Nigeria. This agrees with Dang and Knechel (2016), King and Lenox (2016), Guenster (2017). A negative association was found by Nasir and Omar (2015). The agreement also supports the study's theory, which states that the purpose of any business is to make a profit, but the profit cannot be made if the environment is also neglected. This shows that companies should comply with their environmental policies to protect the environment.

5. CONCLUSION

The study concludes that environmental reporting has led to optimal liquidity of corporate organizations. Thus, the relationship between environmental reporting and firms performance is positive and significant.

6. RECOMMENDATIONS

Based on our findings, the following recommendations were made:

1. Because the study found a significant positive association between the level of disclosure of employee health and safety information and companies' liquidity, it was

suggested that companies should disclose more of this information in their annual reports to demonstrate their commitment to working with employees, their families and local communities to substantiate user accounts consumption

2. With respect to organizations that comply with environmental laws, particularly with respect to disclosure of environmental cleanup, they are granted tax exemptions to encourage full disclosure.
3. For their part, business organizations should ensure that they comply with environmental laws and also disclose more information about environmental protection measures to offset the impact of continued operations in a given environment, as such disclosure ensures optimal liquidity for businesses.

CONTRIBUTION TO KNOWLEDGE

The study adapted and modified the Model of Philips [2] in order to develop a model fit on environmental reporting based on GRI so as to capture the joint effect of these variables (EHSD, PCD & ERD) on firms liquidity 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 reporting and liquidity of firms. The adapted model is shown below as thus:

Philips (2016): $CUR = \beta_0 + \beta_1 EHSD + \beta_2 ERD + \mu$ (1)

The modified regression for this study is expressed as thus:

Model 1: $CUR_{it} = \beta_0 + \beta_1 EHSD_{it} + \beta_2 ERD_{it} + \beta_3 PCD_{it} + \mu$

Where; PCD = Pollution Control Disclosure

SUGGESTION FOR FURTHER STUDIES

- Similar studies to be done in other sectors of NSE other than industrial goods sector, consumer goods and oil and gas sector which the present study concentrated. It is believed that generalization of opinion across other sectors of NSE based on the findings of the study may not be valid as there is varying degree of operating practices among the various sectors of NSE.
- Future research can be extended by taking a long-time period which may increase the reliability of the results.

DISCLAIMER

The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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