



EFFECT OF CORPORATE DISCLOSURE ON FINANCIAL LIQUIDITY OF QUOTED PHARMACEUTICAL FIRMS IN NIGERIA

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Abstract

Most past studies carried out concerning effect of corporate disclosure on financial liquidity both within and outside Nigeria concentrated on financial disclosure ignoring other aspects of disclosures. The main objective of this study is to examine effect of corporate disclosure (environmental disclosure, corporate governance disclosure, risk disclosure and human resources accounting disclosure) on financial liquidity of quoted pharmaceutical firms in Nigeria. The research was anchored on stakeholder theory. Ex post facto research design was employed. Five out of ten top quoted pharmaceutical firms were sampled. The data used were sourced from annual reports and statement of accounts of the selected firms for the period of six years from 2015-2020. Augmented Dickey Fuller unit root test and Ordinary Least Square (OLS) were employed in analyzing the data. The result shows that Environmental Disclosure (ED) has no significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. While, Corporate Governance Disclosure (CGD), Risk Disclosure (RD) and Human Resources Accounting Disclosure (HRAD) have significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. The study concludes that corporate disclosure have significant effect on financial liquidity of quoted pharmaceutical firms in Nigeria. The study recommends that management of pharmaceutical firms should develop a well articulated environmental management and disclosure system in order to guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity. Also, pharmaceutical firms should be encouraged to disclose their risk exposure in their annual reports to enhance their competitiveness which would subsequently lead to high corporate performance.

Key Words: *Environmental Disclosure, Corporate Governance Disclosure, Risk Disclosure, Human Resources Accounting Disclosure, Financial Liquidity*

1. Introduction

Annual reports and accounts of corporate organizations are the avenue for communicating vital economic information about the operations of firms to diverse users. It remains the main medium through which the firms' directors communicate the periodic report to shareholders and key stakeholders. These stakeholders include employees, management, creditors, stockbrokers, financial analysts, suppliers, labour unions, regulators, government agencies and the general public. These users rely on published financial and non-financial reports of firms to make informed decisions. It therefore connotes that the quality of decisions made by users depends largely on the quality and quantity of information disclosed by the firms. Therefore, financial report should disclose both financial and non-financial information in order to provide a fair and true picture of a company's financial position. This is so because appropriate disclosure is indispensable to satisfy the information need of the various stakeholders (Mukhtar, 2017).



Disclosure is vital in minimizing information asymmetry among the market participants, as well as between managers and investors (Dhaliwal, Li, Tsang & Yang, 2011). It is specifically useful as a means to manage users' impressions about the firm's annual performance (Beattie, Dhanani & Jones, 2008). Providing high-quality disclosure helps in correcting firms' mis-valuation in the stock markets as well as in increasing institutional interest, financial liquidity and liquidity of their stocks. Additional disclosure adds more credibility to statements of financial position and enhances investors' perception of the firm (Healy, Hutton & Palepu, 2009).

Financial liquidity is importance in the successful operation of a firm and a firm is liquid when it has the ability to settle all maturing obligations. A firm is illiquid if it is unable to settle obligations as it arises (Olawaju & Aderemi, 2015). In this case, default in meeting maturing obligations and losses to shareholders. Liquidity is a firm's ability to fund increase in assets and meet both anticipated and unanticipated obligations at reasonable cost without running into unnecessary losses. Liquidity has been defined as the capacity of firms to finance increases in their assets and comply with the terms of their liabilities as they mature (Lartey, Santwi & Boadi, 2013).

Developments in corporate businesses all over the world since the spectacular collapse of the Enron corporation and an American company in 2001; and subsequent dissolution of Arthur Anderson (which was then one of the big five audit and accountancy partnership in the world) have put accounting and auditing profession under scrutiny (Adeyemi & Asaolu, 2013). The inadequacy in financial report has lead to high profile corporate scandals, collapses and financial crises (Ayodele & Afolabi, 2018).

Nigeria has recently taken steps to align all corporate reports to the International Reporting Standards (IFRSs) as a means of enhancing full disclosure and strengthening the confidence of stakeholders (Adeyemi & Asaolu, 2013). However, financial reports of Nigerian firms have been found to be deficient over time in the sense that they lack necessary information that will enable stakeholders make informed investment decisions (Nzekwe, 2009). Nigeria has been reputed for low-quality financial reporting and this was occasioned by weak corporate governance and poor accounting system (Okike, Adegbite, Nakpodia, & Adegbite, 2015). This study therefore, investigate the effect of corporate disclosure (environmental disclosure, corporate governance disclosure, risk disclosure and human resources accounting disclosure) on financial liquidity of quoted pharmaceutical firms in Nigeria. The beneficiaries of this study include academic researchers, regulatory bodies, management, investors and employees

2. Literature Review and Theory

2.1 Conceptualization of the Study Variables

Disclosure: The concept of corporate disclosure seems ambiguous. Al-Zarouni (2008) notes that the definition of corporate disclosure differs and covers a wide range of area. It goes beyond the firms' annual reports to cover information outside the financial statements, such as the issue of competitiveness, economic statistics and analysis of the firm. Many researchers have contributed their quota in discussing corporate disclosure. Solomon (2013) describes disclosure as a whole array of different forms of information produced by companies such as, the annual report and all forms of voluntary corporate communications. Hajian & Rostami (2014) believe that disclosure



refers to a precise and well-timed release of information about the business strategies, corporate governance, financial and non financial performance to the general public by a firm. Okike *et al* (2015) observe that the annual report and accounts of a company act as the channel of communication from the directors to shareholders and are important for corporate governance because these reports provide the means by which the directors are made accountable to the shareholders. Disclosure in corporate organization can be categorized into the following. Modugu & Eboigbe (2017) define disclosure as the publication of vital economic information relating to the activities of business enterprise, whether quantitative or otherwise in order to facilitate the making of economic decisions.

Environmental Disclosure: Lodhia (2005) defines environmental disclosure “as a process through which companies often disclose environmental information to their stakeholders to provide evidence that they are accountable for their activities and the resultant impact on the environment. Gatimbu & Wabwirel (2016) maintain that environmental disclosure “entails reporting on the impact of company activities on the natural environment such as waste management, recycling, carbon management, emission, pollution, wetland and wildlife conservation”.

Corporate Governance Disclosure: Poor corporate governance has been one of the primary causes of all known incidences of failures in the corporate world (Leramo, 2008). The quality of information and transparency provided by firms is fundamental to corporate governance. Transparency would enable the stakeholders to form a fair view of its value and to develop sufficient trust in the quality of the firm and its management.

Risk Disclosure: It is a set of information communicated in financial statements dealing with manager’s estimate judgments reliance on market – based accounting policies such as impairment derivatives hedging, financial instruments, economics, political, financial risk management and internal control risk (Marwa, 2014). Risk is categorized as market risk, credit risk, liquidity risk, operational risk, legal and regulatory risk, business risk, strategic risk and reputation risk. Two streams of theories have been employed to explain why firm communicate risk information. These include the economic theory approach and social and political theory approach. The economic theory approach relies on self interest and profit maximization of economic agents using agent theory, political cost theory, signal theory and propriety, cost theories while the other focuses on the political approach and relationship linking firm to stakeholders in the society to understand the motivation of risk disclosure (Khlif & Hussainey, 2014). What gets reported and managed help managers to make well informed decision which in turn lead to competitive advantage and increased value of the company (Marwa, 2014).

Human Resources Accounting Disclosure: Okwy and Christopher (2010) note the controversy on the issues of human capital disclosure in firms especially as it related to whether it is value relevant to be considered as asset, even though its relationship with company’s expected future benefits is not definite. The failure to diffuse many of these controversies generated by accounting recognition of investment in human resources has led scholars to look at the old problem in a new light, thereby proposing a paradigm shift away from the narrow economic-accounting perspective of the past to a broader social scientific perspective (Roslender & Stevenson, 2009). Scholars have also emphasized that reporting of investment in human capital invariably has impacted the



financial decision of the users of financial statement such as investors, management, creditors, regulatory authorities and stakeholders (Flamholtz, 2005).

Financial Liquidity: It is a measure of the extent to which a person or organization has cash to meet immediate and short-term obligations or assets that can be quickly converted. (Business Dictionary, 2019). Liquidity can also be a measure of the ability and ease with which assets can be converted to cash. Liquid assets are those that can be converted to cash quickly if needed to meet financial obligations such as cash, central bank reserves and government debt. To remain viable, a financial institution must have enough liquid assets to meet its short term obligations, such as withdrawals by depositors. Nwaezeaku (2006) notes that financial liquidity measures the availability of cash and the rate at which current assets are converted into cash to meet ordinary and extra – ordinary request. Therefore, liquidity is a measure of firm's bargaining power and strength.

2.2 Review of Empirical Studies

Abdo and Fisher (2007) investigated the impact of reported corporate governance disclosure on the financial performance of companies listed on the JSE. In this study independent variables were board effectiveness, remuneration, accounting and auditing, internal audit, risk management, sustainability and ethics while financial performance was employed as the dependent variable. 97 firms in 9 sectors on the JSE were sampled for the study. Correlation analysis was employed in analyzing the data. The relationship between governance disclosure and corporate performance in South Africa revealed a striking relationship. Corporate governance disclosure was positively correlated with share price returns during the period under review. Enofe, Mgbame, Sunday and Ovie (2013) examined human resources accounting disclosures in Nigeria quoted firms. The study looked at the relationship between firms' financial performance and human resources accounting disclosures on one hand, and the differences in human resources accounting disclosures reporting level between financial sector and non-financial sector companies quoted in the Nigerian Stock exchange. They made use of time series data from 2007 to 2011. The sample size consisted of fifty (50) listed firms randomly drawn from all sectors in Nigeria. Multiple Regressions was employed in analyzing the data using the statistical package for social science (SPSS) version 15.0. They show a positive relationship between the financial performance of a company and its level of Human Resource Accounting Disclosure.

Marwa (2014) assessed the association between corporate risk disclosure and firm performance in Egypt. Credit risk disclosure, rate risk disclosure, exchange rate risk disclosure and liquidity risk disclosure were employed as the independent variable while ROA, ROE, and ESP proxies for firm performance were employed as the dependent variable. Pearson correlation was employed in analyzing the data. The results showed that there is an insignificant association between liquidity risk, interest rate risk, credit risk, exchange rate and firm profitability. Saeed and Ming (2015) investigated the effects of corporate disclosure practices on firm performance, risk and dividend policy. They aimed to determine the effects of disclosure in corporate governance practices on bankruptcy risk, firm performance, dividend policy and leverage in public listed companies. They made use of Malaysian Code on Corporate Governance 2012 (MCCG 2012), using scores between 0 and 1 for each item. A total of 95 quoted companies in Bursa Malaysia were sampled for the study. Partial Least Squares, path-modeling and bootstrapping techniques were employed in analyzing the data. The results show that corporate disclosure practices have negative effects on



company leverage and positive effects on company performance. Also, no significant relationship was found between corporate transparency levels with bankruptcy risk and dividend payouts.

Ahmad, Simon and Mohammad (2017) examined the impact of environmental disclosure on performance of cement and brewery companies in Nigeria. Nine Cement and breweries companies quoted on the Nigerian stock exchange were sampled for the period of five years from 2011 to 2015. Ordinary Least Square regression technique was employed to analyze the data. Content analysis was used for measuring quantitative environmental disclosure and un-weighted approach was used to rank environmental disclosure indices for measuring qualitative voluntary environmental disclosure. Return on Asset (ROA), Return on Equity (ROE), and Earning per Share (EPS) were used as proxies for measuring performance. Correlation analysis and multiple regression analysis were employed in analyzing the data. The empirical result indicates that environmental disclosure quantitative has a positive insignificant on ROA and EPS respectively. It has negative insignificant impact on ROE. On the other hand, environmental disclosure qualitative has positive significant impact on ROA also with EPS, it however has positive insignificant impact on ROA and is statistically significant, also negative impact on ROE and EPS and is insignificant.

Utile Tarbo and Ikya (2017) investigated corporate environmental reporting and the financial performance of listed manufacturing firms in Nigeria using time series data from 2011 to 2015. The study aimed at determining the effect of erosion control reporting, waste management reporting and air pollution reporting on the financial performance of listed manufacturing firms in Nigeria. The study adopted an ex-post facto research design. The sample of the study was drawn from ten manufacturing firms listed on the Nigerian Stock Exchange. Regression analysis was employed as the major technique for data analyses. It was found that both erosion control reporting and air pollution reporting has significant effect respectively with firm financial performance while waste management reporting has negative but significant effect on firm financial performance of companies under investigation.

Cunha and Mende (2017) examined the financial determinants of corporate governance disclosure using empirical evidence from Portuguese firms listed on Euronext Lisbon Index from 2005 to 2011. Ordinal logistic model was employed in analyzing the data. The study found that firm size and growth opportunities had a significant and positive influence on corporate governance disclosure while financial leverage negatively affected the corporate governance disclosure. They found no significant relationship between corporate governance disclosure and financial performance. Mukhtar (2017) assessed firm attributes and risk disclosure of listed deposit money banks in Nigeria using time series data from 2006 to 2015. The data are analyzed using descriptive statistics and regression (OLS and GLS) analyses. The study finds company structure (size, tangibility, age) and board structure (size of the board and board composition) have significant impact on risk disclosure of sampled banks. Also firm performance (ROA, revenue growth and liquidity) has positive and insignificant impact on risk disclosure while leverage has positive and insignificant impact on risk disclosure. Akintoye, Awoniyi, Jayeoba and Moses (2017) carried out an empirical analysis on the improvement of human resource accounting disclosure practice in financial statements through IFRS in Nigerian banks. Data for HRAD for 11 Nigerian banks were obtained through content analysis of financial statements for 2009-2013. The study modified 17 item index constructed by Syed (2009) to measure HRAD practices. Descriptive statistics,



ANOVA, regression analysis and Hausman test was used in analyzing the data. The ANOVA test revealed that there is no difference in the means of HRAD of financial statements prepared under SAS compared with HRAD of financial statement prepared under IFRS for the period pre and post adoption of IFRS in Nigeria. The regression analysis indicated that adoption of IFRS has an insignificant effect on HRAD practices. The study concludes that the general assumption of IFRS providing all inclusive disclosures in all aspect is a myth and in reality HRAD is a developing aspect of accounting; that even IFRS is yet to imbibe into its extensive disclosure requirement. Tamer, Lorenzo and Yingxi (2018) investigated the determinants and impacts of risk disclosure quality using empirical evidence from China from 2013 to 2015. The study aimed to determine the main drivers for risk disclosure quality for Chinese financial firms, and further study the impact of such disclosure on market liquidity. By relying on manual content analysis of annual reports, the risk disclosure quality is measured through a multidimensional approach which encompasses three factors: quantity of disclosure, coverage of disclosure and the semantic properties of depth and outlook. Ordinary least squares and fixed-effects estimations were employed in analyzing the data. The study found that firm size influence risk disclosure practices of Chinese financial companies. Furthermore, the study found that risk disclosure quality has an impact on market liquidity. Ayodele and Afolabi (2018) assessed corporate financial disclosure in Nigerian deposit money banks. Primary data collected through questionnaire were used for the study. Out of 120 copies of questionnaire served on respondents, 100 copies were recovered and used for the analysis of the study. The analytical tools used for the study are the t-test and the Analysis of variance (ANOVA). The results show that corporate financial disclosure has a significant influence on the banks' stability and performance in the Nigerian financial sector. Therefore, the study concludes that the corporate disclosure of financial reporting practices by banks in general will enable them to work towards improving and managing their non-performing loans effectively and efficiently for stability and hence better performance.

The existing empirical studies (Ahmad, Simon & Mohammad, 2017; Nnamani, Onyekwelu & Ugwu, 2017; Utile, Tarbo & Ikya 2017; Gatimbu & Wabwire, 2016; Ezeagba, John-Akamelu & Umeoduagu 2017; Onyali, Okafor & Egolum 2014; Muhammad, 2014; Uwuigbe & Olayinka 2011) on disclosure concentrated on its effect on performance and profitability ignoring the liquidity position of the companies. Similarly, most of the studies in Nigeria on disclosure concentrated on financial disclosure ignoring other aspect of disclosure like environmental disclosure, risk disclosure and corporate governance disclosure. In the light of the above identified gaps, the study redirected the focus of research by measuring the extent to which disclosure affect financial liquidity using quoted pharmaceutical firms in Nigeria as the focus of the study

2.3 Theoretical Framework

The study was anchored on stakeholder theory. The basic proposition of the stakeholders' theory is that the firm's success is dependent upon the successful management of all the relationships that a firm has with its stakeholders- a term originally introduced by Stanford Research Institute (SRI) to refer to those groups without whose support the organization would cease to exist (Freeman, 1983). 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,



The stakeholder analysis focuses on developing and evaluating the approval of corporate strategy decisions by groups whose support is required for the firm's continued existence. The stakeholders identified in this model include the owners, customers, public groups and suppliers. In the second model, the corporate planning and analysis extends to include external influences which may be adversarial to the firm. These adversarial groups may include the regulatory environmentalist and/or special interest groups concerned with social issues

The study is anchored on stakeholders' theory, because it assumes that stakeholders have legitimate interests in the corporations that must be respected and valued independently. Although its criticism has to do with the political and value-laden nature of the concept of stakeholder, in identifying if it belongs to the field of science or to the domain of instrumental management ideology (Elena & Jerome, 2005). Therefore, its important is to encourage managers to carry out corporate practices which stakeholders consider very important so as to maximize stakeholders' value. The main concern of the stakeholder's theory in accounting disclosure is to address the cost elements and valuation and its inclusion in the financial statements. Stakeholder theory, therefore, is concerned typically with how the organization manages its stakeholders.

3. Methodology

The study adopted ex-post facto research method. It focused attention on quoted pharmaceutical companies in Nigeria in order to determine the effect of disclosure on liquidity position. Secondary sources of data were employed. As at 2020, there were top ten actively traded Pharmaceutical Firm quoted in the Nigeria Stock Exchange. Thus, the population of this study include Afrik Pharmaceutical Plc, Emzor Industries Ltd, Fidson Healthcare Plc, Mopson Plc, Glaxo-SmithKline(GSK) Plc, Chemiron Int'l Ltd, Zolon Health care ltd, Green life Pharmaceutical Ltd, Evens Medicals Plc and Agary Pharmaceutical Ltd. Purposive sampling method was used in selecting five out the ten top quoted pharmaceutical firms. Six years annual reports from 2015 to 2020 from the respective quoted pharmaceutical firms were selected. The data generated were analyzed using inferential statistics. The data generated will be subjected to descriptive statistics which analyzes the individual characteristics of the variables used in the study. This is followed by Augmented Dickey Fuller unit root test to determine the stationarity or otherwise of the variables used. The estimate technique used is Ordinary Least Square (OLS), which would be engaged to establish the existence of relationship through the application of the econometric software (E- view).

A model was formulated to capture the effect of disclosure on the financial liquidity of quoted pharmaceutical firms in Nigeria. The models were expressed in functional and econometric forms. The linear regression model is stated in a functional form as;

$$FL = f(ED, CGD, RD, HRADI) \quad (1)$$

Where

FL	=	Financial Liquidity
ED	=	Environmental Disclosure
CGD	=	Corporate Governance Disclosure
RD	=	Risk Disclosure
HRADI	=	Human Resources Accounting Disclosure Index



This equation can be restated in an econometric form as:

$$FL = a_0 + a_1ED + a_2CGD + a_3RD + a_4HRADI + \mu \tag{2}$$

Where

a_0 = Autonomous or intercept

a_1 = Coefficient of parameter ED

a_2 = Coefficient of parameter CGD

a_3 = Coefficient of parameter RD

a_4 = Coefficient of parameter HRADI

μ = Stochastic variable or error term

4. Data Presentation and Analysis

The data obtained from annual reports and statement of account of the respective quoted pharmaceutical firms was subjected to statistical estimation and analysis to determine the effect of disclosure on financial liquidity. The analysis and presentation of data were done under three important subsections namely descriptive statistics, unit root test and multiple regression analysis which is devoted to providing information about the regression model.

4.1 Descriptive Analysis

The analysis of the individual characteristics of these variables is presented in the table below:

Table 1 Descriptive Statistics

	FL	CGD	RD	ED	HRADI
Mean	0.132788	58.77600	0.290000	14.40000	74.00000
Median	0.078000	47.12000	0.230000	15.00000	73.00000
Maximum	0.778000	83.00000	0.770000	16.00000	87.00000
Minimum	0.001000	47.00000	0.040000	12.00000	53.00000
Std. Dev.	0.166964	0.102236	0.233184	1.323232	9.228579
Skewness	2.467154	1.076367	0.824846	0.606183	0.861266
Kurtosis	9.953294	4.828068	3.111696	1.613795	3.354288
Jarque-Bera	75.72468	17.29165	6.951451	3.532703	3.221494
Probability	0.000000	0.000176	0.030939	0.000956	0.019738
Sum	3.319700	328363.0	129695.0	68920.00	1850.000
Sum Sq. Dev.	0.669046	1.378410	8.180008	1.931308	2044.000

Source: E-View Version 8.0

This Table 1 presents the summary of statistics used in the analysis. It provides information about the mean, median, maximum and minimum value, standard deviation, skewness, Kurtosis and Jarque Bera of the variables used. The mean rate for financial liquidity stood at 0.132788, while those of corporate governance disclosure (CGD), risk disclosure (RD), environmental disclosure (ED) and human resources disclosure index (HRADI) stood at 58.7760, 0.290000, 14.40000 and 74.00000 respectively. The median which is a robust measure of the centre of the distribution that is less sensitive to outliers than the mean shows that financial liquidity, corporate governance disclosure, risk disclosure, environmental disclosure and human resources disclosure index have median series of 0.078, 47.1, 0.23, 15.0, and 73.0 respectively. Some of these variables recorded values of standard deviation that is higher than the values of their respective means. This implies that there is a wide variation between these variables in the respective pharmaceutical firms.



The Jarque-Bera statistics measures the difference between skewness and kurtosis of the series to determine whether the series is normally distributed. The Jarque-Bera statistics shows that financial liquidity, corporate governance disclosure, risk disclosure, environmental disclosure and human resources disclosure index have the values of 75.72468, 17.29165, 6.951451, 3.532703 and 3.221494 respectively. All the variables have Jarque-Bera probability that is less than 0.05%. This implies that they are normally distributed. The result shows that all the variables are normally distributed and the variables are suitable for the conducting of the analysis.

4.2 Unit Root Test

Table 2 shows the result of Augmented Dickey-Fuller Test

Table 2: Result of the Unit Root Test

Variables	ADF	Order of Integration	Significance
FL	-7.847998	1(1)	5%
CGD	-4.471119	1(1)	5%
RD	-3.925011	1(1)	5%
ED	-5.951951	1(1)	5%
HRADI	-4.445866	1(2)	5%

Source: E-View Version 8.0

The Table 2 reveals that financial liquidity, corporate governance disclosure, risk disclosure and environmental disclosure achieved stationary at first difference. While, human resources disclosure index were differenced twice to achieve stationarity. Therefore, we hereby reject the null hypothesis which states that the data is not stationary.

4.3 Co-integration Test

Johansen Multivariate Co-integration was employed in examining the long-run relationship between the variables used. The result is presented in Table 3 below.

Table 3 Observed Result for Johansen Multivariate Co-integration Test

Unrestricted Co-integration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigen value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.971299	182.9461	95.75366	0.0000
At most 1 *	0.932002	101.2768	69.81889	0.0000
At most 2	0.563862	39.44652	47.85613	0.2429
At most 3	0.383183	20.36120	29.79707	0.3986
At most 4	0.304553	9.247986	15.49471	0.3430
At most 5	0.038140	0.894377	3.841466	0.3443

Trace test indicates 2 co-integrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Co-integration Rank Test (Maximum Eigen value)

Hypothesized No. of CE(s)	Eigen value	Max-Eigen Statistic	0.05 Critical Value	Prob.**
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None *	0.971299	81.66933	40.07757	0.0000
At most 1 *	0.932002	61.83025	33.87687	0.0000
At most 2	0.563862	19.08532	27.58434	0.4080
At most 3	0.383183	11.11321	21.13162	0.6360
At most 4	0.304553	8.353609	14.26460	0.3439
At most 5	0.038140	0.894377	3.841466	0.3443

Max-eigen value test indicates 2 co-integrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: E-View Version 8.0

Table 3 indicates that both trace statistics and Maximum Eigen value statistics has 2 co-integrating equation. Hence, the trace statistics and Eigen value statistics reveal that there is a long run relationship between the variables in the model used. That is, the linear combination of these variables cancels out the stochastic trend in the series. This will prevent the generation of spurious regression results. Hence, the implication of this result is a long run relationship between dependent and the explanatory variables used in the models.

4.4 Correlation Analysis

The correlation matrix table is shown below:

Table 4 Correlation Matrix

	FL	CGD	RD	ED	HRADI
FL	1.000000				
CGD	0.146489	1.000000			
RD	0.233390	0.065366	1.000000		
ED	0.381998	0.490106	0.021477	1.000000	
HRADI	0.098531	0.508583	0.366907	0.315803	1.000000

Source: E-View Version 8.0

The correlation matrix shows that the degree of correlation between the independent variables is either low or moderate, which suggests the absence of multi-collinearity between independent variables. As suggested by Wan, Shahnaz and Nurasyikin (2008), the Pearson’s *R* between each pair of independent variables should not exceed 0.80; otherwise, independent variables with a coefficient in excess of 0.80 may be suspected of exhibiting multi-collinearity. The highest correlation as disclosed in the table is 0.508583. This confirms that there is no multi-collinearity among the variables.

4.5 Regression Result

The regression result is presented in the Table 5 below. To analyze this table, we shall employ two criteria which are statistical criteria and econometric criteria.

Table 5 Estimation Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.808888	14.14473	2.127884	0.0006
RD	0.677447	0.373995	2.811379	0.0059
ED	1.617669	0.749805	0.157453	0.1440
CGD	0.564862	0.420305	2.343933	0.0348
HRADI	0.151204	3.239103	2.046681	0.0033



R-squared	0.639327	Mean dependent var	-2.866197
Adjusted R-squared	0.565466	S.D. dependent var	1.636468
S.E. of regression	1.494960	Akaike info criterion	3.847639
Sum squared resid	42.46319	Schwarz criterion	4.140169
Log likelihood	-42.09549	Hannan-Quinn criter.	3.928774
F-statistic	32.51714	Durbin-Watson stat	1.963805
Prob(F-statistic)	0.000733		

Source: E-View Version 8.0

The regression result shows that risk disclosure has a positive and significant effect on financial liquidity. This implies that a unit increase in risk disclosure will bring about 0.677447 increase in financial liquidity in quoted pharmaceutical firms in Nigeria. It also shows that environmental disclosure has a positive and insignificant effect on financial liquidity. It also reveals that corporate governance disclosure has a positive and significant effect on financial liquidity. The result further shows that human resources accounting disclosure index has a positive and significant effect on financial liquidity. This implies that a unit increase in human resources accounting disclosure will bring about 0.151204 increase in financial liquidity, holding other factors constant.

To determine the statistical relevance of the regression result, diagnostic tests like the t-statistic, f-statistic, t-prob, R^2 (coefficient of determination) and R^2 adjusted shall be used. The t-statistic result obtained show that all the explanatory variables with the exception of environmental disclosure has significant effect on financial liquidity of the pharmaceutical firms studied. From the regression results, the f-probability is significant given its value of 0.000733. This means studied independent variables have joint significant effect on financial liquidity. The regression results also show that R^2 is about 63.9%. This means that the variations in the independent variables jointly explain about 63.9% of the variations in the dependent variable which is financial liquidity of quoted pharmaceutical companies in Nigeria. The Durbin Watson D-Statistic obtained was 1.963805 which can be approximated to 2. This means that there is no autocorrelation in the model. Hence, the model can be used for realistic forecasts.

4.6 Discussion of Findings

This research work examines the effect of corporate disclosure on financial liquidity of quoted pharmaceutical firms in Nigeria. A total of five out of ten top pharmaceutical firms were examined using their 2015 to 2020 annual reports and accounts. The study finds out that the environmental disclosure has no significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. This agrees with the findings of Montabon *et al.* (2007), Adediran *et al.* (2013) and Makori *et al.* (2013) whose study indicates a positive relationship between the environmental accounting disclosure and firm results. It further reveals that the corporate governance disclosure has a significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. This agrees with the findings of Bokpin (2013) whose study indicates a significant relationship between corporate disclosure and cash holding.

The risk disclosure has a significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. This agrees with the findings of Tamer, Lorenzo and Yingxi (2018) that risk disclosure quality has an impact on liquidity. This also agrees with the findings of Oyerogba (2014) that the operational risk disclosures, financial risks disclosures and strategic risks disclosures are



statistically significant in explaining performance of listed companies. Finally, it was found that the human resources accounting disclosure has a significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. This agrees with the findings of Syed (2009) whose finding indicates that the human resource disclosure is significantly related with the size of the company, category of the company (financial or non-financial) and profitability. Similarly, it agrees with the findings of Enofe, Mgbame, Sunday and Ovie (2013) that a positive relationship exists between the financial performance of a company and its level of human resource accounting disclosure.

5. Conclusion

This work investigated the effect of corporate disclosure on financial liquidity of quoted pharmaceutical firms in Nigeria using data from 2015 to 2020. The data generated were subjected to statistical analysis and the following were found. The environmental disclosure indicates insignificant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. While, corporate governance disclosure, risk disclosure and human resources accounting disclosure have significant effect on the financial liquidity of quoted pharmaceutical firms in Nigeria. The study therefore concludes that the corporate disclosure has significant effect on financial liquidity of quoted pharmaceutical firms in Nigeria.

It recommends that management of pharmaceutical firms should develop a well articulated environmental management and disclosure system in order to guarantee a conflict free corporate atmosphere needed by managers and workers for maximum productivity. Also, firms should be encouraged to disclose their risk exposure in their annual reports to enhance their competitiveness which would subsequently lead to high corporate performance.

References

- Abdo, A., & Fisher, G. (2007). The impact of reported corporate governance disclosure on the financial performance of companies listed on the JSE. *Investment Analysts Journal*, 66. 43 – 56.
- Adeyemi, A., & Asaolu, T. (2013). An Empirical Investigation of the Financial Reporting Practices and Banks' Stability in Nigeria. *Arabian Journal of Business and Management Review*, 2 (5), 157 – 180.
- Ahmad, A. A., Simon, M., & Mohammad, B. I. (2017). Impact of environmental disclosure on performance of cement and brewery companies in Nigeria. *Civil and Environmental Research*, 9(10), 40 - 46.
- Akintoye, I. R., Awoniyi, O., Jayeoba, O., & Moses, I. O. (2017). Improvement of human resource accounting disclosure practice in financial statements through IFRS: evidence from Nigerian banks. *International Journal of Business and Commerce*, 5(7), 1 – 17.
- Al-Zarouni, A. (2008). Corporate Financial Disclosure in Emerging Markets: The case of the UAE (Doctoral Dissertation, Griffith University, UK). Retrieved from https://www120.secure.griffith.edu.au/.../Al-Zarouni_2009_02Thesis.
- Ayodele, T.D., & Afolabi, T.S. (2018). Corporate financial disclosure in Nigerian deposit money banks. *Advances in Social Sciences Research Journal*, 5(2), 248 – 253.
- Ayodele, T.D., & Afolabi, T.S. (2018). Corporate financial disclosure in Nigerian deposit money banks. *Advances in Social Sciences Research Journal*, 5(2), 248 – 253.



- Beattie, V., Dhanani, A., & Jones, M.J., (2008). Investigating presentational change in UK annual reports; A longitudinal perspective. *Journal of Business Communication*, 45(2), 181-222.
- Cunha, V.L.M., & Mende, S.M.D. (2017). Financial determinants of corporate governance disclosure: Portuguese Evidence. *Athens Journal of Business and Economics*, 3(1), 21 – 36.
- Dhaliwal, D.S., Li, O.Z., Tsang, A., & Yang, Y.G. (2011). Voluntary nonfinancial disclosure and the cost of equity capital: the initiation of corporate social responsibility reporting. *Accounting Review*, 86(1), 59 -100.
- Elena, A.& Jerome, M. (2005). A critique of stakeholder theory; Management science or sophisticated ideology of control. *Journal of Business in Society*, 5(2), 22-33
- Enofe, A.O., Mgbame, C. Sunday O.S., & Ovie, O.(2013). Human resources accounting disclosures in Nigeria quoted firms. *Research Journal of Finance and Accounting*, 4(13), 7-12.
- Ezeagba, C. E., John-Akamelu, C. R., & Umeoduagu, C. (2017). Environmental accounting disclosures and financial performance: A study of selected food and beverage companies in Nigeria (2006-2015). *International Journal of Academic Research in Business and Social Sciences*, 7(9), 162 - 174.
- Gatimbu, K. K., & Wabwire, J. M. (2016). Effect of corporate environmental disclosure on financial performance of firms listed at Nairobi Securities Exchange, Kenya. *International Journal of Sustainability Management and Information Technologies*, 2(1), 1 - 6.
- Hajian, N., & Rostami, A. A. (2014). Transparency and disclosure indices in emerging markets. *The Macrotheme Review*, 3(3), 73-82.
- Healy, P. M., Hutton, A., & Palepu, K. G. (2009). Stock performance and intermediation changes surrounding sustained increases in disclosure. *Contemporary Accounting Research*, 16(3), 485-520.
- Lartey, V. C., Santwi, S., & Boadi, E. K. (2013). The relationship between liquidity and profitability of listed banks in Ghana. *International journal of Business and Social Science*. 4(30), 24 – 34.
- Lodhia, S. (2005). Legitimacy motives for world wide web (www) environmental reporting: An exploratory study into present practices in the Australian minerals industry. *Journal of Accounting and Finance*, 4, 1 - 15.
- Marwa, A.R. (2014). The association between corporate risk disclosure and firm performance in emerging country – The case of Egypt. *Journal of Empirical Studies*, 1(3), 105 – 115.
- Modugu, K.P. & Eboigbe, S.U. (2017). Corporate attributes and corporate disclosure level of listed Companies in Nigeria: A Post-IFRS Adoption Study. *Journal of Finance and Accounting*, 5(2), 44-52.
- Muhammad, A. I. (2014). Sustainability reporting among Nigeria food and beverages firms. *International Journal of Agriculture and Economic Development*, 2(1), 1 - 9.
- Mukhtar, M.B. (2017). Firm attributes and risk disclosure of listed deposit money banks in Nigeria. *Asian Journal of Business Management Studies*, 8(2), 71-77
- Nnamani, J. N., Onyekwelu, U. L., & Ugwu, O. K. (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria brewery sector. *European Journal of Business and Innovation Research*, 5(1), 1 - 15.
- Nwaezeaku, N.C. (2006). *Theories and practice of financial management*. Owerri. Ever Standard Publishing.



- Nzekwe, S. (2009). ANAN commends senate on financial reporting council Bill. *The Guardian*. Retrieved from www.ngrguardiannews.com/.../indexn3_html, accessed October 23, 2017.
- Okike, E., Adegbite, E., Nakpodia, F., & Adegbite, S. (2015). A review of internal and external influences on corporate governance and financial accountability in Nigeria. *International Journal of Business Governance and Ethics*, 10(2), 65-185.
- Okwy, P. O., & Christopher, C. O. (2010). Human capital accounting and its relevance to stock investment decisions in Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 21, 64-76.
- Olarewaju, O.M., & Aderemi, O.K. (2015). Causal relationship between liquidity and profitability of Nigerian deposit money banks. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(2), 165 – 171.
- Onyali, C. I., Okafor, T. G., & Egolun, P. (2014). An assessment of environmental information disclosure practices of selected Nigerian manufacturing companies. *International Journal of Finance and Accounting*, 3(6), 349 - 355.
- Othman, R., & Ameer, R. (2009). Corporate social and environmental reporting: Where are we heading? A survey of the literature. *International Journal of Disclosure and Governance*, 6, 298 - 320.
- Roslender, R., & Stevenson, J. (2009). Accounting for people: A real step forward or more a case of wishing and hoping? *Critical Perspectives on Accounting*, 20(7), 55–69.
- Saeed, P. S., & Ming, M. L. (2015). The effects of corporate disclosure practices on firm performance, risk and dividend policy. *International Journal of Disclosure and Governance*, 12(4), 311 – 326.
- Solomon, J. (2013). *Corporate governance and accountability*. United Kingdom: John Wiley & Sons.
- Soludu, C. (2008). The unfinished revolution in the banking system. (Online) Presentation at the University of Agriculture Abeokuta on March 18, 2008 by the CBN Governor. Available at <http://www.org/ONT/SPEECHES/2008/Govadd 26-3-08.pdf> (accessed June 2, 2019).
- Tamer, E., Lorenzo, N., & Yingxi, G. (2018). Determinants and impacts of risk disclosure quality: evidence from China. *Journal of Applied Accounting Research*, 19(4), 518 – 536.
- Utile, B. J., Tarbo, D. I., & Ikya, E. A. (2017). Corporate environmental reporting and the financial performance of listed manufacturing firms in Nigeria. *International Journal of Advanced Academic Research*, 3(8), 15 - 25.
- Uwuigbe, U., & Olayinka, M. U. (2011). Corporate social and environmental disclosure in Nigeria: A comparative study of the building material and brewery industry. *International Journal of Business and Management*, 6(2), 258 - 264.