



## Firms' Traits and Sustainability Reporting of Elite Issuers Firms in Nigeria Exchange Group

<sup>1</sup> Joy Omeghie Osemwegie–Ero (Ph.D.)

<sup>2</sup> Anthonia N. Chinedu-Chiejine (M.Sc.)

<sup>3</sup> Lovy Omotie-Ivie Atarere (Ph.D.)

1 Department of Accounting, Benson Idahosa University, Benin City

2 Department of Accountancy, Delta State Polytechnic Ogwashi-Uku, Ogwashi-Uku, Delta State

3 Department of Business Education, College of Sports & Physical Education, Mosogar, Delta State, Nigeria

**Abstract:** The study examined influence of firms' traits on sustainability reporting disclosures of Elite issuers in Nigeria Exchange Group. It used eight (8) Elite Issuers firms as classified by the Nigeria Exchange group for 2021 financial period, spanning a period of ten (10) years (2012-2021), utilizing annual reports obtained from the firms in Nigerian Exchange Group. Panel least square regression model was used to test the perceived influence, employed longitudinal research design. Hausman and Heteroskedasticity tests were respectively employed to determine appropriate effect of each variable as well as to ensure the reliability of results. Fixed panel estimator and Panel least regression analysis was employed to examine influence of firms' Traits on sustainable reporting disclosures of Elite Issuers firms. The findings revealed that: Elite Firms' financial leverage indicated significant and negative influence on sustainability reporting disclosures, while firms' liquidity showed significant and positive influence on sustainability reporting disclosures. The study recommended among others that: Listed firms should give tenacious attention to sustainability reporting disclosures, in order to avoid disrepute effects associated with congruities on sustainability reporting disclosures, as nondisclosure of voluntary information may be posing some risk against such firms. Therefore, all listed firms in Nigeria Exchange Group are encouraged to participate sincerely in sustainability reporting disclosures, to reap transient competitive advantages connected with sustainability reporting disclosures practices, firms should adopt policies which permit liquidity level of around 2:1 as benchmark for current assets and liquidities ratio, in order to harness disclosure benefits associated with optimal liquidity structure.

**Key words:** Firms' Traits, Leverage, Liquidity, Sustainability Reporting, Transient competitive advantages and Elite Issuers.

### 1. Introduction

Empirical studies from advanced and less developed countries have noted the beneficence contributions of sustainable reporting in line with global reporting initiatives (GRI. 3a, 2021). This has given rise to global concern for corporate firms in Nigeria on issues that bothers on sustainability reporting, as it relates to global disclosure practices on non-financial operations reporting requirements, for non-European Union (EU) member countries like Nigeria. (Pizzi, Baldo, Captuto, & Venturelli, 2022 ; Ordonez-Castano, Herrera-Rodriguez Ricaurte, & Mejia, 2021 ; Sasse, & Azizi, 2018) Again, empirical evidence revealed that corporate firms in Nigeria have performed poorly in corporate Sustainability Development Goals (SDGs) reporting, due to lack of regulatory framework.

Furthermore, sustainability reporting appears to have contributed to low level of SDG reporting by Nigerian firms. (Erin, Bamigboye, & Oyewo, 2020) Also, relatively poor level of reporting on SDG activities has calls for drive for non-financial information disclosures (Zayol, Akpa, Tsegba, & Abraham, 2021, 2020; Correa, Vega-Jimenez, Lopez-Jimenez, Lopez-Jimenez, Garrido & Rabandan-Martin, 2023; SDGs 12.6; UN directive: /2017/4234). Therefore Nigerian listed firms' disclosure practices need constant review in line with United Nation guiding principles (UNGP; 2017/2019; Rosati, & Faria, 2019; Drilling, 2020) in order to advance in global proposed sustainable development goals. Consequently, this study aspires to check the immensity of firms' leverage and liquidity of Elite Issuers firms in Nigerian Exchange Group. Leverage and liquidity are classified as firms' traits (FTs) which are adopted as independent variable while sustainability reporting disclosures (SRDs) is decomposed as dependent variable. Sustainability reporting relate to a disclosure practices whereby entities ceremoniously reveal certain information that are nonfinancial affairs, like voluntary information on human rights, risk management, corporate relationships, environmental impacts, plans and strategies, listed firms non-financial weakness, policies and intellectual capital governance, employees, communities and customers which can stimulate and trigger financial fortune or misfortune of listed firms as the case may be, as well as boost information needs of shareholders and related groups Nurudeen, Ahnda, & Shalli, (2018) noted that a slight increase in profitability and leverage tends to reduce firms' voluntary disclosures.

Zam-Zam, Gamaliel and Pinatik (2023) defined SRD is a form of firms' nonbinding information in line with corporate "valuables legitimating instrument which can mitigate social concerns and mediating effect in convincing stakeholders and other related groups. There are other definitions of SRD from different authors which distinguish reports that reveal to some extent, that are considered as environmental reporting, Nonfinancial information, and intellectual capital reporting as well as integrated reporting, thus also lay greater emphasis on transparency, accountability consciousness and corporate reputations. (UNGP, 2019, 2018,)

Firms' leverage and liquidity are firms (FTs) which are described as those firms' attributes that can enhance and sustain firms' performance which includes: Firm firms' leverage confers opportunity to a firm to increase its financial muscles. According to Aimuyedo, Nyor, Agbi and Ahmed (2022) Firms' leverage estimates firms level of loan capital or debt level relative to its common stock value. It reflects a definition of firm's capital structure. While firms liquidity, is the financial ability of a firm to cover all short-term liabilities as soon as they fall due. Both firms' leverage and liquidity are perceived as firms' characteristic variables (FTs) which is viewed as predictors of the Structure of accounting information and performance.

Environment. It further adopts the International Standard 26000 (ISO26000) as a guide to achieve this objective as prescribed by UNGP as one of the global reporting standard.

Inconsistency and lack of drive for voluntary non-financial information disclosures by Nigerian firms have contributed to low level performance in SDG activates and reporting in line with the global reporting initiatives. Some studies from developing and developed world noted the antecedent benefits of voluntary reporting in line with global regulatory requirements, which enhance transparency, accountability and increases in value creation as well as listed firms' reputations. (Ordenez et al 2021; Nguyen, Nguyen, Nguyen 2020, Jullobol & Sartmol, 2015; Sasse, & Azizi, 2018). More so, some empirical literature also noted that voluntary non-financial information disclosures in the Nigerian firms appear to be uncertain at present, (Erin, et al 2020)

Various empirical literatures on effect of firms' traits observed uncertainty that exist in sustainability reporting as regards to certain firm traits such as leverage and liquidity as well as the inherent potential benefits accrued to disclosing in line with global reporting initiative on sustainability reporting in firms. (Sonia & Khafid, 2020; Wang, 2017 ; Aimuyedo *et al*, 2022; Yunita & Willy, 2020; Ruhama & Hidayah, 2019) Again some studies reports generated mixed results, studies like: Eneh & Okoye (2020) explored on company attributes and nonfinancial information disclosure of listed consumer and industrial goods in Nigeria for the period of 6years (2012-2017) using Binomial logistic regression for its analysis assumption, the study result between leverage and sustainability

showed mixed results. (Kwaltommai, Enemali, Duna, & Ahmed, 2019; Abudullahi, Martins, Jude & Ado, 2019, Kabiru, 2020; Abubakar, Ahmed, Abba & Buhari,2021)

### Objective of the Study

The main objective is to check the effect of firms' traits on sustainability reporting, using Elite Issuers firms as pivot covering the study periods from 2012- 2021 financial period (10 years financial periods) firms' leverage and liquidity are considered as independent variables while sustainability reporting as a form of nonfinancial information is adopted as dependent variable in this study. While the specific objectives are:

- To evaluate the effect of firms' leverage on sustainable reporting of Elite Issuers firms in Nigerian Exchange Group
- To Examine the effect of Liquidity on sustainable reporting of Elite Issuers firms in Nigerian Exchange Group

### Research Questions

- What effect has firms' leverage on sustainability reporting of Elite Issuers Firms in Nigerian Exchange Group?
- What effect has firms' liquidity on sustainability reporting of Elite Issuers firms in Nigerian Exchange Group?

To pilot this study, the following null hypotheses are tested

**H<sub>01</sub>:** Firms' financial leverage has no effect on nonfinancial information disclosures of Elite firms in Nigerian Exchange Group.

**H<sub>02</sub>:** Firms' liquidity has no effect on nonfinancial information disclosures of Elite firms in Nigerian Exchange Group.

## 2. Literature Review

Kwaltommai, *et al*, (2019), viewed firm trait as the attributes possessed by firms which defines its operations, adding that firms traits are those variables that are capable of affecting its decisions internally and externally. Firm Traits (FTs) are described as those firms' attributes that can enhance and sustain firms' performance which include: Firm size, Age, Profitability, Leverage, Liquidity, Sales growth, Asset growth and Turnover.

Some numbers of studies have dealt on SRDs and FTs but they differ in scope, (Population and sample size)

**Financial Leverage:** This involves the use of various financial instruments and or out sourced funds in order to increase the potential return of an investment. Leverage can also mean amount of debt an entity used to finance its assets. According to Adam (2021), leverage refers to the use of debt (borrowed fund) to amplify returns from investments or project. Leverage can be used to multiply buying power in the market as well as financing of assets instead of issuing new shares in place of capital rising. Types of leverage include: working capital leverage, operating leverage and Financing Leverage. It assesses firm's ability to maximize (Magnify) the effects of changes in the current assets and current liabilities (Adam, 2022). Leverage would also be adopted as one of the independent variables in this study.

**Firms' Liquidity:** This is the ability of a corporate entity to generate cash to meet its financial obligations as the need arises. There are two major determinants of firms' liquidity: ability to transform assets to cash in order to settle its financial obligations, implying how much cash that is readily available, or how fast a firm raises cash needed for a business' daily operations, also how quickly assets can be converted to cash in order to take care of business current liabilities and current debts. (Ali, 2020; Maddie, 2019). Firms' liquidity is adopted as one of the independent variables and sustainability reporting disclosures is adopted as dependent variable as the study progresses.

## Theoretical framework

**Agency theory:** Agency theory was propounded by Stephen Rose and Barry Mitnick, in 1973. Agency theory relates to the study firms' on disclosure of nonfinancial information that can stimulate and trigger financial fortune or misfortune of enterprises as the case may be. It addresses the information need of the shareholders and other related groups, in order to reposition them for better informed decisions, thereby, reducing insiders' trading and information asymmetry. (Susanto, Pradipta & Handojo, 2019)

## Legitimacy theory

Legitimacy theory was propounded by Dowling and Pfeffer in 1975. This theory affirms that the legitimacy of a business entity's successful operations is tied to its contracts and relationship with the environment as well as the society at large. Firms' operations can be distorted by mere under minding its responsibility to the expectations of noble society. This theory also advocates that firms operating within a community should ensure to respond to environmental influences and sustainability disclosures of nonfinancial information in their annual reports, which makes them gain corresponding legality to operate in its host's community; this enables the community to be updated on listed firms' behaviours. This study is anchored on legitimacy theory since it has better theoretical disposition that appears to predict firms' behaviours toward managing and maintaining shareholders as well as related groups perspectives as regards to core value creation. It also highlights on the perceived gap between sustainability reporting and community expectations as well as their responses to firms alongside with the International Global Initiatives (IGI 2022)

Ikpor, Bracci, Kanu, Levoli, Okezie, Milanga and Ogbaekirigwe (2022) examined drivers of sustainability accounting and reporting in emerging Economies, using 50 large firms in Nigeria Exchange Group for the period of 6years. The study adopted a fixed effect panel regression model. The findings revealed that firms', leverage, auditor type, and profitability have influence on sustainability reporting. Also, Abubakar, Ahmed, Abba & Buhari (2021) researched on firm attributes and corporate voluntary information disclosure by listed industrial goods firms in Nigeria Exchange group for a period of 10 years (2010-2019). The study employed multiple regression analysis using firm size, profitability, leverage, firm age and auditor type as variables for the study. Results of the findings showed that firm leverage and profitability have positive and significant effect on corporate voluntary disclosures while liquidity and asset have positive but insignificant effect on corporate voluntary disclosures. Likewise Nguyen, (2020) researched on impact of sustainability reporting on firm value, using 97 large firms in German for the period of 5 years. It adopted multiple regressions on 485 observations from the 97 large listed firms. Findings revealed a significant negative relation between firms value and level of sustainability reporting. Aimuyedo *et al*, (2022) studied leverage and sustainability reporting in Nigeria Industrial Goods companies, using 14 listed industrial firms in Nigerian industrial goods sector covering periods of 11 years. It adopted 12 firms a sample size (86% of the entire population). The study employed ex-post facto research design, used multiple regression as well as content analysis. The study found that there is direct effect of firm's leverage on sustainability reporting. Contrarily, Fatmawati and Trisnawati (2022) explored on Effect of leverage, profitability, activity and corporate governance on sustainability reporting disclosure using 39 manufacturing companies. It covered a period of 3 years using multiple linear regression. Finding of the study proves that leverage has no significant and positive effect on sustainability disclosures. In the same vein Adekanmi, (2022) studied firm's attributes and sustainability reporting of listed non-financial firms in Nigeria, using 113 listed nonfinancial firms for the period of 15 years. It employed Taro Yamane technique, panel data least square multiple regression. The study revealed insignificant positive relationship with leverage on sustainability reporting. Also it indicated positive and statistical significant relationship for firms' liquidity.

Other studies like: Think, 2021 findings proved that all variables have strong influence on voluntary disclosures; Dioha et al 2018 found no significant effect on firms' liquidity it also revealed significant effect on leverage and profitability; Ezekesili and Ejiofor, 2022 indicated no significant effect, leverage; Ikpor et al 2019 findings found positive and significant relationship across all the variables used in the study, including leverage, Some other studies examined firms' characteristics

and related topics in listed firms using different periods of study as well as methodologies, and these studies results indicated mixed findings as depicted above. (Ezejiolor & Emeneka, 2022; Adekanmi, 2022; Nguyen, 2020;. Aimuyedo *et al*, 2022).

Igbekoyi, Ogundbade and Olaleye (2021) researched on financial performance and environmental sustainability reporting practices of listed manufacturing firms in Nigeria using 23 firms out of 67 as at December 2018 financial year. It employed proportional sampling technique, regression model. Results of the study revealed negative insignificant relationship with environmental sustainability reporting. Contrarily, Muslimah, Siregar and Hapsoro,(2022) examined the effect of profitability, liquidity and solvency on sustainable reporting with corporate governance as moderating variable, using financial sector for a period of 5 years. It adopted multiple regression analysis. Findings indicated that liquidity positively influence sustainable reporting

From the foregoing literature review, and to the best of the researchers' knowledge, Firms' traits and sustainability reporting disclosures with focus on Elite Issuers firms using eight (8) in Nigerian Exchange Group for 2021 period of financial year have been rarely studied. This current study therefore employed panel data from these eight (8) Elite firms to investigate magnitude of firm's traits on sustainability reporting in Nigerian Exchange Group.

### 3. Methodology

The study adopts the longitudinal survey research design for a period of 10years (2012-2021). A total number of eight (8) Elite Issuers firms were used as classified, from the total population of 157 listed firms in NGX was used as sample size. The choice of this design is also hinged on the attributes of the data that were collected for this research, from annual reports of listed firms in NGX. ISO 26000 was adopted as a check list, which has seven (7) core subjects of thirty-seven (37) items representing areas that constitute sustainable form of nonfinancial information disclosures as contained in the standard. The choice of this source is because annual reports are audited public documents that have been filed for regulatory purpose; hence, the data derived from them can be relied upon Nguyen, (2020); Aimuyedo *et al*, (2022). The average sustainability form of nonfinancial disclosure index was calculated by dividing the sum of the compliance value by the maximum value of expected disclosures. The scores for non-financial disclosure is expected to vary between zero and one for non-compliance and compliance respectively. This study adopted simple linear regression model; and employed longitudinal research design. Hausman test and Heteroskedasticity test were respectively employed to determine the appropriate effect as well as to ensure the reliability of results. In order to make suitable for this study, panel least squared regression technique was employed to test and analyze magnitude of firms' traits on sustainable form of disclosures of Elite Issuers firms, with E-view version 10 software as well as ISO 26000

#### 3.1. Dependent, Independent, and Control variables

The dependent variable is sustainability reporting disclosure while the independent variables are firms' financial leverage, and firms' liquidity. The study controls variables includes that which may affect sustainability disclosures, but do not form part of the variables of interests.

**Table 3.1.1: Measurement of variables**

Variables	Type	Code	Measurement	Source of previous empirical work
Sustainability Reporting disclosure	Dependent	SRD	Disclosure index score ranging between 0 and 1, that is number of items disclosed divide by the total number of expected disclosures which may likely be between; 0 and 0.189 as assigned values	Nguyen, 2020;. Aimuyedo <i>et al</i> , (2022)
Firm Leverage	Independent	FLEV	Total debt divided by total asset	Fatmawati and Ttrisnawati (2022); Abubakar,(2021)

Firm liquidity	Independent	FLIQ	Current asset divided by current liability	Igbekoyi et al (2021)
Board Independence	Control	BIND	Ratio of independent directors to total of directors	Alqatameen <i>et al</i> (2020)
Board size	Control	BSIZE	Number of directors	Nguyen et al.(2020)
Profitability	Control	LPAT	Log of profit after tax	Abubakar et al. (2021); Arif and Tuhin (2013)

**Source: Researcher's compilation, 2022.**

The above table depicts various types of variables used for the study, codes for the variables, measurement as well as their empirical sources on previous works. Dependent variable is non-financial information disclosure, independent variable are; firm size, firm age, firm leverage and firm liquidity. While control variables are: board independence, board size and profitability.

### 3.2. Model Specification

This study employs Simple Linear Regression model propounded by Sir Francis Galton (1996) investigated the sustainability disclosure of Elite issuers firms in the Nigerian Exchange Group

$$Y_i = \beta_0 + \beta_1 X_i + \varepsilon \dots\dots\dots (1)$$

$Y_i$ = Dependent variable, while;

$X_i$ = Independent variable

$\beta_0$ = Population Intercept

$\beta_1$ = Population Slope Coefficient

$\varepsilon_i$ =Random error term

Applying this model to suit the objectives of this study, the variable in equation (1), we obtain equation (2)

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \dots\dots\dots (2)$$

#### Where

( $X_1$ ) is Leverage, ( $X_2$ ) is Liquidity, ( $X_3$ ) is Board independence, ( $X_4$ ) is board size and ( $X_5$ ) is profitability

Thus, the model for this study is presented in equation three (3)

$$SRD_{it} = \beta_0 + \beta_1 FLEV_{it} + \beta_2 FLIQ_{it} + \beta_3 BIND_{it} + \beta_4 BSIZE_{it} + \beta_5 LPAT_{it} + \varepsilon \dots\dots\dots (3)$$

Where:  $Y = SRD_{it}$  = Sustainability reporting disclosure of 'i' firm in year 't'

$X_1 = FLEV_{it}$  = Leverage of 'i' firm in year 't'

$X_2 = FLIQ_{it}$  = Liquidity of 'i' firm in year 't'

$X_3 = BIND_{it}$  = Board independence of 'i' firm in year 't'

$X_4 = BSIZE_{it}$  = Board size of 'i' firm in year 't'

$X_5 = FPAT_{it}$  = Profitability of 'i' firm in year 't'

$\beta_0$  = Intercept

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  = Coefficients

$\varepsilon$  = Error term

**A-priori Expectation:  $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0,$**

#### 4. Data Presentation

##### 4.1. Univariate Analysis

**Table 4.1 Descriptive statistics**

Panel A						
	Mean	Min	Max	Std. Dev.	Skewness	Kurtosis
OG	0.975	0.000	1.000	0.157	-6.085	38.026
HR	0.580	0.000	1.000	0.371	-0.117	1.441
LP	0.958	0.800	1.000	0.082	-1.406	2.976
TE	0.772	0.000	1.000	0.290	-1.491	4.482
FOP	0.878	0.400	1.000	0.161	-1.251	4.007
CI	0.864	0.429	1.000	0.209	-1.322	3.140
CID	0.859	0.429	1.000	0.172	-1.152	3.492
SRD	0.809	0.459	1.000	0.168	-0.595	2.262
Panel B						
FLEV	0.691	0.068	0.925	0.236	-0.775	2.300
FLIQ	1.004	0.018	4.636	1.041	2.381	8.353
BIND	0.562	0.000	0.882	0.254	-1.007	3.146
BSIZE	14.575	7.000	22.000	3.599	-0.162	2.576
LPAT^	8.428	0.000	11.306	2.531	-2.101	8.139

^ Negative values were truncated to zero

OG = Organizational governance disclosure; HR= Human rights disclosure; LP = Labour practices disclosure; TE= Environment related disclosure; FOP= Fair operating practices disclosure; CI= Consumer issues disclosure; CID= Community involvement and development disclosure; SRD = Sustainability reporting disclosure; FLEV= Firm leverage; FLIQ= Firm liquidity; BIND= Board independence; BSIZE= Board size; LPAT= Profitability

Source: Researcher’s Compilation: (2023)

Skewness is indicative of the symmetrical or non-symmetrical nature of the distribution of a variable. From Table 4.1, all the variables are negatively skewed. Based on Panel A, all the components of SRD are less than -1 except from HR, therefore, they are highly skewed except for HR that is fairly symmetrical. Furthermore, the Skewness value for SRD is less than -1 and indicative of a fairly symmetric distribution. Based on Panel B FLIQ, and LPAT are highly skewed while FLEV, and BSIZE are fairly symmetric.

Kurtosis is indicative of the tail-heaviness of the distribution. It tells us the combined weight of the tail of a distribution in comparison to the remaining part of the distribution. From Panel A, LP, CI, CID has kurtosis values that are approximately three (3); therefore, they are mesokurtic (medium tailness). OG, TE, and FOP have kurtosis values that are greater than three (> 3); therefore, they are leptokurtic (fat tailness). HR, has a kurtosis value that is less than three (< 3); therefore, it is platykurtic (thin tailness). However, SRD which is a combination of all the components of disclosure has a kurtosis value that is less than three (< 3); therefore, it is also platykurtic (thin tailness). The implication is that it has low outlier frequency. Based on Panel B, BIND, and BSIZE have kurtosis values that are approximately three (3); therefore, they are mesokurtic (medium tailness). FLIQ and LPAT have kurtosis values that are greater than three (> 3); therefore, they are leptokurtic (fat tailness) while and FLEV as kurtosis values that are less than three (< 3); therefore, they platykurtic (thin tailness).

**Table 4.2**

Variable	Predicted sign	Coefficient	Std. Error	t-Statistic	Prob.
FLEV	+	-0.0373	0.0115	-3.2180	0.002
FLIQ	+	0.0154	0.0020	7.5487	0.000
BIND	+	-0.0224	0.0090	-2.4759	0.015
BSIZE	+	0.1134	0.0156	7.2456	0.000
LPAT	+	-0.0014	0.0005	-2.5692	0.012
C		-0.7135	0.0779	-9.1528	0.000
R-squared		0.9795	F-statistic		222.488
Adjusted R-squared		0.9751	Prob(F-statistic)		0.000
Durbin-Watson stat 2.1360					

Source: Researcher's Compilation: (2023)

The Durbin-Watson stat can be used to check for autocorrelation. Values above or below 2 are indicative of autocorrelation. From Table 4.5, we see that the DW stat is approximately 2; therefore, the model as estimated using panel corrected standard errors is free from autocorrelation.

The study employed descriptive statistics and correlation analysis as preliminary analyses. The descriptive statistics helps to describe the features of the data while the correlation analysis reveals the unit-directional association between the variables. The descriptive statistics are presented in Table 4.1. Panel A contains the statistics for the dependent variable in subcategories (OG, HR, LP, TE, FOP, CI, and CID) and holistic category (SRD) while panel B contains the statistics relating to the explanatory variables. From panel A, it was observed that the disclosure for organisational governance (M= 0.975, SD= 0.157) is the highest while disclosure relating to the human rights (M= 0.580, SD= 0.371) was the lowest. Furthermore, disclosure for labour practice had the least variation among the companies (M= 0.958, SD= 0.082) while the disclosure for human rights (M= 0.580, SD= 0.371) had the largest disparity among the companies. On the overall, the statistics for NFID (M= 0.809, SD= 0.168) revealed that the level of nonfinancial disclosure is commendable and stood at about 80%.

From panel B, the statistics for FLEV (M= 0.691, SD= 0.236) revealed that on the average, 69% of total asset is financed using debt. This speaks of a moderate level of borrowings. However, this level is fairly dispersed among the firms. The average liquidity of the companies is below the 2:1 rule of thumb as witnessed from the statistics for FLIQ (M= 1.004, SD= 1.041) although, the disparity among the companies is equally relatively large large. Therefore, the likelihood of illiquidity is greatly different for all the companies. The statistics for BIND (M=0.562, SD=0.254) show that the average independence level is less than 60% having a dispersion revolving around 35% and 95. Conclusively, the Board of director of the sampled firms is fairly independent. BSIZE (M=14.1575, SD=3.599) revealed that on the average, the Board of directors of the sample firms are large. However, based on the value of the standard deviation, this level is equally dispersed among the firms.

**Table 4.2 Correlation Analysis**

Correlation	SRD		FLEV	FLIQ	BIND	BSIZE	FPAT	VIF
SRD	1.000							
FLEV	0.045		1.000					1.179
FLIQ	-0.085		-0.148	1.000				1.248
BIND	0.117	-	-0.045	-0.217	1.000			1.167
BSIZE	0.345		0.093	-0.016	-0.018	1.000		1.080
FPAT	-0.057		-0.191	0.078	-0.059	-0.055	1.000	1.228

Source: Researcher's compilation (2022)



From Table 4.2, it FLIQ, and FPAT were inversely associated with SRD, FLEV, BIND, and BSIZE were positively associated with SRD. The inter-correlations among the variables are not a cause for worrying as the highest association is between FPAT ( $r = 0.377$ ). This is further confirmed by the VIFs as none of them is above the benchmark of 10.

#### 4.2. Diagnostic Tests

To ensure the reliability of the results from the estimation, some post estimation tests were carried out. The results are presented in Table 4.3.

**Table 4.3 Serial and Heteroskedasticity Tests**

<i>Breusch-Godfrey Serial Correlation LM Test:</i>			
F-statistic	11.76932	Prob. F(2,70)	0.0000
Obs*R-squared	20.13169	Prob. Chi-Square(2)	0.0000
<i>Heteroskedasticity Test: Breusch-Pagan-Godfrey</i>			
F-statistic	4.879085	Prob. F(7,72)	0.0002
Obs*R-squared	25.73900	Prob. Chi-Square(7)	0.0006
Scaled explained SS	17.85696	Prob. Chi-Square(7)	0.0126
<i>Ramsey RESET Test: Specification: SRD FLEV FLIQ C</i>			

**Source: Researcher's compilation (2022)**

#### 4.3. Data Analysis and Interpretation of Results

The result of the fixed effect panel FGLS estimation is presented in Table 4.5. The weighted adjusted R-squared stood at 0.9751 indicating that about 97% the systematic variation in SGDis explained by FLEV, FLIQ, BIND, BSIZE, and FPAT while the remainder is captured in the error term. This implies that these variables greatly contribute in explaining the changes in SRD. When juxtaposed with the F-statistics ( $F = 222.488$ ,  $p < 0.05$ ), it is observed that the joint predictive power of the model is significant and sound since the p-value of the F-statistics is less than 0.05. This also reveals that the results can be relied on for policy decision. The T-statistics and associated p-values provide information on the predictive power of the individual variables. At the 5% significance level. FLEV (Coef. = -3.2180,  $p = 0.002$ ) and FLIQ (Coef. = 7.5487,  $p < 0.05$ ) also have significant effects on SRD as revealed by their respective statistics. Conclusively,

FLEV has significant negative effects on SRD while FLIQ has significant positive effects on SRD. The results in Table 4.5 also show that all the control variables have significant effect on SRD.

#### 4.4. Discussion of Findings

The finding of this study indicates that the firm leverage has a significant effect on disclosure of nonfinancial information. The finding implies that the leverage of a firm is a significant factor that drives voluntary disclosure of nonfinancial information. This finding disagrees with the finding of Ezekesili, and Ejiofor, (2022) who observed that Nigerian firms that leverage had a negative and insignificant effect on the level of voluntary disclosure. Our finding on the inverse relationship between leverage and disclosure of nonfinancial information also supports the finding of Eneh and Chinelo, (2019);Prot, Mzenzi and Chalu, (2021) Awho found a negative link between leverage and voluntary disclosure of financial service firms in Nigeria, and Tanzanian firms. This association was equally significant. Our finding also partly negates the position of Adekanmi, (2022) observed that a significant and positive association exists between leverage and disclosure of nonfinancial information in Nigeria. Also Abubakar et al (2021) in Nigeria who as well found significant and positive effect in Nigerian listed firms. Thus there is difference in findings and results.

Secondly, this study found a positive and significant effect between liquidity and disclosure of nonfinancial information. Liquidity is a signal of solvency and literature documents on one hand that a solvent firm will disclose more to signal its performance while on the other hand; a less solvent firm will also disclose less to justify the company status with external stakeholders and fight to still earn their support (Adekanmi., 2022). This study therefore finds a positive effect as predicted with a

statistically significant coefficient.), significant effect in their study which support the position of this current study. This finding is inconsistent with the findings of Abubakar et al. (2021) and Muslimah et al. (2022) with both contradicting evidence using data from Nigerian and Indonesian companies respectively

## 5. Summary of Findings

The study revealed that there is significant and significant and negative effect on sustainable disclosure of Elite Issuer firms in Nigerian Exchange Group occasioned by firm leverage. Firm liquidity was also found to have significantly and positively affects the level of sustainable disclosure of Elite Issuer firms in Nigerian Exchange Group.

**5.1. Conclusion and Recommendations** Findings from the study revealed that all the variables examined (leverage, and liquidity) with respect to Elite issuer firms had significant effects but on the level of nonfinancial information disclosure.

Therefore, the study concludes that firm attributes with emphasis on firm leverage, and liquidity have significant effect on the level of nonfinancial information disclosure of Elite issuer firms listed in NGX.

However, only Liquidity of Elite Issuer firms significantly and positively affect nonfinancial information disclosures in Nigeria Exchange Group for the period under review; firm leverage has significant but adverse effect.

## 5.2. Recommendation

Owing the fact that firms' leverage is significant but negatively affects nonfinancial information disclosures, firms are enjoined to set policies that limit over-gearing, as it may lead to decline in voluntary disclosure in a bid to hide their unfavorable credit positions.

Moreover, due to the significant and positive effect of Firm liquidity on nonfinancial information disclosures, firms should be encouraged adopt policies that allow for a benchmark liquidity level of about 2:1 for current assets to current liabilities ratio. This would help harness the disclosure benefits associated with optimal liquidity structure.

## References

1. Abdullahi, S. K., Martins, I. E. Jude, D. & Ado. A. (2019). Firm characteristics and financial performance of consumer goods firm in Nigeria. *Scholars Bulletin Middle East United Arab Emirates Dubai*, 5(12), 743-752
2. Abubakar, A., Yusuf, A.M., Kabiralkantara A., and Ahmadu, B (2021). Firm attributes and corporate voluntary information disclosure by listed industrial goods firms in Nigeria. *African Scholar Journal of Management Sciences and Entrepreneurship*, 20, 7
3. Adam, H. (2021). Leverage definition. Corporate finance and Accounting financial ratios. Investopedia <https://www.investopedia.com.financialratio>
4. Adekanmi A. D. (2022) Firm's attributes and sustainability reporting of listed non-financial firms in Nigeria. *KIU Interdisciplinary Journal of Humanities and social sciences*, 3 (1), 346-366
5. Aimuyedo, M. T., Nyor, T., Agbi, S. E., and Ahmed, M. N. (2022) Leverage and sustainability reporting: Moderating roles of firm size of Nigerian industrial goods companies. *International Journal of Accounting Issues- IJCA (Formally international Journal of Accounting and Finance, IJAF)* 11 (2), 1-24
6. Ali, H. (2020). What is liquidity? It's how easily you can sell an asset for cash-here's when and why it matters to your [Businessinsider.com](https://www.businessinsider.com/personal-finance/what-is-liquidity?r=US&IR). Retrieved from <https://www.businessinsider.com/personal-finance/what-is-liquidity?r=US&IR>
7. Arif, M.H., &Tuhin, H.M.(2013).Disclosure of nonfinancial information voluntary in the annual report of financial institutions: A study on listed banks of Bangladesh. *European Journal Business and Economics*, 8, 2.

8. Chakroun, S., Salhi B, Amar, A.B and Jarbouï A (2020) The impact of ISO 26000 social responsibility standard adoption on firm financial performance: Evidence from France. *Management Research Review*, 43(5), 545-571
9. Changrok, S., Minwoo K., & Youngsoo, Y. (2018). The Relationship between corporate human rights responsibility disclosure and performance. *Journal of international and Area studies*, 25 (2), 37-60
10. Dilling, P. E. (2020). Sustainability reporting in a global context: What are the characteristics of corporations that provide high quality sustainability reports an empirical analysis. *International Business and Economics Research Journal (IBER)* 9,1
11. Dioha, C., Mohammed, N. A., & Okpanachi, J. (2018). Effect of firm characteristics on profitability of listed consumer goods companies in Nigeria. *Journal of Accounting, Finance and Auditing Studies*, 4(2), 14-31.
12. Dowling, J. and Pfeffer, J. (1975) *Organizational Legitimacy Social Values and Organizational Behavior. Pacific Sociological Review*, 18, 122-136.
13. Eneh, O. & Chinelo I. A. (2019) Firm attributes and sustainability reporting. *International Journal of Accounting and Finance and Management Research (IJAAFMR)*, 3 (6), 36-44
14. Ezejiofor R. A., & Emeneka, O. I. (2022) Leverage and social sustainability reporting on listed oil and gas firms in Nigeria. *International Journal of Advanced Research* 8 (3), 1-14
15. Ezekwesili, T. P., & Ezejiofor, R. A. (2022). Firm characteristics and environmental performance: A study of listed conglomerates in Nigeria, *Innovation*, 68 (1), 69-82.
16. Fatmawati, V., & Trisnawati, R. (2022) The effect of leverage, profitability, activity and corporate governance on sustainability reporting disclosures. *Proceedings of the international conference on Economics and Business Studies (ICOEBS)* 218.
17. Galton, F. (1888) Co-relationnns and their measurements, chiefly from anthropometric data. *Proceedings of the Royal Society*, 45, 135-145
18. Global Reporting Initiative(GRI 3.1a, 2021). Material topic on disclosures
19. Igbekoyi, Ogungbade & Olaleye (2021) Financial performance and environmental sustainability reporting practices of listed manufacturing firms Nigeria. *Global Journal of Accounting* 7 (1), 15-24
20. Ikor, I. M., Eneje, B. C., Ogbaekirigwe, C., & Nnachi, R. (2019). Firm internal characteristics and challenges of voluntary disclosure in emerging economy: Evidence from non-financial listed firms in Nigeria Stock Exchange 2000-2017. *International Journal of Mechanical Engineering and Technology*, 10, (12), 65-67
21. ISO 26000. (2020). Technical Committee ISO/TMBG Technical Management Board Group. Current edition
22. ISO 26000. (2010). Technical Committee ISO/TMBG Technical Management Board Group. First edition
23. Jullobol, N & Sartmool, S. (2015). The Effect of firm performance on voluntary disclosure in annual reports: A case study of technology industry in the Stock Exchange of Thailand. *RMUTT Global Business and Economics Review*, 10 (2), 2558
24. Kabiru, S. (2020). Firm characteristics and environmental disclosure quality of listed cement companies in Nigeria. *Journal of Management Sciences and Entrepreneurship*, 18(7), 105-118
25. Kwaltommai S.A, Enemali, I. A., Duna, J., & Ahmed, A. (2019) Firm characteristics and financial performance of consumer goods firms in Nigeria. *Journal of Scholars Middle East Publishers, Dubai United Arabs Emirates* 5 (12), 743-752.

26. Lang, M. H. & Lundholm, R. J. (2016). Corporate Disclosure policy and analyst behavior. *The accounting reviews*, 71(4), 467-492
27. Maj, J. (2018). Nature of nonfinancial information disclosed by polish organizations. In book: Innovation management and education excellence through vision 2020. Proceedings of the 31th International Business Information Management Association Conference. 25<sup>th</sup>-26<sup>th</sup> April, 2018 Milan, Italy, 640-684
28. Margareta, B., & Daniela, G. (2020). Nonfinancial reporting from the systematic literature, reviews perspective. *Expert Journal of economics*, 8 (1), 1-17
29. Moratis, L., & Widjaja, A. T. (2019). The Adoption of ISO26000 in practice: Empirical Results from the Netherlands: Practices, cases and controversies ESG software demo a standard view on corporate responsibility, 47-61. Retrieved from OI: 10.1007/978-3-319-92651-3\_4
30. Modugu, K. P., & Ebolgbe, 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
31. Monday, I. I & Nancy, A. (2016). Determinants of voluntary disclosure quality in emerging economies: Evidence from firms listed in Nigeria Stock Exchange. *International Journal of Research in Business Management (IMPACT)*, 4 (6),15-56
32. Moundigbaye, M., Rea, W.S., & Robert Reed, W. (2018). Which panel data estimator should I use?: A corrigendum and extension. *The Open Assessment E-Journal*, 12, 4. Retrieved from <http://dx.doi.org/10.5018/economics-e-journal-japsoro>,
33. Muslimah, N. B., Siregar, B. & Hapsoro, D. (2022). The effect of profitability, liquidity and solvency on sustainable reporting with corporate governance as moderating variable, *Journal of international conference proceedings* 5 (3) 79-87
34. Mwenda, B., Ndiege, B. O., & Pastory, D. (2021) Nonfinancial information disclosure and performance of firms listed at Dar Es Salaam Stock Exchange, Tanzania: Is there a link? *Journal of Co-operative ans Business Studies (JCBS)*, 6(2), 48-58
35. Nahiba, M. (2017). Nonfinancial disclosures and performance of manufacturing firms in India. *Journal of Empirical literature*, 7(9), 21-29.
36. Ndirangu, P. (2021). Effect of working capital management and firm characteristics on financial performance or listed Agriculture firms Kenya Thesis, Strathmore University. Electronic thesis and dissertations. Retrieved from <http://hdl.handle.net/11071/12692>
37. Nguyen D. T. (2020) An empirical study on the impact of sustainability reporting on firm value. *Journal of Competitiveness*, 12(3), 119-135
38. Nguyen,H.T.M., Nguyen, T.M., Nguyen,T.N.,& Nguyen,T.H. (2020). Factors affecting voluntary information disclosure on annual reports: Listed companies in Hochi Minh- City stock Exchange. *Journal of Asian Finance, Economics and Business* 7(3), 53-62
39. Nurudeen,S.O.,Ahnda,I., M. I., & Shalli, M.A. (2018). Effect of corporate characteristics on voluntary disclosure of listed financial service firms in Nigeria. *Amity Journal of Corporate Governance*, 3(2),29-41
40. Ordonez-Castano, A. I., Herrera-Rodriguez,E.E., Ricaurte, F.M.A & P.E.L. (2021). Voluntary disclosures of GRI and CSR environment Criteria in Colombia companies, Sustainability,2021,13,5405.Retrieved from <https://doi.org/10.3390/su13105405>
41. Pizzi, S., Baldo, M.D., Caputo, F., & Venturelli, A. (2022). Voluntary disclosure of sustainable development goal in mandatory non-financial reports: The modeling role of cultural dimension. *Journal of International Financial Management and Accounting*, 3(1), 83-106
42. Prot, N. P., Mzenzi, S., & Chalu, H. (2021). Firm characteristics and environmental disclosure in an extractive industry in Tanzania. *Journal of Business management Review*, 24(2),33-54

43. Ramalan, J., Kurfi, A K., Bello,M.A.,& Saifullahi. (2021). Firm-Specific characteristics and voluntary disclosure of listed manufacturing firms in Nigeria. *International Journal of Research and Innovation in Social Sciences (IJRISS)*, 5(7), 101-108
44. Rosati, F.,&Faria,L. (2019). Business contribution to the sustainable development agenda: Organization factors related to early adoption of SDG reporting corporate social responsibility and environmental management, 26(3),588-597
45. Ruhama, A., & Hidayah, N (2019) Effect of liquidity, firm Size, corporate governance towards sustainability reporting disclosure. *Advances in Economics, Business and Management Research*. 120,279-280
46. Sonia, E., & Khafid, M, (2020) The effect of liquidity, leverage and audit committee on sustainability reporting disclosure with profitability as mediating variable. *Accounting Analysis Journal*, 9 (2), 95-102
47. Think, T.Q. (2021). The impact of firm characteristics on the voluntary disclosure-evidence on the top 50 listed firms of Forbes Vietnam. *Investment and Financial innovations*, 18 (1),215-222
48. UN Global Compact (2020). Global compact self-assessment tool, confederation of Danish industry” ministry of business and growth in Denmark, The Danish Institute for Human Rights, Investment fund for Developing Countries. Retrieved from <https://globalcompactselfassessment.org/aboutthitool>(accessed 10<sup>th</sup> July, 2020).
49. UN Guiding Principles. (2019). Why human rights matter to business. The Human Rights and Business Practice Group
50. Uwuigbe, U, Ranti, U. O., & Bernard, O. (2015). Assessment of the effect of firm characteristics on earnings management of listed firms in Nigeria. *Asian Economic and Financial Review*, 5(2),218-228
51. Wang, M. (2017) The relationship between firm characteristics and the disclosure of sustainability reporting *MDPI Journal*, 9 (2), 1-14
52. Yunita, E., & Willy. S, (2020) The effect of profitability, Liquidity on corporate social responsibility. *Journal of Accounting, Audit and System Information Accountancy* 4 (3), 465-472
53. Zam-Zam, F.M, (2023) The effect of Sustainability reporting on companies value (empirical study of infranstructure companies listed on the Indonesia Stock Exchange for the 2017-2021 period. *Journal of Digital Economics and Business (MINISTAL)*, 2(1),325-340