FIRM'S ATTRIBUTES AND SUSTAINABILITY REPORTING OF LISTED NON-FINANCIAL FIRMS NIGERIA

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ABSTRACT

Globally delivering prosperity is becoming a challenge, demands from government and civil society for business and finance action on sustainability issues are growing exponentially. The study looked into the effect of firm's attributes on sustainability reporting of non-financial firms listed on the Nigerian Stock Exchange (NSE) between 2006-2020. The study population comprised of (113) listed non-financial firms. The sample size was made up of (76) listed non-financial firms out of the total population. Taro Yamane technique was employed in the determination of the sample size. Secondary data was sourced from the audited financial reports of sample firms. Panel data least square multiple regression was employed for the analysis. The outcomes show that profitability, firm size, and liquidity maintain positive and statistically significant relationships with STR (β= 0.0421, p-value = 0.003, β= 0.1241, p-value = 0.033, β= 0.0674, p-value = 0.022) and assets tangibility has a negative and statistically significant relationship with STR (β= -0.4533, p-value = 0.021) while age of the business has negative but not significant effect on STR (β = -0.0060, p-value = 0.610). The findings also show that growth rate, financial leverage, free cash flow and business risk have positive but no significant relationships with STR of the sampled companies (β= 0.0564, p-value =0.335, β=0.2231, p-value = 0.432, β=0.0015, p-value= 0.324, β= 0.00432, p-value = 0.325). The study recommends that profitability, firm size, liquidity and asset tangibility are critical firm's attributes to consider when the management of publicly firms in Nigeria makes a sustainability reporting.

Keywords: Firm's Attributes, Return on Assets, Financial Leverage, Sustainability Disclosure

INTRODUCTION

Global recognition has been accorded to efforts to assure sustainability as one that both responds to current generation's concerns and ensures that future generations may also satisfy their own demands. Companies are now required to demonstrate their care for helping to ensure sustainability by adopting corporate sustainability reporting, sometimes known as "the triple bottom line," which combines environmental, social, and economic components. Over the last 10 years, corporate sustainability reporting

has become more common, particularly in industrialized nations (KPMG International, 2013). However, the same cannot be true for the majority of poor nations, who are hardly able to build a larger framework of sustainability reporting, much alone provide complete CSR information.

Across industries, the dispersion of sustainability reporting has not been consistent on a worldwide scale. Unsurprisingly, sectors that are seen to have the greatest negative effects on society and the environment seemed to be overrepresented among those that initially embraced the practice. Industries who had not previously taken part in the practice started to submit their sustainability report as the practice grew in popularity (KPMG International, 2011). The voluntary and uncontrolled nature of sustainability reporting, however, gives businesses a great deal of freedom in deciding whether and how to account for the social, economic, and environmental costs and benefits related to their business operations. Incorporated within yearly reports and sometimes other independent reports, sustainability reporting is a tool for accounting-based reporting and stakeholder communication.

For business organizations in Nigeria, there isn't much information available about the reporting level for sustainability, while there have been some initiatives to look into the problem. Studies devoted to examining sustainability reporting for Nigerian entities are largely insufficient. For instance, Asaolu, Agboola, Ayoola, and Salawu (2011) evaluated the Nigerian non-financial sector's sustainability reporting; Oyewo and Badejo (2014) examined the practice of reporting on sustainable development by Nigerian banks using a 30-item checklist; Nwobu (2015) used content analysis; and Onyali, Okafor, and Onodi (2015) used

Prior research has been restricted in its emphasis on sustainability reporting. Examples are Asaolu, Agboola, Ayoola, and Salawu (2011), Oyewo and Badejo (2014), and Nwobu (2015). They essentially limited their research to assessing the organizations under examination's degree of sustainability reporting, but they did not go any further to demonstrate the variables that influence this level. In order to fill this vacuum, this research identifies the variables and company characteristics that influence the amount of sustainability reporting in Nigeria. It also provides a thorough assessment of the effectiveness of the theoretically proposed drivers for fostering sustainability reporting. The research thus investigates the influence of company characteristics (firm size, leverage, and profitability) on the sustainability reporting level in Nigeria. With significant empirical efforts made on environmental performance in an attempt to answer the puzzles of sustainability, the subject has achieved a prominent place among

financial experts, researchers and business management. However, the findings of the prior studies on the firm's attributes and their sustainability in Nigeria have produced conflicting conclusions (Adelegan & Inanga, 2001, Uwuigbe, 2013, Nwodibie, 2013 & Adelegan, Adeyemo, Adejuwon & Taiwo, 2015).

In another planet, most of these studies in Nigeria only concentrated on certain sectors of the economy (oil and gas, trade, manufacturing sectors and financial services), ignoring an important non-financial sector of the Nigerian economy: which accounts for about 12.67 percent of the country's gross domestic product (NBS). This omission implies that there is still no sufficient verifiable proof on the subject, necessitating further research into other areas of the economy. Following an examination of related empirical studies, it is clear that most of the studies conducted in Nigeria only looked at few measures of firm's attributes, rather than combining other attributes to investigate pattern of sustainability reporting in Nigeria (such as business risk, free cash flow, asset tangibility, and so on). There is a significant inadequate literature on the subject in economies that are still growing, such as Nigeria's economy; this is despite the fact that issues pertaining to the firm's attribute and sustainability practice have received a significant amount of attention in developed economies. It is widely acknowledged that firms are concern on profitability, return on assets but are less concern on sustainability issues. There is a dearth of study that combined eight (8) to ten (10) measures of firm attributes in examining the sustainability reporting in Nigeria. The study chose to combine larger variables so as to increase the explanatory power of the model adopted in this study. It is on this premise that this study was undertaken to assess the relationship between firm's attributes and sustainability reporting of listed non-financial firms in Nigeria.

LITERATURE REVIEW

Concept of Sustainability Reporting

The idea of sustainability reporting (SR) is fairly modern. For the purpose of gathering and presenting sustainability data for the management process as well as for stakeholders, sustainability reporting is a systematic instrument. (Saji, 2014). Elkington (1997) defines "sustainability reporting" or "triple bottom-line reporting" in layman's terms as a mechanism for evaluating and disclosing a firm's performance to meet "social, economic, and environmental" parameters; however, in a broader sense, it covers entirely the values, issues, and procedures that organizations are required to attend to in order to reduce the negative impacts associated with their activities and thereby giving better results. According to Dyllick and Hockerts (2002), corporate sustainability entails a company pursuing and accomplishing the objectives of both

direct and indirect stakeholders while also making sure that it will be able to continue serving those interests in the future. In general, SR is defined as a reporting structure that emphasizes three key areas of a company's performance: "the economic, social, and environmental performance," in addition to its financial health (Choudhuri and Chakraborty, 2009).

The Global Reporting Initiative (GRI), a well-known organization in the sustainability field, defines SR as taking part in the assessment, disclosure, and accountability to the stakeholders—internal and external—for the business's overall performance. Sustainable reporting involves assessing, recording, and revealing an organization's financial, environmental, and social performance, which boosts business performance and advances sustainability development (Association of Chartered Certified Accountants, ACCA 2005). There are other terms that can be used interchangeably with "social responsibility," such as "corporate social responsibility" (CSR) (Christensen, Peirce, Hartman, Hoffman & Carrier, 2007); or "triple bottom line" (TBL), which is a concept whose tenet is that the value created by businesses or other organizations comes in multiple forms, including "social, economic, and environmental value added" (Elkington, 2006).

Firms Attribute

The following characteristics of a corporation are the most significant and may have an impact on how it reports on sustainability: Profitability, liquidity, growth rate, company size, financial leverage, business risk, firm age, liquidity, iii. tangibility of asset, and vi. business risk (Uwuigbe, 2013, Al-Najjar& Kilincaslan, 2017). Following are specifics on these qualities:

Profitability

Profitable organizations are seen to be straightforward and open-minded in all of their interactions with all stakeholders by giving sustainability reporting more attention, implying that profitability is positively connected with sustainability reporting. This claim backs with the signaling hypothesis (John & Williams, 1985), which claimed that high-profit corporations are more likely to convey their better financial performance to shareholders by submitting sustainability reports. It sends the wrong message to the market when their rival companies with weaker financial standing are unable to meet such sustainability standards.

Liquidity

Liquidity assesses a company's ability to use its current assets to pay off its current obligations when they become due. Companies with a solid liquidity position are required to report on sustainability more often than those with a liquidity issue (Alaeto, 2020). Jensen (1986) suggested that firms be conservative enough to lessen the effects of the agency issue by limiting the amount of money available to corporate management to prevent opportunistic conduct and also as a morale booster for shareholders to invest more. As a consequence, the agency issue is solved via the use of sustainability reporting as a cost-saving strategy.

Growth Rate

Uwuigbe (2013) asserts that companies with strong growth potential and investment possibilities would retain more profits for internal investment since these sources of capital have lower costs than external funding. According to Baker and Powell (2012), an organization's drive to improve the surroundings in which it operates is influenced by the likelihood that its investments will increase. Investment prospects deplete cash reserves when businesses fail to reveal their sustainability reporting, demonstrating that a company's capacity for corporate social responsibility is determined by its development potential.

Firm Size

Baker and Powell (2012) assert that a company's disclosure of its sustainability efforts is directly correlated with its size. This suggests that the size of the corporation affects its social and environmental performance. According to the research, smaller businesses may choose to pay less attention to sustainability reporting because of the high administrative expenses they are likely to experience when seeking external financing. The size of the company is thus seen in this research as a major firm-specific factor that managers typically take into account when deciding on social and environmental disclosure.

Financial Leverage

High-levered corporations usually disclose their sustainability reporting to draw in more investors as they choose to meet their financial commitments with internally produced funds while minimizing the expense of external borrowing (Manos, 2002). According to Kirkulak and Kurt (2010), debt levels have little bearing on sustainability reporting.

Business Risk

According to Al-Shubiri (2011), businesses with high operational risk have a propensity to fail, thus they decide not to advertise their financial health when times are tough.

Because external financing is the most costly method of financing, according to the pecking order hypothesis, businesses will often decide to use free cash flows to fund operations, which lowers their environmental cost.

The Business Age

Every organization has a distinct life cycle, according to Mueller's (1972) theory of the life cycle, as stated by Bello & Lasisi (2020), and sustainability reporting varies depending on which cycle the firm is in. Although there are less investment prospects for older businesses, they do have higher profitability and retained earnings. Younger businesses, on the other hand, have fresh development potentials and must build up earnings reserves to fund those opportunities.

Tangibility of Assets

According to Aivazian et al. (2003), companies doing business in developing countries with significant physical assets (and little in the way of current assets) tend to give social and environmental disclosure less consideration. A larger proportion of non-current assets, according to the research, lowers the proportion of current assets that may be pledged as collateral for short-term borrowing. As a result, businesses that largely depend on short-term debt as a source of funding will have less borrowing capacity. Due to the need to use more internal funding, these businesses will be less able to fulfill their social and environmental obligations

Theoretical Framework

Although there are various theories in the literature that explain sustainability reporting, this study would be anchored on Resource-Based as this was chosen as the most applicable theory for the investigation.

The Resource-Based View (RBV)

The resource-based approach became more prevalent in the 1990s, and strategy scholars' attention on the factors that contribute to "sustainable competitive advantage" shifted from firm-specific traits to industry-specific factors. The resource-based view (RBV), which was first proposed by Wernerfelt (1984), Rumelt (1984), and Barney (1986) in the middle of the 1980s, has subsequently emerged as a crucial modern method for examining "sustained competitive advantage." The RBV idea in strategic management research first appeared in the early 1990s. Therefore, the study makes the case that a firm's resources, including leverage, size, financial performance, liquidity, and other resources and assets, can affect whether it adopts sustainability reporting as a component of its stewardship strategy and even its

competitive strategy. This is made all the more pertinent given the recent emphasis on and increase in the number of investors interested in sustainability investing. By outlining the internal and external advantages that companies obtain from sustainability reporting activities, Branco and Rodrigues (2006) provide specifics based on the RBV as to why businesses undertake these projects. This paper makes the case, based on the RBV theory, that the level of sustainability disclosures relies on a number of internal and external variables, including the firm's features and organizational structure.

Empirical Review

Mapparessa et al. (2017) investigated the relationship of gender diversity, corporate characteristics, and political visibility on sustainability result disclosure across Indonesian enterprises for the years 2014 to 2015. Firm size served as a proxy for political prominence. On stakeholders' theory, the research was based. The regression model's findings showed that company size has a negative, substantial impact on listed Indonesian companies' disclosure of sustainability reports. The research also demonstrates that gender diversity and firm type do not have an impact on the disclosure of sustainability reports.

Lucia and Panggabean (2018) looked at how company characteristics affect sustainability disclosure across listed companies in Indonesia and Malaysia between 2013 and 2015. The findings showed that business size and return on assets (ROA) had a significant influence on sustainability reporting in Indonesia and Malaysia. The research also showed that although listed companies in Malaysia are unaffected by audit committees, they adversely influence sustainability reporting in Indonesia. Leverage and the board of directors have no discernible impact on sustainability reporting in any nation.

The same goes for a research on a firm's attributes and Inte GRTd Reporting: Evidence from Sri Lanka that was conducted by (Dhanajaya & Nadeesha, 2018). Adoption of inteGRTd reporting as assessed by the inteGRTd reporting index was the dependent variable. The independent factors were divided into three categories: market-related, performance-related, and structure-related (firm age, ownership, and leverage) (total assets, total sales and profitability). The findings showed that the amount of inteGRTd reporting adoption in Sri Lanka is positively and significantly correlated with the firm's age, leverage, ownership dispersion, sales, and industry type.

Ololade and Adekanmi (2019) Assessed sustainability information disclosure and financial reporting quality of fifty listed Non-Financial Firms in Nigeria. Using purposive

sampling, qualitative data was sourced through content analysis and analysed using descriptive statistics and multiple regressions. The study found an increasing trend in the financial reporting quality of firms and sustainability information disclosure on socio-environmental policy and environmental research and development have significant positive influence on quality of financial reporting in Nigerian.

In a different research, Wang (2017) used a regression model to explore how company characteristics affect sustainability reporting disclosures across 105 and 262 listed manufacturing businesses in Indonesia and Malaysia from 2010–2013. According to the findings, the following factors were positively correlated with the disclosure of sustainability reporting among Taiwan 50-Index listed companies: board size, ratio of independent directors, audit committee, ratio of export income, percentage of foreign shareholders holding, fixed asset staleness, and firm growth.

Using a regression model, Haque (2017) investigated the influence of business characteristics and sustainable compensation policies on the carbon performance of UK enterprises between 2002 and 2014. The outcome showed that a firm's carbon reduction strategy is positively correlated with board independence and board gender diversity. The outcome also shows a favorable correlation between carbon reduction and compensation policies for environmental social governance among UK-listed companies.

62 non-financial companies that were listed on Borsa Instabul Turkey in 2011 were the subject of a research by Akbas (2014) that looked at the link between business characteristics and the level of environmental disclosure. The study's findings showed that the size of the firm had a favorable statistical impact. While there is a favorable correlation between industry participation and environmental disclosure, it is not statistically significant. The association between profitability and environmental disclosure is unfavorable yet statistically significant. Age of the company and leverage have no statistically significant relationship with the level of environmental disclosure.

In keeping with G3 reporting guidelines, Dilling (2010) looked at how certain company characteristics influence the disclosure of sustainability reporting across 124 firms chosen from 25 different nations. The research finds that G3 reporting guidelines had a big impact on companies based in Europe and non-corporate social responsibility (CSR) regions that had laws requiring sustainability disclosure. The analysis also finds that among well-known firms that disclosed CSR information were the energy and goods industries. Growth in sales revenue and profit margin both have a strong connection to

G3 reporting criteria.

Using a regression model, Benjamin, Okpanachi, Nyor, and Muhammad (2017) investigated the influence of business characteristics on the environmental reporting procedures of listed manufacturing companies in Nigeria from 2000 to 2015. The findings show that among listed manufacturing businesses in Nigeria from 2000 to 2015, company age, leverage, profitability, and size are all positively correlated with environmental disclosure policies.

METHODS

The study used an *ex post facto* quantitative research design, which was deemed appropriate for this study. Data for this were sourced from annual financial reports of 76 non-financial listed companies purposively selected for the past 15 years, from 2006 to 2020, The data extracted from the financial reports of the selected companies include cash-flows, operating profit, founding years, no of equity share capital, profit after tax, total assets, turnover, non-current liabilities, current liabilities and current assets. The measurements were constructed based on previous related articles on the firm's attributes affecting sustainability reporting.

Table 1. List of Selected Non-Financial Listed Firms for the Study

Sectors	Population	Sample	Percentage %
Agriculture	5	4	80
Conglomerates	5	5	100
Construction & Real Estate	9	2	22
Consumer goods	20	16	80
Healthcare	10	6	60
ICT	9	4	44
Industrial goods	15	10	67
Natural Resources	4	4	100
Oil & gas	11	8	73
Services	25	17	68
Total	**113**	**76**	

Source: Authors compilation, (2022).

Table 2 Measurements of proxies for variables of the study

S/N	VARIABLES	SYMBOL	MEASUREMENT	PREVIOUS STUDIES
	Dependent Variable			
1	Sustainability Reporting	STR	Sustainability Disclosure	Alaeto,(2020),Bello, and Lasisi, (2020)
	Independent Variables			
1	Return on Assets	ROA	Net Profit after Tax/ Total Assets	Al-Najjar & Kilincaslan (2017), Alaeto, (2020)
2	Firm Size	FZE	Natural log of Total Assets	Alaeto, (2020), Mahira (2012), Bahaa, (2015)
3	Firm Age	FAG	Year of Financial Report - Year of founding the firm	Bostanci, Kadioglu & Sayilaan, 2018)
4	Growth Rate	GR	Current- Previous Assets/ Previous Assets	Mahira (2012), Nguyen, (2015)
5	Financial Leverage	FLV	Total debts/ Total Assets	Al-Najjar & Kilincaslan (2017), Alaeto, (2020)
6	Liquidity	LQ	Current Assets/ Current Liabilities	Alaeto, (2020), Dewasiri *e tal*, 2018
7	Free Cashflow	FCF	Cashflow per share	Al-Najjar & Kilincaslan (2017)
8	Business Risk	BR	Current - Previous OP/ Previous OP	Muhammad & Muhammad, (2016)
9	Asset Tangibility	TGA	Fixed Assets/ Total Assets	Nguyen, (2015), Bello & Lasisi, (2020)

The study adopted a similar regression model from the study of Muhammad & Muhammad (2016) which was modified to capture the relevant variables supported with empirical evidence. This model aided in the testing of the study's stated hypothesis as well as the achievement of the stated objective. The model's functional specification is written as follows:

STR: f (ROA, FZE, FAG,GRT, FLV, LQ, FCF, BR, TGA)

The econometric specification is as follows:

$(STR)it: b0 + b_1(ROA)_{it} + b_2(FZE)_{it} + b_3(FAG)_{it} + b_4(GRT)_{it} + b_5(FLR)_{it} + b_6(LQ)_{it} + b_7(FCF)_{it} + b_8(BR)_{it} + b_9(TGA)_{it} + \varepsilon it$

Where:

STR: Sustainability disclosure, ROA = Return on Assets (proxy for profitability), FS: Firm's Size, FAG: Firm's Age, GRT= Growth Rate, FLR = Financial Leverage, LQ = Liquidity, FCF: Free Cash Flow, BR = Business Risk, TGA = Tangibility of Assets

b_0: Intercept for X variable of company

b_1– b_9: Coefficients for firms' explanatory variables, indicating the nature of their relationship with the dependent variable (or parameters),

e: Error term

i: cross sectional variable

t: Time series variable

For the examination of data from 2006 to 2020, the study used both descriptive and inferential statistics. Correlation and regression analysis were used as inferential statistics in this investigation. The degree of association between the variables under investigation was measured using Pearson correlation, and the hypothesis was tested using the panel data regression method to assess the relationship between explanatory variables and sustainability disclosure.

FINDINGS AND DISCUSSIONS

Descriptive Statistics

The analysis covered listed firms in Nigeria selected based on the availability of data. Table 2 depicts the descriptive statistics of the variables used in this study.

Table 3 shows that the average sustainability disclosure of publicly traded non-financial companies in Nigeria is 42.50%, with a minimum of 0.00 % and a maximum of 202.00 %, and a standard deviation of 46.60 %, indicating that the sustainability disclosure deviates significantly from the mean on both sides by 46.60 % among non-financial companies listed on NSE.

Return on asset, firm size, firm age, growth rate, financial leverage, liquidity ratio, free cash flow, business risk, and assets tangibility have mean values ranging from 3.55 percent to 44.87 percent, with standard deviations of 0.1930, 0.5215, 12.5557, 0.5331, 0.2710, 0.9251, 11.1863, 7.2521, and 0.2442 respectively. This indicates a wide variation in the measures of firm's specific characteristics among the selected non-financial companies.

Table 3: Descriptive Statistics for the selected listed non-financial firms

Variables	No of Observations	Mean	Standard Deviation	Minimum	Maximum
Sustainability disclosure	76	0.4250	0.4660	0.0000	2.0200
Return on Assets	76	0.0355	0.1930	-0.7300	1,7300
Firm's Size	76	7.7456	0.5215	6.0800	9.0800
Firm's Age	76	42.7500	12.5557	12.0000	69.0000
Growth Rate	76	0.2138	0.5331	-0.6700	3.8100
Financial Leverage	76	0.7390	0.2710	0.1000	2.4800
Current Ratio	76	1.09000	0.9251	0.1900	9.5700
Free Cash Flow	76	7.8517	11.1863	-14.2000	43.5800
Business Risk	76	0.0908	7.2521	-15.6600	74.4400
Assets Tangibility	76	0.4487	0.2442	0.0700	0.9000
Valid N (Listwise)	76				

Source: Author's Computation, 2022.

Analysis of Correlation

Table 4 displays the correlation matrix for the variables used to investigate the association between nine (9) explanatory variables and the sustainability disclosure (dependent variable), as well as between explanatory variables.

Table 4: Correlation Matrix of all variables (2006 -2020)

	STR	ROA	FZE	FAG	GRT	FLR	LQ	FCF	BR	TGA
STR	1.000									
ROA	0.0435	1.0000								
FZE	0.0564	-0.0545	1.0000							
FAG	0.4356	0.6436	0.4718	1.0000						
GRT	0.0454	0.0654	-.1685	-.2341	1.0000					
FLV	0.0564	-.5437	0.0074	0.4324	-.3234	1.0000				
LQ	0.0453	0.7543	-.0968	-.0435	0.0545	-.4660	1.0000			
FCF	0.4533	0.0674	0.1587	0.4544	-.0453	0.0677	-.0333	1.0000		
BR	0.3545	-.6320	-.3214	-.1234	0.0243	-.0346	-.0225	-.0027	1.0000	
TGA	-.1565	-.1406	0.5435	-.1346	0.0453	0.0714	-.0959	-.1986	0.0704	1.0000

Source: Author's Computation, 2022

The explanatory variables' correlation coefficients range from -29.02 percent to 47.18 percent, indicating the relative strength of the linear association between them. Multicollinearity, according to Gujarati (2004), is only a problem if the pair-wise correlation coefficient among regressors is more than 0.80. Table 4 shows that the majority of cross-correlation terms for the explanatory variables are modest, indicating that there is minimal basis for concern regarding multicolinearity among the explanatory variables.

Multicollinearity Test

When utilizing the panel least square estimate method, one of the implicit assumptions is that the exogenous variables are not fully or nearly perfectly associated with one another. The explanatory variables are said to be orthogonal to one another if they have no relationship with one another. Variance inflation factor (VIF) is displayed by Table 5 to show the relationship between the independent variables. The VIF of each variable is less than 10, indicating that there is no concern about multicollinearity among them. The average VIF is similarly less than 10.

Table 4: Variance Inflation Factor

Variable	VIF	1/VIF
ROA	1.22	0.4356
FZE	1.16	0.5645
FAG	1.64	0.3467
GR	1.23	0.5645
FLV	1.72	0.4543
LQ	1.33	0.5467
FCF	1.54	0.5357
BR	1.12	0.4534
TGA	1.22	0.6467
Mean VIF	1.65	

Source: Author's Computations 2022

Heteroskedasticity Tests

An attempt was equally made in this study to test for violation of the assumption of homoscedasticity (constant variance) of disturbances using Breusch-Pagan/Cook-Weisberg test for heteroskedasticity, the chi result of 1.14 with p-value of 0.2849 confirmed the constant variance of the data set.

Regression Analysis

From table 5Running the pooled ordinary least square (OLS), fixed effect (FE), and random effect (RE) models, followed by selecting the model that works best for this research, is the typical method for regression analysis. Depending on whether each individual impact was fixed or random, the option between the random effects (RE) and fixed effects (FE) models was made for this inquiry. The Hausman test was used to assess which model between fixed effects and random effects was more appropriate. The Hausman test implies that the fixed-effects model is appropriate, as shown by prob (0.0044), which is below the level of significance of 5%.

In light of this, Table 6 presents the findings from the pool OLS, fixed-effects, and random-effects models for the impact of firm-specific variables on sustainability reporting of the sampled listed non-financial enterprises in Nigeria. The sample regression line has around a 25% fitness, according to the R2 value of 0.2451 (25 percent). In addition, the explanatory factors (ROA, FZE, FAG, GRT, FLR, LQ, FCF, BR, and TGA) together account for nearly 25% of the overall variance in the sustainability reporting of the analyzed non-financial enterprises. The model is believed to be trustworthy and valid since the F-statistic (9, 99) = 1.87 and P-value 0.0424 reflect significant statistical significance at the 0.05 level of significance. An explanation of each explanatory variable in connection to the explained variable is provided below (STR).Table 5: Regression Result for Effect of Firm's Specific Attributes on Sustainability reporting of Listed Non-financial Firms in Nigeria.

Table 5: Regression Result for Effect of Firm's Specific Attributes on Sustainability reporting of Listed Non-financial Firms in Nigeria.

Variable	Pooled OLS	Fixed Effect Model	Random Effect Model
Constant	-0.2077 (0.754)	1.5886 (0.029)	-0.2077 (0.753)
ROA	0.1998 (0.386)	0.0381 (0.003)*	0.1008 (0.384
FZE	0.0218 (0.808)	0.1171 (0.041)*	0.0218 (0.807)
FAG	0.0125 (0.001)*	-0.0059 (0.570)	0.0125 (0.001)*
GRT	0.1407 (0.072)	0.0824 (0.237)	0.1407 (0.069)
FLR	0.2681 (0.176)	0.1181 (0.490)	0.2681 (0.174)
LQ	0.0799 (0.101)	0.0942 (0.030)*	0.0799 (0.098)

FCF	0.0042 (0.291)	0.0016 (0.687)	0.0042 (0.289)
BR	0.0048 (0.388)	0.0036 (0.466)	0.0048 (0.386)
TGA	-0.2077 (0.214)	-0.5047 (0.017)*	-0.2221 (0.211)
F-Statistic	3.67 (0.0005)*	1.87 (0.0424)*	
R-Square		0.2451	
Wald X^2			33.02 (0.0001)*
Hausman Test		23.95 (0.0044)*	

*denotes 5% level of significance.

( ) denotes Prob., while the value denotes coefficients of the variables.

Source: Author's Computations, 2022.

Discussion of Findings

According to the Hausman test result, the fixed-effect model's influence on sustainability reporting is positive (0.0381) and statistically significant (P-value of 0.003 at 5% level of significance). The sustainability reporting of the chosen enterprises will thus benefit from return on assets. The finding indicates that for the selected organizations, a 1% improvement in profitability as determined by return on assets would translate into a 3.81 % increase in sustainability disclosure. The connection is premised on the idea that productive corporations are better positioned to fulfill trade credit and lender demands, as well as investment expenditures, while still having the resources to pay bigger dividends than businesses that are losing money. According to Pandy (2001), Amidu & Abor (2006), Uwuigbe (2013), Sanyaolu, Onifade & Ajulo (2017), and Alaeto (2020), there is a favorable correlation between profitability and sustainability disclosure.

The OLS model's marginal impact coefficient (0.1711) and p-value (0.041) at the 5% level of significance show that the size of the business has a positive and significant influence on the sustainability reporting of the chosen enterprises. The sustainability disclosure of the chosen enterprises will thus increase by 11.71 percent for every 1 percent increase in company size.

The explanation of this is that small firms can't afford to engage in social and environmental disclosure since they often give direct service to end consumers, negating the need to sign up for such additional costs that may not have a direct influence on their service. Due to their reputation in the capital market, strong credit standing, and ability to easily handle external financing at a reasonable cost, large enterprises have a competitive edge over small ones. This result is consistent with findings by Pandy (2001), Uwuigbe (2013), and Muhammad & Muhammad (2016), who discovered a statistically significant positive correlation between firm size and sustainability reporting.

The findings also show that, as shown by the marginal effect coefficient (0.0942) and p value (0.030) at the 5% level of significance, liquidity has a significant and favorable influence on the sustainability disclosure of the chosen organizations. This demonstrates that the liquidity situation of the chosen businesses will have a positive influence on their sustainability reporting, with a 1% increase in liquidity leading in a 9.42% increase in sustainability disclosure of the chosen enterprises. The result is consistent with the notion that companies with strong liquidity positions are more likely to take care of their social and environmental responsibilities than those with poor liquidity situations. In a similar vein, the research concurs with Jensen (1986), who postulates that businesses should make proper provisions for sustainability reporting to increase shareholder trust and lessen the effects of agency difficulties. The results of this research are consistent with those of Manos (2003) and Alaeto (2020), who both claimed that a firm's capacity to pay off its short-term debt has a statistically significant connection with its propensity to declare sustainability.

As shown in table 5.5, asset tangibility has a negative but statistically significant correlation with the chosen businesses' sustainability disclosure, as shown by the marginal impact coefficient (-0.5047) and p-value (0.017) at the 5% level of significance. The conclusion suggests that a high level of investment in physical assets would

negatively affect the chosen enterprises' disclosure of their sustainability efforts. This implies that the selected firms' sustainability reporting will decrease by 50.47 percent for every 1 percent increase in asset tangibility.

The results provide credence to the hypothesis that having a greater percentage of long-term tangible assets lowers the proportion of short-term assets that may be used as collateral for short-term loans, reducing the borrowing capacity of businesses whose principal source of debt is short-term bank loans. This will limit their potential to improve social and environmental performance and force them to use more domestically produced cash. More precisely, the selected non-financial enterprises' sustainability reporting is positively affected by growth rate, financial leverage, free cash flow (FCF), and business risk (BR), although in a statistically insignificant manner (0.0824, 0.1181, 0.0016, and 0.0036 respectively) (P-values of 0.237, 0.490, 0.687, and 0.466 at the 5 percent level of significance). The results of this study suggest that, despite the fact that firm age, growth rate, financial leverage, free cash flow (FCF), and business risk (BR) are good at explaining the behavior of sampled firms' sustainability reporting, they are not essential factors to take into account when making decisions to optimize sustainability reporting of the listed non-financial firms studied.

Conclusion and Recommendations

The variables influencing sustainability reporting in Nigeria have been the subject of several research. The majority of these research focused on fewer firm-related metrics without also considering other metrics (such as business risk, free cash flow, asset tangibility, etc.) as predictors of sustainability reporting in Nigeria. By examining the connection between company traits and sustainability reporting of non-financial enterprises listed on NSE, this research tried to do just that. Based on the actual data and research results, many logical conclusions were made. There is a high statistical correlation between business qualities and the sustainability reporting of certain firms

listed on the NSE. Utilizing inference statistics, it was determined that a significant impact existed with a p-value less than the threshold of significance of 5%.

The following recommendations are put out in light of research findings: Management of selected organizations should take into account factors such as profitability, company size, liquidity condition, and asset tangibility when deciding whether to make provisions for sustainability reporting; Managers of companies should actively explore and significantly fund any endeavors that might improve business success. In a similar vein, managers should forego further investments in asset acquisition and instead focus on the prudent use of current assets to increase wealth for stakeholders. Consequently, management effectiveness will result; There is a need to adopt standardized Sustainability Indexes in order to rate firms, similar to how they were employed in this study. This will assist in the process of exerting pressure on businesses to pay greater attention to the environment in which they operate and to take the problems associated with sustainable development much more seriously.

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