



Corporate Sustainability Reporting and the Value of Listed Manufacturing Firms in Nigeria

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Abstract

The study investigates the extents to which corporate sustainability reporting influence the value of listed manufacturing firms in Nigeria. An ex-post facto design was employed and corporate sustainability reporting (independent variable) was measured via disclosure on environmental laws and sustainability reporting index. On the other hand, firm value (dependent variable) was measured using Tobin's Q and revenue growth. Twenty listed manufacturing firms were sampled and secondary data were collected and computed from the yearly audited financial statements from 2014-2024. Fixed and random effects panel regression was used in analyzing the data obtained. Research findings indicated that corporate sustainability disclosures has insignificant influence on Tobin's Q (Wald Ch2 = 0.45; p-value = 0.7966 > 0.05). Contrarily, it was found that corporate sustainability disclosure has significant influence on revenue growth (Wald Ch2 = 43.10; p-value = 0.0000 < 0.05) of the listed manufacturing firms in Nigeria. Based on the research findings, the study recommends that management of listed manufacturing firms should gear their efforts toward enhancing sustainability reporting; this can be realized when management are able to determine significant measures of sustainability reporting influencing value of firms the most, and focus rigorously on them.

Keywords: *Corporate sustainability reporting; Tobin's Q; Revenue growth; Listed firms; Manufacturing firms;*

Introduction

Practically, as part of companies' strategy and competitive advantage, listed companies are being forced to expand the reporting of accounting data to include sustainability reporting. In practice, disclosing social and environmental information is part of sustainability reporting (Emenyi & Okpokpo, 2023). The activities of the majority of manufacturing companies listed on the Nigerian Exchange Group (NGX) frequently lead to environmental issues. In spite of this, people are compelled to address the issues and make a reasonable contribution to

improving their surroundings (Onoh, Biradawa & Ndubuisi, 2023).

Profiteering is a common strategy used by manufacturing companies to boost their shareholders' equity (Rodrigues, et al, 2021). Considering the aforementioned, there are contradictory claims that companies who incorporate sustainability reporting and make their reports available to the public have better performance and firm value metrics than those that do not (Powei, 2020). However, there are generally held beliefs that manufacturing firms' accountability is lacking if sustainability reports are not disclosed in yearly financial statements (Almaqtari, et al,

2023). How well listed manufacturing firms disclose sustainability engagements in accordance with accessible sustainability indicator like Global Reporting Initiative (GRI) requirement, is a more concerning issue (Olaniyan, Efuntade & Efuntade, 2021). By combining a company's financial and non-financial performance, sustainability reporting became a new trend in corporate reporting. Scholars and businesspeople have made compelling claims that businesses benefited more than fairly from integrating sustainability practices into their organisational structures (Wahyuningtyas, Susesti, & Murtadho 2022). The broad field of social accounting includes the measurement of sustainability performance (Nnamani, Onyekwelu & Ugwu, 2017). Economic, social, and environmental activities can all be classified under this category (Natalia, 2017).

In other words, corporate governance, human resource planning, and corporate social responsibility (CSR) all contribute to the ideas of sustainability disclosures (Emeka – Nwokeji & Osisoma, 2019). The identified research gap attempts to fill the empirical lacuna of what is known about how corporate sustainability reporting (measured by disclosure on environmental laws and sustainability reporting index) drive the value of listed manufacturing firms, by focusing on two key measures of value of firm – Tobin's Q and revenue growth.

Research Hypotheses

The following hypotheses were developed in line with the identified gaps of the study:

- Ho1: There is no significant effect of corporate sustainability reporting on Tobin's Q of listed manufacturing companies
- Ho2: Corporate sustainability reporting has no significant effect on revenue growth of listed manufacturing companies

Review of Related Literature Corporate Sustainability Reporting

According to Almaqtari, et al (2023), sustainability reporting is the process of choosing the firm-level social performance variables, measures, and measurement procedures, methodically creating information that is helpful for assessing the firm's social performance, and disseminating such information to a concerned social group both inside and outside the company. A recent development in corporate reporting is sustainability reporting, which combines a company's financial and non-financial performance into a single report.

Nowadays, a sizable portion of businesses willingly incorporate social and environmental concerns into their strategic goals. With legislative support, sustainability reporting may be required in several nations, including South Africa, Finland, France, Germany, and a few others (Ioannou & Serafeim, 2014). Additionally, it may be voluntary; motivated by market differentiation tactics or mild internal and external pressures (Odunsi, Adeaga & Odeniyi, 2019).

Empirical research on the connection between SR and firm value has yielded conflicting and inconclusive results. According to some (Wahba, 2008; Asuquo, Dada & Onyeogaziri, 2018), SR and company's market value are positively correlated. Strong environmental management has also been linked to improved financial performance (ROA, ROE, and cash flow) in some studies (Margolis and Walsh, 2007; Clarkson et al., 2011).

Revenue Growth

Revenue growth is widely considered as the most suitable and best measure of financial performance and firm value (Utama & Mirhard, 2016). Revenue growth is an increase or decrease in a firm's turnover between a given period (Nwobu, 2017). Revenue growth demonstrates the extent to which a firm's revenue has grown (or declined) over a given accounting period. Hence, revenue growth is denoted as yearly growth by comparing the prior period's revenue with current period's revenue.

According to Powei (2020), a decreased revenue growth is a clear symbol that the firm is experiencing low revenue as a result of decreased turnover. On the other hand, a higher revenue growth ratio indicates the firm has experienced increased revenue due to higher turnover during a specific accounting period (Asuquo, et al, 2018). Consequently, this study seeks to ascertain how sustainability disclosure relates to revenue growth of selected publicly listed manufacturing firms in Nigeria. On the basis of the conceptual review, the following conceptual model showing the relationship between corporate sustainability disclosure and the value of firms in Nigeria

2.3 Tobin's Q

Tobin's Q ratio is chosen to reflect firm value, which is conventionally computed as the ratio between the market value of a company divided by the replacement cost of its assets. However, since the replacement cost computation is

rigorous, it is calculated as the ratio between the market value and total assets. Tobin's Q is also a stock market-based valuation indicator with an eye toward the future, was used in this investigation (Soyka, 2012). Traders often utilize Tobin's Q because it provides a comparison between a company's market value and its book value.

The computation or determination of a company's Tobin's Q can be derived by dividing its market value of equity (share price times number of outstanding shares) by its book value of debt (total assets minus book value of equity) and then dividing that amount by its total assets (Al-Gamrh & Al-Daharnari, 2016). Value-for-money ratios are useful surrogates because they reflect investors' anticipation of a company's future profits (Garg, 2015). The usage of Tobin's Q as a valuation metric for businesses has grown in recent years.

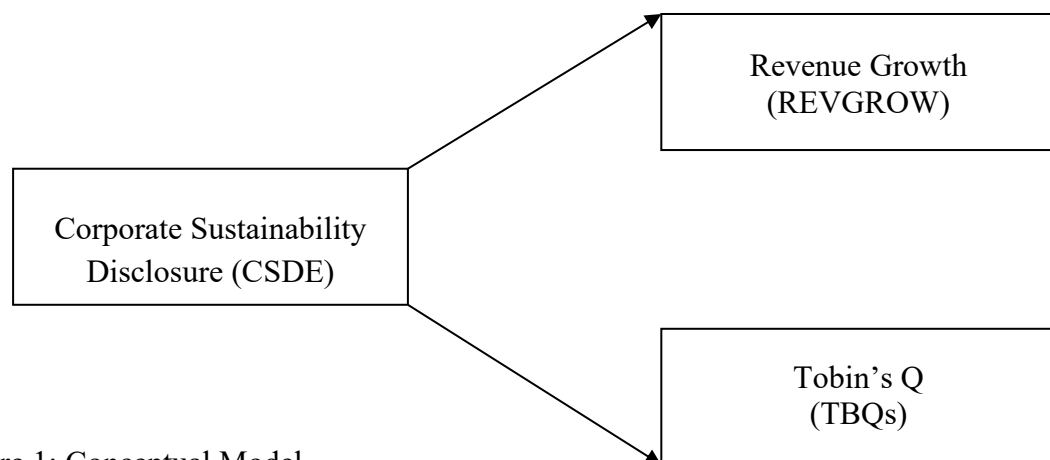


Figure 1: Conceptual Model

Source: Conceptualized by the Researcher (2026)

Theoretical Framework

Although there are several theoretical approaches that can be applied to explain sustainability reporting, the most widely developed theoretical stances in the field of social and environmental accounting are the legitimacy, stakeholder, and agency theories (Irabora, 2019; Emenyi & Okpokpo, 2023). According to these beliefs, businesses that engage stakeholders in their social and environmental initiatives

have a competitive advantage over less socially and environmentally conscious businesses. Agency theory, which was introduced by Brammer and Pavelin (2008), is the foundation of voluntary disclosure theory.

Attempts to eliminate informational disparities between the company, outside agents, and the main agents in the investment community are known as voluntary disclosures. The agency theory viewpoint, which describes the

extent of information disclosure, is the foundation of the voluntary disclosures hypothesis (Reverte, 2009). According to the voluntary disclosure idea, companies with strong environmental performance are prepared to tell stakeholders about their environmental initiatives and do not conceal the effects of their operations on the environment. According to Brammer and Pavlin (2008), voluntary disclosure is expected to reduce the information risk for both present and potential investors. Because voluntary disclosure draws attention to the environmental program and the effects of actions on the country's environment, it can result in a competitive advantage. The corporation shares both positive and negative news with its stakeholders. Investments in environmental management or programs are expensive and will not increase returns in the near term; if disclosure is minimal or nonexistent, stakeholders will believe that the firms' existing environmental strategy is subpar (Gunarish & Ismawati, 2018).

Research Methods

Ex-post facto research design was used in this study; this approach was chosen since the data used in the study already existed, meaning that some factors could not be controlled because the event had

already occurred. The seventy-one (71) manufacturing enterprises listed on the Nigerian Exchange Group as of December 31, 2024, made up the study's population (NGX, 2024).

Twenty (20) manufacturing enterprises were sampled due to the magnitude of the study's population. The study's sample size was chosen using the inclusion and exclusion criteria. For example, the study included corporations who revealed sustainability issues in their annual reports, but excluded companies that did not. Financial performance metrics and sustainability disclosure were among the secondary data used in the study.

Tobin's Q and revenue growth are firm value metrics, whereas sustainability reporting index and disclosure on environmental laws and regulations are sustainability disclosure metrics. Information on the variables of the study was gathered between 2014 and 2024. The current work expands upon models developed by Onoh et al. (2023) and Almaqtari et al. (2023). In light of this, the proposed associations between the study's dependent and independent variables were evaluated using a multiple regression equation. The equation's econometric form is as follows:

$$Tbq = f(sdi, delr) \tag{eq.1}$$

$$Revgrow = f(sdi, delr) \tag{eq. 2}$$

$$Tbq_{it} = \beta_0 + \beta_1sdi_{it}+ \beta_2delr_{it}+ \mu_{it} \tag{eq. 3}$$

$$Revgrow_{it} = \beta_0 + \beta_1sdi_{it}+ \beta_2delr_{it}+ \mu_{it} \tag{eq. 4}$$

Where: *SDI* represents sustainability disclosure index; *DELR* is disclosure on environmental laws and regulations; *TBQ* is Tobin's Q; *REVGROW* is revenue growth; μ_{it} = Error term firm *i* in period *t*. The analyses included descriptive (mean, standard deviation,

minimum and maximum values, skewness and kurtosis), diagnostic (Hausman specirication, variance inflation factor and Breusch-Pagan/Cook-Weisberg), inferential (fixed and random effects panel regression) statistical tools.

Results and Discussions

Table 1: Summary of Statistics

Statistics	TBQ	REVGROW	SDI	DELR
Mean	1.880	5.916	0.047	0.018
Std. Dev.	1.932	16.81	0.157	0.134

Min. Val.	0.222	-24.37	0	0
Max. Val.	0.222	-64.37	0.5	1
Skewness	2.400	0.309	3.318	7.117
Kurtosis	9.117	11.00	13.64	52.51

Source: Researcher's Computation with STATA 16.0

Table 1 is the mean and standard deviation values for each of the variables; the results revealed that revenue growth (Revgrow = 5.916) had the highest mean value, and this was followed by Tobin's Q (Tbq = 1.880); this is an indication that manufacturing companies in Nigeria had significant improvement in firm value. Disclosure on environmental law and regulations (Delr) had the least dispersion with a standard deviation of 0.134. The minimum values were 0.222 (Tbq), -

24.37 (Revgrow), 0 (Sdi) and 0 (Delr) while maximum values were 0.222 (Tbq), -64.37 (Revgrow), 0.5 (Sdi) and Delr (1).

The skewness values were positively skewed with coefficients of 2.400 (Tbq), 0.309 (Revgrow), Sdi (3.318), and 7.117 (Delr). The least kurtosis is 9.117 (Tbq) while the highest kurtosis is 52.51 (Delr). Kurtosis value for all the variables showed a mesokurtic curve while the other variables, platykurtic curve.

Table 2: Pearson Correlation

Statistics	TBQ	REVGROW	SDI	DELR
TBQ	1.000			
REVGROW	0.088	1.000		
SDI	-0.035	0.077	1.000	
DELR	-0.031	-0.038	0.066	1.000

Source: Researcher's Computation with STATA 16.0

In Table 2, the result revealed that Revgrow (0.088) was positively correlated with Sdi and Delr. However, the coefficients revealed that no two

explanatory variables of the study were perfectly correlated, since none of the coefficients exceeded 0.

Table 3: Variance Inflation Factor

Variable	VIF	1/VIF
DELR	1.0	0.995
SDI	1.0	0.995
Mean VIF	1.0	

Source: Researcher's Computation with STATA 16.0

As observed by Odeghe, Ojeh, Ossai and Enaohwo (2023); Doulgas, Udi, Okoro and Enaowho (2023); Ovuakporaye, Enaohwo, Mordi and Naiho (2020), VIF is a vital diagnostic

statistics. The mean VIF is 1.0 which is less than the accepted mean VIF of 10.0, indicating an absence of multi-collinearity in the empirical models of sustainability disclosures and firm value.

Table 4: Breusch-Pagan/Cook-Weisberg

Ho:	Constant Variance	
Variables:	Fitted Values (Revgrow, Tbq)	
Chi2(1)	=	6.1
Prob. >Chi2	=	0.013

Source: Researcher's Computation with STATA 16.0

The result is statistically significant at 5% significance level; an indication of

absence of heteroscedasticity between the independent variables.

Table 5: Fixed/Random Effects Results for Sustainability Disclosures and Tobin's Q

Estimator(s)	Fixed Effect (FE)		Random Effect (RE)	
Variable(s)	Coefficient	Probability	Coefficient	Probability
SDI	-0.3603 (-0.42)	0.675	-0.4129 (-0.50)	0.620
DELR	-0.4306 (0.43)	0.671	-0.4126 (-0.42)	0.673
_Cons.	1.8932 (13.49)	0.000	1.8954 (13.78)	0.000
F-value	(2, 205) = 0.19			
F-Probability	0.8249			
R-Squared (within)	0.0019		0.0019	
R-Squared (between)	0.0524		0.0646	
R-Squared (overall)	0.0021		0.0021	
Wald Ch2(4)			0.45	
Prob. Ch2			0.7966	
Hausman Test	Chi2(2) = 0.07		Prob>Chi2= 0.9676	

Source: Researcher's Computation with STATA 16.0

Table 5 is the results of fixed effect (FE) and random effect (RE) panel regression for sustainability disclosures (Sdi and Delr) and firm value (Tbq) of the entire panel data. In Table 4.7, we found that SDI and DELR were insignificant at 5 percent in explaining Tbq. Using FE, the coefficients were -0.3603 (SDI) and -0.4306 (Delr) respectively, indicating that manufacturing companies in Nigeria engage in sustainability disclosure, it would lead to approximately 36 percent and 43 percent changes in the level of firm value (Tbq). Besides, when RE is employed, coefficients were -0.4129 (Sdi) and -0.4126 (Delr) respectively, indicating that when manufacturing companies in Nigeria engage in sustainability disclosures, it would lead to approximately 41 percent and 42 percent changes in Tbq.

The z-scores for Sdi (-0.50; p-value = 0.629), and Delr (-0.420; p-value = 0.673) were found to be statistically insignificant using the RE results. The z-scores confirmed that Sdi and Delr

were statistically insignificant in explaining Tbq. The overall R² is 0.021, thus it suggests that R² value provides evidence that variables of sustainability disclosures (Sdi and Delr) explained about 2.1 percent variation in TBQ. Again, the Hausman specification result (Prob. >Chi2 = 0.9676 > 0.05) suggests that RE is more efficient than FE. On the basis of the above, RE results were employed in validating the hypotheses of the study:

The t-value for sustainability disclosures with a probability value (p-value) of 0.7966 signifies that it is greater than 0.05 percent this implies that sustainability variables were statistically insignificant. The results obtained led to the rejection of the alternate hypothesis and an acceptance of the null hypothesis, suggesting that there is no significant relationship between sustainability disclosures and Tobin Q of listed manufacturing companies in Nigeria.

Table 6: Fixed/Random Effects Results for Sustainability Disclosures and Revenue Growth

Estimator(s) Variable(s)	Fixed Effect (FE)		Random Effect (RE)	
	Coefficient	Probability	Coefficient	Probability
SDI	-0.2145 (-3.11)	0.001	-0.2507 (-3.09)	0.002
DELR	-0.1223 (-2.45)	0.006	-0.9049 (-3.41)	0.003
_Cons.	2.1960 (6.92)	0.000	2.1897 (7.04)	0.000
F-value	(2, 205) = 17.5			
F-Probability	0.0000			
R-Squared (within)	0.0730		0.0730	
R-Squared (between)	0.0500		0.0483	
R-Squared (overall)	0.0660		0.066	
Wald Ch2(4)			43.10	
Prob. Ch2			0.0000	
Hausman Test	Chi2(2) = 0.09		Prob>Chi2= 0.9579	

Source: Researcher's Computation with STATA 16.0

Table 6 is the results of fixed effect (FE) and random effect (RE) panel regression for sustainability disclosures (Sdi and Delr) and firm value (Revgrow) of the entire panel data. We found that Sdi and Delr were significant at 5 percent in explaining Revgrow. Using FE, the coefficients were -0.2145 (Sdi) and -0.1223 (Delr) respectively, indicating that manufacturing companies in Nigeria engage in sustainability disclosure, it would lead to approximately 21percent and 12percent changes in the level of firm value (Revgrow) respectively. The z-scores for Sdi (-3.09; p-value = 0.0002), and Delr (-3.41; p-value = 0.0003) were found to be statistically significant using the RE results.

The z-scores confirmed that Sdi and Delr were statistically significant in explaining Revgrow. The overall R² is 0.066, hence it suggests that R² value provides evidence that variables of sustainability disclosures (Sdi and Delr) explained about 6.6 percent variation in

Revgrow. Again, Hausman specification result (Prob. >Chi2 = 0.9579 > 0.05) suggests that RE is more efficient than FE. On the basis of the above, RE results were employed in validating the hypotheses of the study: Omogbiya, Ojieh, Enaohwo, Umukoro, Anachuna and Omilo (2020); Ovuakporaye, Enaohwo, Odigie and Igweh (2019); Wilson, Ajumobi, Owolagba, Avwioro, Oduola, Adeosun and Enaohwo (2009) posit that t-values are vital statistical tests; hence, we interpreted the t-value. The t-value for sustainability disclosures with a probability value (p-value) of 0.0000 signifies that it is less than 0.05 percent this implies that sustainability variables were statistically significant. The results obtained led to the rejection of the null hypothesis and an acceptance of the alternative hypothesis, suggesting that Sustainability disclosures has significant effect on revenue growth of listed manufacturing companies in Nigeria.

Conclusion and Recommendations

The study looks into how much corporate sustainability reporting affects the worth of Nigerian manufacturing companies that are listed. Corporate sustainability reporting (an independent variable) was measured using the sustainability reporting index and disclosure on environmental laws using an ex post facto design. However, Tobin's Q and revenue growth were used to measure company value (dependent variable). Secondary data was gathered and calculated from the annual audited financial statements of 20 listed industrial companies between 2014 and 2024. The data was analysed using both fixed and random effects regression. The study concludes that Tobin's Q is insignificantly impacted by company sustainability disclosures. On the other hand, it was discovered that Nigerian listed manufacturing companies' revenue growth is significantly impacted by corporate sustainability disclosure. According to the findings, management of listed manufacturing companies should concentrate their efforts on improving sustainability reporting. This can be achieved when management is able to identify important sustainability reporting metrics that have the greatest impact on a company's value and give them careful attention.

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