

## THE ROLE OF CORPORATE SUSTAINABILITY DISCLOSURE IN PROMOTING FIRM VALUE OF LISTED MANUFACTURING FIRMS IN NIGERIA

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### Abstract

*The aim of this paper is to examine the role sustainability disclosure plays in creating additional value for firms in Nigeria, particularly firms belonging to the Nigerian manufacturing sector. The data were sourced using content analysis on annual reports of 45 listed manufacturing firms for eleven years (2010-2020) collected from Nigerian Stock Exchange. The data were analysed using Generalized Least Square (GLS) regression analysis. The study hypothesized and empirically found that environmental disclosure and social disclosure positively and significantly influences firm value of manufacturing firms in Nigeria. The study concludes that the findings reinforce the general argument of the study that firm's sustainability practices can be a value creation mechanism to companies that involve in its practices and disclosure. The study recommends that manufacturing firms in Nigeria should disclose more on their sustainability-related information as it helps the stakeholders to make valuable decisions which improves their market share. This is a novel approach to the study of sustainability reporting, as most studies focus on the corporate governance factors leading to sustainability disclosure rather than on the value creation of sustainability reporting practices. This study also offers valuable insights to policy makers interested in improving disclosure practices in the economy of Nigeria.*

**Keywords:** *Environmental disclosure, social disclosure, firm value, manufacturing firms*

### 1. Introduction

Green is today's new black when it comes to sustainability reporting for companies, and this can be seen in the worldwide sustainability reporting rate which is a staggering 80%. Non-financial firm performance has thus evolved to pique the interest of a growing wide range of business experts, who recognize that only profitability is insufficient for a firm's long-term progress. Sustainability reporting improves business transparency, strengthens risk management, promotes stakeholder involvement, and improves interactions with stakeholders by going beyond economic, strategic, and operational issues to incorporate environmental and social considerations (Laskar, 2018). The greater disclosure of a firm's encompassing financial, environmental and social (ESG) activities is motivated not only by new rules and laws, but also by the influence it has on a firm's corporate value and financial performance (KPMG, 2020). Stakeholders, an organizations suppliers, customers, employees, investors, communities, and others (Stakeholder Theory, 2018), currently value sustainability highly and as a result the company increases their focus on it as they want to attract the goodwill of their stakeholders. Therefore, companies that want to retain their value must invest in the best possible Corporate

Social Responsibility (CSR) and report it visibly to their stakeholders (Tapaninaho & Kujala, 2019).

Businesses started to pay closer consideration to their endeavors to discover and assess environmental stewardship difficulties in financial reporting as early as two decades ago, because increased number of stakeholders raised worry about this matter (Claudia-Maria & Dragomir 2010; Nasih et al. 2019; El Idrissi et al. 2020). It results in the inclusion of corporate social responsibility elements in annual reports for numerous corporations. The disclosure of environmental and socioeconomic details is not required; nevertheless, such initiative may improve companies' ability to achieve green goals by incorporating the results of their financial, community at large, and sustainable development operations into their disclosures (Çalışkan 2014). This information might be given not just as element of each corporation's financial audited report, but it could also be shared independently in an independent sustainability report.

Even though sustainability reporting has grown in importance over the last several decades, the quality of studies explaining the correlation of sustainability reporting with company's value remains ambiguous and inconclusive. The rise in popularity of sustainability reporting may be attributed to the creation of corporate social and environmental disclosures (Jones et al., 2016; Uyar, 2016). Because of its popularity, investors have begun to recognize the importance of sustainability reporting (Cormier & Magnan, 2007). With growing focus, shareholders are more inclined to prefer companies that provide stronger sustainability reporting while deciding to invest (Cormier et al., 2009). Furthermore, increased public knowledge of corporate environmental and social concerns has necessitated corporations disclosing their projects and initiatives on these matters. These data transparency initiatives address the interests of a broad variety of users, especially investors (Jamali, 2008; Wang & Li, 2015). Moreover, whether engaging in sustainable development improves business value remains debatable (Cahan et al., 2016), and the influence of sustainability reporting on value of the organizations remain unclear (Margolis et al., 2007).

Furthermore, in Nigeria, sustainable reporting policies are still optional, and the degree of disclosures is quite low. Organizations in Nigeria disclose sustainability concerns in multiple ways and adhere to diverse reporting frameworks, culminating in the creation of several forms of assessments. It's no surprise that Nigeria is ranked worst in the csr practices assessed by KPMG (2011). Most Nigerian corporations declare some sustainability strategies. Similarly, Isa (2014) presents verifiable research that just 2% of company disclosures in Nigeria are about sustainability. Fifka and Meyer (2013) and Ngwakwe (2013), on the other hand, stated that many developing nations have made significant progress in voluntary integration over the past decade. As a result, a rising number of corporations are responding to investor concerns and have been issuing sustainability reports in both established and emerging countries for well nearly a half century (Ceulemans, Molderez, & Van Liedekerke, 2015). Legislators and lawmakers in Nigeria, on the other hand, have been interested in how to re-establish trust via enhanced knowledge and

social concern among larger stakeholders, arguing for a disclosure mechanism that supports sensible choices and sustainable development. As a reaction, in 2012, the Nigerian Securities and Exchange Commission (SEC) issued the Code of Corporate Governance, emphasizing the need of sustainability reporting. Ever since, numerous businesses have changed their reporting processes to reflect the obligation to publish information not just on financial activity but also on environmental and societal impact.

Hence, this study adds to the body of research in the following ways: sustainability reporting is a new contemporary phenomenon in most emerging countries around the world, especially in Nigeria that only a confined handful of research were conducted, particularly in Nigeria's vital manufacturing sector. Our study is one of the first to study sustainable development and relate its adoption to business value. Furthermore, our evaluation model for sustainability reporting is linked with worldwide criteria and considers indigenous characteristics. Moreover, we considered the heterogeneity of sustainability practices across manufacturing firms using a quantifiable content analysis technique, and we investigated the intricacies with which current sustainability reporting (and its three components) influences value of companies, thus broadening the findings of Emeka-Nwokeji & Osisioma (2019) and Laskar (2018). Furthermore, the research's outcomes are varied and ambiguous; favorable, unfavorable, and no connection (Garcia et al, 2017; Lawrence et al, 2017; Laskar, 2018; Asuquo et al, 2018; Swarnapali et al, 2018; Emeka-Nwokeji & Osisioma, 2019). As a result, additional research is required, especially given the scarcity of empirical evidence from manufacturing companies, whose operations are more likely to have an impact on the environment where they are located.

## **2. Literature review**

### **2.1 Conceptual Review**

Firm value is an investor's evaluation of a firm's ability to manage its resources successfully (Indriawati, Buana, & Perjuangan 2021). The firm value is crucial because the greater the firm's worth, the more prosperous the shareholder will be. It is an economic metric that reflects a company's market value. Investors' assessments of a firm's management' capacity to foresee and adapt to potential changes in the company's economic environment impact the firm's market value (Emeka-Nwokeji, 2019). Tobin's q is the measure of firm's value that was employed in this research. Tobin's q measures investors' perspectives of a company's market value in relation to its book value. It is an excellent proxy for business value since it represents the market's expectation for future profits (Campbell & Mnguez-Vera, 2008).

Sustainability disclosure is a tale disseminated by a company about the environmental, economic and societal impacts of its daily activities (Uwuigbe et al. 2018). Sustainability disclosures relate to the statements made by businesses in their financial reports describing the policies of the organization, the commitment and the implementation of sustainability activities. The disclosure of sustainability practices can be seen as a tool for achieving sustainable development but also as

a result of society pressures for greater accountability and corporate transparency (Minguel 2017).

The Global Reporting Initiative (GRI), the leading organisation of sustainability reporting guidance and standards, has described sustainability reporting as "a report published by a company on the economic, environmental and social impacts of its day-to-day operations." Stakeholders are keen to know how the firm's strategy and performances are sustainable in different dimensions, including economic, environmental, and social elements, as well as the potential to produce corporate value, via the sustainability reports. Environmental, social, and economic performance disclosure in annual reports or supplemental reports should represent the company's degree of accountability, responsibility, and openness to various stakeholder (Indriawati et al. 2021).

## 2.2 Theoretical Review

Stakeholder theory and legitimacy theory are the two prevailing theories concerning the necessity of sustainability reporting in firm value. Stakeholder hypothesis is the most widely applied theory of sustainability disclosures among scholars. Carroll (1999) defines stakeholders as any person or entity who may be influenced or affected by the organization's activities, decisions, strategies, processes, or objectives. The theory emphasizes the involvement of the concern of the relevant stakeholders before deciding, including those related to disclosure, as the case may be (Jensen 2002). Consequently, there should be harmony between organizations and stakeholders in the activities of those organizations.

There is great pressure on the demand for sustainability disclosures by many stakeholders as a result of their concern for the responsibilities of companies with respect to environmental issues and problems, along with their associated cost (Elijido-ten 2004). According to stakeholder theory, a company can react to the needs and demands of influential stakeholders, with strategic disclosures being a part of the response. According to stakeholder theory, the disclosure of environmental concerns is called a process or mechanism that addresses disputes between the groups concerned, that is, corporations and stakeholders (Gray et al., 1995).

Managing the relationship of the key corporate stakeholder is a critical instrument for increasing firm value (Hamman et al., 2010). Tantalo and Priem (2016) argue that several possible sources of value generation exist for each critical stakeholder. Corporate sustainability reporting reflects the concerns of different stakeholder groups about sustainability problems. According to stakeholder theory, corporate sustainability practices may build a positive reputation among workers, customers, and other public groups, which not only increases company value but also improves the business's market share and competitive edge (Dixon-Fowler et al., 2017).

The development of environment-related capabilities and the direct reduction of costs related to more efficient use of natural resources may particularly enhance firm value (Dixon-Fowler et al., 2017). According to the perspective of stakeholder theory, the company in carrying out all its

business activities is responsible for meeting and protecting the interests of stakeholders. The availability of non-financial information is one of the things needed by stakeholders. Through the disclosure of sustainability reports or sustainability, reports can increase transparency, accountability, and increase stakeholder confidence, which will have an impact on improving the firm value (Li, Gong, Zhang & Koh, 2018). Moreover, a company can attain long-term support from its stakeholders when it adopts social responsibility practices, which can positively influence a firm's long-term value.

Based on stakeholder and legitimacy theory, corporate sustainability reporting is a means of gaining firm legitimacy and stakeholder's support. Therefore, it is expected that corporate sustainability reporting lead higher firm value. Thus, we propose:

H1: Economic disclosure is positively related to firm value.

H2: Environmental disclosure is positively related to firm value.

H3: Social disclosure is positively related to firm value.

### **2.3 Empirical Review**

Abdi et al. (2020) conducted a study on the impact of sustainability disclosure on firm value. resource-based view, the legitimacy theory, and the stakeholder theory were used as theoretical basis of the study. Data used were collected from a sample of 27 airlines worldwide from of 2013-2019. The findings reveal that environmental pillar score positively influence the market-to-book ratio and Tobin's Q as proxies for firm value while the social pillar score on the other hand has significant negative impact on firm value.

Dura et al. (2021) examined the implication of sustainability disclosure on company value. Agency, legitimacy, stakeholder and signalling theory were used as theoretical basis of the study. Data used were collected from a sample of 171 quoted manufacturing firms on Indonesia Stock Exchange from of 2015-2018. The findings reveal that environmental performance positively influence the firm value while economic performance has significant negative impact on firm value. Social performance on the other hand has insignificant impact on firm value. However, the study duration is relatively short; a longer period would allow for greater generalization and validation of the findings. The research could be enhanced by extending the time span considered.

Gerged et al. (2021) examined the relationship between environmental disclosure and firm value from neo-institutional theory perspective. Data based on 500 firm-year observations of listed firms on the stock exchanges of the five selected Gulf Cooperation Council (GCC) countries were analysed. The fixed effect regression results reveal that environmental disclosure has significant positive influence on firm value (measured by Tobins Q). In addition, Aksan and Gantowati (2020) examined how sustainability disclosure influences firm value using panel regression analysis on a sample of 37 firms in Indonesia. The study was grounded on

Stakeholder theory. The findings indicates that disclosure of sustainability information positively impact firm value.

In addition, Shalihin et al. (2020) examined the impact of sustainability disclosure on company value. Agency, legitimacy, stakeholder and signalling theory were used as theoretical basis of the study. Data used were collected from a sample of 20 quoted firms on Indonesia Stock Exchange from of 2015-2018. The findings obtained from the Generalized Method of Moment (GMM) estimation reveal that corporate sustainability positively influence the value of market-based firms. Atanda et al. (2021) examined the implication of sustainability disclosure on company value. Data used were collected from a sample of 10 quoted deposit money banks on Nigeria Stock Exchange from of 2014-2018. The findings of the regression analysis reveal that environmental performance negatively influence the firm value while economic performance has insignificant impact on firm value. Social performance on the other hand has significant positive impact on firm value.

Nguyen (2020) examined the relationship between sustainability disclosure and firm value from neo-institutional theory perspective. Data based on 485 firm-year observations of 97 listed German firms from 2013 to 2017 were analysed. The regression results reveal that GRI adherence level in reporting sustainability performance has significant negative influence on firm value. Which means a higher adherence to GRI of firm sustainability reporting can reduce firm value of a company. Similarly, Hariyani et al. (2022) examine the impact of sustainability disclosure on firm value using quantitative data extracted from 8 state owned enterprises listed on Indonesia Stock Exchange from 2014 to 2018. The Structural Equation Modeling (SEM) with Partial Least Square (PLS) result shows that sustainability disclosure has a significant negative effect on firm value.

Indriawati et al. (2021) found that sustainability disclosure has no significant effect on firm value using non-financial firms quoted on Indonesia Stock Exchange from 2016 – 2018. Haidar and Sohail (2021) also found that sustainability reporting has no significant relationship with corporate performance in Saudi listed firms. However, both studies were conducted in a country with a jurisdiction distinctively different from Nigeria. Loh et al. (2017) examined the relationship between sustainability disclosure and firm value from multi-theory perspective. Data used were extracted from a sample of 502 listed firms in Singapore for the financial year 2015. The regression results reveal that sustainability disclosure has a significant positive effect on firm value. However, the study used single year data which cannot be generalized to other periods. This could be improved upon by increasing the number of periods covered.

### 3. Methodology

The study adopted causal research design as it seeks to investigates the role of sustainability disclosure on firm value. This study's population includes all listed manufacturing companies on Nigeria Stock Exchange (NSE) as of December 31st, 2021. Firms with absence of data on the

variables in the years under consideration were filtered out. Therefore, this study utilised the available 45 companies that have their annual report and necessary information at the time of conducting the research. The data were extracted from the annual financial report of the selected firm for eleven years (from 2010 to 2020 inclusive). Firm value is measured using Tobins-Q as the unit of measurement. The formula for calculating Tobin's Q ratio is the market value of equity + total liabilities + preferred equity + minority interest) ÷ book value of assets (Yusuf, Hawaj, & Buallay 2021).

Sustainability disclosure is measured using three dimensions, namely economic, environmental, and social disclosure. The method of content analysis used for this study was a scoring system based on the GRI Sustainability Disclosure checklist, which uses a coding scale to categorize disclosure tailored to specific items of information found in the annual reports. This approach is more suitable for the study's purposes than counting word, sentence, or page proportions, which are other options (Cormier, Ledoux, Magnan, & Aerts, 2010). Consistent with Clarkson et al. (2008) approach, disclosure score in this study is defined in line GRI guidelines for each indicator and allocated as 0 = non-disclosure; and 1 = disclosure (Kurniawan et al., 2018). It can be argued that the above information can improve stakeholder attitudes, thus increasing the reliability and relevance of company reporting. Hence, total disclosure score is calculated as the proportion of total available scores attributed to the maximum scores which a firm could earn to meet up the disclosure requirement. Corporate size is measured as company's year-end total assets (Gerged et al. 2021) while profitability is calculated as Profit after tax/total equity in line with (Gerged et al. 2021).

### 3.1 Model Specification

According to Gujarati (2004), a regression model can be formulated to allow for inexact relationships between variables general. The model below is formed to estimate the relationship between sustainability and firm value.

$$\text{Model: } \text{TBQ}_{it} = \beta_0 + \beta_1 \text{ECDS}_{it} + \beta_2 \text{ENDS}_{it} + \beta_3 \text{SCDS}_{it} + \beta_4 \text{PROF}_{it} + \beta_5 \text{FSIZE}_{it} + \epsilon_{it}$$

Where: TBQ = Firm Value;  $\beta_0$  = Intercept;  $\beta_1$  to  $\beta_5$  = Coefficient of the variables;  $\epsilon$  = Error term; it = Subscript for Panel Data; ECDS = Economic Disclosure; ENDS = Environmental Disclosure; SCDS = Social Disclosure; PROF = Profitability; FSIZE = Firm Size;

## 4. Results and Discussion

### 4.1 Descriptive Analysis

**Table 1: Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
Tobinsq	495	1.115	1.456	.054	11.175
Econdis	495	.527	.148	.2	.8
Envdis	495	.178	.204	0	.8
Socdis	495	.271	.137	0	.65
Prof	495	.055	.14	-.716	1.763
Fsize (Million)	495	89,365	210,196	176	2,022,451

**Source:** Researcher Computation using STATA 13.1

The firm value measured by Tobins-Q has a mean value of 1.115 approximately, with a standard deviation of 1.456 representing low variability of market value among the sampled manufacturing firms as covered within the period of study. This implies that some listed firms tend to have relatively higher market value than others do. The minimum and maximum of 0.054 and 11.175 respectively represent the highest and lowest Tobins-Q value.

The economic disclosure has a mean value of 0.527 with a standard variance of 0.148 suggesting that there is wide variation in economic disclosure of the sampled manufacturing firms. Furthermore, the highest economic disclosure score is 80%, while the lowest economic disclosure score is 20%, showing a wide range of economic disclosure activities across the sample firms. The mean of environmental disclosure is 0.178 which means that the average environmental disclosure over the investigation duration was deemed to be low. Furthermore, the highest environmental disclosure scores is 80%, while the lowest scores is 0%, showing a wide range of environmental disclosure activities across the sample firms. Since the standard variance of 0.204 suggests that there is little variation in environmental disclosure of the firms sampled.

On the social dimension, the average report of the entire firms under consideration stands at 0.271 meaning that, firms report 27.1% of their social performance. The SD of 0.137 indicates that almost all the firms have similar social reporting behaviors. The minimum mean of 0 explains that some firms failed to report their social performance in a particular year. Maximum mean of 0.65 emphasizes that the sampled firms reports not more than 65% of their social performance within the period covered.

With respect to firm size, the min and max asset value are of N176 millions and N2.02trillions respectively. The mean of firm size is N89.3 Billion. The close standard deviation with the value of N210 billion as compared with the mean of N89.3 Billion shows that there is much variation in total assets of the firms that constitutes the study sample. As seen in Table 1, The mean of profitability as indicated that average return on asset is 1.5% approximately, while the standard deviation of 0.055 (5.5%) representing low variability of return on total asset among the sampled firms as covered within the period of study. This implies that level of profitability among manufacturing firms in Nigeria cluster together. The min and max values are -0.716 and 1.763 respectively.

**Table 2: Matrix of correlations**

Variables	tbq	ecdis	endis	scdis	fize	prof
Tbq	1.000					
ecdis	0.157	1.000				
endis	0.283	0.521	1.000			
Scdis	-0.148	-0.628	-0.655	1.000		
Fize	0.108	0.401	0.455	-0.388	1.000	
Prof	0.409	0.193	0.151	-0.184	0.105	1.000

**Source:** Researcher Computation using STATA 13.1

With regards the univariate analysis, the relationship between economic disclosure score and

Tobin's Q is positive with correlation coefficient of 0.157. There is a negative relationship between social disclosure score and Tobin's Q with a correlation coefficient of -0.148. Environmental disclosure score has a positive relationship with Tobin's Q with correlation coefficient of 0.283. Finally, firm size and profitability has a positive relationship with Tobin's Q with correlation coefficient of 0.108 and 0.409 respectively. With regard to the bivariate analysis, a correlation coefficient of more than 0.8 is excessive and can cause likelihood of multicollinearity (Gujarati, 2004). All correlation coefficients between independent variables are below 0.80 in the table above indicating the possible absence of harmful multicollinearity. The Variance Inflation Factor can be used to validate this.

#### 4.2 Diagnostic Test

This section presents the results from the diagnostic tests conducted. The diagnostic tests include linearity test, auto and serial correlation test, heteroskedasticity test, normality test, hausman specification test. Multicollinearity test was conducted to see whether the explanatory variables have strong inter-relationship. It can be inferred that there is no multicollinearity issue based on the proof provided in Table 5.4. This is since all of the variables' VIF values and mean VIF are less than 10 (Hair et al., 2006).

The study conducted Hausman specification test to select between fixed and random tests. Hausman specification test conducted for the model produced p-value of 0.729, which is insignificant. As a result of this, the result of the random effect model was considered suitable for the analysis. In addition to Hausman test, LM test was conducted to decide between random and pooled OLS. The result from Lagrangian multiplier indicates that random effect is to be interpreted as shown by the p-values of 0.000. The result of the test shows presence of auto and serial correlation as the p-values is significant at 1%.

The results also reveals that there is a presence of heteroskedasticity as the p-values is significant at 1% which indicate that the model is not homoskedastic. This suggests that Random Effect regression will not be suitable for this study as the panel regression estimators is assumed to be biased (Hausman and Kuersteiner 2008; Maekawa, Setiawan, and Mada 2014). Generalized Least Squares (GLS) can be used as an alternative regression model evade the inefficiency that occur by heteroskedasticity (Cameron & Trivedi, 2009; Westerlund & Narayan, 2012). To overcome the shortcomings of Random Effect in the presence of heteroskedasticity and auto correlation, this study therefore used Generalized Least Squares model (GLS). Thus, the model of the study can be expressed using the computed parameters shown in Table 3

**Table 3. Generalized Least Squares Regression**

Tbq	Coef.	Std. er	t-value	p-value
Ecdis	0.057	0.377	0.15	0.881
Endis	1.631	0.286	5.70	0.000
Scdis	3.664	1.766	2.08	0.038
Fize	-0.019	0.027	-0.69	0.491
Prof	2.916	0.306	9.54	0.000

Constant	-3.995	1.924	-2.08	0.038
Number of obs		495	Hausman	0.729
Chi-square		144.849	LM Test	0.0000
Prob > chi2		0.000	Hetest	0.0000
Mean VIF		1.65	Auto Correlation	0.0000

Source: Researcher Computation using STATA 13.1

### Interpretation of the Model

Model:  $ROE_{it} = 0.039 + 0.293 EDS_{it} + 0.411 SDS_{it} + 0.048 GDS_{it} - 0.032 FL_{it} - 0.010 FS_{it}$

The results from Table 3 show that chi-square=144.849 and P-value = 0.000 which is significant at 1%. This indicates that the overall model is statistically significant. It further implies that the study explanatory variables are fit enough to predict the level of variation in the financial performance in the Nigeria banking sector. As a result, the model is suitable for estimating the interaction between sustainability disclosure variables and firm value.

### 4.3 Discussion of Findings

The relationship between the economic disclosure score and firm value of the listed manufacturing firms is positive as shown by the 0.057 coefficient, which is statistically insignificant (from the P-value of 0.881). Despite the fact the parameter is positive which implies that increase in economic disclosure leads to increase in the bank's financial performance, there is no statistical evidence to suggest that as the result is insignificant. This means that the extent of bank's disclosure on their governance practices has no significant influence on their financial performance. This may be as a result of the early stage of adoption and application of GRI by companies operating in the country as well as the awareness level about the benefits of governance reporting in Nigeria. Therefore, the study rejects the alternate hypothesis that economic disclosure has a significant impact on firm value of listed manufacturing firms in Nigeria. The results of this study were consistent with the results of the study of Dura et al. (2021) that found that economic disclosures have no significant effects on firm value.

Environmental disclosure has a significant positive impact on firm value as evidenced with Z-value of 5.70, a coefficient value of 1.631, and a p-value of 0.000, which is significant at 1%. This suggests that environmental has a significant positive relationship with the firm value of listed manufacturing firms in Nigeria. This means that the more the banks disclose their environmental performance, the better their market performance. The study revealed that environmental reporting shows the firms commitment toward satisfying environmental needs of the society and host community who are among stakeholders in Nigerian banks and as a result satisfying stakeholders information need can improve firm's value. Therefore, the study fails to reject the alternate hypothesis that environmental disclosure has a significant impact on firm value of listed manufacturing firms in Nigeria. The results of this study is in line with stakeholders theory and consistent with the results of the study of Abdi et al. (2020) and Gerged et al. (2021) who found that which found that environmental sustainability disclosures have significant positive impact effects on market value.

Table 4 shows a Z-value of 2.08 a coefficient value of 3.664, and a p-value of 0.038 for the social disclosure score, which is significant at 5%. This suggests that social disclosure has a significant positive relationship with the firm value of listed manufacturing firms in Nigeria. This means that the more the banks disclose their social performance, the better their financial performance. This means social disclosure aspects will influence stakeholder perception on the firms company's societal effect which enhances stakeholder's support. Therefore, the study fails to reject the alternate hypothesis that social disclosure has a significant impact on firm value of listed manufacturing firms in Nandigeria. The result of this study is in line with the studies of Atanda et al. (2021) who found that disclosing social information about a firm enhanced its value. But dissimilar to those of Abdi et al. (2020) amd Dura et al. (2021) who found that the social score has negative and insignificant impact on firm value respectively

## 5. Summary and Conclusion

This study investigates the role of sustainability disclosure in improving firm value manufacturing companies in Nigeria. Secondary source of data was obtained via the annual reports 45 listed manufacturing firm in Nigeria from 2010 to 2021. Firm value was measured using Tobins-Q as the unit of measurement. The findings of the study reveal that environmental disclosure and social disclosure have significant positive impact on firm value of manufacturing companies in Nigeria. Economic disclosure on the other hand has insignificant relationship with firm value. To conclude, the overall findings affirm the study's overarching argument that sustainability disclosure plays a crucial stakeholder evaluation of companies. In this regard, the sustainability disclosure act as a controlling tool to regulate the opportunistic manipulation of management and to make firms more responsive to stakeholders' needs and interests, thus reducing information asymmetry and broadening their information-based access. The study has limitation as the investigation was focused primarily on content analysis of information contained in annual reports whereas, some firms may engage in environmental sustainability and disclose it by other outlets besides annual reports, such as magazines, bulletins and firm's websites.

## References

- Abdi, Y., Xiaoni L., & Xavier, C. (2020.) Impact of sustainability on firm value and financial performance in the Air Transport Industry.
- Aksan, I., & Evi G. (2020). Disclosure on sustainability reports, foreign board, foreign ownership, Indonesia sustainability reporting awards and firm value. *Journal of Accounting and Strategic Finance*, 3(1):33–51.
- Atanda, F. A., Osemene, F. & Ogundana, H. F. (2021). Sustainability reporting and firm value: Evidence from selected deposit money. *Global Journal of Accounting*, 7(1):47–68.

- Asuquo, I., Dada, E. T. & Onyeogaziri, L. (2018). The effect of sustainability reporting on corporate performance of selected quoted brewery firms in Nigeria. *International Journal of Business & Law Research*, 6(3), 1-10, ISSN: 2360-8986. <http://doi.org/10.14414/jebav.v15i2.79>
- Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of business ethics*, 83(3), 435-451. doi:DOI 10.1007/s10551-007-9630-y
- Ceulemans, K., Molderez, I., & Van Liedekerke, L. (2015). Sustainability reporting in higher education: A comprehensive review of the recent literature and paths for further research. *Journal of Cleaner Production*, 106, 127-143
- Carroll, A. B. 1999. Corporate Social Responsibility: Evolution of a Definitional Construct. *Business and Society*, 38(3):268–95.
- Cho, C. H., & Patten, D. M. (2007). The Role of Environmental Disclosures as Tools of Legitimacy: A Research Note. *Accounting, Organization and Society*, 32 (7), 639–647. <https://doi.org/10.1016/j.aos.2006.09.009>
- Clarkson, P. M., Yue L., Gordon D. R., & Florin P. V. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society*, 33,303–27. doi: 10.1016/j.aos.2007.05.003.
- Cormier, D., Aerts, W., Ledoux, M. J., & Magnan, M. (2009). Attributes of social and human capital disclosure and information asymmetry between managers and investors. *Canadian Journal of Administrative Sciences*, 26 (1), 71–88. <https://doi.org/10.1002/cjas.89>
- Cormier, D., & Magnan, M. (2007). The revisited contribution of environmental reporting to investors' valuation of a firm's earnings: an international perspective. *Ecological Economics*, 62 (3), 613–626.
- Cormier, D., Marie-Josée L., Michel M., & Walter A.. (2010). Corporate governance and information asymmetry between managers and investors. *Corporate Governance*, 10, 574–89.
- Dixon-Fowler, H. R., Ellstrand, A. E., & Johnson, J. L. (2017). The role of board environmental committees in corporate environmental performance. *Journal of Business Ethics*, 140(3), 423-438.
- Dura, J. Grahita C., Edi S., & Bisnis A.. (2021). The effect of disclosure of economic, social, environmental performance sustainability on financial performance and its implications on company value with the triple bottom line approach. 8(6),3642–58.
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management Science*, 60(11), 2835–2857. <https://doi.org/10.2139/ssrn.1964011>
- Elijido-ten, Evangeline (2004). Determinants of environmental disclosures in a developing country: an application of the stakeholder theory in fourth Asia pacific interdisciplinary Research in Accounting Conference.
- Emeka-Nwokeji, N. A. (2019). Nexus between corporate social responsibility disclosures and market value of listed nonfinancial firms in Nigeria. *International Journal for Innovative Research in Multidisciplinary Field*, 5(3), 247-255.

- Fifka, M. S., & Meyer, J. (2013). Corporate responsibility reporting and its determinants in comparative perspective –a review of the empirical literature and a meta-analysis. *Business Strategy and the Environment*, 22, 1-35. doi: DOI: 10.1002/bse.729
- Garcia, A. S., Mendes-Da-Silva, W. & Orsato, R. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Clean*, 150, 135–47.
- Gerged, A. M., Eshani B., & Christopher J. C.. (2021). Is corporate environmental disclosure associated with firm value? a multicounty study of gulf cooperation council firms. (April 2020):185–203. doi: 10.1002/bse.2616.
- Gray Rob, R. K., & Simon L.. (1995). Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK Disclosure. *Accounting, Auditing & Accountability Journal* 8,47–77. doi: 10.1108/09513579510146996.
- Gujarati, D. N. (2004). Basic Econometrics, 4.
- Haidar, H. M., & Rabia M. S.. (2021). Sustainability Reporting (SR) Disclosure and Value Relevance on Listed Saudi Firms. 1782–1804. doi: 10.4236/ojbm.2021.94097.
- Hamman, J. R., Loewenstein, G., & Weber, R. A. (2010). Self-interest through delegation: An additional rationale for the principal-agent relationship. *American Economic Review*, 100(4), 1826-46. <https://doi:10.1257/aer.100.4.1826>
- Haniffa, R. M., & Cooke. T. E. (2005). The impact of culture and governance on corporate social reporting. *Journal of Accounting and Public Policy*, 24,391–430. doi: 10.1016/j.jaccpubpol.2005.06.001.
- Hariyani, D. S.i, Wenni W., Louse H. & Amira S. (2022). Sustainability reporting and company’s Value. *Journal of Accounting, Finance and Auditing Studies* 8(1),60–74. doi: 10.32602/jafas.2022.003.
- Hausman, J., & Guido K. (2008). Difference in difference meets generalized least squares: higher order properties of hypotheses Tests. *Journal of Econometrics* 144(2), 371–91. doi: 10.1016/j.jeconom.2008.04.003.
- Indriawati, F., Mercu B., & Universitas B. P. (2021). Sustainability reports and its impact on firm value in non-financial Companies: Evidence from Indonesia.42–50.
- Isa, M. A. (2014). Sustainability reporting among nigeria food and beverages Firms. *International Journal of Agriculture and Economic Development*, 2(1), 1-9.
- Jensen, M. C. (2002). Value maximization, stakeholder theory, and the corporate objective function. *Business Ethics Quarterly* 12, 235–56. doi: 10.2307/3857812.
- Jones, P., Hillier, D., & Comfort, D. (2016). Materiality and external assurance in corporate sustainability reporting: An exploratory study of europe’s leading commercial property companies. *Journal of European Real Estate Research*, 9 (2), 147–170. <https://doi.org/10.1108/JERER-07-2015-0027>
- KPMG. (2011). International Survey of Corporate Responsibility Reporting. KPMG, De Meen NL.

- KPMG. (2020). The Time Has Come: The KPMG Survey of Sustainability Reporting 2020(No. 11). The KPMG Survey of Sustainability Reporting 2020. <https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/the-time-has-come.pdf>
- Laskar, N. & Maji, S. (2018). Disclosure of corporate sustainability performance and firm performance in Asia. *Asian Review of Accounting*, 1-32. <https://doi.org/10.1108/ARA-02-2017-0029>
- Li, Y., Gong, M., Zhang, X. Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *British Accounting Review*, 50(1), 60–75.
- Loh, L., Thomas T., & Yu W.. (2017). Sustainability reporting and firm value: Evidence from Singapore-Listed Companies. 1–12. doi: 10.3390/su9112112.
- Maekawa, K., Kusdhianto S., & Gadjah M.. (2014). Estimation of Vector Error Correction Model with Garch Errors. *ECOMOD 2014* 1(2),1–10.
- Glendanique, G. E. (2017). The evolution of sustainability reporting a case study of the Airlines Sector.
- Monfardini, P., A. D. Barretta, & Ruggiero, P. (2013). Seeking Legitimacy: Social Reporting in the Health Sector. *Accounting Forum* 37(1), 54–66.
- Newson, M., & Deegan C. (2002). Global expectations and their association with corporate social disclosure practices in Australia, Singapore, and South Korea. *International Journal of Accounting* 37(2),183–213.
- Ngwakwe, C. C. (2013). Independent assurance compliance of sustainable development disclosures in the Johannesburg stock exchange firms. *Corporate Ownership & Control* 10(2), 226-240.
- Nguyen, T. T. D. (2020). An Empirical Study on the Impact of Sustainability Reporting on Firm Value. *Journal of Competitiveness*, 12(3),119–35.
- O'Donovan, G. (2002). Environmental disclosures in the annual report: extending the applicability and predictive power of legitimacy Theory. *Accounting, Auditing & Accountability Journal* 15(3), 344–71.
- Shalihin, M. Y., Harry S., & Dede A. H. (2020). Impact of corporate sustainability on firm value: Indonesian Context. 3(1), 102–10.
- Swarnapali, R M.N. C., Wuhan, P. R., Mihintale, S. L. & Luo, L. (2018). Corporate sustainability reporting and firm value: evidence from developing country. *International Journal of Organizational Innovation*, 10(4), 69-78.
- Tapaninaho, R. & Kujala, J. (2019). Reviewing the stakeholder value creation literature: towards a sustainability approach. In *Social Responsibility and Sustainability*, 3–36. Springer International Publishing. [https://doi.org/10.1007/978-3-030-03562-4\\_1](https://doi.org/10.1007/978-3-030-03562-4_1)
- Tantalo, C., & Priem, R. L. (2016). Value creation through stakeholder synergy. *Strategic Management Journal*, 37(2), 314-329. doi.org/10.1002/smj.2337
- Uwuigbe, U., Obarakpo, T., Uwuigbe, R., Ozordi, E., Osariemen, G., Akpevwenghene, A. & Oluwagbemi. T. (2018). Sustainability Reporting and Firm Performance: A Bi-Directional Approach. *Academy of Strategic Management Journal*, 17(3):1–16.

- Uyar, A. (2016). Evolution of corporate reporting and emerging trends. *The Journal of Corporate Accounting and Finance*, 27 (4), 27–30. <https://doi.org/10.1002/jcaf.22157>
- Yusuf, Abdulla, Al Hawaj, & Amina Mohamed Buallay (2021). A Worldwide Sectorial Analysis of Sustainability Reporting and Its Impact on Firm Performance. *Journal of Sustainable Finance & Investment*, 1–25. doi: 10.1080/20430795.2021.1903792.