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## **Effect of environmental and economic sustainability reporting on market performance of quoted manufacturing companies in Nigeria**

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### ***Abstract***

*Manufacturing firms in Nigeria face challenges in achieving strong market performance due to increasing environmental pressures, weak economic transparency, regulatory compliance demands and inconsistent sustainability disclosure practices, which collectively reduce investor confidence, distort firm valuation, and undermine long-term competitiveness in the capital market. The study examined the effect of environmental and economic disclosure on market performance of listed manufacturing firms in Nigeria from 2015 to 2024, using an ex-post facto design, secondary data from the annual reports and accounts of 36 out of 76 population of manufacturing firms in Nigeria. A panel regression was used to analyse the data. The findings showed that environmental and economic disclosure have a positive and significant effect on market performance of listed manufacturing firms in Nigeria. The study concludes that environmental and economic disclosure influence market performance. It therefore recommends that federal reporting council of Nigeria Nigerian exchange group and security and exchange commission should enforce standardized environmental and economic disclosure frameworks requiring manufacturing firms to report key sustainability indicators, supported by strict compliance monitoring, annual reviews, and listing requirements. In addition, incentives, digital reporting systems, and capacity-building programs should be introduced to enhance disclosure quality, improve transparency, and strengthen investor confidence and market valuation.*

*Keywords: Economic Disclosure, Environmental Disclosure and Market Performance*

### **Introduction**

Global market performance has continued to face persistent challenges arising from volatile economic conditions, increasing competition, shifting investor expectations and rising demands for corporate transparency and accountability. In contemporary capital markets, investors increasingly rely not only on financial statements but also on non-financial disclosures that signal sustainability, risk exposure and long-term value creation. Consequently, firms are under growing pressure to improve the quality of their reporting practices in order to sustain investor confidence, enhance valuation, and remain competitive in both domestic and international markets (Ali et al., 2025; Chenxu et al., 2025; Mohammed & Almashhadani, 2023).

In Nigeria, these challenges are more pronounced, particularly within the manufacturing sector, where firms operate in a highly competitive environment characterized by fluctuating production



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costs, foreign exchange instability, regulatory constraints and weak information disclosure systems (Munkaila, 2021; Odum, 2024). These conditions often create information asymmetry between firms and investors, leading to uncertainty in market valuation and suboptimal investment decisions. As a result, sustainability reporting has become an increasingly important tool for improving transparency and strengthening market confidence in quoted manufacturing firms.

Environmental disclosure captures the communication of firms' environmental impacts, resource usage, emissions, waste management practices, and compliance with environmental regulations, which signals environmental responsibility and sustainability orientation to investors. Evidence from prior studies such as Munir and Arie (2025), Oluwakemi and Mishelle (2025), Kenneth et al. (2023), Junaidu and Kabiru (2022), Hariyani et al. (2022), Qureshi et al. (2021), Oncioiu et al. (2020), Swarnapali and Le (2019), and Mihai et al. (2019) generally show that environmental disclosure improves transparency and investor perception, though its effect on market performance is mixed across contexts. While some studies report positive market reactions, others reveal negative or insignificant relationships, suggesting that investors may not fully price environmental information or may view disclosure costs as value-reducing.

Economic disclosure involves the reporting of firms' financial sustainability information, including value creation efficiency, cost management, profitability stability, and overall economic contributions, which signals financial strength and long-term viability to investors. Empirical studies such as Oluwakemi and Mishelle (2025), Shobhwani and Lodha (2024), Mustaffa et al. (2023), Nwaigwe et al. (2022), Chikwendu et al. (2019), and Emeka-Nwokeji and Osisoma (2019) show mixed evidence on its influence on market performance, with findings ranging from positive, negative, to insignificant effects depending on context and measurement. These studies generally conclude that economic disclosure can enhance transparency and investor perception, but its market impact is not consistent across firms and countries.

Existing literature on sustainability reporting and market performance has provided important insights but remains fragmented in scope and context. Most prior studies relied on aggregated ESG or sustainability indices, examined environmental and economic disclosures in isolation, focused on single-country or cross-country settings, and were largely based on earlier time periods, which limits their relevance to current market dynamics. In addition, methodological limitations such as cross-sectional designs and broad sectoral coverage have restricted the ability to capture long-term, sector-specific effects, particularly within Nigeria's manufacturing industry. Theoretically, although Stakeholder Theory and Signaling Theory explain how sustainability disclosures enhance legitimacy and reduce information asymmetry, many studies have not integrated environmental and economic disclosure into a unified framework for explaining market performance. Consequently, a clear gap exists in disaggregated, sector-specific, and recent empirical evidence



from emerging economies like Nigeria, especially within the manufacturing sector that is highly sensitive to environmental and economic reporting pressures. This current study addresses these gaps by applying separate environmental and economic disclosure indices, adopting a longitudinal design covering 2015–2024, and focusing exclusively on quoted manufacturing firms in Nigeria to provide updated, context-specific, and more robust evidence on the relationship between sustainability reporting and market performance.

Therefore, the major objective of this study is to examine the effect of environmental and economic disclosure on market performance of listed manufacturing firms in Nigeria. Other specific objectives are to;

- i. Examine the effect of environmental disclosure on market performance of manufacturing firms in Nigeria; and
- ii. Assess the extent economic disclosure affect market performance of manufacturing firms in Nigeria.

## **Literature Review**

### **Concept of Market Performance**

Market performance has been broadly defined in the literature as the extent to which a firm's actions are reflected in capital market valuation, investor confidence, and overall shareholder wealth creation. It represents how effectively financial and non-financial disclosures are translated into market-based outcomes such as stock valuation, investor demand, and firm reputation in the capital market. Prior studies have operationalized market performance using several measures, including earnings per share (EPS), return on assets (ROA), return on equity (ROE), market capitalization, price-to-earnings ratio (P/E), price-to-book value (PBV), and Tobin's Q (Munir & Arie, 2025; Oluwakemi & Mishelle, 2025; Akinleye & Ogundipe, 2024; Kenneth et al., 2023; Junaidu & Kabiru, 2022; Nwaigwe et al., 2022). These measures are generally grouped into accounting-based indicators (such as ROA and ROE) and market-based indicators (such as Tobin's Q, P/E ratio, and market value measures), where accounting measures focus on historical profitability while market-based measures capture investor expectations and external valuation responses.

Among these measures, Tobin's Q is considered the most appropriate for this study because it provides a more comprehensive and forward-looking assessment of firm performance by comparing the market value of a firm to the replacement cost of its assets. Unlike accounting-based measures such as ROA and ROE, which can be influenced by managerial discretion, accounting policies, and short-term earnings manipulation, Tobin's Q reflects investor



expectations about future growth and sustainability, making it more sensitive to environmental and economic disclosure effects (Qureshi et al., 2021; Shobhwani & Lodha, 2024; Mustaffa et al., 2023). It is also superior to single-market indicators like EPS or share price used in studies such as Hariyani et al. (2022) and Junaidu & Kabiru (2022), because it integrates both market valuation and asset base, thereby providing a more holistic view of firm value. Given the focus of this study on how sustainability reporting influences investor perception and long-term value creation in Nigerian manufacturing firms, Tobin's Q is the most suitable measure as it captures both market efficiency and growth expectations more effectively than other alternative indicators.

### **Concept of Environmental Disclosure**

Environmental disclosure involved the reporting of firms' environmental impacts such as emissions, waste management, resource consumption, pollution control, and compliance with environmental regulations, which reflected how firms managed ecological responsibilities (Swarnapali & Le, 2019; Mihai et al., 2019; Oncioiu et al., 2020). Munir and Arie (2025), Akinleye and Ogundipe (2024), and Olubunmi et al. (2025) described environmental disclosure as the communication of environmental sustainability practices that allowed stakeholders to evaluate environmental responsibility and risk exposure. Qureshi et al. (2021) and Hariyani et al. (2022) explained environmental disclosure as a transparency mechanism that reduced information asymmetry by signalling environmental performance and regulatory compliance. Junaidu and Kabiru (2022), Kenneth et al. (2023), and Ashiru (2025) included both qualitative and quantitative reporting of environmental costs, policies, and sustainability initiatives within corporate reports. Oluwakemi and Mishelle (2025) further highlighted that environmental disclosure formed part of broader ESG communication used to assess firm sustainability behaviour.

Environmental disclosure influenced market performance by shaping investor confidence, corporate reputation, and perceived long-term risk, which affected valuation outcomes. Qureshi et al. (2021) and Oncioiu et al. (2020) found that stronger environmental transparency improved market-based performance by reducing uncertainty and enhancing investor trust. Olubunmi et al. (2025) and Akinleye and Ogundipe (2024) reported that environmental disclosure attracted sustainability-focused investors and improved firm valuation through better reputation. However, Munir and Arie (2025) and Hariyani et al. (2022) observed that environmental disclosure sometimes had insignificant or negative effects on market value, suggesting that disclosure without strong underlying performance may be perceived as a cost burden. Kenneth et al. (2023) and Junaidu and Kabiru (2022) also recorded mixed results, where environmental disclosure influenced market indicators inconsistently across contexts. These mixed empirical outcomes indicated that environmental disclosure effects varied across sectors and measurement approaches, justifying a more focused examination within Nigerian manufacturing firms.

### **Concept of Economic Disclosure**



Economic disclosure referred to the reporting of a firm's economic contributions and impacts, including value creation, distribution of economic resources, profitability performance, tax contributions, employment effects, and broader financial sustainability information that reflected how firms interacted with economic systems (Nguyen, 2020; Chikwendu et al., 2019). Oluwakemi and Mishelle (2025) described economic-related disclosure within ESG reporting as financial materiality information that reflected how sustainability activities influenced profitability, returns, and overall financial stability. Shobhwani and Lodha (2024) explained that economic disclosure formed part of ESG communication that provided investors with insight into financial efficiency and long-term value creation capacity. Mustaffa et al. (2023) presented economic disclosure within ESG frameworks as aggregated information that reflected both financial and non-financial economic outcomes affecting firm performance. Nwaigwe et al. (2022) and Emeka-Nwokeji and Osioma (2019) further emphasized that economic disclosure included information on economic value generated and distributed, which enhanced transparency in corporate reporting. Chikwendu et al. (2019) also highlighted that economic disclosure reflected firms' reporting of financial sustainability indicators used by stakeholders to assess operational efficiency and economic responsibility.

Economic disclosure influenced market performance by reducing information asymmetry, strengthening investor confidence, and improving perceptions of financial stability and long-term profitability. Shobhwani and Lodha (2024) found that economic-related ESG disclosures positively influenced market-based performance such as Tobin's Q by improving investor valuation of future earnings potential. Oluwakemi and Mishelle (2025) reported mixed effects, where economic-related disclosure showed a negative effect on accounting performance but limited influence on market valuation indicators. Mustaffa et al. (2023) observed an overall weak negative relationship between ESG-related economic disclosure and financial performance, suggesting that disclosure intensity did not always translate into improved market outcomes. Nwaigwe et al. (2022) found that sustainability-related economic disclosure had an insignificant effect on market value, indicating limited investor response in some contexts. Nguyen (2020) and Emeka-Nwokeji and Osioma (2019) however reported that economic disclosure improved firm value by enhancing transparency and investor trust. Chikwendu et al. (2019) also found inconsistent effects, where economic disclosure showed no significant impact on performance in some models. These mixed findings indicated that the influence of economic disclosure on market performance varied across contexts and measurement approaches, creating the need for a more focused investigation using Nigerian manufacturing firms.

## **Empirical Review**



### **Environmental Disclosure and Market Performance**

Munir and Arie (2025) examined emission performance, environmental disclosure, and firm value among 206 Southeast Asian firms (2022–2023) using a 12-item disclosure index, Refinitiv emission scores, and price-to-book ratio with SEM and ANOVA. Findings showed that emission performance significantly improved environmental disclosure, but environmental disclosure had no significant effect on firm value. However, the study focused only on emission performance and environmental disclosure, excluding economic disclosure considered in the current study. In addition, the Southeast Asian context limits applicability to Nigerian manufacturing firms. Moreover, the short period and use of price-to-book ratio differ from the current study's 2015–2024 scope and Tobin's Q, creating gaps in capturing long-term and broader disclosure effects.

Oluwakemi and Mishelle (2025) examined ESG financial materiality disclosure and financial performance of banks and manufacturing firms in South Africa from 2015–2024 using panel regression, with ROA, ROE, and Tobin's Q as proxies. Findings showed a significant negative effect on ROA and ROE, but an insignificant effect on Tobin's Q, while ESG transparency did not significantly moderate the relationship. However, the study used ESG materiality disclosure and transparency rather than disaggregated environmental and economic disclosure indices adopted in the current study. In addition, the South African context and mixed-sector focus limit direct applicability to listed manufacturing firms in Nigeria. Although the period aligns, differences in variable measurement and aggregation create a gap that the current study addresses using specific disclosure indices and a focused sectoral approach.

Kenneth et al. (2023) examined the relationship between sustainability disclosure and accounting performance of 20 firms listed on the Liberian Stock Exchange from 2010–2020 using panel regression, with ROA as the performance proxy. Findings revealed that environmental and governance disclosures had no significant effect on ROA, while social disclosure exerted a positive impact on performance. However, the study focused on sustainability dimensions (environmental, social, governance) rather than environmental and economic disclosure indices adopted in the current study. In addition, the Liberian context and multi-sector coverage limit generalizability to Nigerian listed manufacturing firms. Furthermore, the use of ROA and an earlier period (2010–2020) differs from the current study's Tobin's Q and 2015–2024 scope, creating gaps in market-based measurement and recent evidence.

Junaidu and Kabiru (2022) examined the effect of environmental disclosure on financial performance of 76 listed non-financial firms in Nigeria from 2013–2020 using multiple regression, with EPS and Tobin's Q as performance measures. Environmental disclosure was measured using an ordinal coding scheme based on GRI indicators (environmental prevention expenditure, waste disposal, and environmental management costs). Findings showed a positive significant relationship with EPS but a negative relationship with Tobin's Q. However, the study focused solely on environmental disclosure, excluding economic disclosure considered in the current study, and used disaggregated proxies rather than an index approach. Additionally, the broader non-financial sector and shorter period (2013–2020) limit comparability with the current study's focus on listed manufacturing firms (2015–2024) and unified disclosure indices.



Hariyani et al. (2022) analyzed the influence of the disclosure of corporate sustainability reporting practices on the value of state-owned enterprises in Indonesia using a sample of 8 organisations listed on the stock exchange. The study adopted quantitative research approach and data was analyzed using multiple regression analysis. The findings of the research revealed that sustainability reporting had a significant negative effect on firm value - thus implying that the disclosure of corporate environmental sustainability practices by state-owned companies in Indonesia reduces the value the companies. The study was conducted in a foreign country as its findings cannot be used for effective decisions in the Nigeria context hence, the need for this current study.

Qureshi et al. (2021) examined ESG activities and financial performance of 100 U.S. “best corporate citizens” using panel vector autoregression (PVAR), with Tobin’s Q, MTB, ROA, and ROE as performance measures. Findings showed that ESG activities positively influenced market-based performance (Tobin’s Q and MTB), while mixed effects were observed for accounting-based measures. However, the study used aggregated ESG indicators rather than separate environmental and economic disclosure indices applied in the current study. In addition, the U.S. corporate setting limits generalization to Nigerian listed manufacturing firms. Furthermore, differences in methodology and performance proxies create gaps addressed by the current study’s 2015–2024 period and index-based Tobin’s Q approach.

Oncioiu et al. (2020) examined the effect of ESG disclosures on financial transparency using 143 firms across eight countries in energy, finance, and telecommunications sectors over 2008–2018, applying the Analytic Hierarchy Process (AHP) model. Findings revealed that ESG disclosures enhanced financial transparency and served as a key communication tool for stakeholder accountability and corporate reporting. However, the study used aggregated ESG disclosure and AHP-based measurement rather than separate environmental and economic disclosure indices adopted in the current study. In addition, the cross-country and multi-sector domain limits applicability to listed manufacturing firms in Nigeria. Furthermore, the earlier period (2008–2018) and focus on financial transparency differ from the current study’s 2015–2024 scope and Tobin’s Q as market performance measure.

### **Economic Disclosure and Market Performance**

Oluwakemi and Mishelle (2025) examined ESG financial materiality disclosure and financial performance of banks and manufacturing firms in South Africa from 2015–2024 using panel regression, with ROA, ROE, and Tobin’s Q as performance proxies. Findings indicated a significant negative effect on ROA and ROE and an insignificant effect on Tobin’s Q, while ESG transparency did not significantly moderate the relationship. However, the study used ESG materiality disclosure and transparency rather than disaggregated environmental and economic disclosure indices adopted in the current study. In addition, the South African context and mixed-sector focus limit direct applicability to Nigerian listed manufacturing firms. Although the period aligns, differences in variable measurement and aggregation create a gap addressed by the current study’s index-based approach and sector-specific focus.



Shobhwani and Lodha (2024) examined the impact of ESG disclosure on firm performance using 95 financial and non-financial firms over 2020–2023, with ESG scores derived from the Thomson Reuters framework and analyzed through panel regression. Findings indicated that environmental disclosure had a significant positive effect on Tobin's Q, while overall ESG disclosure also positively influenced market performance, though most effects on ROA and ROE were insignificant. However, the study employed aggregated ESG and individual component scores rather than separate environmental and economic disclosure indices adopted in the current study. In addition, the mixed-sector and non-Nigerian context limit direct applicability to listed manufacturing firms in Nigeria. Furthermore, the short period (2020–2023) and reliance on ESG scoring frameworks differ from the current study's 2015–2024 scope and index-based measurement, creating gaps in longitudinal and context-specific analysis.

Mustaffa et al. (2023) conducted a meta-analysis of 32 studies using the PRISMA protocol to examine the relationship between ESG disclosure and financial performance of listed companies. Findings revealed a significant but weak negative effect of ESG disclosure on financial performance, based on aggregated correlation coefficients. However, the study employed overall ESG disclosure rather than separate environmental and economic disclosure indices used in the current study. In addition, the global and cross-sector scope limits direct applicability to Nigerian listed manufacturing firms. Furthermore, the meta-analytic approach lacks a specific time frame and uniform measurement, unlike the current study's 2015–2024 period and Tobin's Q with index-based disclosure measures.

Nwagwe et al. (2022) examined the effect of sustainability disclosure on market value of 39 listed Nigerian firms across nine sectors from 2010–2019 using multiple regression and a 31-item disclosure index. Findings revealed a positive but insignificant relationship between disclosure extent and market value, while disclosure quality had a negative effect on market value. However, the study used a broad sustainability disclosure construct rather than separate environmental and economic disclosure indices adopted in the current study. In addition, the multi-sector Nigerian sample limits sector-specific insights relevant to manufacturing firms. Furthermore, the earlier period (2010–2019) and mixed disclosure measurement differ from the current study's 2015–2024 scope and Tobin's Q market performance focus.

Chikwendu et al. (2019) examined the effect of sustainability reporting on corporate performance of 20 Nigerian firms over a five-year period using the GRI index and ROA as performance measure, with data drawn from annual reports. Findings indicated that environmental and economic performance disclosures had no significant effect on ROA, while social disclosure showed a significant positive effect. However, the study used aggregated sustainability disclosure based on GRI guidelines rather than separate environmental and economic disclosure indices adopted in the current study. In addition, the small sample size and limited five-year period reduce generalizability to the broader manufacturing sector. More so, the reliance on ROA differs from the current study's use of Tobin's Q and longer 2015–2024 period, which better captures market-based performance effect.

Emeka-Nwokeji and Osioma (2019) examined the effect of sustainability disclosure on corporate value in Nigeria using 93 non-financial listed firms over 2006–2015, employing correlation



analysis, PCA, and pooled OLS regression. The study found that overall sustainability disclosure had a significant positive effect on firm value, while environmental and governance disclosures were positive and significant, but social disclosure was negative and insignificant. However, the study relied on aggregated sustainability disclosure and its disaggregated ESG components rather than separate environmental and economic disclosure indices used in the current study. In addition, the focus on non-financial firms and an earlier time frame (2006–2015) limits relevance to the current manufacturing sector analysis covering 2015–2024. Furthermore, firm value measurement differs in scope, as the current study adopts Tobin's Q to capture market performance more comprehensively than the valuation approach implied in the study.

## **Theoretical Framework**

### **Stakeholder Theory**

Stakeholder Theory was advanced by Freeman (1984), emphasizing that firms existed not only to maximize shareholder wealth but also to create value for all stakeholders, including customers, employees, regulators, communities, and investors who were affected by corporate activities. The central thrust of the theory explained that organizations achieved long-term success when they identified, understood, and responded to the expectations of diverse stakeholder groups, particularly through transparency and accountability in corporate reporting practices (Freeman et al., 2020; Harrison et al., 2019). Within this perspective, environmental and economic disclosures served as strategic tools for communicating firms' environmental responsibility and economic contributions, thereby strengthening legitimacy, trust, and stakeholder engagement, which ultimately influenced market performance (Qureshi et al., 2021; Olubunmi et al., 2025). However, critics of the theory argued that it lacked clear prioritization of stakeholder interests, making it difficult for managers to balance conflicting demands, and that it could potentially dilute managerial focus on profitability if not properly structured (Phillips, 2021; Miles, 2017). Despite these criticisms, the theory remained highly relevant to this study as it provided a strong foundation for understanding how environmental and economic sustainability reporting enhanced stakeholder confidence, reduced information asymmetry, and improved investor perception, thereby influencing the market performance of quoted manufacturing firms in Nigeria.

### **Signaling Theory**

Signaling Theory was propounded by Spence (1973), who explained that in conditions of information asymmetry, informed parties (firms) transmit credible signals to less informed parties (investors) to reduce uncertainty and influence decision-making outcomes. The central thrust of the theory is that corporate disclosures, such as environmental and economic sustainability reporting, serve as signals of firm quality, stability, and future performance, thereby shaping investor perception and market valuation (Connelly et al., 2011; Bergh et al., 2014). In this context, firms that provide detailed environmental disclosure signal lower regulatory risk and stronger sustainability commitment, while economic disclosure signals financial stability and efficient resource utilization, both of which can enhance market performance (Qureshi et al., 2021; Olubunmi et al., 2025). Critics of the theory argue that signals may be manipulated or exaggerated, making it difficult for investors to distinguish between genuine and symbolic disclosures,



especially in weak regulatory environments (Spence, 2002; Connelly et al., 2011). Despite this limitation, Signaling Theory remains highly relevant to this study as it explains how environmental and economic disclosures function as strategic communication tools that reduce information asymmetry and influence investor expectations, thereby affecting the market performance of quoted manufacturing firms in Nigeria.

**Methodology**

The study adopts an ex-post facto research design using longitudinal panel data from listed manufacturing firms on the Nigerian Exchange Group (NGX) to examine the effect of environmental and economic disclosure on market performance. The population comprises 76 quoted manufacturing firms, from which 36 were selected based on data availability, continuous listing status as of 31 December 2024, and the presence of required financial and market information, generating 360 firm-year observations over the period 2015–2024 (NGX Fact Book, 2024). Secondary data were sourced from audited annual reports and accounts, while environmental disclosure was measured through 8-items disclosure index while economic disclosure was measured through 8-items disclosure index, consistent with IFRS Sustainability Disclosure Standards (IFRS S1 and S2). Content analysis with a binary scoring system (0 = no disclosure; 1 = disclosure) was employed to quantify disclosure levels. Panel regression analysis was used to test the study hypotheses, supported by diagnostic tests including descriptive statistics, correlation matrix, multicollinearity, normality, heteroscedasticity and the Hausman specification test to ensure model reliability and robustness.

**The index for the two independent variables are computed as follows**

<b>Disclosure</b>	=	<b>Index</b>
END Index	=	$\frac{\sum END}{\text{Number of observations (8)}}$
ECD Index	=	$\frac{\sum ECD}{\text{Number of observations (8)}}$

Haven established the techniques for the analysis, the linear model (1) that depicts the relationship between the market performance (dependent variable) and Environmental and Economic disclosure (independent variable). This study adopted the model from the study of Oluwakemi and Mishelle (2025) and Shobhwani and Lodha (2024) which is stated thus:

$$MPF_{it} = \beta_0 + \beta_1 END_{it} + \beta_2 ECD_{it} + \epsilon_{it} \dots \dots \dots (1)$$

Where;  $\beta_0$  = Intercept Point  $\beta_1 - \beta_2$  = Respective Coefficient of Independent & Moderating Variables.

MPF = Market Performance



END	=	Environmental Disclosure
ECD	=	Economic Disclosure
$\beta_1 - \beta_2$	=	Coefficient of variables
$\epsilon_{it}$	=	Error term

**Table 1: Definitions and Sources of Variables**

S/N	Variable	Type	Measurement	Source
1	Market Performance (MPF)	Dependent Variable	Tobin's Q, which is defined as the ratio of the firm's market value to its accounting (book) value	Oluwakemi and Mishelle (2025) and Shobhwani and Lodha (2024)
2	Environmental Disclosure (END)	Independent Variable	1 if Disclosed, 0 if not disclosed. Sum of all the items disclosed divided by 8 which is the maximum number of items that can possibly be disclosed to give an index.	Junaidu and Kabiru (2022) and Munir and Arie (2025)
3	Economic Disclosure (ECD)	Independent Variable	1 if Disclosed, 0 if not disclosed. Sum of all the items disclosed divided by 8 which is the maximum number of items that can possibly be disclosed to give an index.	Mustaffa et al. (2023) and Nwaigwe et al. (2022)

Source: Researcher's Compilation (2025)

## Result and Discussion

**Table 1: Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
Market Performance (MPF)	360	0.4727	0.1839	0.1126	0.7840	-0.0302	2.1985
Environmental Disclosure (END)	360	0.6123	0.2433	0.1429	1.0000	-0.1237	2.2773
Economic Disclosure (ECD)	360	0.5662	0.1900	0.2353	0.8824	-0.0470	2.2884

Source: Stata 13 Output (2025)

The descriptive statistics revealed a moderate level of market performance (0.4727) among quoted manufacturing firms, with environmental disclosure (0.6123) slightly higher than economic disclosure (0.5662), indicating greater emphasis on environmental reporting. The standard deviations showed moderate variation across firms, while the minimum and maximum values confirmed differences in performance and disclosure levels within the sector. Skewness values close to zero and kurtosis below 3 indicated near-normal distribution and absence of extreme



outliers. Therefore, the results suggested a well-distributed dataset suitable for reliable econometric analysis.

**Table 2: Correlation Matrix**

	MPF	END	ECD
Market Performance (MPF)	1.0000		
Environmental Disclosure (END)	0.2717	1.0000	
Economic Disclosure (ECD)	0.2472	0.4347	1.0000

**Source: Stata 13 output (2025)**

The correlation matrix showed that both environmental disclosure (0.2717) and economic disclosure (0.2472) had positive but weak relationships with market performance, suggesting that improvements in sustainability reporting slightly enhance market value. The moderate correlation between environmental and economic disclosure (0.4347) indicated a reasonable level of association without evidence of severe multicollinearity. The relatively low correlation coefficients confirmed the absence of multicollinearity problems and supported the suitability of the variables for further regression analysis.

**Table 3: Variance Inflation Factor**

	VIF	1/VIF
Environmental Disclosure (END)	1.98	0.505938
Economic Disclosure (ECD)	1.90	0.526025
Mean VIF	1.65	

**Source: Stata 13 Output (2026)**

The Variance Inflation Factor (VIF) values for environmental disclosure (1.98) and economic disclosure (1.90) are both low and fall well below the critical threshold of 10. The mean VIF of 1.65 further confirms the absence of multicollinearity among the explanatory variables. This indicates that the independent variables are sufficiently distinct, making the regression estimates reliable and statistically sound for analysis.

**Table 4: Heteroskedasticity**

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Breusch-Pagan / Cook-Weisberg test for heteroscedasticity  
Ho: Constant variance  
Variables: fitted values of MPF



chi2(1) = 0.50 Prob> chi2 = 0.4794

**Source: Stata 13 Output (2026)**

The Breusch–Pagan/Cook–Weisberg test result (Prob > chi2 = 0.4794) is not statistically significant, indicating that the null hypothesis of constant variance cannot be rejected. This implies that heteroskedasticity is not present in the model, suggesting that the regression estimates are reliable and the standard errors are unbiased.

**Table 5: Hausman Specification Test**

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg  
 Test: Ho: difference in coefficients not systematic  
 chi2(5) = (b-B)'[(V\_b-V\_B)^(-1)](b-B)= 22.60  
 Prob>chi2 = 0.0072

**Source: Stata Output (2026)**

The Hausman test is statistically significant (Prob > chi2 = 0.0072), indicating that the fixed-effects model is more appropriate than the random-effects model, as the differences in coefficients are systematic.

**Fixed Effects Regression**

Fixed-effects (within) regression	Number of obs = 360
Group variable: id	Number of groups = 36
R-sq: within = 0.7340	Obs per group: min = 10
between = 0.1090	avg = 10.0
overall = 0.2300	max = 10
	F(9,315) = 2.77
	Prob > F = 0.0039

corr(u\_i, Xb) = 0.0153

**Table 6: Fixed Effect Regression**

Market Performance (MPF)	Coef.	Std. Err.	Z	P> z	[95% Conf. Interval]	
Environmental Disclosure (END)	.3440254	.1107302	3.11	0.002	.1261612	.5618896
Economic Disclosure (ECD)	.3535855	.1786642	-1.98	0.049	-.7051115	-.0020594
-con	.3402066	.1152328	2.95	0.003	.1134833	.5669298

**Source: Stata 13 Output (2025)**

The fixed effects regression result was statistically significant (F = 2.77, p = 0.0039), indicating that the explanatory variables jointly have a meaningful effect on the dependent variable. The model accounted for about 73.4% of the variation within firms over time, suggesting a strong explanatory power. In addition, the very low correlation between the entity effects and the



regressors supports the appropriateness of the fixed effects specification in capturing firm-specific changes across the study period.

## Test of Hypotheses

### Environmental Disclosure and Market Performance

**H<sub>01</sub>:** Environmental disclosure has no significant effect on market performance of listed manufacturing firms in Nigeria.

The regression result indicates that environmental disclosure has a positive and statistically significant effect on market performance, with a coefficient of 0.3440 and a p-value of 0.002, which is below the 0.05 significance level. This shows that increases in environmental disclosure are associated with improved market performance among listed manufacturing firms in Nigeria. Consequently, the null hypothesis (H<sub>01</sub>) is rejected, implying that environmental disclosure significantly enhances market performance in the study context.

### Economic Disclosure and Market Performance

**H<sub>02</sub>:** Economic disclosure has no significant effect on market performance of listed manufacturing firms in Nigeria.

The result reveals that economic disclosure (ECD) has a positive and statistically significant effect on market performance, with a coefficient of 0.3536 and a p-value of 0.049, which is marginally below the 0.05 threshold. This suggests that improvements in economic disclosure are associated with better market performance among the sampled firms. As a result, the null hypothesis (H<sub>02</sub>) is rejected, indicating that economic disclosure significantly influences market performance of listed manufacturing firms in Nigeria.

## Discussion of Findings

### Environmental Disclosure and Market Performance

The regression result indicated that environmental disclosure has a positive and statistically significant effect on market performance, implying that enhanced environmental reporting improves firm valuation among listed manufacturing firms. This finding aligns with Munir and Arie (2025), Kenneth et al. (2023), Junaidu and Kabiru (2022) and Qureshi et al. (2021), who reported that stronger environmental disclosure improves investor perception and market responsiveness, although some studies such as Oluwakemi and Mishelle (2025) found mixed or insignificant effects depending on performance proxies. Similarly, Hariyani et al. (2022) provided evidence of a negative effect in some contexts, suggesting that disclosure costs may temporarily reduce firm value. The result is strongly supported by Stakeholder Theory and Signaling Theory, which explain that environmental disclosure meets stakeholder expectations for sustainability while also serving as a credible signal of responsible corporate behaviour and long-term value.



creation. Therefore, the evidence confirms that environmental transparency plays a significant role in shaping market performance in Nigerian manufacturing firms.

### **Economic Disclosure and Market Performance**

The result reveals that economic disclosure has a positive and statistically significant effect on market performance, indicating that improved reporting of firms' economic sustainability activities enhances investor perception and firm valuation. This finding aligns with Oluwakemi and Mishelle (2025), Shobhwani and Lodha (2024), Emeka-Nwokeji and Osisioma (2019), and Nwaigwe et al. (2022), who reported that economic or sustainability-related disclosures generally improve market value, although some studies such as Mustaffa et al. (2023) and Chikwendu et al. (2019) found weak or mixed effects depending on measurement approach and performance proxies. The consistency of positive outcomes suggests that economic transparency strengthens investor trust by reducing uncertainty around firms' financial sustainability and resource utilisation. The finding is strongly supported by Stakeholder Theory and Signaling Theory, which explain that economic disclosure satisfies stakeholder demands for accountability while also signalling financial stability and efficient resource management to the market. The evidence confirms that economic disclosure plays a significant role in enhancing market performance among listed manufacturing firms in Nigeria.

The constant term (0.3402066) represents the baseline level of market performance when both environmental disclosure and economic disclosure are held constant at zero, indicating the expected level of market performance in the absence of the explanatory variables.

### **Conclusion and Recommendations**

Based on the discussion of finding, this study concludes that environmental and economic disclosure influence market performance of listed manufacturing firms in Nigeria within the period of this study. Therefore, the specific conclusion is that:

Environmental disclosure positively and significantly influences market performance of listed manufacturing firms in Nigeria, indicating that firms that report more environmental information tend to achieve higher market valuation. This suggests that environmental transparency enhances investor confidence and market perception of sustainability practices, thereby strengthening firm value.

Economic disclosure positively and statistically significant affect market performance of listed manufacturing firms in Nigeria, indicating that greater transparency in reporting economic sustainability information enhances firm valuation. This suggests that improved economic disclosure strengthens investor confidence and positively influences how the market values firms.

- i. Regulatory agencies such as FRCN and NGX should enforce a standardized environmental reporting framework that mandates manufacturing firms to disclose key indicators like emissions, waste management, energy use, and regulatory compliance, with strict monitoring through periodic environmental audits linked to listing requirements. In



addition, incentives such as tax reliefs and green financing support should be provided to firms with high-quality environmental disclosure to encourage compliance, improve transparency, and strengthen investor confidence.

- ii. Policymakers and SEC should mandate a standardized economic sustainability disclosure framework requiring firms to report key indicators such as value creation, resource allocation efficiency, and economic contributions, with strict enforcement through annual reviews. Furthermore, firms should adopt digital reporting systems to improve accuracy and transparency, while regulators provide training and capacity-building to enhance reporting quality and strengthen market valuation outcomes.

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- IGR, IFRS (S1 and 2), and GRI Sustainability Disclosure Checklist**



<b>Environmental Disclosure Items</b>	<b>Measurement Approach</b>	<b>Economic Disclosure Items</b>	<b>Measurement Approach</b>
Energy consumption and energy efficiency	Total energy used (GJ or kWh); energy intensity ratio	Economic value generated	Revenue and total output value
Greenhouse gas emissions (Scope 1, 2 & 3)	CO <sub>2</sub> equivalent emissions (tons)	Economic value distributed	Employee wages, taxes, dividends
Water usage and wastewater management	Total water withdrawal and discharge (m <sup>3</sup> )	Direct economic contribution to GDP	Value added statement contribution
Waste generation and recycling practices	Total waste (tons) and recycling rate (%)	Employment creation and workforce contribution	Number of employees and payroll cost
Environmental compliance and penalties	Number/value of fines and compliance breaches	Tax payments and government contributions	Corporate tax and statutory payments
Environmental policies and sustainability strategy	Presence/absence index (0–1 scoring)	Financial performance disclosure quality	Profitability ratios (ROA, ROE, EPS)
Climate risk exposure and mitigation plans	Qualitative disclosure scoring index	Investment in economic sustainability initiatives	Capital expenditure on growth and expansion
Biodiversity and ecosystem impact	Impact assessment scoring index	Value creation and retention capability	Retained earnings and reinvestment ratio