

SUSTAINABILITY DISCLOSURE AND FIRM VALUE OF LISTED MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT

The study examined the effect of sustainability disclosure on the firm value of listed manufacturing firms in Nigeria. The specific objective was to assess the effect of environmental disclosure index, social disclosure index and economic disclosure index on the market capitalisation of listed manufacturing firms in Nigeria. Sampling a total of 53 purposively selected, relevant secondary data from the annual reports of the firms from 2015-2024 were extracted and exposed to further analysis using the panel least square regression technique (cross-sectionalized weights included). The findings revealed that environmental disclosure index has a positive and significant effect on market capitalisation of listed manufacturing firms in Nigeria ($\beta = 0.3380$, $p = 0.0000$); social disclosure index has a positive and significant effect on market capitalisation of listed manufacturing firms in Nigeria ($\beta = 0.5042$, $p = 0.0000$); economic disclosure index has a strong positive and significant effect on market capitalisation of listed manufacturing firms in Nigeria ($\beta = 3.2793$, $p = 0.0000$). In conclusion, firm's commitment to responsible practices, operational resilience, and socio-economic enhance investor confidence and attract long-term capital. The study recommended that the Federal Ministry of Environment should collaborate with corporate boards to institutionalize sector-specific environmental disclosure frameworks which should include clear reporting standards on waste management, emissions control, energy efficiency, and environmental risk management.

Key words: Economic Disclosure Index, Environmental Disclosure Index, Firm Value, Social Disclosure Index, Sustainability Disclosure.

INTRODUCTION

In recent years, the global business domain has witnessed a significant shift toward sustainability, driven by heightened awareness of environmental, social, and governance (ESG) issues. As climate change, resource depletion, and social inequalities become increasingly pressing concerns, stakeholders—including investors, regulators, and consumers—demand more transparency and accountability from corporations regarding their

sustainability practices (Yusuf & Yusuf, 2024). This shift has propelled sustainability disclosure, a process through which companies communicate their environmental, social, and governance efforts, into the mainstream of corporate reporting (Lawal et al., 2024; Onoja, Okoye & Nwoye, 2021a). In Nigeria, a developing economy with a growing industrial base, the manufacturing sector plays a pivotal role in the nation's economic development. However, this sector is also one of the most resource-intensive and environmentally impactful, making the issue of sustainability disclosure particularly relevant. The intersection of sustainability disclosure and firm value, measured by metrics such as stock price, market capitalization, and financial performance, has become a critical area of study, especially for listed manufacturing firms in Nigeria. The International Sustainability Standards Board (ISSB) has introduced two key global sustainability disclosure standards—IFRS S1 and IFRS S2—to establish a consistent and investor-focused framework for sustainability reporting (Wagner et al., 2024). IFRS S1 outlines general requirements for disclosing material sustainability-related risks and opportunities across governance, strategy, risk management, and metrics, while IFRS S2 specifically addresses climate-related disclosures, building on the Task Force on Climate-related Financial Disclosures (TCFD) framework and incorporating SASB industry-specific metrics. These standards aim to reduce the complexity and fragmentation of existing ESG reporting by providing a global baseline that can be adopted across jurisdictions. Supported by major global organizations like IOSCO, the G20, and the Financial Stability Board, the ISSB standards are designed to enhance transparency, comparability, and trust in sustainability reporting (Wagner et al., 2024). They are intended to be used alongside financial statements and are already being adopted or adapted by several countries as part of their regulatory frameworks.

Effective sustainability disclosure is increasingly recognized as a crucial element in today's business environment (Nworie & Orji-Okafor, 2024). Companies are no longer judged solely on their financial performance but also on their ability to manage and communicate their environmental and social impacts (Ukoh et al., 2024). This trend is underscored by the growing body of research linking sustainability practices with enhanced corporate reputation, operational efficiencies, and long-term profitability (Dzugwahi & Ola, 2024). For investors, sustainability disclosure provides critical hints into a company's risk management practices and future growth prospects, which are essential for informed decision-making. Moreover, regulatory frameworks and global reporting standards, such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB), are pushing companies to adopt more rigorous and comprehensive sustainability reporting practices (Onoja, Okoye &

Nwoye, 2021b). In this context, manufacturing firms in Nigeria, like their global counterparts, are under increasing pressure to disclose their sustainability practices and demonstrate their commitment to sustainable development.

Firm value is a key indicator of a company's overall financial health and market standing (Yusuf & Yusuf, 2024). It reflects the market's perception of the company's ability to generate future cash flows and achieve long-term growth (Anaike et al., 2025; Ikwuo et al., 2025a). In this study, firm value was examined through various financial metrics, including stock price, market capitalization, and Tobin's Q. The concept of sustainability disclosure encompasses the reporting of a company's environmental, social, and governance (ESG) practices. This includes information on how a company manages its impact on the environment, engages with its stakeholders, and upholds ethical standards in its operations. Sustainability disclosure serves as a tool for companies to communicate their commitment to sustainable development, which can enhance their reputation, attract socially responsible investors, and mitigate risks associated with environmental and social issues (Ukoh et al., 2024). In Nigeria, where the manufacturing sector is a significant contributor to the economy, sustainability disclosure is particularly important. The sector faces challenges such as pollution, resource scarcity, and labor rights issues, making transparency in sustainability practices crucial for maintaining stakeholder trust and ensuring long-term business viability.

The relationship between sustainability disclosure and firm value has garnered significant attention in recent years, particularly in emerging markets like Nigeria (Yusuf & Yusuf, 2024). For listed manufacturing firms in Nigeria, sustainability disclosure can have a profound impact on their firm value. Firstly, by engaging in transparent and comprehensive sustainability reporting, these firms can enhance their reputation and brand image, which can lead to increased customer loyalty and market share. Secondly, sustainability disclosure can attract investment from socially responsible investors who prioritize ESG factors in their investment decisions (Dzugwahi & Ola, 2024). This influx of capital can drive up stock prices and improve market capitalization. Listed manufacturing firms in Nigeria that inculcate sound sustainability practices into their business strategies by consistently disclosing comprehensive and transparent information about their environmental, social, and governance (ESG) practices are deemed more likely to attract investor confidence, enhance their market reputation, and achieve long-term financial stability, thereby positively influencing their firm value. These firms extensively report on their sustainability efforts, demonstrating a commitment to reducing their environmental footprint, enhancing social welfare, and

adhering to robust governance standards (Yusuf & Yusuf, 2024). Investors, stakeholders, and regulators would have access to reliable and timely sustainability disclosures, enabling them to make informed decisions that reflect the firm's long-term value and commitment to sustainable development. Thus, sustainability disclosure is seen rightly as a key driver of firm value, contributing to enhanced reputation, increased investor confidence, and ultimately, superior financial performance (Lawal et al., 2024).

Many listed manufacturing firms in the country either lack comprehensive sustainability disclosure practices or provide only superficial information that fails to capture the true extent of their ESG impacts. While some companies may engage in sustainability reporting, the quality, consistency, and transparency of these disclosures are often inadequate, leaving investors and other stakeholders with limited hints into the firm's sustainability performance (Osinbowale et al., 2024). Additionally, the regulatory framework governing sustainability disclosure in Nigeria is still developing, leading to varying levels of compliance and reporting standards across the industry. As a result, the potential benefits of sustainability disclosure, such as enhanced firm value and investor confidence, remain largely untapped in the Nigerian manufacturing sector. Hence, the lack of comprehensive and transparent sustainability disclosure can undermine the trust and confidence of investors, stakeholders, and the public, leading to a negative perception of the firm's commitment to sustainable practices. This, in turn, can adversely affect the firm's market value, limiting its ability to attract investment, achieve competitive advantage, and sustain long-term growth. Moreover, without robust sustainability practices and reporting, manufacturing firms in Nigeria may fail to capitalize on the operational efficiencies and cost savings associated with sustainable practices, further diminishing their profitability and financial performance. Moreover, while studies like Lawal et al. (2024); Ukoh et al. (2024); Aniagbaoso and Orjinta (2023); Yusuf and Yusuf (2024); Dzugwahi and Ola (2024) and Ugbogbo and Obamwonyi (2023) have examined the effects of sustainability reporting on financial performance, they do not sufficiently differentiate the impact of individual disclosure indices on market capitalization within the manufacturing sector. For instance, Etim et al. (2023) reveal varying effects of sustainability disclosures on financial performance but lack specific hints into how environmental, social, and economic disclosure indices independently influence market capitalization. Additionally, research by Amahalu et al. (2021) addresses the overall impact of sustainability reporting on financial performance but did not dissect the effects of individual disclosure components on market capitalisation of Nigerian manufacturing industry. This study was therefore initiated to address this gap.

Objectives

The broad objective of the study is to examine the effect of sustainability disclosure on the firm value of listed manufacturing firms in Nigeria. The specific objectives are:

1. To assess the effect of environmental disclosure index on the market capitalisation of listed manufacturing firms in Nigeria.
2. To examine the effect of social disclosure index on the market capitalisation of listed manufacturing firms in Nigeria.
3. To determine the extent to which economic disclosure index affect the market capitalisation of listed manufacturing firms in Nigeria.

LITERATURE REVIEW

Sustainability Disclosure

Sustainability disclosure refers to the process by which companies publicly communicate information regarding their environmental, social, and economic impacts, practices, and performance (Osinbowale et al., 2024). It is a critical element of corporate transparency and accountability, as it provides stakeholders—including investors, customers, employees, regulators, and the public—with hints into how a company manages its responsibilities towards sustainable development (Dzugwahi & Ola, 2024). The primary aim of sustainability disclosure is to demonstrate a company's commitment to sustainable practices, ensuring that it operates in a manner that is not only economically viable but also socially responsible and environmentally sound (Ukoh et al., 2024). Also, sustainability disclosure is about more than just reporting figures; it involves a narrative that conveys a company's approach to managing its sustainability impacts and its contributions to broader societal goals, such as the United Nations Sustainable Development Goals (SDGs). This narrative often includes both qualitative and quantitative data, providing a holistic view of the company's efforts and achievements in sustainability. The disclosure process may cover a wide range of topics, including energy use, carbon emissions, water management, waste reduction, labor practices, community involvement, governance structures, and economic contributions (Osinbowale et al., 2024). The goal is to present a transparent and balanced account of the company's sustainability performance, highlighting both successes and areas for improvement.

One of the key drivers of sustainability disclosure is the growing demand from investors and other stakeholders for more comprehensive and reliable information on corporate sustainability practices. As awareness of environmental and social issues has increased, so

too has the expectation that companies should be accountable for their impacts on society and the planet. Investors, in particular, are increasingly integrating environmental, social, and governance (ESG) factors into their decision-making processes, recognizing that companies with strong sustainability practices are often better positioned to manage risks and capitalize on opportunities in a rapidly changing world. As a result, sustainability disclosure has become a critical tool for companies to attract and retain investment, enhance their reputation, and build trust with stakeholders (Dzugwahi & Ola, 2024). In addition to meeting stakeholder expectations, sustainability disclosure is also influenced by regulatory requirements and reporting standards. In many jurisdictions, companies are required to disclose certain aspects of their sustainability performance, either through mandatory reporting frameworks or as part of their broader financial reporting obligations (Aniagbaoso & Orjinta, 2023). Moreover, several international standards and guidelines, such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD), provide frameworks for companies to report on sustainability in a consistent and comparable manner. These standards help to ensure that sustainability disclosures are not only transparent but also relevant and meaningful to stakeholders.

Sustainability disclosure is a dynamic and evolving practice, reflecting the changing landscape of corporate responsibility and sustainability (Osinbowale et al., 2024). As new issues emerge and stakeholder expectations continue to evolve, companies are increasingly expected to provide more detailed and forward-looking information in their sustainability disclosures. This includes not only reporting on past performance but also setting out their future sustainability goals and strategies for achieving them. By doing so, companies can demonstrate their commitment to continuous improvement and long-term value creation, positioning themselves as leaders in sustainability and responsible business practices. The International Sustainability Standards Board (ISSB), established by the IFRS Foundation, has introduced a comprehensive global framework for sustainability-related disclosures through the publication of two foundational standards: IFRS S1 and IFRS S2. IFRS S1, titled *General Requirements for Disclosure of Sustainability-related Financial Information*, provides a broad framework requiring companies to disclose significant sustainability-related risks and opportunities that could reasonably affect their prospects, cash flows, or financial position (Wagner et al., 2024). This includes disclosures organized around four key pillars: governance, strategy, risk management, and metrics and targets. IFRS S2, *Climate-related*

Disclosures, is focused specifically on climate-related risks and opportunities and is designed to be applied in conjunction with IFRS S1.

The ISSB's work is part of a broader effort to simplify the fragmented sustainability reporting landscape and provide a unified global baseline that regulators and companies can adopt or build upon. Its standards are specifically designed to be investor-oriented and to align with financial reporting, meaning they are intended to be used alongside a company's financial statements. The initiative has received strong international support, including endorsement by IOSCO (International Organization of Securities Commissions), which has urged its 130 member jurisdictions to consider adoption. Several countries, including Nigeria, Brazil, and the UK, have already begun developing roadmaps to implement these standards, either fully or partially. By promoting greater transparency and accountability in how companies report on sustainability and climate-related matters, the ISSB is positioned to play a central role in shaping the future of global corporate disclosure and sustainable finance. The International Sustainability Standards Board (ISSB) plays a key role in standardizing how companies report on Environmental, Social, and Governance (ESG) factors. The framework emphasizes transparency around progress and performance, requiring entities to report metrics and targets, such as greenhouse gas emissions, energy use, or workforce diversity, alongside qualitative explanations of their sustainability initiatives. This allows investors and stakeholders to evaluate whether companies are meeting their ESG commitments and how effectively they are responding to sustainability-related challenges.

In addition to strategy and metrics, the ISSB standards place significant emphasis on governance and management of ESG matters. Companies are required to disclose the governance structures in place to oversee sustainability risks and opportunities, including the role of the board and senior leadership. This ensures accountability at the highest levels and demonstrates how ESG considerations are integrated into decision-making processes. Moreover, the ISSB standards are designed to promote compliance with regulatory and market expectations, encouraging companies to align with international best practices and legal frameworks. By providing a clear, comparable, and investor-focused disclosure baseline, the ISSB aims to reduce greenwashing, strengthen corporate integrity, and enhance global trust in ESG reporting. These efforts support more informed investment decisions and promote a sustainable financial system.

Environmental Disclosure Index

The Environmental Disclosure Index (ENDI) is a metric designed to quantify the extent and quality of information that a company discloses regarding its environmental policies, impacts, and initiatives (Yusuf & Yusuf, 2024). This index serves as a critical tool for assessing the transparency and comprehensiveness of a company's environmental reporting, providing stakeholders with a standardized measure to evaluate how well a company is managing its environmental responsibilities (Aniagbaoso & Orjinta, 2023). The ENDI is used by investors, regulators, and other stakeholders to gauge the environmental performance of a company, as well as its commitment to sustainable practices. Environmental Disclosure Index reflects the depth and breadth of a company's environmental disclosures. It considers various aspects of environmental reporting, including the company's policies on issues such as carbon emissions, energy consumption, water usage, waste management, biodiversity, and pollution control. The ENDI evaluates not only whether a company discloses information on these topics but also the quality of the information provided—whether it is detailed, accurate, and relevant to stakeholders. A high ENDI score indicates that a company provides comprehensive and transparent information about its environmental impacts, demonstrating a strong commitment to environmental stewardship (Yusuf & Yusuf, 2024).

The development and use of the Environmental Disclosure Index have become increasingly important as stakeholders demand more rigorous and transparent reporting on environmental issues. With growing concerns about climate change, resource depletion, and environmental degradation, there is increasing pressure on companies to disclose their environmental performance in a manner that is both transparent and comparable. The ENDI provides a standardized way to assess these disclosures, helping stakeholders to identify companies that are leaders in environmental sustainability and those that may pose greater environmental risks. In addition to its use by investors, the Environmental Disclosure Index is also a valuable tool for regulators and policymakers. By tracking the ENDI scores of companies, regulators can assess the effectiveness of environmental reporting requirements and identify areas where further regulation or guidance may be needed. Policymakers can use ENDI data to inform the development of environmental policies and initiatives, ensuring that they are based on accurate and comprehensive information about corporate environmental practices.

The Environmental Disclosure Index is also an important tool for companies themselves. By striving to achieve a high ENDI score, companies can demonstrate their commitment to transparency and environmental responsibility, enhancing their reputation and building trust

with stakeholders (Aniagbaoso & Orjinta, 2023). A strong ENDI performance can also help companies to identify areas for improvement in their environmental management practices, driving continuous improvement and long-term sustainability. ENDI is assessed using firm disclosure of involvement in waste management practices. The Global Reporting Initiatives adopted for this are from GRI 306 which include:

- a) Waste generation and significant waste-related impacts
- b) Management of significant waste-related impacts
- c) Waste generated
- d) Waste diverted from disposal
- e) Waste directed to disposal

H₀₁: Environmental disclosure index has no significant effect on the market capitalisation of listed manufacturing firms in Nigeria.

Social Disclosure Index

The Social Disclosure Index (SDI) is a metric used to assess the extent and comprehensiveness of a company's disclosures related to its social responsibilities (Aniagbaoso & Orjinta, 2023), including its labor practices, community engagement, human rights, and other social impacts. This index provides a standardized measure for evaluating the transparency and quality of a company's social reporting, allowing stakeholders to gauge how effectively a company is managing its social responsibilities and contributing to social sustainability. The SDI is an essential tool for investors, regulators, and other stakeholders who are interested in understanding a company's social performance and its commitment to ethical and responsible business practices. The Social Disclosure Index focuses on the depth and breadth of information that a company discloses regarding its social impacts and initiatives (Ezekwesili & Ezejiolor, 2022). It takes into account various dimensions of social responsibility, including the company's policies and practices related to employee welfare, diversity and inclusion, community development, human rights, supply chain management, and social equity. The SDI evaluates not only the presence of these disclosures but also the quality of the information provided—whether it is detailed, accurate, and relevant to stakeholders. A high SDI score indicates that a company provides comprehensive and transparent information about its social practices, demonstrating a strong commitment to social responsibility.

The development and use of the Social Disclosure Index have become increasingly important in light of growing stakeholder expectations for corporate social responsibility (CSR) (Aniagbaoso & Orjinta, 2023). As societal awareness of issues such as labor rights, human rights, and social equity has increased, there has been greater demand for companies to disclose their social impacts in a transparent and accountable manner. The SDI provides a standardized way to assess these disclosures, helping stakeholders to identify companies that are leaders in social responsibility and those that may pose greater social risks. One of the key benefits of the Social Disclosure Index is that it allows for benchmarking and comparison across companies and industries. By providing a consistent metric for evaluating social disclosures, the SDI enables stakeholders to compare the social performance of different companies, even across sectors with varying social impacts. This comparability is crucial for investors who are integrating environmental, social, and governance (ESG) factors into their investment decisions, as it allows them to identify companies that are effectively managing their social risks and opportunities (Ezekwesili & Ezejiofor, 2022). In addition to its use by investors, the Social Disclosure Index is also a valuable tool for regulators and policymakers. By tracking the SDI scores of companies, regulators can assess the effectiveness of social reporting requirements and identify areas where further regulation or guidance may be needed. Policymakers can use SDI data to inform the development of social policies and initiatives, ensuring that they are based on accurate and comprehensive information about corporate social practices.

For companies, the Social Disclosure Index is an important tool for demonstrating their commitment to social responsibility and building trust with stakeholders (Aniagbaoso & Orjinta, 2023). A strong SDI performance can enhance a company's reputation and differentiate it from competitors, particularly in industries where social issues are of significant concern. Moreover, by striving to achieve a high SDI score, companies can identify areas for improvement in their social practices, driving continuous improvement and long-term sustainability. SDI is assessed using firm disclosure of involvement in local community development. The Global Reporting Initiatives adopted for this are from GRI 413 which include:

- a) Operations with local community engagement
- b) Social impact assessments
- c) Social development Programs
- d) Significant actual and potential negative impacts of operations

H₀₂: Social disclosure index has no significant effect on the market capitalisation of listed manufacturing firms in Nigeria.

Economic Disclosure Index

The Economic Disclosure Index (ECDI) is a metric used to assess the transparency and comprehensiveness of a company's disclosures related to its economic performance, governance, and financial sustainability (Lawal et al., 2024). This index provides a standardized measure for evaluating the quality of a company's economic reporting, allowing stakeholders to gauge how effectively a company is managing its financial responsibilities and contributing to economic sustainability. The ECDI is an essential tool for investors, regulators, and other stakeholders who are interested in understanding a company's economic performance and its commitment to responsible financial management (Lawrence, 2022). The Economic Disclosure Index focuses on the depth and breadth of information that a company discloses regarding its economic impacts and initiatives (Amahalu et al., 2021). It takes into account various dimensions of economic responsibility, including the company's financial performance, governance structures, risk management practices, tax transparency, and contributions to economic development. The ECDI evaluates not only the presence of these disclosures but also the quality of the information provided—whether it is detailed, accurate, and relevant to stakeholders. A high ECDI score indicates that a company provides comprehensive and transparent information about its economic practices, demonstrating a strong commitment to financial sustainability and governance.

The development and use of the Economic Disclosure Index have become increasingly important as stakeholders demand more rigorous and transparent reporting on economic issues. With growing concerns about corporate governance, financial transparency, and economic inequality, there is increasing pressure on companies to disclose their economic performance in a manner that is both transparent and comparable (Lawrence, 2022). The ECDI provides a standardized way to assess these disclosures, helping stakeholders to identify companies that are leaders in economic sustainability and those that may pose greater financial risks. In addition to its use by investors, the Economic Disclosure Index is also a valuable tool for regulators and policymakers. By tracking the ECDI scores of companies, regulators can assess the effectiveness of economic reporting requirements and identify areas where further regulation or guidance may be needed. Policymakers can use ECDI data to inform the development of economic policies and initiatives, ensuring that they are based on accurate and comprehensive information about corporate economic practices. For companies,

the Economic Disclosure Index is an important tool for demonstrating their commitment to financial sustainability and building trust with stakeholders (Lawal et al., 2024). A strong ECDI performance can enhance a company's reputation and differentiate it from competitors, particularly in industries where economic issues are of significant concern (Amahalu et al., 2021). Moreover, by striving to achieve a high ECDI score, companies can identify areas for improvement in their economic practices, driving continuous improvement and long-term sustainability. ECDI is assessed using firm disclosure of economic performance. The Global Reporting Initiatives adopted for this are from GRI 201 which include:

- a) Direct economic value generated and distributed
- b) Financial implications and other risks and opportunities due to climate change
- c) Defined benefit plan obligations and other retirement plans
- d) Financial assistance received from government

H₀₃: Economic disclosure index does not significantly affect the market capitalisation of listed manufacturing firms in Nigeria.

Firm Value

Firm value refers to the overall worth of a company as perceived by the market (Pappu, 2020). It represents the collective judgment of investors, analysts, and other market participants regarding a company's future profitability, growth potential, and associated risks (Nguyen, 2020). This concept is fundamental in finance and economics, serving as a key indicator of a company's health and prospects (Ukoh et al., 2024). Firm value is often reflected in the company's market price, which is the price at which the company's shares trade on the stock exchange. The perception of firm value is shaped by a combination of factors, including the company's financial performance, its strategic positioning in the industry, its management team, and external market conditions (Elom et al., 2025). The concept of firm value extends beyond mere financial figures; it encapsulates the market's expectations of the company's future cash flows and its ability to generate returns for its shareholders (El-Deeb, 2019). Investors typically assess firm value by analyzing a variety of financial metrics such as earnings, revenue growth, profit margins, and return on investment. However, firm value is not only about current financial performance; it also encompasses the company's potential for growth and its capacity to sustain profitability over time. Factors such as innovation, competitive advantage, market share, and operational efficiency play a crucial role in shaping the market's perception of a company's long-term value (Muojekwu et al., 2025).

Investors consider the level of uncertainty associated with a company's future cash flows when determining its value. Higher risk typically leads to a lower firm value, as investors demand a higher return to compensate for the increased uncertainty. Conversely, companies that are perceived as lower risk, due to stable earnings, strong market position, or sound management, often command higher firm values. The interplay between profitability, growth potential, and risk creates a dynamic environment in which firm value is continuously assessed and reassessed by the market. In summary, firm value is a comprehensive measure of a company's worth as perceived by the market (Pappu, 2020). It reflects the market's collective expectations of the company's future financial performance, growth prospects, and risk profile. As a crucial determinant of investment decisions, firm value encapsulates the complex interplay of various factors that influence a company's ability to create value for its shareholders over time (Ukoh et al., 2024). The concept underscores the importance of a company's ability to generate sustainable profits, manage risks effectively, and position itself strategically in the market to maintain and enhance its value in the eyes of investors.

Market Capitalization

Market capitalization, commonly referred to as market cap, is the total market value of a company's outstanding shares of stock (Alshubiri, 2021). It is a fundamental financial metric used to assess the size and value of a publicly traded company. Market capitalization is calculated by multiplying the current market price of a single share of the company's stock by the total number of outstanding shares (Roosmawarni et al., 2022). This calculation provides a snapshot of the company's value as determined by the stock market, reflecting the collective opinion of investors about the company's worth (Korsah & Fosu, 2016). The concept of market capitalization is crucial for investors as it provides a quick and straightforward way to evaluate the relative size of a company within its industry or the broader market (Alshubiri, 2021). Companies are often categorized based on their market capitalization into different tiers, such as large-cap, mid-cap, and small-cap. Large-cap companies typically have a market capitalization of ₦10 billion or more, and they are generally considered to be well-established, stable, and less risky investments. Mid-cap companies, with market capitalizations between ₦2 billion and ₦10 billion, are often in the growth phase, offering a balance between risk and return. Small-cap companies, with market capitalizations below ₦2 billion, are usually younger and more volatile, presenting higher risk but also the potential for significant growth.

Market capitalization is not static; it fluctuates with changes in the company's stock price and the number of outstanding shares. When the stock price increases, the market capitalization rises, indicating a higher valuation of the company by the market (Roosmawarni et al., 2022). Conversely, a decline in the stock price leads to a decrease in market capitalization, signaling a lower market valuation. Market cap is often used as a proxy for the public's perception of a company's future prospects and overall financial health. Factors such as financial performance, industry trends, investor sentiment, macroeconomic conditions, and company-specific news (e.g., mergers or leadership changes) can all influence market cap by affecting stock prices. However, while market capitalization is a valuable tool for assessing a company's size, it does not provide a complete picture of the company's financial condition. It does not account for the company's debt, cash reserves, or profitability. For a more comprehensive evaluation, investors often consider market capitalization in conjunction with other financial metrics, such as earnings per share (EPS), price-to-earnings (P/E) ratio, and Tobin's Q. In conclusion, market capitalization is a key indicator of a company's market value, providing a straightforward measure of its size and the market's valuation (Alshubiri, 2021). It plays a crucial role in investment decision-making, helping investors gauge the relative size of companies and assess their risk-return profiles (Roosmawarni et al., 2022). While market capitalization is a widely used metric, it should be considered alongside other financial indicators to gain a more holistic understanding of a company's financial health and investment potential.

Theoretical Framework

The study was anchored on two theories: Legitimacy Theory and Positive Accounting Theory.

Legitimacy Theory

The legitimacy theory, originating in the field of social and political science, was formally introduced by Dowling and Pfeffer in 1975 (Olateju et al., 2021). The theory is rooted in the concept of social contracts, which suggests that organizations must operate within the bounds of societal norms, values, and expectations to be considered legitimate. Over time, the theory has evolved and gained prominence in accounting and corporate governance, particularly in the context of corporate social responsibility (CSR) and sustainability practices (Mahmud, 2020). The central tenet of legitimacy theory is that organizations seek to ensure that their activities are perceived as legitimate by the society in which they operate (Olateju et al., 2021). This legitimacy is achieved when an organization's actions align with the social contract, thereby ensuring continued support and approval from society. The theory posits that

companies are likely to engage in voluntary disclosures, such as sustainability reporting, to signal their alignment with societal expectations and to justify their actions (Mahmud, 2020). If a company's actions are perceived as deviating from these societal norms, it may face legitimacy threats, such as public criticism, loss of market share, or regulatory penalties. Therefore, companies disclose information about their environmental, social, and economic impacts to demonstrate that they are responsible corporate citizens and to manage or repair their legitimacy when it is threatened.

Legitimacy theory is highly relevant to the study of the effect of sustainability disclosure on the firm value of listed manufacturing firms in Nigeria. In the context of this study, legitimacy theory provides a framework for understanding why manufacturing firms in Nigeria might engage in sustainability disclosures. These disclosures, which include environmental, social, and economic indices, can be seen as efforts by firms to legitimize their operations in the eyes of stakeholders (Olateju et al., 2021). By aligning their disclosures with societal expectations and norms, these firms can enhance their legitimacy, which in turn can positively impact their firm value. The theory suggests that when firms are perceived as legitimate and responsible, they are more likely to attract investors, customers, and other stakeholders, leading to increased market capitalization and overall firm value. Thus, legitimacy theory offers a valuable lens through which to examine the motivations behind sustainability disclosure and its potential impact on firm value in the Nigerian manufacturing sector.

Positive Accounting Theory

The Positive Accounting Theory (PAT) was developed in the late 1970s by Ross Watts and Jerold Zimmerman, with their seminal work published in 1978 (Kaya, 2017). The core postulations of Positive Accounting Theory are based on the assumption that managers act in their own self-interest and will choose accounting policies that best serve their economic goals (Osho & Ayorinde, 2018). The theory identifies three primary hypotheses: the bonus plan hypothesis (managers will use accounting methods that increase reported income if their compensation is tied to earnings), the debt covenant hypothesis (firms close to breaching debt agreements will adopt conservative accounting practices to avoid violations), and the political cost hypothesis (larger firms, or those under political scrutiny, may use methods that reduce reported profits to avoid attention). These hypotheses collectively aim to explain why firms choose particular disclosure strategies and accounting policies.

This theory is particularly relevant to the study of the effect of sustainability disclosure on the firm value of listed manufacturing firms in Nigeria, as it provides a framework for understanding how and why firms disclose environmental, social, and economic information. In line with PAT, firms may engage in sustainability reporting not solely out of ethical commitment, but as a strategic response to external pressures from investors, regulators, and the public (Osifo & Fasua, 2017). Disclosures may be used to reduce information asymmetry, enhance reputation, and attract investment—thus influencing market capitalisation. PAT helps explain the motivations behind varying levels of disclosure across firms, and how such actions may affect investor perceptions and, ultimately, firm value.

Empirical Review

Lawal et al. (2024) conducted a study to investigate the effects of sustainability reporting on the value creation of listed manufacturing firms in Nigeria. Using a longitudinal research design, the study encompassed a population of 45 quoted manufacturing firms on the Nigeria Exchange Group as of May 30th, 2023, with all 45 firms included in the sample. Data were drawn from the annual reports of these firms spanning 2012 to 2021. The study employed multivariate regression analysis to examine the impact of sustainability reporting variables on firms' value creation. The findings revealed that social sustainability disclosure positively and significantly affects earnings per share, with a coefficient of 1.006 ($p=0.044<0.05$). In contrast, economic sustainability disclosure showed a positive but insignificant effect on earnings per share, with a coefficient of 0.927 ($p=0.183>0.05$). However, environmental sustainability disclosure was found to have a negative and significant effect on earnings per share, with a coefficient of -1.070 ($p=0.006<0.05$). The study concluded that both social and economic sustainability reporting enhance the value of listed manufacturing companies in Nigeria through increased disclosure.

Yusuf and Yusuf (2024) examined the relationship between firm value and sustainability reporting in listed oil and gas companies in Nigeria from 2013 to 2022. The study focused on a population of nine listed oil and gas companies on the Nigeria Exchange Group, from which a sample of seven companies was selected using purposive sampling. Utilizing secondary data obtained from the companies' annual reports and accounts, the study employed a longitudinal panel research design. The findings from the cross-sectional time-series FGLS regression indicated that the firm value of listed oil and gas companies is positively and significantly influenced by the moderating effect of board independence on economic sustainability disclosure and corporate social responsibility disclosure. However, the study found no

significant moderating effect of board independence on the relationship between environmental disclosure and corporate governance disclosure with firm value.

Ukoh et al. (2024) conducted a study to examine the effect of sustainability reporting on the firm value of listed oil and gas companies in Nigeria. The study aimed to determine the extent to which the Economic Sustainability Index, Environmental Sustainability Index, and Social Sustainability Index influence market value per share. Employing an ex-post facto research design, the study focused on a population of ten oil and gas firms listed on the Nigerian Exchange Group. Secondary data were gathered from the annual reports and financial statements of a sample of six firms over a ten-year period from 2013 to 2022. The hypotheses were tested using ordinary least squares regression analysis, which revealed that the Social Sustainability Index significantly improves the market value per share of listed oil and gas companies in Nigeria. Additionally, the Environmental Sustainability Index was found to positively and significantly contribute to market value per share, while the Economic Sustainability Index significantly enhances market value per share.

Dzugwahi and Ola (2024) investigated the impact of sustainability reporting on the financial performance of listed non-financial firms in Nigeria. The study aimed to assess how economic sustainability reporting, social sustainability reporting, and governance sustainability reporting influence the financial performance of 82 listed non-financial firms over the period from 2012 to 2021. The analysis was conducted using multiple regression with the aid of STATA 16 software. Based on the interpretation and discussion of the data, the study concluded that both economic sustainability reporting (ECSR) and social sustainability reporting (SSR) have a positive and significant effect on financial performance.

Aniagbaoso and Orjinta (2023) ascertained the effect of sustainability reporting on financial performance of quoted pharmaceutical companies in Nigeria for a period of ten (10) years spanning from 2012 to 2021. Ex-post facto and longitudinal research design was adopted. Sustainability disclosure which is the independent variable was captured using employee health and safety disclosure, social disclosure, environmental disclosure, and governance disclosure while financial performance which served as the dependent variable was measured using return on investment (ROI). Panel data were obtained from annual reports and accounts of the sampled health care companies and subjected to preliminary data tests such as descriptive analysis, correlation analysis, variance inflation factor analysis and hausman effects tests for the study period. Multiple panels least regression analysis was employed via

E-Views 12. The results of the tested hypotheses revealed that employee health and safety disclosure, and social disclosure have positive and significant effect on financial performance of health care companies in Nigeria which was statistically significant at 95% confidence level respectively while a negative but insignificant effect was documented against environmental disclosure, governance disclosure and financial performance of health care companies in Nigeria.

Ugbogbo and Obamwonyi (2023) examined the effect of sustainability reporting on financial performance of quoted consumer goods companies in Nigeria. In this study, ex-post facto research design was employed on panel data which was sourced from related company annual financial reports. Pooled Ordinary Least Square (POLS) regression analysis was conducted, and diagnostic test conducted to ensure that there was no violation of a vital least square assumption while the formulated hypotheses were tested based on the uniqueness of the specified model. In this study the least square dummy variable regression was employed on Return on Capital Employed and Gross Profit after Tax Margin models while Robust Least Square Regression analyses technique was employed on Earnings before Interest and Tax model. The findings revealed that environmental sustainability reporting had a positive and significant effect on the performance measure of earnings before interest and tax, but it revealed an insignificant effect on return on capital employed and gross profit after tax margin. It was also found that social sustainability reporting negative effect on return on capital employed and gross profit after tax, but its effect on earnings before interest and tax was positive.

Etim et al. (2023) examined the effect of sustainability reporting on financial performance of healthcare companies in Nigeria. Ex-post facto research design and content analysis were adopted. The population of the study was listed healthcare companies in Nigeria. A sample of 8 healthcare firms was purposively selected for a period of 7 years, resulting in 56 observations. The data were analyzed using descriptive statistics and regression analysis. The result of the analysis showed that both environmental reporting and social reporting have a negative effect on the financial performance of listed healthcare firms in Nigeria.

Ezekwesili and Ezejiofor (2022) examined the effect of sustainability accounting practices on sustainability disclosure of Nigerian Multinational Corporations (MNCs). The study employed the descriptive and survey research design, in order to describe the level of sustainability accounting disclosure and ascertain the opinion of 129 respondents as regards

practice. The formulated hypotheses were tested using One-Sample Chi Square Test and Pearson Correlation coefficient. The study findings show that there is a high level of social accounting practice among Multinational Corporations in Nigeria. The Pearson correlation coefficient also revealed that there is a positive association between social accounting practice and social disclosure of Multinational Corporations in Nigeria. However, there is a high level of environmental accounting practice among Multinational Corporations in Nigeria.

Aiyesan (2022) examined the effect of sustainability reporting on financial-performance of listed manufacturing firms in Nigeria from 2010 to 2020. Ex-post facto research design was employed and 24 firms from 8 sectors were sampled. Data were sourced from their annual report and analysed using Panel-regression technique. The study found positive significant connection linking environmental reporting and financial performance while community relation cost has negative insignificant effect on financial-performance.

Ikpor et al. (2022) investigated the factors that drive the choice of sustainability reporting in Nigeria. Using data sourced from 3 different reports (annual accounts, sustainability reports and websites) of the top 50 large companies listed in the Nigeria Stock Exchange for the period 2015–2020 and a fixed effect panel regression model, the study made three important findings. First, the study provides evidence that sustainability reporting is mostly influenced by the following company internal factors: size, profitability, ownership structure, listing age, leverage and auditor type. Second, the findings indicate that that size of firms, profitability and companies audited by Big-4 audit firms has a significant positive relationship with sustainability reporting in Nigeria. In contrast, ownership structure and the leverage position of firms affect sustainability reporting negatively. Finally, the study shows that the banking and oil and gas sectors take sustainability reporting more seriously than any other sectors in Nigeria.

Amahalu et al. (2021) ascertained the effect of sustainability reporting on financial performance of quoted industrial goods companies in Nigeria from 2008-2019. Specifically, this study examined the effect of environmental reporting on cash value added; effect of social reporting on cash value added and effect of economic reporting on cash value added. Purposive sampling technique was employed to select eleven (11) industrial goods companies from a population of fifteen (15) quoted industrial goods firms in Nigeria. Panel data were used in this study, which were obtained from the annual reports and accounts of sample firms for the periods 2008-2019. Ex-Post Facto research design was employed. Descriptive statistics

of the dataset from the sample firms were described using the mean, standard deviation, minimum and maximum values of the data for the study variables. Inferential statistics using Pearson correlation coefficient, Panel least square regression analysis, granger causality test and Hausman test were applied to test the hypotheses of the study. The results showed that environmental reporting, social reporting and economic reporting have a significant positive effect on cash value added respectively at 5% level.

Abdulsalam et al. (2020) aimed to determine the impact of social responsibility (SR) costs on the profitability of oil marketing companies in Nigeria. The study employed an ex-post facto research design and analyzed a micro panel consisting of six firms over 15 years (2004-2018). Secondary data were obtained from the audited accounts and reports of the sampled firms for the period under review. Panel regression analysis was conducted to analyze the data, and the stakeholder theory was used as the theoretical framework. The results of the regression analysis showed that SR has a positive and significant effect on the return on assets of oil marketing firms in Nigeria. Additionally, social costs have a significant effect on the return on equity and net profit margin of oil marketing firms in Nigeria.

Pappu (2020) explored the effect of sustainability reporting on firm value of companies in Bangladesh, covering the period from 2013 to 2018. A sample size of 144 firm-year observations was used. To mitigate endogeneity concerns, the study utilized both ordinary least squares regression and a two-stage least squares method. The results indicated that larger board size, a higher proportion of female and independent directors, and greater growth opportunities were positively associated with SR adoption and practice. The study found that SR practice had a significant positive impact on firm value, in line with the theoretical prediction of corporate disclosure and firm value.

Okafor et al. (2020) investigated the effect of social investment cost and environmental protection cost on financial performance of quoted cement companies in Nigeria. Financial performance was further denominated into sales turnover (ST) and market value of firms (MVF) to respectively develop two hypotheses in their alternative forms. While the researchers adopted ex-post facto research design, secondary data were obtained from relevant annual financial reports and database of the Nigerian stock exchange for 2009-2017. Descriptive statistics were utilized for data presentation before estimating the test result by adopting multivariate regression model. It was found that social investment cost and environmental protection cost have positive effect on sales turnover (ST) and market value of

firms. Nguyen (2020) explored the association between sustainability reporting and firm value among large listed German firms. The research applied Multiple Regression to test the above relationship by involving 485 observations from 97 large listed German firms within the research period from 2013 to 2017. Along with the main model, a robustness test was performed to explore the connection in the context of a four-month period after the year-end deadline to issue sustainability reports in accordance with German Law. The findings indicate a significant negative relation between firm value and a firm's GRI adherent level of sustainability reporting.

El-Deeb (2019) investigated the impact of Integrated Reporting on the firm performance and firm value of companies listed in the EGX30 stock exchange market. The study used ROE and Debt ratio as proxies for firm performance and capitalized market value for firm value. The study collected data from EGX30 listed companies from 2012 to 2017, and statistical analysis was performed using Descriptive analysis, Pearson correlation, and regression analysis. The findings indicated a positive correlation between the level of Integrated Reporting compliance, firm performance and value, and the leverage level of the companies.

Emeka-Nwokeji and Osisioma (2019) investigated the effect of sustainability disclosures on the market value of firms in Nigeria. The study selected 93 out of 120 non-financial firms listed on the Nigerian Stock Exchange as at 2015. Ex Post Facto research design was adopted and the secondary data was collected from annual reports of sampled firms from 2006 to 2015 through content analysis. The data were analysed with descriptive statistics, correlation analysis, principal component analysis while pooled ordinary least squares regression was employed to test formulated hypotheses. The analysis showed that overall sustainability disclosures have significant positive effects on firm value. When treated individually, environmental sustainability disclosures and corporate governance disclosures have a significant positive effect on market value of firm. The study also reveals that social sustainability disclosures have negative and insignificant effect on market value of firm.

MATERIALS AND METHOD

This study employed an ex-post facto research design. An ex-post facto research design is a type of observational study in which the researcher examines the impact of an independent variable that has already occurred or been manipulated outside the researcher's control. This approach is appropriate for the study because it allows for the analysis of the relationship between variables and past events (Ikwuo et al., 2025b). The study focused on analyzing all

manufacturing companies listed on the Nigerian Exchange Group (NGX). According to the NGX Daily Stock Listing as of 31st December, 2024, there are 72 manufacturing companies actively traded on the exchange. Out of the 72 manufacturing companies listed on the Nigerian Exchange Group (NGX) as of 31st December, 2024, a sample of 53 firms was selected using purposive sampling (See Appendix A). The rationale for employing this sampling technique lies in the need to ensure the availability and consistency of relevant data over a defined period, as well as to enhance the reliability and validity of the analysis. Considering the data-intensive nature of sustainability disclosure studies, the sample was carefully drawn based on a specific inclusion criterion: each firm must have been listed on the NGX on or before 2015 and must have consistently uploaded complete and accessible annual reports to the NGX platform from 2015 to 2024. This criterion was adopted to ensure that there is adequate longitudinal data to assess trends and impacts of environmental, social, and economic disclosures on firm value over a ten-year period.

For data collection, the study used secondary data collection method. The data were collected from the annual reports and financial statements of the listed firms in the sample. The data generated for the study covered the 2015 to 2024 accounting periods, allowing the capture of the recent trend of increased sustainability reporting.

Before the operational description of variables proper, Table 1 shows the global reporting initiatives (GRI) index applicable for the content analysis that helped measure proxies of sustainability disclosure.

Table 1 GRI for Measurement of Sustainability Indices

Applicable GRI for Measurement of Sustainability Indices	Measurement Scale
GRI 413: Local Community	
Operations with local community engagement	“1” if disclosed or “0” if not disclosed
Social impact assessments	“1” if disclosed or “0” if not disclosed
Social development Programs	“1” if disclosed or “0” if not disclosed
Significant actual and potential negative impacts of operations	“1” if disclosed or “0” if not disclosed
GRI 306: Waste Management	
Waste generation and significant waste-related impacts	“1” if disclosed or “0” if not disclosed
Management of significant waste-related impacts	“1” if disclosed or “0” if not disclosed
Waste generated	“1” if disclosed or “0” if not disclosed

Waste diverted from disposal	“1” if disclosed or “0” if not disclosed
Waste directed to disposal	“1” if disclosed or “0” if not disclosed
GRI 201: Economic Performance	Scale
Direct economic value generated and distributed	“1” if disclosed or “0” if not disclosed
Financial implications and other risks and opportunities due to climate change	“1” if disclosed or “0” if not disclosed
Defined benefit plan obligations and other retirement plans	“1” if disclosed or “0” if not disclosed
Financial assistance received from government	“1” if disclosed or “0” if not disclosed

Source: GRI (2021)

Table 2 Measurement of Variables

Variables	Type	Measurement	Supporting Document
1) Environmental Disclosure Index	Independent	A summated scale of firm practices for waste management	Annual reports and GRI 306
2) Social Disclosure Index	Independent	A summated scale of firm practices for local community development	Annual reports and GRI 413
3) Economic Disclosure Index	Independent	A summated scale of firm practices for wealth creation and distribution	Annual reports and GRI 201
4) Market Capitalisation	Dependent	Capitalisation value/Total Assets	Annual report

Source: Researcher’s Concept (2024)

As shown in Table 1 above, Environmental Disclosure Index is measured as firm’s aggregate score in disclosing their practices on waste management. Global Reporting Initiatives (GRI) 306 provides the framework for scoring the firms’ environmental sustainability performance. Thus, scores in GRI 306a + GRI 306b + GRI 306c + GRI 306d + GRI 306e gives the measurement for Environmental Sustainability Index.

Social Disclosure Index is measured as firm’s aggregate score in disclosing their practices on local community development. Global Reporting Initiatives (GRI) 413 provides the framework for scoring the firms’ social performance. Thus, scores in GRI 413a + GRI 413b + GRI 413c + GRI 413d gives the measurement for Social Sustainability Index. Economic Disclosure Index is measured as firm’s aggregate score in disclosing their practices on wealth maximization. Global Reporting Initiatives (GRI) 201 provides the framework for scoring the firms’ economic performance. Thus, scores in GRI 201a + GRI 201b + GRI 201c + GRI 201d gives the measurement for Economic Sustainability Index.

Firm Value is measured by market capitalisation scaled by firm's total assets.

A multiple regression equation was modified based on the adapted model from the study by Aiyesan (2022) that examined the nexus between sustainability reporting and financial performance of listed manufacturing firms in Nigeria using the model below:

$$ROA_{it} = \beta_0 + \beta_1 DP_{it} + \beta_2 CRC_{it} + \beta_3 ERC_{it} + \beta_4 R\&DC_{it} + \epsilon_{it} \dots \dots \dots \text{Eqn1.}$$

Where;

i = Number of companies or cross section

t = No of time periods

ROA = Return on Assets of Quoted manufacturing companies,

β_0 = the constant term,

DP = Dividend Policy,

CRC = Community Relation Costs,

ERC = Employee Relation Costs,

R&DC = Research & Development Costs,

β_1-4 = Coefficients estimated or the Coefficients of slope parameters.

ϵ_{it} = Error term.

This present study modified the above model into the equation 2 specified below:

$$MCA_{it} = \beta_0 + \beta_1 ENDI_{it} + \beta_2 SDI_{it} + \beta_3 ECDI_{it} + \epsilon_{it} \dots \dots \dots \text{Eqn2.}$$

In line with the specific objectives, we have:

$$MCA_{it} = \beta_0 + \beta_1 ENDI_{it} + \epsilon_{it} \dots \dots \dots \text{Eqn 3.}$$

$$MCA_{it} = \beta_0 + \beta_1 SDI_{it} + \epsilon_{it} \dots \dots \dots \text{Eqn 4.}$$

$$MCA_{it} = \beta_0 + \beta_1 ECDI_{it} + \epsilon_{it} \dots \dots \dots \text{Eqn 5.}$$

Where:

$ECDI_{it}$ is the Economic Disclosure Index for firm i in year t

$ENDI_{it}$ is the Environmental Disclosure Index for firm i in year t

MCA_{it} is the market capitalisation for firm i in year t

SDI_{it} is the Social Disclosure Index for firm i in year t

β_0 is the intercept or constant value

$\beta_1, \beta_2, \beta_3$, are the coefficients or parameters associated with ENDI, SDI and ECDI respectively

ϵ_{it} is the error term for firm i in year t

The study employed descriptive analysis and panel data regression to analyze the data, each serving a distinct purpose in achieving the research objectives. Panel regression was used for testing the study’s hypotheses by examining the nexus between sustainability disclosure and firm value across selected manufacturing firms over time. This technique is particularly suitable because it accommodated the dual nature of the data—both cross-sectional (across different firms) and time-series (over several years)—ensuring robust and reliable results. The inferential statistics conducted for test of hypotheses were based on an alpha level of 5%. As a decision rule, if the *p-value* is greater than 5%, the null hypothesis is accepted and vice versa.

RESULT AND DISCUSSIONS

Descriptive Analysis

Table 3 Descriptive Analysis

	MCA	ENDI	ECDI	SDI
Mean	1.422314	0.298868	0.741509	0.481132
Median	0.528973	0.000000	0.750000	0.250000
Maximum	64.17693	1.000000	1.000000	1.000000
Minimum	0.019289	0.000000	0.500000	0.000000
Std. Dev.	5.016469	0.391448	0.161730	0.437624
Skewness	8.838429	0.666402	0.031990	0.200097
Kurtosis	89.65651	1.620409	2.390739	1.236830
Jarque-Bera	172731.9	81.25864	8.287713	72.18875
Probability	0.000000	0.000000	0.015862	0.000000
Sum	753.8264	158.4000	393.0000	255.0000
Sum Sq. Dev.	13312.27	81.05932	13.83679	101.3113
Observations	530	530	530	530

Source: Eviews 10 Output (2025)

The descriptive statistics presented in Table 3 provide key hints into the distribution and characteristics of the variables used in the study. For Market Capitalisation (MCA), the mean value is 1.4223, indicating that on average, firms have a capitalisation-to-asset ratio slightly above 1. However, the standard deviation is high at 5.0165, reflecting significant variability in firm values. The maximum value of 64.1769 is an extreme outlier compared to the minimum of 0.0193, which contributes to the high skewness of 8.8384 and extreme kurtosis of 89.6565, indicating a highly right-skewed and leptokurtic distribution. The Jarque-Bera probability of 0.0000 confirms that the distribution of market capitalisation significantly deviates from normality, likely due to a few very large firms skewing the data.

Turning to the Environmental Disclosure Index (ENDI), the mean value is 0.2989, suggesting that, on average, less than one-third of the relevant environmental disclosure items are being

reported by the firms. The standard deviation of 0.3914 indicates moderate variability in environmental reporting practices. The skewness of 0.6664 suggests a mild right skew, while the kurtosis value of 1.6204 is below the normal distribution benchmark of 3, indicating a relatively flat distribution. The probability of the Jarque-Bera test is 0.0000, implying that the distribution of ENDI also significantly departs from normality, which may be due to a concentration of firms disclosing very few environmental indicators.

For the Economic Disclosure Index (ECDI), the mean of 0.7415 indicates relatively higher disclosure compliance among firms concerning economic indicators. This suggests that firms are generally more forthcoming with information related to economic performance. The minimum value of 0.5 shows that even the lowest disclosers still provide at least half of the expected economic data. The standard deviation is relatively low at 0.1617, implying consistency across firms. Skewness is nearly symmetrical at 0.0320, and the kurtosis of 2.3907 is close to normal, but the Jarque-Bera probability of 0.0159 suggests a mild but statistically significant deviation from a normal distribution, possibly due to slight clustering around higher disclosure values.

The Social Disclosure Index (SDI) has a mean of 0.4811, indicating that firms disclose less than half of the expected social responsibility items on average. The relatively high standard deviation of 0.4376 implies a wide disparity in social disclosure levels across firms. The skewness of 0.2001 indicates a slight right skew, while the kurtosis of 1.2368 points to a relatively flat distribution. The Jarque-Bera test probability of 0.0000 indicates a significant departure from normality, likely due to a sizable portion of firms with very low or no social disclosures at all. This variability highlights the inconsistency and underdevelopment in social sustainability reporting among Nigerian manufacturing firms.

Test of Hypotheses

The hypotheses of the study were tested using the panel least squares regression technique, which incorporates cross-sectionalized weights to account for heterogeneity across firms. This method is appropriate for analyzing the effect of sustainability disclosure indices on firm value over time, as it allows the model to control for both firm-specific and time-specific variations. The analysis was conducted at a 5% level of significance, meaning that any variable with a p-value less than 0.05 was considered to have a statistically significant effect on Market Capitalisation (MCA). This approach enhances the robustness and reliability of the

findings by addressing issues of heteroskedasticity and unobserved firm-level characteristics that could otherwise bias the results.

Hypothesis One

H₀₁: Environmental disclosure index has no significant effect on the market capitalisation of listed manufacturing firms in Nigeria.

H_{i1}: Environmental disclosure index has significant effect on the market capitalisation of listed manufacturing firms in Nigeria.

Table 3 Test of Hypothesis I

Dependent Variable: MCA
 Method: Panel EGLS (Cross-section weights)
 Date: 06/28/25 Time: 23:06
 Sample: 2015 2024
 Periods included: 10
 Cross-sections included: 53
 Total panel (balanced) observations: 530
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ENDI	0.338003	0.065746	5.141051	0.0000
C	1.130135	0.035823	31.54787	0.0000
Weighted Statistics				
R-squared	0.047671	Mean dependent var		5.005616
Adjusted R-squared	0.045868	S.D. dependent var		6.364060
S.E. of regression	4.267168	Sum squared resid		9614.204
F-statistic	26.43041	Durbin-Watson stat		1.641744
Prob(F-statistic)	0.000000			

Source: Eviews 10 Output (2025)

Before examining the effect of environmental disclosure, it is essential to assess the overall model validity. From Table 3, the R-squared value is 0.0477, indicating that approximately 4.8% of the variation in Market Capitalisation (MCA) is explained by the Environmental Disclosure Index (ENDI). Although the explanatory power is modest, the F-statistic is significant ($p = 0.0000$), confirming that the model, as a whole, is statistically valid at the 5% significance level. The Durbin-Watson statistic of 1.6417 falls within an acceptable range, suggesting no serious autocorrelation in the residuals. The constant term ($C = 1.1301$, $p = 0.0000$) is also statistically significant, implying that in the absence of environmental disclosure, firms still exhibit a baseline level of market capitalisation.

Focusing on the independent variable, the coefficient of ENDI is 0.3380 ($p = 0.0000$), which implies that for every unit increase in the Environmental Disclosure Index, market capitalisation increases by 0.3380 units, holding other factors constant. This represents a positive marginal effect, meaning that enhanced environmental reporting contributes positively to firm value. The p-value is 0.0000, which is well below the 5% significance threshold, confirming that this effect is statistically significant. Therefore, we accept the alternate hypothesis and conclude that environmental disclosure has a significant positive effect on the market capitalisation of listed manufacturing firms in Nigeria.

In the context of existing literature, this finding aligns with Ugbogbo and Obamwonyi (2023), who observed a positive impact of environmental reporting on EBIT, and Aiyesan (2022), who identified a positive and significant link between environmental reporting and financial performance. Ukoh et al. (2024) also support this position by showing that environmental sustainability positively influences market value per share. Similarly, Amahalu et al. (2021) found that environmental disclosures contribute significantly to value-added performance in the industrial goods sector. However, there are studies that contrast with this finding — for instance, Lawal et al. (2024) reported a negative effect of environmental disclosure on earnings per share, and Etim et al. (2023) found a negative influence of environmental disclosure on financial performance in healthcare. This divergence may arise from industry-specific dynamics or differences in stakeholder expectations regarding environmental disclosures.

Hypothesis Two

- H₀₂: Social disclosure index has no significant effect on the market capitalisation of listed manufacturing firms in Nigeria.
- H_{i2}: Social disclosure index has significant effect on the market capitalisation of listed manufacturing firms in Nigeria.

Table 4 Test of Hypothesis II

Dependent Variable: MCA
 Method: Panel EGLS (Cross-section weights)
 Date: 06/28/25 Time: 23:07
 Sample: 2015 2024
 Periods included: 10
 Cross-sections included: 53
 Total panel (balanced) observations: 530
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SDI	0.504232	0.065519	7.696009	0.0000
C	1.244771	0.056437	22.05587	0.0000
Weighted Statistics				
R-squared	0.100861	Mean dependent var		5.173738
Adjusted R-squared	0.099158	S.D. dependent var		6.048226
S.E. of regression	4.312420	Sum squared resid		9819.199
F-statistic	59.22855	Durbin-Watson stat		1.484922
Prob(F-statistic)	0.000000			

Source: Eviews 10 Output (2025)

As shown in Table 4, the model assessing the effect of the Social Disclosure Index (SDI) on market capitalisation reveals an R-squared value of 0.1009, meaning that about 10.1% of the variation in firm value is explained by social disclosure. The F-statistic is also significant ($p = 0.0000$), confirming overall model validity at the 5% level. The Durbin-Watson statistic of 1.4849 suggests mild positive autocorrelation, but not at a concerning level. The intercept ($C = 1.2448$, $p = 0.0000$) is statistically significant, indicating a base market capitalisation value even in the absence of social disclosure.

The coefficient of SDI is 0.5042 ($p = 0.0000$), indicating that a unit increase in the Social Disclosure Index leads to a 0.5042 unit increase in market capitalisation. This result shows a positive marginal effect, meaning that firms that disclose more social sustainability practices—such as community engagement and social impact assessments—tend to experience greater firm value. Since the p-value is 0.0000, which is below the 0.05 threshold,

the effect is statistically significant. Thus, we accept the alternate hypothesis and conclude that social disclosure exerts a significant positive effect on the market capitalisation of listed manufacturing firms in Nigeria.

This finding finds robust support in numerous studies. Ukoh et al. (2024) concluded that social disclosure positively affects market value per share, while Dzugwahi and Ola (2024) found that social sustainability enhances financial performance. Aniagbaoso and Orjinta (2023) also affirmed the positive effect of social disclosures on financial outcomes, particularly through employee welfare. Further endorsement is found in Abdulsalam et al. (2020), who linked social responsibility costs to higher ROA and ROE. Etim et al. (2023) reported a negative impact of social disclosures in the healthcare sector, while Emeka-Nwokeji and Osisioma (2019) observed a negative association with market value. These differences highlight the possibility of contextual variation, possibly due to differences in how stakeholders perceive and evaluate social initiatives across sectors.

Hypothesis Three

- H₀₃: Economic disclosure index does not significantly affect the market capitalisation of listed manufacturing firms in Nigeria.
- H₁₃: Economic disclosure index significantly affects the market capitalisation of listed manufacturing firms in Nigeria.

Table 5 Test of Hypothesis III

Dependent Variable: MCA
 Method: Panel EGLS (Cross-section weights)
 Date: 06/28/25 Time: 23:07
 Sample: 2015 2024
 Periods included: 10
 Cross-sections included: 53
 Total panel (balanced) observations: 530
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECDI	3.279276	0.138919	23.60563	0.0000
C	3.454759	0.129786	26.61893	0.0000
Weighted Statistics				
R-squared	0.513465	Mean dependent var	4.527698	
Adjusted R-squared	0.512544	S.D. dependent var	6.256063	
S.E. of regression	4.316048	Sum squared resid	9835.729	
F-statistic	557.2257	Durbin-Watson stat	1.532834	
Prob(F-statistic)	0.000000			

Source: Eviews 10 Output (2025)

From Table 5, the regression model for Economic Disclosure Index (ECDI) shows an R-squared value of 0.5135, indicating that economic disclosure accounts for 51.4% of the variation in market capitalisation—by far the highest explanatory power among the three models. The F-statistic is significant ($p = 0.0000$), reinforcing the overall validity of the model at the 5% level. The Durbin-Watson statistic is 1.5328, suggesting no critical concern regarding autocorrelation. The constant term ($C = 3.4548$, $p = 0.0000$) is highly significant, indicating a strong baseline market capitalisation when economic disclosures are absent.

The coefficient for ECDI is 3.2793 ($p = 0.0000$), which implies that for each unit increase in the Economic Disclosure Index, market capitalisation increases by 3.2793 units, *ceteris paribus*. This large positive marginal effect shows that economic disclosures—such as revenue generation, retirement obligations, and government assistance—have a substantial and measurable influence on firm value. The p-value is 0.0000, indicating a statistically significant effect at the 5% level. Consequently, we accept the alternate hypothesis and affirm that economic disclosure significantly and positively affects the market capitalisation of listed manufacturing firms in Nigeria.

Empirical backing for this finding is strong. Ukoh et al. (2024) found that economic disclosure significantly influences market value per share. Dzugwahi and Ola (2024) observed a similar effect on financial performance. Amahalu et al. (2021) further confirm this by identifying a significant effect of economic disclosure on cash value added. Yusuf and Yusuf (2024) also provide indirect support by linking board independence in economic sustainability to improved firm value. El-Deeb (2019) likewise reinforce this with findings of significant positive relationships between economic disclosures and firm performance metrics such as Tobin's Q and ROE. Interestingly, Etim et al. (2023) found no significant impact, suggesting that while economic disclosure is often beneficial, its effect may vary based on disclosure quality or stakeholder perception.

CONCLUSION AND RECOMMENDATIONS

The findings of the study carry important implications for the valuation dynamics of manufacturing firms within the Nigerian capital market. The evidence that environmental, social, and economic disclosures each exert a statistically significant and positive effect on market capitalisation suggests that the capital market places value on the transparency and accountability of firms in disclosing sustainability-related information. This reflects a shift in investor sentiment toward non-financial performance indicators, where the perceived long-

term value and risk profile of a firm are increasingly influenced by its sustainability posture. Market capitalisation which served as the proxy for firm value appears responsive not only to traditional financial metrics but also to the depth and quality of sustainability reporting. Moreover, the magnitude and consistency of the effects observed imply that sustainability disclosure has become a critical informational asset within Nigeria's manufacturing sector. It signals to the market a firm's commitment to responsible practices, operational resilience, and socio-economic impact—all of which may enhance investor confidence and attract long-term capital. These results highlight the relevance of sustainability disclosure as a determinant of corporate valuation in emerging markets, aligning with global trends where stakeholders are broadening their assessment criteria beyond immediate profitability to include ethical, environmental, and developmental considerations. This integration of sustainability factors into market valuation mechanisms demonstrates an evolving investment culture that increasingly rewards firms for being accountable stewards of environmental and societal resources.

Given these findings, the study recommends that:

1. The Federal Ministry of Environment should collaborate with corporate boards to institutionalize sector-specific environmental disclosure frameworks which should include clear reporting standards on waste management, emissions control, energy efficiency, and environmental risk management. More also, boards should oversee the implementation of these disclosures as strategic tools for enhancing investor confidence and market value.
2. The Corporate Affairs Commission should develop comprehensive reporting framework on social sustainability practices to include labour practices, employee welfare, community engagement, and workplace diversity. Human Resource executives should ensure that social initiatives are not only implemented but also transparently reported in annual sustainability reports, as these elements are increasingly valued by investors and stakeholders in market valuation.
3. The Financial Reporting Council should update corporate reporting guidelines to prioritize economic sustainability indicators such as local sourcing, tax contributions, R&D investments, and long-term economic value creation. Chief Financial Officers need to take responsibility for embedding these disclosures into mainstream financial reports, ensuring that economic performance metrics are linked directly to sustainable business models that investors and capital markets increasingly reward.

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