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Research Paper

Moderating Role of Board Independence on the Effect of Environmental and Corporate Social Sustainability Disclosure on Firm Value of Listed Non-Financial Firms in Nigeria

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Abstract
Organisations encounter various obstacles in their pursuit of enduring viability, one of which involves the establishment of robust disclosures pertaining to environmental and social sustainability. This research investigated the impact of Board independence on the relationship between environmental and corporate social sustainability disclosure and firm value in Nigeria. The study utilised a longitudinal research design, spanning a period of ten years (2012 to 2021). A purposive sampling technique was employed to select a sample of sixty-nine non-financial companies from a population of one hundred and four listed companies. The study employed secondary data obtained from the annual reports of the selected companies. The data underwent regression analysis. The measurement of environmental and social sustainability disclosure was conducted using the environmental and social sustainability disclosure index (ENDI and CSRDI) respectively. Similarly, the measurement of company value was conducted using Tobin's Q. The findings of the study indicate that there is a noteworthy positive impact on the value of non-financial companies listed in Nigeria when corporate social sustainability disclosure is influenced by board independence. However, it was observed that the influence of board independence on environmental sustainability disclosure did not have a significant effect on the value of non-financial companies listed in Nigeria. The study thus suggests that companies should prioritise sustainability and long-term value creation by incorporating sustainability reporting into their reporting model and strategy. Additionally, it recommends that Nigerian firms should embrace and disclose environmental and social sustainability concerns as a means to demonstrate their dedication to achieving sustainable development objectives.

Key words: ***Firm value, Environmental sustainability disclosure, Social sustainability disclosure, Tobin's Q and*** **Board Independence**

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I. Introduction

Throughout the years, scholars and professionals have frequently asserted that the primary goal of corporate financial management is to maximise the wealth of shareholders. The aforementioned concepts have been superseded by the prevailing managerial ideology of prioritising stakeholder expectations and interests. The prevailing managerial ideology may account for the emphasis placed by the majority of publicly traded firms in Nigeria on the pursuit of financial value creation, despite the ever-changing business landscape and unique hazards inherent in their operations. Customer value is generated when satisfaction is obtained from a high-quality product or service. Employee value is created through the provision of favourable employment conditions and adequate compensation, which serve as motivators. On the other hand, shareholder value is primarily derived from the enhancement of shareholders' wealth, which is reflected in the growth of corporate profits or stock prices. In the realm of modern business practises, the generation of value is predominantly attributed to intangible factors, including but not limited to creativity, ideas, human capital, reputation, intellectual property rights pertaining to computer software, and patent rights.

In accordance with the pre-established business goals, adverse externalities are imposed upon the environment and society. Negative externalities encompass a range of adverse consequences, including environmental degradation and pollution, social hazards and life-threatening threats, concerns regarding human rights and employee welfare, and several associated obstacles. The topic of sustainability has garnered significant global interest due to its increasing significance. This phenomenon might be ascribed to the growing interest exhibited by stakeholders in the non-financial endeavours of the organisation in recent times. It was necessary for them to ascertain the effects of the firm's activities on both themselves and their surrounding environment. The popularity of sustainability disclosure has grown in recent years due to heightened awareness of environmental and social issues in society (Junior et al., 2014). This trend can be attributed to various factors, including the expanding role of government, the demand for comprehensive disclosure, increased pressure from investors, supplier relations, and competition in labour markets (Gautam & Singh, 2010). Hence, it is incumbent upon managers to provide guidance to their board of directors regarding the costs and benefits associated with the disclosure of environmental and social sustainability matters, as well as to ensure the timely reporting necessary to maintain the sustainability cycle. The emphasis on board independence is based on the principles of agency theory and is further supported by the stakeholder viewpoint. Independent non-executive directors, acting as representatives of the stakeholders, are seen to be crucial in overseeing management actions, hence leading to more transparency in information sharing. The primary objective of this study is to examine the moderating influence of board independence on the relationship between environmental and social sustainability disclosure and firm value among listed Consumer Goods companies in Nigeria. Given the above, the study thus hypothesized that:

$H0_1$: Environmental sustainability disclosure has no significant effect on firm value of listed non-financial companies in Nigeria when it is moderated by board independence.

$H0_2$: corporate social sustainability disclosure has no significant effect on firm value of listed non-financial companies in Nigeria when it is moderated by board independence.

II. Literature Review

2.1 Conceptual Framework

2.1.1 Environmental Sustainability Disclosure

According to the definition provided by Adediran and Alade (2013), environmental sustainability disclosure refers to the proficient and effective reporting of an organization's conservation initiatives aimed at mitigating the environmental impact resulting from its operational activities. According to Al-Taher (2011), presenting information about a company's attitude towards its environmental impact and its practises in decreasing such impact is referred to as environmental disclosure. According to Vande et al. (2014), environmental disclosure (END) refers to the provision of both quantitative and non-qualitative information by a publicly traded corporation to its many stakeholders, encompassing social, environmental, and economic aspects.

2.1.1.2 Social Sustainability Disclosure

The concept of social disclosure encompasses a wide array of difficulties that businesses face in their operations. Social reporting refers to the systematic evaluation and transparent disclosure of significant aspects of corporate activities that have social implications (Ebimobowei, 2011). Social reporting aims to evaluate the positive and negative impacts of an organization's actions on both the company itself and the individuals touched by the organisation. This assessment can be conducted using either financial or non-financial units, and it involves the evaluation of social costs and benefits. Broadly speaking, social disclosure pertains to the manner in which a corporation engages with its various stakeholders, including but not limited to government entities, investors, suppliers, creditors, employees, customers, and the community. The topics encompassed in this study include: i. the provision of information pertaining to pollution, ii. the involvement of the community through charitable donations, iii. ensuring product safety, iv. managing consumer relations, v. human resource management, vi. ensuring worker safety and health, vii. promoting energy conservation, and viii. engaging in business transactions with repressive regimes (Freedman & Wasley, 1983; Rockness & Williams, 1988).

2.1.1.3 Board Independence

The concept of board independence pertains to the degree to which a board consists of non-executive directors who possess no affiliations with the organisation beyond their directorial responsibilities (Davidson et al., 2005). According to Coles (2008), a non-executive director can be characterised as a director who is not actively engaged in the operational aspects of the company and is primarily responsible for offering an external perspective and supervisory function to the board of directors. According to Baysinger and Butler (1985), the presence of a non-executive director who maintains complete independence from the management team is anticipated to provide shareholders with the highest level of safeguarding in terms of monitoring managerial activities. The independence of a board is determined by the presence of a greater number of independent nonexecutive directors who are not affiliated with senior executives of the firm (Coles, 2008; Kim, 2014).

The composition of the board consists of both executives and non-executives, with directors categorised as either independent or non-independent. The non-executive directors assume the responsibility of overseeing and monitoring the activities of the Chief Executive Officer (CEO). Non-executive directors play a crucial role in safeguarding the interests of shareholders and contribute to the diverse range of skills and knowledge possessed by the board of directors. The rationale behind the inclusion of Non-Executive Directors in a corporation is their ability to offer an impartial perspective on matters pertaining to the firm's operations, governance, and adherence to boardroom best practises. The primary responsibility of these individuals is to supervise, provide constructive criticism, and ensure accountability of the management team in their execution of the organization's strategic plans, as guided by the Group's governance framework and the risk tolerance established by the Board. The effectiveness of non-executive directors' independence as a mechanism for controlling managerial activities has been highlighted in previous research (Amba, 2013). According to Ilaboya and Obaretin (2015), the presence of a significant number of independent members on a board of directors improves the oversight of management opportunism and mitigates information asymmetries.

According to Fama (1980), the enhanced monitoring capacity exhibited by independent non-executive directors can be ascribed to their motivation to uphold their reputations within the external labour market. According to Fama's seminal work in 1980, an individual who lacks a substantial or financial affiliation with the organisation or its affiliated individuals is classified as an independent non-executive director. The primary role of an independent non-executive director entails offering unbiased oversight and constructive feedback to the executive directors. The influence of the proportion of independent non-executive directors on the board on financial success is widely recognised as significant. According to Shafi et al. (2020), it is emphasised that non-executive directors maintain independence from management and provide valuable expertise to the organisation by conscientiously fulfilling their oversight responsibilities.

Obigbemi et al. (2016) assert that the Corporate Governance Codes (CGCs) in Nigeria advocate for the inclusion of both executives and non-executive directors in the makeup of corporate boards. The measurement of board independence involves assessing the presence of non-executive directors on identified corporate boards, specifically by evaluating their proportion relative to the total size of the board. The concept of board independence pertains to the degree of involvement of independent or non-executive directors in corporate boards (Rashid, 2018). Undoubtedly, the degree of autonomy exhibited by corporate boards significantly influences their capacity to exercise impartial judgement in order to enhance the firm's value, regardless of potential conflicts of interest between shareholders and the management team of their respective organisations (Abdulkarim & Zuriqi, 2020).

2.1.2 Firm value

According to Feng (2010), the valuation of a company's assets is indicative of its overall firm value. The valuation of a firm holds significance as it serves as a reflection of the financial worth attributed to its proprietor. According to Feng (2010), the major duty for maximising the value of the firm lies with the manager. The valuation of a firm has the potential to generate attention from external entities. The positive influence of asset earnings power on asset turnover is evident through the superior earning capabilities of the company. The increase in profit margins will lead to a commensurate rise in the company's value, so yielding a favourable outcome.

The topic of foreign ownership and its potential to enhance company value in host nations has experienced a notable surge in interest in recent years. In recent years, there has been a notable rise in the occurrence of mergers and acquisitions, as well as cross-listings of firms, transcending national lines. This trend is observed in both developed and emerging economies. The phenomenon of cross-border listing in capital markets other than that of the parent firm enables foreign investors to conveniently invest in enterprises located in various regions of the world. According to Safitri et al. (2020), the accumulated worth of a company over time serves as a measure of the level of trust and confidence that the public has in its operational activities. The valuation of a firm is quantified by Tobin's Q, a metric that assesses the extent to which a corporation generates value from its assets. The present value of future cash flows is determined by discounting them at the appropriate rate of return and adjusting for risk (Chen & Lee, 2017). Tobin's Q is a metric that assesses a company's efficient utilisation of its financial resources and serves as an indicator of its commitment to corporate social responsibility (CSR) (Gamayuni, 2015).

2.1.2 Firm size

Firm size is a significant determinant of company performance. The concept of firm size pertains to a metric that delineates the scope and extent of a company. In many cases, the evaluation of firm size is determined by considering the aggregate value of a company's assets and the total revenue generated through sales. Chen et al. (2005) believe that enterprises characterised by substantial total assets are perceived to possess favourable prospects during periods of relative stability, hence enabling them to earn profits in contrast to companies with limited total assets. Firms can leverage the concept of economies of scale to strategically determine the inputs that are incorporated into their operations, resulting in a reduction of average costs and an enhancement of overall profitability for the company. This suggests that corporations have the ability to produce things at significantly reduced expenses. According to Damarwan and Toro (2012), big-scale organisations exhibit a greater level of competitiveness in comparison to small companies. This may be attributed to the fact that large companies possess a significant market share, hence affording them many opportunities to generate substantial profits. Companies that possess a substantial market capitalization also tend to experience an increase in the number of employees, which can serve as an indicator of the firm's size. The magnitude of a corporation's size can serve as a reliable indicator to the public regarding the prospective trajectory of the company. The measurement of business size in this study was conducted by utilising the natural logarithm of the total assets.

2.2 Empirical Review

The study conducted by Emmanuel and Ifeanyichukwu (2021) aimed to evaluate the impact of environmental disclosure on the market value of manufacturing businesses listed in Nigeria over a span of ten years, specifically from 2010 to 2019. The primary aim of this study was to investigate the impact of environmental disclosure on the valuation of industrial companies that are publicly listed in Nigeria. The researchers employed a convenience sampling method to choose a sample of 40 manufacturing enterprises from the whole roster of publicly traded companies in Nigeria. The dependent variable in this context is the stock price. The study employed an ex-post facto research design. The data acquired from the financial statement of the sampled companies was subjected to multiple regression analysis. The study revealed a substantial correlation between environmental disclosures and stock prices. The report suggests that Nigerian enterprises should consider implementing and publicly disclosing environmentally friendly practises as a means of demonstrating their dedication to the pursuit of sustainable development. The OLS regression methodology employed in the study did not account for firm-specific characteristics or the absence of cross-section and time invariance. An alternative result may have been achieved through the utilisation of a more broadly applicable regression technique.

The study conducted by Ahmad et al. (2021) investigated the impact of environmental sustainability disclosure on the corporate value of a sample of 351 UK firms between the years 2002 and 2018. The primary aim of this research endeavour was to investigate the impact of environmental sustainability disclosure on the overall corporate value of companies operating in the United Kingdom. Earnings per share (EPS) and market value were employed as indicators of corporate value, which served as the dependent variable in this study. Meanwhile, environmental disclosure was approximated by utilising an index derived from the disclosure of environmental issues as outlined in the worldwide reporting index. The researchers obtained secondary data from the annual reports of the selected organisations and conducted an analysis utilising the Generalised Method of Moments (GMM) framework, namely the Arellano-Bover/Blundell-Bond method. The study revealed a favourable and statistically significant relationship between environmental disclosure and firm value. The study suggests that it would be beneficial for companies to enhance the level of disclosure regarding the environmental, social, economic, and governance aspects of their organisations in their annual reports. This would enable stakeholders to more effectively evaluate the performance of these companies. The generalizability of the study's findings is supported by the representative nature of the sample chosen and the robustness of the data analysis technique employed, namely the use of Generalised Method of Moments (GMM). GMM effectively addresses issues like as heteroskedasticity, autocorrelation, and cross-sectional dependency.

The study conducted by Abdi et al. (2021) examined the influence of size and age as moderating factors in the relationship between sustainability disclosures and both company value and financial performance within the context of airline enterprises. The primary aim of this study was to evaluate the impact of sustainability disclosure on the value of firms, with the moderating factors of business size and age taken into consideration. The study population comprises 94 airline enterprises from various regions across the globe. A selective sampling technique was employed to pick 38 firms from the total population, covering the period from 2009 to 2019. The researchers measured the dependent variables using the market-to-book value ratio and return on assets. The explanatory variable was approximated using scores for governance, social, and environmental disclosure. Furthermore, the moderator variables employed in this study included company size and age. The regression analysis using Ordinary Least Squares (OLS) demonstrated that the governance, social, and environmental actions of the airlines in the sample have a positive impact on both company value and financial performance. Furthermore, the findings indicate that the impact of sustainability disclosure on business value is more pronounced in relation to firm size rather than firm age. It has been suggested that companies ought to enhance the level of disclosure pertaining to sustainability matters in their annual reports, in order to facilitate stakeholders' evaluation of their performance. The utilisation of ordinary least squares (OLS) for the analysis of panel data presents a constraint on the conclusions drawn from the study. Additionally, the selection of a sample size of 38 from a population of 94 fails to accurately reflect the characteristics of the entire population.

In a study conducted by Iswati (2020), the researcher investigated the potential moderating impact of financial performance on the relationship between sustainability disclosure, corporate social responsibility, and company value. The study focused on a sample of 132 manufacturing firms that were listed on the Indonesia Stock Exchange over a two-year period from 2017 to 2018. The primary objective of this study was to investigate the impact of sustainability disclosure on business value, with a focus on the moderating role of financial performance. Tobin's Q was employed as a surrogate measure for company value, serving as the dependent variable, while a disclosure index encompassing economic, environmental, and social disclosure items was utilised as a proxy for the independent variables. The data was subjected to regression analysis, revealing that sustainability disclosure and CSR disclosure do not have a significant impact on either financial performance or corporate values. The study found that performance did not significantly moderate the relationship between sustainability disclosure, corporate social responsibility disclosure, and the value of Indonesian enterprises. The study suggests that manufacturing enterprises in Indonesia should not see corporate social responsibility (CSR) as a significant determinant of firm value or financial performance. The limitation of the study is in the researcher's exclusive reliance on a two-year dataset, which may not provide sufficient evidence to formulate a definitive conclusion.

According to the findings of a study conducted by Muslichah (2020), there exists a mediating role of financial performance in the relationship between environmental and social disclosure and business value. The primary aim of this research was to examine the impact of environmental and social disclosure on the value of firms, while also considering the potential mediating role of financial success. The study employed a longitudinal research approach, focusing on the population of Indonesian enterprises that participated in the Sustainability Disclosure Award between 2013 and 2016. The researchers employed a purposive selection strategy in order to carefully pick a sample of fifteen organisations. Tobin's Q was employed as a metric for assessing business value, while social and environmental disclosure was evaluated through content analysis utilising GRI 4.0 as a standardised checklist. The return on asset (ROA) was utilised as an intermediary measure to serve as a proxy for financial performance. The research employed the Partial Least Squares (PLS) approach for data analysis. The findings of the study suggest that there is a statistically negligible positive relationship between environmental and social transparency and business value. The study suggests that corporations should develop and effectively implement policies and programmes that prioritise social and environmental sustainability. This is considered essential for enhancing the company's overall worth. The study's conclusions are constrained due to the relatively short duration of four years, which limits the ability to draw significant generalisations from the results.

The study conducted by Ikechukwu and Ndum (2020) examined the impact of sustainability disclosure on the valuation of firms operating in the manufacturing sector. The sample consisted of 21 publicly listed businesses on the Nigerian Exchange Group (NXG), and the study spanned a period of twelve years, from 2008 to 2019. The study utilised content analysis and an ex-post facto research design. The primary aim of this study was to assess the impact of sustainability disclosure on the financial worth of manufacturing companies that are publicly listed in Nigeria. The study's population consisted of all fifty-nine manufacturing enterprises listed in Nigeria as of December 31, 2019. The study utilised sustainability disclosure as a proxy variable, encompassing economic, governance, environmental, and social disclosures. The dependent variable, Tobin's Q, was employed to reflect the financial performance of the firm. The researcher obtained secondary data by extracting information from the annual reports and financial statements of the selected organisations. These data were then subjected to analysis using the Panel Generalised Least Squares (PLS) regression and Granger causality test. The findings indicate that there is a significant positive relationship between economic, environmental, governance, and social transparency and Tobin's q for the manufacturing enterprises studied in Nigeria. Regulatory bodies, such as the Securities and Exchange Commission and the Nigeria Exchange Group, have the responsibility of ensuring that companies adhere to the worldwide reporting standard pertaining to sustainability disclosure. The study identified a gap in the utilisation of the Granger causality test, which may not be suitable for the research. Additionally, the sample size of 21 manufacturing enterprises listed is insufficient to accurately reflect the entire population, thereby limiting the generalizability of the findings.

In a study conducted by Menike (2020), the impact of environmental disclosure on the market value of tobacco and food and beverage firms listed on the Colombo Stock Exchange was investigated. The study spanned a period of eight years, from 2012 to 2019, and using a purposive selection technique to choose a total of twenty-six (26) companies. The primary aim of the study was to investigate the impact of environmental disclosure on the valuation of companies. The study utilised a longitudinal research design. The research utilised an indexing methodology to assess the extent of environmental disclosure, while the valuation of firms was approximated by the market value per share. The researchers obtained secondary data from the annual reports of the selected organisations and conducted an analysis using the Generalised Least Squares (GLS) regression method. The regression analysis revealed that there is a statistically significant and positive relationship between environmental disclosure and market price per share. The Colombo Stock Exchange ought to establish and enforce regulations mandating listed firms to adhere to international standards regarding the inclusion of sustainability disclosures in their annual reports. The utilisation of GLS regression, which integrates fixed and random effects, in the conducted investigation is deemed sufficient. The study's findings demonstrate strong validity, as they are substantiated by both pre and post diagnostic analyses, which reveal the absence of any issues pertaining to the data and variables employed.

Emeka-Nwokeji and Osisioma (2019) conducted a study to analyse the impact of sustainability reporting on the market value of enterprises in Nigeria. The aim of this study was to investigate the impact of both comprehensive sustainability disclosures and their individual components on the market value of publicly traded companies in Nigeria. Tobin's Q was employed as a proxy for the market worth of the enterprise. The research conducted a selection process wherein 93 non-financial organisations were chosen from a total of 120 companies listed on the Nigerian Stock Exchange as of the year 2015. The study employed an Ex Post Facto research approach and gathered secondary data from the annual reports of a selected group of organisations spanning the years 2006 to 2015. This data was then analysed using content analysis techniques. The data underwent analysed using descriptive statistics, correlation analysis, and principal component analysis. Additionally, pooled ordinary least squares regression was utilised to assess the generated hypotheses. The findings of the investigation indicate that there is a notable positive impact on firm value as a result of sustainability disclosures. The market value of a corporation is significantly positively influenced when environmental sustainability disclosures and corporate governance disclosures are considered separately. The study also found that the publication of social sustainability information has a statistically insignificant and negative impact on the market value of a corporation. Based on the aforementioned findings, the study suggests that firms should enhance sustainability and long-term value generation by including sustainability measures into their reporting framework and strategic approach.

In their study, Dianawati et al. (2018) examined the moderating influence of stakeholder reactions on the relationship between corporate social responsibility disclosure and business value within the context of Indonesia. The research focused on publicly traded companies listed on the Indonesia Stock Exchange over the period of 2012-2014. The study employed a content analysis methodology that was built around the Global Reporting Initiative (GRI) G3 guidelines in order to assess the level of corporate social responsibility (CSR) disclosure. Firm value was measured using the price to book ratio, and the reactions of customers and workers were considered as the moderator variable. The findings from the partial least squares regression analysis indicate that the relationship between corporate social responsibility disclosure and business value is influenced by the moderating factors of customer and staff reactions. In order to achieve long-term performance, it is imperative for organisations to adopt a sustainability three bottom line philosophy as a strategic approach towards sustainability. One potential drawback of the study is the restricted timeframe of three years, which may have implications for the generalizability of the findings. Additionally, the study does not explicitly specify the demographic and sample characteristics, which could impact the external validity of the research.

In their study, Laskar and Gopal (2018) examined the disclosure patterns of corporate sustainability and the impact of sustainability reporting on company value in four Asian nations, namely India, Japan, South Korea, and Indonesia. The research employed secondary data obtained from the annual report and sustainability report of 111 non-financial enterprises spanning the years 2009 to 2014. The market to book ratio was utilised as a metric to assess the value of the firm. The independent variable in this study was denoted by the disclosure score, which was produced using the Global Reporting Initiative (GRI) framework through content analysis. The results of the descriptive analysis indicate that the level of sustainability disclosure is comparatively greater among companies in Japan, India, and South Korea in comparison to other nations in the Asian region. Additionally, the panel data regression model indicates that there is a statistically significant positive relationship between company sustainability performance and the market to book value ratio. One limitation of the study was the omission of testing for regression post-diagnostic.

2.3 Theoretical framework

2.3.1 The Agency Theory

Managers are inclined to disclose information solely when the benefits of such disclosure surpass the associated costs, as posited by Jensen and Meckling (1976) in their theory of agency. The pursuit of self-interest by management, sometimes referred to as agents, has been observed to exert a detrimental influence on the financial performance of the company, thereby affecting the wealth of its shareholders in an adverse manner. In order to gain insight into contractual debt commitments, executive remuneration structures, and disclosures pertaining to hidden political costs, it is imperative to consider these factors. As a result, the management seeks to create the perception of acting in the shareholders' best interests by revealing both financial and non-financial information, with the aim of circumventing the payment of agency fees (Jensen & Meckling, 1976).

2.3.2 Stakeholders Theory

Stakeholders, encompassing customers, suppliers, employees, government agencies, and various other entities vested in a company's operations and decision-making processes, demonstrate a keen interest in such matters. This collective have the capability to influence the functioning and outcomes of commercial enterprises. Freeman (1984) formulated the stakeholder theory, positing that organisations bear stewardship responsibilities towards a diverse array of stakeholders, encompassing not only shareholders, but also creditor groups and suppliers, among others. The stakeholder theory, which centres on the influence exerted by various stakeholder groups within society, posits that sustainability disclosure serves as a means of conveying information to a company's stakeholders. The aforementioned matter brings to light the crucial concern of determining the prioritisation of stakeholders' interests with regards to their entitlement to information (Grey et al., 2001). The disclosure process is inherently complex due to the challenge of accommodating the diverse interests of all stakeholders within the disclosed information. According to Robberts (1992), the stakeholder theory emphasises the significance of businesses achieving a balance between the conflicting interests of different stakeholders.

2.3.3 Legitimacy Theory

Legitimacy theory posits the existence of a "social contract" between corporations and the broader societal framework. This contractual agreement conferred upon firms the privilege to function and persist in light of societal norms and expectations regarding their operational practises. Adhering to societal norms and values is crucial for their existence in order to mitigate potential threats. If these expectations are not fulfilled, there is a possibility of a significant disparity in credibility emerging. When a company's actions are inconsistent with societal norms or are viewed as such, it can lead to the emergence of a legitimacy gap. Nevertheless, it is comprehensible that the long-term prosperity of a corporation is contingent upon the fulfilment of its social obligations. Therefore, in the event that a company's ideals are incongruent with those of society, its longevity will be compromised. It is imperative to bear in mind that a fundamental objective of a corporation is to enhance the overall quality of life for all individuals. Furthermore, sustainability reporting serves as a means through which the public can assess the extent to which corporations are meeting their obligations towards the betterment of society. The study is grounded in the legitimacy ideas. This is due to the fact that the availability of sustainability-related information plays a crucial role in mitigating information asymmetry between different parties involved in a firm, such as agents and principals. It also enables the firm to address the information requirements of various stakeholders who may have conflicting interests. Moreover, it allows the firm to operate within the societal boundaries in order to gain acceptance and enhance its overall value.

III. Methodology

This study employs a longitudinal research strategy. The chosen research design for this study is non-experimental, since it enables the researcher to assess the impact of environmental and social sustainability disclosure on company value in non-financial enterprises in Nigeria. Additionally, it provides for an examination of the moderating influence of board independence on this relationship. The study's population consists of 104 non-financial enterprises that are listed. From this population, a purposive sampling technique was employed to choose 69 organisations. In this study, the design involved the collection of secondary data of a historical nature. These data were obtained from the annual reports of the selected organisations and afterwards subjected to regression analysis. The variable being studied is the value of the firm, which is measured using Tobin's q as a proxy. The study examines the independent variables of environmental sustainability and corporate social sustainability, which are proxied by the averaged value of all dummy disclosed data. The moderating variable of board independence is operationalized as the proportion of non-executive directors to the total number of directors. The variable of firm size, represented by the logarithm of total assets, is included in the study as a control variable and is presented in conjunction with the stated model for the investigation.

MODEL I

$$TQ_{it} = \beta_0 + \beta_1 ENDI_{it} + \beta_2 CSRDI_{it} + \beta_3 FS_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots \text{(i)}$$

MODEL II

$$TQ_{it} = \beta_0 + \beta_4 ENDI{*}BI_{it} + \beta_5 CSRDI{*}BI_{it}\ \beta_6 FS_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots \text{(ii)}$$

Where:

TQ =: Tobins q

ENDI = Environmental sustainability disclosure index.

CSRDI= Corporate sustainability disclosure index.

ENDI*BI = Environmental sustainability disclosure index multiplied by Board independence.

CSRDI*BI = Corporate sustainability disclosure index multiplied by Board independence.

FS = Firm Size
B = Interception of the equations;
Ɛ = The error term.

Table 1
Measurement of Variables.

Variable Acronym	Variable Name	Variable Measurement	Type	Source (s)
Dependent Variable				
TQ	Tobin's Q	The ratio of (the market capitalization + total liabilities) / the book value of total assets.	dependent	Emeka-Nwokeji and Osisioma (2019)
Independent Variables				
ENDI	Environmental disclosure index	Averaged value of all dummy disclosed data	Independent	Abdi et al (2021)
SODI	Social disclosure ind	Averaged value of all dummy disclosed data	Independent	Emmanuel &Ifeanyichukwu (2022)
	Governance disclosu index	Averaged value of all dummy disclosed data	Independen	Emmanuel & Ifeanyichukwu (2022).
Moderating Variable				
BI	Board Independence	Proportion of non-executive director/total number of directors	Independent	Obigbemi et al. (2016),
Control Variable				
FSIZE	Firm size	measured as the log of total assets	Independent	Yusuf and Kighir. (2021)

Source: Researchers Computation from various research studies (2021)

IV. Results and Discussion

Descriptive Statistics

The study's data are described using the mean, standard deviation, variance, maximums, minimums, skewness, and kurtosis. Table 2 below presents the descriptive statistics for the variables of the study.

Table 2
Descriptive Statistics

Variable	N	mean	sd	variance	min	max	skewness	kurtosis
tq	690	1.4629	1.3247	1.7548	0.12	11.3	3.2502	16.3152
csrdi	690	0.7157	0.1909	0.0365	0	1	-0.7645	4.5195
endi	690	.0482	0.1513	0.0229	0	0.75	3.3719	13.4100
bi	690	0.5480	0.1640	0.0269	0.17	0.92	0.1848	2.2964
csrdibi	690	0.3938	0.1654	0.0273	0	0.89	0.4332	3.3208
endibi	690	0.0236	0.0735	0.0054	0	0.40	3.3624	13.3681
fs	690	7.1791	0.8057	0.6491	5.24	9.31	0.2270	2.5433

Source: STATA 14 Output Results based on study data

According to the data presented in Table 2, the mean Tobin's q value for consumer companies listed in Nigeria was found to be 1.4629, with a standard deviation (SD) of 1.3247 and a variance of 1.7548. This finding suggests that the Tobin's q values of the selected firms exhibit a deviation of 1.3247 from the mean in both positive and negative directions, indicating that the data does not display a significant dispersion from its central tendency. The Tobin's q has a lower bound of 0.12 and an upper bound of 11.3. The distribution of data for Tobin's q exhibits positive skewness, as indicated by a coefficient of 3.2502. This suggests that the majority of the data points are concentrated towards the right tail of the normal distribution curve. The non-normal distribution of the data is shown by a kurtosis coefficient of 16.3152, which can be attributed to the substantial range of 11.18. The provided Table illustrates the average environmental sustainability disclosure (ENDI) of the non-financial businesses listed in Nigeria, which was found to be 0.0482. The standard deviation (SD) for this measure was calculated to be 0.1513, while the variance was determined to be 0.0229. The analysis reveals that the observed (ENDI) values of the selected firms exhibit a deviation of 0.1953 from the mean in both positive and negative directions. This indicates that the data does not exhibit a significant level of dispersion from its mean. The environmental sustainability disclosure values of (ENDI) range from a minimum of 0 to a high of 0.75. The absence of a numerical value, specifically zero, signifies that certain companies refrain from divulging information pertaining to their environmental sustainability practises. The data pertaining to (ENDI) has a positive skewness, as indicated by a coefficient of 3.3719. This implies that a majority of the data points are concentrated towards the right side of the normal distribution curve. The kurtosis coefficient of 13.4100 indicates that the distribution of the data deviates significantly from a normal distribution, as evidenced by the relatively high value of 0.75 for the range. Similarly, the mean value of corporate social responsibility disclosure (CSRDI) for the selected organisations over the study period was 0.7157, with a standard deviation of 0.1909 and a variance of 0.0365. This indicates that the CSRDI exhibits a deviation of 0.1909 from the mean on both ends, indicating a significant dispersion of data. The Corporate Social Responsibility Disclosure Index (CSRDI) has a range of values from 0 to 1. The data pertaining to the Corporate Social Responsibility Development Index (CSRDI) exhibits a negative skewness with a coefficient of -1.7645, indicating that the majority of the data points are concentrated towards the left side of the distribution curve. The kurtosis coefficient of 4.5195 indicates that the distribution of the data deviates from a normal distribution.

The moderating variable BI has an average value of 0.5480, accompanied by a standard deviation of 0.1640 and a variance of 0.0269. This indicates that the data for business intelligence exhibits a deviation of 0.1640 from the mean in both positive and negative directions, indicating a significant dispersion of the data from its central tendency. The minimum and highest values of the variable BI are 0.17 and 0.92, respectively. The data pertaining to Business Intelligence (BI) exhibits a positive skewness, as shown by a coefficient of 0.1848. This implies that a majority of the data points are concentrated towards the right tail of the normal distribution curve. The non-normal distribution of the data is shown by a kurtosis coefficient of 2.2964, which can be attributed to the substantial range of 0.75.

Additionally, the findings presented in Table 2 indicate that the mean value of environmental disclosure (ENDIBI) for the selected firms during the study period, when moderated by board independence, was 0.0236. The standard deviation (SD) of this measure was calculated to be 0.0735, indicating a relatively small degree of dispersion from the mean. The variance, which measures the spread of the data, was found to be 0.0054. These results suggest that the data for ENDIBI does not exhibit significant deviation from the mean in either direction. The range of environmental sustainability disclosure values, as influenced by board independence (ENDIBI), spans from 0 to 0.4. The absence of a numerical value, namely 0, signifies that a portion of the organisations surveyed have chosen not to share their environmental sustainability statistics. The data pertaining to (ENDIBI) has a positive skewness, as indicated by a coefficient of 3.3624. This implies that a majority of the data points are concentrated towards the right tail of the normal distribution curve. The kurtosis value of 13.3681 indicates that the distribution of the data deviates significantly from a normal distribution. This deviation can be attributed to the wide range of 0.40 observed in the data.

Additionally, the mean value of corporate social responsibility disclosure (CSRDIBI) in the sampled organisations, when adjusted for board independence, was found to be 0.3938. The standard deviation of this measure was calculated to be 0.1654, while the variance was estimated to be 0.0027. This implies that the CSRDIBI has a deviation of 0.1654 from the mean on both ends, indicating a significant dispersion of data from the average. The CSRDIBI exhibits a range of values, with a minimum value of 0 and a maximum value of 0.89, respectively. The data pertaining to CSRDIBI has a positive skewness, as indicated by a coefficient of 0.4332. This implies that a majority of the data points are concentrated towards the right tail of the normal distribution curve. The kurtosis coefficient of 3.3208 indicates that the distribution of the data deviates from a normal distribution.

Furthermore, it can be shown from Table 2 that the firm size (FS) of the selected firms exhibits an average value of 7.1791, a standard deviation (SD) of 0.8057, and a variance of 0.6491. The analysis indicates that the FS exhibits a deviation of 0.8057 from both ends of the mean, indicating a significant dispersion of the data from the central tendency. The FS exhibits a lower limit of 5.24 and an upper limit of 9.31, yielding a range of 3.32. The data for FS exhibited a negative skewness, as shown by a value of -0.7186, signifying that the majority of the data points are concentrated towards the lower end of the distribution curve. The kurtosis value of 2.9038 indicates that the distribution of the data deviates from normality, which can be attributed to the substantial range of 4.07. The analysis of data dispersion in this study has revealed that the distribution does not conform to either a normal distribution or exhibit skewness. Therefore, it was imperative to perform diagnostic tests in order to determine the normalcy or lack thereof of the data.

The following table, Table 3, presents the outcomes of the analysis conducted to examine the relationship between the variables representing environmental disclosure and business sustainability disclosure, both before and after the introduction of moderation. The dataset includes the Pearson pairwise correlation coefficients of the variables being analysed. The correlation matrix is displayed in Table 3. Below

Table 3

Correlation Matrix

	tq	csrdi	endi	csrdibi	endibi	fs
tq	1.0000					
csrdi	0.0621	1.0000				
	0.1035**					
endi	0.1943	0.2501	1.0000			
	0.0000*	0.0000*				
csrdibi	0.0740	0.6736	0.0603	1.0000		
	0.0522	0.0000	0.1134			
endibi	0.2143	0.2549	0.9514	0.1421	1.0000	
	0.0000	0.0000	0.0000	0.0002		
fs	0.1664	0.3431	0.3251	0.2282	0.2938	1.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	

Source: STATA 14 Output Results based on study data

According to the findings presented in Table 3, there exists a modest positive association between Tobin's q and CSRDI, as indicated by a correlation coefficient of 0.0621. However, this connection is not statistically significant at the 5% level, as evidenced by the p-value of 0.1035. The findings indicate that a one-unit increase in Corporate Social Responsibility Disclosure Index (CSRDI) leads to a 0.0621 unit increase in Tobin's q. Additionally, the results demonstrate a positive association between Tobin's q and Environmental Disclosure Index (ENDI), with a statistically significant correlation coefficient of 0.1943 at a 5% significance level. This suggests that a one-unit increase in ENDI is associated with a 0.1943 unit increase in Tobin's q, and vice versa. The study found that there is a statistically significant weak positive connection (0.0740) between Tobin's q and CSRDI when moderated by board independence (CSRDIBI) at a significance level of 5%. This implies that a one-unit rise in CSRDIBI is associated with a 0.0740 unit increase in Tobin's q, and vice versa. The presented Table indicates a positive correlation of 0.2143 between Tobin's q and environmental sustainability disclosure (ENDI) when regulated by board independence (ENDIBI). This finding suggests that there is a positive relationship between ENDIBI and Tobin's q for the non-financial companies listed in Nigeria during the study period, with a unit rise in ENDIBI corresponding to a 0.2143 unit increase in Tobin's q.

The findings presented in Table 4 indicate a significant positive correlation between Tobin's q and the financial strength (FS) of the firms included in the study over the specified time frame. This is demonstrated by the correlation coefficient of 0.1664, which is statistically significant at a 5% level of significance. This suggests that FIZE has a positive effect on the Tobin's q of non-financial companies listed in Nigeria during the specified time period. Specifically, a one-unit rise in FIZE is associated with a 0.1664 unit increase in Tobin's q.

Multi-Collinearity Test

Table 4 below presents the results of the multicolinearity test which was conducted to determine the relationship between the independent to ascertain whether there is high multicollinearity between one explanatory variable and another explanatory variable(s)

Table 4
Results of Multi collinearity/VIF Test

Model I			MODEL II		
Variable	VIF	1/VIF	Variable	VIF	1/VIF
endi	1.15	0.8706	endibi	1.10	0.9058
csrdi	1.16	0. 8625	csrdibi	1.06	0.9447
fs	1.22	0.8219	fs	1.14	0.8800
Mean VIF	1.17		Mean VIF	1.10	

Source: STATA 14 Output Results based on study data

The multicollinearity test results for models one and two are presented in Table 4. The findings indicate that the variable ENDI exhibits a variance inflation factor (VIF) of 1.15, with a tolerance of 0.8706, suggesting a lack of strong collinearity with other explanatory variables. Similarly, the variable CSRDI has a VIF of 1.16 and a tolerance of 0.8625, indicating the absence of perfect collinearity with other independent variables. The variable FIZE demonstrates a VIF of 1.22 and a tolerance of 0.8219, suggesting that it is not perfectly collinear with other explanatory variables. In Model II, when the variables ENDIBI and CSRDIBI were moderated by board independence (BI), the results reveal that ENDIBI has a VIF of 1.10 and a tolerance of 0.9058, indicating no perfect collinearity with other explanatory variables. Furthermore, the results show that CSRDIBI has a VIF of 1.06 and a tolerance of 0.9447, indicating no perfect collinearity with other explanatory variables. The average Variance Inflation Factor (VIF) values of 1.17 and 1.10 for Model I and

Model II, respectively, suggest that there was no presence of perfect Multicollinearity among the independent variables. In all models, the Variance Inflation Factor (VIF) is found to be less than 10, indicating that multicollinearity is not a significant concern. Additionally, the tolerance level is observed to be above 0.1, further supporting the absence of multicollinearity in the models.

Hausman test

The Husman test was employed to ascertain the most suitable regression method between random effect regression and fixed effect regression. The null hypothesis posits that the random effect model is the most suitable, whereas the alternative hypothesis suggests that the fixed effect model is the most appropriate. The decision criterion entails accepting the null hypothesis when the P value exceeds 5% (0.05), while alternatively accepting the alternative hypothesis when the P value falls below 5% (0.05).

Table 5
Results of Hausman test

	Model I without Moderation		Model II with Moderation	
	Chibar ^{2}	Prob.> chi^2	Chibar ^{2}	Prob.> chi^2
Hausman test	29.91	0.0000	34.95	0.0000

Source: STATA 14 Output Results based on study data

The Hausman test was conducted on the data presented in Table 5. The test yielded chi-square values of 29.91 and 34.95 for models I and II, respectively. The corresponding probability values were found to be 0.0000 for both models. These probability values are less than the significance level of 0.05, indicating that there is a significant difference between the estimated coefficients of the two models. This suggests that the fixed effect regression model is the most suitable for both models. However, when comparing pooled regression with random effect regression using the spam test, the findings indicated that the fixed regression model was the most suited for estimating model II.

Results of Spam test

The spam test was employed to ascertain the most suitable regression method between Pooled OLS regression and fixed effect regression. The null hypothesis posits that the Pooled Ordinary Least Squares (OLS) Model is the most suitable, but the alternative hypothesis suggests that the fixed effect model is the most acceptable choice. The decision criterion entails accepting the null hypothesis when the P value exceeds 5% (0.05), and alternatively accepting the alternative hypothesis when the P value is below 5% (0.05).

Table 6
Results of Spam test

	Model I without Moderation		Model II with Moderation	
	F	Prob.> F	F	Prob.> F
F test	8.66	0.0000	8.94	0.0000

Source: STATA 14 Output Results based on study data

The findings presented in Table 6 indicate that for both Model I and Model II, the F values are 8.66 and 8.94, respectively. The corresponding P values are 0.000 for both models, which is below the significance level of 0.05. Consequently, the null hypothesis is rejected, and the alternative hypothesis is accepted. This leads to the conclusion that fixed effect regression is the most suitable approach for both Model I and Model II.

Test for Heteroskedasticity and serial correlation

The results of the heteroskedasticity test, presented in Table 7, were undertaken to determine if there is unequal variation in the data. The null hypothesis posits that the variance exhibits homoscedasticity, whereas the alternative hypothesis suggests that the variance displays heteroskedasticity. The decision criterion entails accepting the null hypothesis when the P value exceeds 5% (0.05), while alternatively accepting the alternative hypothesis when the P value is lower than 5% (0.05).

Table 7

Results of Breusch-Pagan / Cook-Weisberg test for heteroskedasticity Test and test for serial correlation

	Model I		Model II	
	Chi^2	Prob > chi2	Chi^2	Prob > chi2
Hettest	19.17	0.0000	33.89	0.0000
Serial correlation	46.96	0.0000	46.32	0.0000

Source: STATA 14 Output Results based on study data

In Table 7, the Hettest Chi2 values for the fitted values of Tobin's q in Model I and II are 19.17 and 33.89, respectively. These values are found to be statistically significant at a 5% level of significance, with a P-value of 0.000. Consequently, the investigation supported the alternative hypothesis, which posits that the residuals pertaining to the fitted values of Tobin's q exhibit heteroskedasticity. Conversely, the null hypothesis, which suggests that the data for the fitted values of Tobin's q in models I and II display homoscedasticity, was rejected. The table presents chi-square values of 46.96 and 46.32, together with accompanying p-values of 0.0000 and 0.0000, respectively. These results indicate statistical significance at the 5% level. The analysis thus supports the alternative hypothesis that there exists an auto/serial correlation issue within the data, necessitating the use of a panel correlated standard error regression.

Table 8
Results of Shapiro-Wilk (W) Test for Data Normality

Variable	Obs	W	V	z	Prob>z
tq	690	0.6357	163.907	12.432	0.00000
csrdi	690	0.9703	13.354	6.319	0.00000
endi	690	0.8314	75.906	10.556	0.00000
bi	690	0.9825	7.896	5.038	0.00000
csrdibi	690	0.9834	7.356	4.866	0.00000
endibi	690	0.8238	79.328	10.664	0.00000
fs	690	0.9869	5.886	4.322	0.00001

Source: STATA 14 Output Results based on study data

The research employed the Shapiro-Wilk (W) test for assessing the normality of the acquired data. The experiment was undertaken to assess a variable that originates from a population that follows a normal distribution. The purpose of the experiment was to evaluate the null hypothesis that the observed data follows a normal distribution, with a significance level of 0.05. The findings of the examination are displayed in Table 8, as depicted above.

Table 3 presents the results indicating that Tobin's q exhibits a W test coefficient of 0.6357, accompanied by a Z-Value of 12.432 and a P-Value of 0.00000. The statistical test yielded a significant result at a significance level of 5% and a confidence level of 95%. Therefore, the study has accepted the alternative hypothesis, which states that the data for Tobin's q are not distributed normally, and has rejected the null hypothesis, which suggests that the data for Tobin's q are normally distributed. The aforementioned findings are likewise applicable to the data pertaining to ENDI. Specifically, the W test coefficient for ENDI is determined to be 0.8314, accompanied by a Z-Value of 10.556 and a P-Value of 0.00000. These values indicate that the test conducted was statistically significant at a 5% level of significance, with a confidence level exceeding 95%. Hence, the study has embraced the alternative hypothesis that the data pertaining to ENDI exhibit non-normal distribution, while simultaneously rejecting the null hypothesis positing that the data for ENDI conform to a normal distribution. The W test coefficient of 0.9703 for CSRDI, accompanied by a Z-Value of 6.319 and a P-Value of 0.00000, indicates that the test yielded a statistically significant result at a significance level of 5%. Consequently, the study supported the alternative hypothesis that the data for CSRDI do not follow a normal distribution, while rejecting the null hypothesis that the data for CSRDI are normally distributed. Consequently, the study has accepted the alternative hypotheses that the data for BI, ENDIBI, CSRDIBI, and FIZE do not follow a normal distribution. Conversely, the null hypotheses that the data for BI, ENDIBI, CSRDIBI, and FIZE are normally distributed have been rejected. This conclusion is supported by the W values of 0.9825, 0.9834, 0.8238, and 0.9869, along with the corresponding z values of 5.038, 4.866, 10.664, and 4.322. Furthermore, the p values for BI, ENDIBI, CSRDIBI, and FIZE are 0.000, 0.000, 0.000, and 0.0001, respectively. The test results suggest that the use of ordinary least squares (OLS) is not appropriate for conducting regression analysis. Therefore, the models utilised in this investigation necessitated a rigorous regression analysis.

Panel corrected standard error regression

A Panel Corrected Standard Error (PCSE) regression analysis was performed in order to address the issues of heteroskedasticity and autocorrelation in the model. The outcomes of the PCSE regression analysis are displayed in Table 10. The determination of whether to accept or reject the null hypothesis, as stated in the study, relies on the outcomes derived from the regression analysis incorporating the Panel Corrected Standard Error method.

Table 9
Panel corrected standard error regression

Linear regression, correlated panels corrected standard errors (PCSEs)

tq	Coef.	Panel-corrected Std. Err.	z	P>z	[95% Conf. Interval]	
endibi	3.2204	0.6780	4.75	0.000	1.8916	4.5492
csrdibi	0.1959	0.2071	0.95	0.344	-0.2101	0.6019
fs	0.1783	0.0498	3.57	0.000	0.0805	0.2761
_cons	0.0303	0.3501	0.09	0.931	-0.6560	0.7165
R-squared						0.5815
Wald Chi2					27.06	
Prob > chi2						0.0000

Source: STATA 14 Output Results based on study data

The R squared of 0.5815 with a Wald chi^2 value of 27.06 and a corresponding Prob.> chi^2 of 0.0000 indicate that the model is significant and fit to explain the relationship expressed in the study. The nature and extent of the relationship between the dependent variable and each of the independent variables of the study in terms of coefficients, z- values, and p- values are explained below:

$H0_1$: Environmental sustainability disclosure has no significant effect on firm value of listed non-financial firms in Nigeria when moderated by board independence

The findings, as displayed in Table 10, indicate that there is no statistically significant impact of environmental sustainability disclosure on firm value in the context of listed non-financial companies in Nigeria. This conclusion is supported by the z value of 4.75 and a p value of 0.000, which is below the commonly accepted threshold of 5%. Based on the obtained outcome, the initial null hypothesis is refuted, hence accepting the alternative hypothesis that posits a considerable impact of environmental sustainability disclosure on firm value. This effect is contingent upon the moderating influence of board independence within the context of non-financial enterprises listed in Nigeria. This suggests that the presence of board independence has a moderating influence on the relationship between environmental disclosure and firm value. These findings align with the research conducted by Emmanuel and Ifeanyichukwu (2021), Ahmed et al. (2021), and Abdi et al. (2021), which concluded that there is a notable impact of environmental sustainability disclosure on business value. Contrary to the research conducted by Iswati (2020) and Muslichah (2020), the present study does not support the notion that environmental sustainability disclosure has a substantial impact on business value.

$H0_2$: Corporate sustainability disclosure have no significant effect on firm value of listed non-financial companies in Nigeria when moderated by board independence.

The findings shown in Table 10 indicate that there is no statistically significant impact of board independence as a moderator on the relationship between corporate sustainability disclosure and company value, as determined at a 5% significance level (z value 0.95, p=0.344). Based on the obtained outcome, the second alternative hypothesis is invalidated, leading to the acceptance of the null hypothesis. This implies that the corporate sustainability disclosure has a noteworthy impact on the firm value of non-financial businesses listed in Nigeria, particularly when moderated by board independence.

This finding aligns with the research conducted by Iswati (2020) and Muslichah (2020), which concluded that there is no statistically significant impact of social sustainability disclosure on firm value. However, it contradicts the findings of Dianawati et al (2021), who discovered a significant relationship between social sustainability disclosure and firm value.

V. Conclusion and Recommendations

The study's findings indicate that board independence plays a significant moderating role in the relationship between environmental sustainability disclosure and firm value. However, when board independence moderates the relationship between social sustainability disclosure and firm value, no significant effect is observed for listed non-financial companies in Nigeria. The aforementioned findings indicate that there is a positive correlation between the gradual improvement in the disclosure of environmental sustainability practises and the subsequent increase in the overall value of non-financial firms listed in Nigeria. However, it is important to note that the disclosure of social sustainability practises by these listed non-financial companies does not have a significant impact on their firm value.

The study therefore recommend that the management of listed non-financial companies in Nigeria should:

i. Foster greater sustainability and long-term value creation by integrating sustainability reporting into their reporting model and strategy.

ii. Listed non-financial firms in Nigeria should adopt and disclose environmental and social sustainability issues as this will help their commitment towards achieving the goal of sustainable development thereby enhancing value.

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