

Environmental, Social and Governance Disclosures and Financial Performance of Listed Insurance Firms in Nigeria: Evidence from Accounting and Market Measures

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DOI: <https://doi.org/10.47772/IJRISS.2026.100800317>

Received: 19 August 2026; Accepted: 24 August 2026; Published: 03 September 2026

ABSTRACT

This study examined the relationship between environmental, social and governance (ESG) disclosures and the financial performance of listed insurance firms in Nigeria. Specifically, the study assessed the effects of environmental, social and governance disclosures on accounting and market measures of financial performance, represented by return on assets (ROA) and market value per share (MVS), respectively. The study adopted an ex post facto research design and used secondary data obtained from the annual reports of 23 insurance firms listed on the Nigerian Exchange Group over the period 2012–2023. ESG disclosures were measured using a disclosure scoring approach, while panel regression techniques were employed to analyse the data. The findings revealed that environmental disclosure had a positive but statistically insignificant relationship with ROA and a negative but statistically insignificant relationship with MVS. Social disclosure had positive relationships with both ROA and MVS, but the relationships were statistically insignificant. Governance disclosure had a negative and statistically insignificant relationship with ROA but a positive relationship with MVS. The study concludes that ESG disclosures do not exert a uniform influence on the financial performance of listed insurance firms in Nigeria. The study contributes to the literature by providing sector-specific evidence on the individual effects of ESG disclosure dimensions on both accounting and market measures of financial performance, based on comprehensive evidence from all listed insurance firms in Nigeria. The study recommends improved quality, consistency and relevance of ESG disclosures, alongside stronger regulatory guidance, to enhance their usefulness to investors and other stakeholders.

Keywords: Environmental disclosure; social disclosure; governance disclosure; financial performance; return on assets; market value per share; insurance firms; Nigeria.

INTRODUCTION

Background to the Study

Environmental, Social and Governance (ESG) disclosure has become an important component of corporate reporting and is increasingly recognised as a means through which firms communicate their commitment to sustainable and responsible business practices. Although the underlying concepts of environmental responsibility, social responsibility and corporate governance predate the emergence of the term ESG, the concept gained prominence following the publication of *Who Cares Wins* in 2005, which advocated the integration of environmental, social and governance considerations into investment decisions. ESG disclosure provides information on how firms identify and manage environmental, social and governance risks and opportunities, thereby enabling investors and other stakeholders to assess corporate sustainability and long-term value creation (Dhahiwa et al., 2011; Almeyda & Darmansya, 2019).

ESG disclosure encompasses three interrelated dimensions. Environmental disclosure concerns information relating to issues such as emissions, resource utilisation, waste management and environmental risk management. Social disclosure covers matters relating to labour conditions, human rights, employee welfare, diversity, customer protection and community engagement. Governance disclosure relates to corporate

structures and practices, including board composition, executive compensation, transparency, accountability and risk management (Almeyda & Darmansya, 2019; Abdul Rahman & Alsayegh, 2021; Sila & Cek, 2017). Through these disclosures, firms provide stakeholders with information about their environmental footprint, social responsibilities and governance practices, thereby supporting informed decision-making and accountability.

The increasing relevance of ESG disclosure is also associated with its potential implications for corporate financial performance. ESG transparency may help firms manage environmental, social and governance risks, reduce potential liabilities and operational costs, attract responsible investors and strengthen relationships with stakeholders. Improved ESG practices may also enhance operational efficiency, encourage innovation and strengthen corporate reputation, thereby contributing to long-term competitiveness and value creation (Almeyda & Darmansya, 2019; Koundouri et al., 2022). Consequently, ESG disclosure has increasingly become relevant to investors and other stakeholders seeking information beyond conventional financial statements.

Financial performance can be evaluated using both accounting-based and market-based measures. Accounting measures provide information about the firm's ability to utilise its resources and generate financial returns, while market-based measures reflect investors' assessment of the firm's value and future prospects (Ahmad et al., 2021; Almeyda & Darmansya, 2019). This study employs Return on Assets (ROA) and Market Value per Share (MVS) as measures of financial performance. ROA reflects the efficiency with which a firm utilises its assets to generate returns and is particularly relevant to insurance firms because of the importance of asset management and investment income in their operations. MVS, on the other hand, reflects how the market values the firm and its growth prospects and provides an indication of investor confidence (Deev & Khazalia, 2017; Ahmad et al., 2021).

The relevance of ESG disclosure is particularly important to the insurance industry because insurance firms operate within an environment characterised by risks arising from natural disasters, financial uncertainties, social issues and governance challenges. ESG considerations can therefore influence how insurance firms identify, manage and communicate their exposure to these risks. In Nigeria, the growing emphasis on sustainability reporting and corporate accountability has increased the importance of ESG information in corporate reporting. The study consequently focuses on the 23 insurance firms listed on the Nigerian Exchange Group and examines whether disclosure relating to environmental, social and governance issues is associated with their financial performance.

The Nigerian insurance sector provides an important setting for examining this relationship because the extent to which ESG disclosures translate into financial outcomes remains uncertain. The study therefore examines ESG disclosure using a scoring and indexing approach and evaluates its relationship with both accounting and market measures of financial performance. By considering ROA and MVS simultaneously, the study captures two different dimensions of corporate performance: operational efficiency and profitability on the one hand, and market valuation and investor confidence on the other.

Statement of the Research Problem

Despite the increasing global emphasis on Environmental, Social and Governance disclosure, the extent to which ESG disclosure influences the financial performance of insurance firms in Nigeria remains unclear. In particular, there is limited evidence concerning the relationship between ESG disclosure and financial performance measured by Return on Assets and Market Value per Share. It is also uncertain whether the environmental, social and governance dimensions of ESG disclosure have similar or different effects on the financial performance of listed insurance firms.

The uncertainty is further reinforced by the inconsistent findings of previous studies. While some studies have reported positive relationships between particular ESG dimensions and financial performance, others have found negative, weak or insignificant relationships. For instance, Sila and Cek (2017) reported that social disclosure made a significant contribution to financial performance, while environmental disclosure received only partial support and governance disclosure had no significant effect. Kweh et al. (n.d.) also reported

different relationships across the ESG dimensions. Such inconsistencies suggest that the financial consequences of ESG disclosure may vary across institutional, regulatory and industry contexts.

There is also a sectoral gap in the Nigerian evidence. Existing studies have devoted considerable attention to ESG disclosure and financial performance in sectors other than insurance, while evidence focusing specifically on listed Nigerian insurance firms remains limited. Furthermore, some studies of insurance firms have employed alternative measures of financial performance, such as solvency and firm size, rather than the combination of ROA and MVS adopted in this study.

The limited engagement with ESG disclosure in Nigeria may also be associated with weak regulatory enforcement, low stakeholder demand for ESG transparency, limited exposure to global ESG developments and insufficient incentives for firms to adopt international best practices (UNEP FI, 2019; PwC Africa, 2022). These conditions may constrain the ability of ESG disclosure to influence investor perceptions and corporate financial outcomes. Consequently, empirical evidence from listed insurance firms is necessary to establish whether ESG disclosure contributes meaningfully to accounting profitability and market valuation in the Nigerian context.

It is against this background that this study investigates the relationship between environmental, social and governance disclosures and financial performance of listed insurance firms in Nigeria, using Return on Assets and Market Value per Share as measures of financial performance. The study is intended to provide evidence on the individual contribution of the three ESG dimensions and determine whether their effects differ between accounting and market-based measures of financial performance.

Research Questions

The study seeks to answer the following questions:

1. How does environmental disclosure influence the return on assets of insurance firms in Nigeria?
2. How does environmental disclosure influence the market value per share of insurance firms in Nigeria?
3. To what extent does social disclosure influence the return on assets of insurance firms in Nigeria?
4. To what extent does social disclosure influence the market value per share of insurance firms in Nigeria?
5. What is the relationship between governance disclosure and the return on assets of insurance firms in Nigeria?
6. What is the relationship between governance disclosure and the market value per share of insurance firms in Nigeria?

Objectives of the Study

The main objective of the study is to examine the relationship between ESG disclosures and the financial performance of listed insurance firms in Nigeria. Specifically, the study seeks to:

1. ascertain how environmental disclosure influences the return on assets of insurance firms in Nigeria;
2. ascertain how environmental disclosure influences the market value per share of insurance firms in Nigeria;
3. investigate the extent to which social disclosure influences the return on assets of insurance firms in Nigeria;

4. investigate the extent to which social disclosure influences the market value per share of insurance firms in Nigeria;
5. evaluate the relationship between governance disclosure and the return on assets of insurance firms in Nigeria; and
6. evaluate the relationship between governance disclosure and the market value per share of insurance firms in Nigeria.

Research Hypotheses

The following null hypotheses are tested:

H₀₁: Environmental disclosure does not significantly influence the return on assets of insurance firms in Nigeria.

H₀₂: Environmental disclosure does not significantly influence the market value per share of insurance firms in Nigeria.

H₀₃: Social disclosure does not significantly influence the return on assets of insurance firms in Nigeria.

H₀₄: Social disclosure does not significantly influence the market value per share of insurance firms in Nigeria.

H₀₅: Governance disclosure does not significantly influence the return on assets of insurance firms in Nigeria.

H₀₆: Governance disclosure does not significantly influence the market value per share of insurance firms in Nigeria.

Scope of the Study

The study examines ESG disclosures and financial performance of the insurance sector in Nigeria. It covers all 23 insurance firms listed on the Nigerian Exchange Group as at 31 December 2023 and uses annual data covering 2012–2023. The period begins in 2012 to capture the period following the adoption of International Financial Reporting Standards in Nigeria. Environmental, social and governance disclosures are measured using a scoring and indexing approach, while financial performance is measured using Return on Assets and Market Value per Share. Panel regression analysis is employed to examine the relationships among the variables.

Significance of the Study

The study provides empirical evidence that may be useful to regulators, insurance firms, investors, professional bodies and researchers. The findings may assist the Financial Reporting Council of Nigeria, Nigerian Exchange Group, Securities and Exchange Commission and National Insurance Commission in strengthening ESG reporting standards and policies for insurance firms, while professional bodies such as ICAN and IFAC may find the findings useful in developing relevant reporting and professional guidance. For insurance firms, the study provides evidence on the financial implications of ESG disclosure and may encourage improved environmental practices, social responsibility, transparency and governance. Investors may also benefit from improved understanding of the extent to which ESG information relates to accounting performance and market valuation.

LIMITATIONS OF THE STUDY

The study is limited by its reliance on secondary data obtained principally from the annual reports of listed insurance firms and the extent to which such reports provide adequate ESG information. The use of a disclosure scoring and indexing approach may also be affected by differences in the nature, depth and presentation of ESG information across firms. In addition, the study is restricted to listed insurance firms and therefore its findings may not necessarily be generalised to unlisted insurance companies or firms in other sectors.

LITERATURE REVIEW

Conceptual Review

Environmental Disclosure

Environmental disclosure refers to the practice by which companies publicly communicate their environmental impacts, policies and performance, thereby providing transparency regarding how they manage environmental risks and sustainability efforts. It typically covers issues such as carbon emissions, energy consumption, water usage, waste management and compliance with environmental regulations (Oyewo, 2014). Companies disclose environmental information through sustainability or integrated reports, often adhering to recognised reporting frameworks such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB) and Carbon Disclosure Project (CDP). These frameworks provide guidelines that enhance consistency and comparability of environmental information across firms and industries (KPMG, 2020).

Environmental disclosure plays an important role in demonstrating corporate accountability and commitment to sustainability, particularly as investor interest in ESG factors continues to increase. Increased environmental transparency may enhance financial performance and risk management by enabling firms to identify and communicate their responses to environmental risks. It may also help firms mitigate reputational risks, comply with evolving regulatory requirements and respond to stakeholders' demand for sustainability information (Eccles et al., 2014; Clarkson et al., 2008).

The environmental component of ESG disclosure encompasses a broad range of issues concerning a firm's interaction with the natural environment. These include resource utilisation, reduction of emissions and efforts to mitigate environmental risks. Climate change has become an important aspect of environmental disclosure, with increasing attention to carbon emissions and strategies for transition towards a low-carbon economy. Other important areas include energy efficiency, water management, waste reduction and biodiversity conservation (Oyewo, 2014; Almeyda & Darmansya, 2019).

Environmental disclosure may also have economic implications for firms. Companies with robust environmental practices may benefit from enhanced operational efficiency, reduced costs, improved brand reputation and lower regulatory risks. Flammer (2022) further suggests that companies implementing environmental management systems and engaging in environmental disclosure may achieve better financial performance, indicating the potential economic value of environmental initiatives.

Furthermore, environmental disclosure is closely connected with broader sustainability agendas and societal expectations. Companies increasingly face pressure from investors, consumers, regulators and advocacy groups to adopt environmentally responsible practices and demonstrate their commitment to sustainability. Failure to address environmental concerns may expose firms to reputational damage, legal liabilities and diminished investor confidence. Consequently, firms are increasingly integrating environmental considerations into their strategies not only to mitigate risks but also to take advantage of opportunities associated with the transition towards a more sustainable economy (Bassen, 2007; Khan et al., 2023; Narhasimah, 2016).

Social Disclosure

Social disclosure focuses on how companies manage their relationships with employees, customers, communities and the broader society (Edmans & Wang, 2023). It encompasses social issues such as labour practices, human rights, diversity and inclusion, employee well-being, community engagement and product safety (Sila & Cek, 2017). Companies demonstrating strong social performance generally place emphasis on fair labour practices, inclusive workplaces, protection of human rights and positive contributions to the communities in which they operate (Narhasimah, 2016).

The social dimension of ESG disclosure has implications for organisational outcomes and stakeholder perceptions. Companies that prioritise social responsibility may attract and retain employees, improve employee morale and productivity, strengthen customer loyalty and develop stronger relationships with communities. Edmans and Wang (2023) and Khan et al. (2023) further indicate that employee satisfaction and

engagement may be associated with improved financial performance and shareholder value creation. Socially responsible firms may also be better positioned to manage reputational risks and maintain stakeholder trust during periods of crisis or uncertainty.

Governance Disclosure

Governance disclosure concerns information relating to the structures and practices through which companies are directed and controlled. It includes issues such as board composition, financial transparency, risk management, executive compensation and anti-corruption policies (Sila & Cek, 2017; Brogi et al., 2022; Owolabi & Adetayo, 2020). Effective governance disclosure provides stakeholders with information about corporate accountability, transparency and the mechanisms through which management decisions are monitored.

Governance disclosure is particularly relevant to investors because effective governance mechanisms can reduce information asymmetry, strengthen accountability and improve confidence in management and corporate decision-making. The importance of governance disclosure is reflected in the empirical evidence from this study, where governance disclosure demonstrated a positive and marginally significant relationship with market value per share, although its relationship with return on assets was negative and statistically insignificant. This suggests that investors may attach greater importance to governance information when assessing firm value than when evaluating short-term accounting profitability.

ESG Disclosure

ESG disclosure represents the disclosure of information relating to a firm's environmental, social and governance performance. It indicates the extent to which a firm addresses issues associated with sustainable development, including the utilisation of natural resources, human rights, corruption and community relations (Ballou et al., n.d.). ESG disclosure can therefore be viewed as an important component of sustainability reporting and corporate accountability.

ESG disclosure is closely related to the sustainability or triple-bottom-line approach, which considers economic, social and environmental dimensions of corporate performance. An ESG or sustainability report communicates a firm's values, governance model and the relationship between its strategy and commitment to a sustainable global economy (Almeyda & Darmansya, 2019; Owolabi & Adetayo, 2020; Sar, 2018). Various frameworks, including the United Nations Global Compact, Global Reporting Initiative and International Integrated Reporting Council, provide guidance for reporting ESG-related information. However, differences in the nature, content and presentation of ESG information across firms may make direct comparison difficult for stakeholders.

Abdul Rahman and Alsayegh (2021) found that highly socially visible firms are subject to pressures from the media, regulators and society and tend to disclose more ESG information. Such disclosure enables firms to demonstrate accountability to stakeholders and communicate that they are meeting societal expectations. The disclosure of sustainability practices may consequently assist firms in establishing legitimacy within society.

Financial Performance

Financial performance refers to the evaluation of a firm's financial health, profitability and ability to manage its resources effectively over a specified period. It provides information about how well a company utilises its financial resources to generate profits, create value for shareholders and meet its financial obligations (Abdul-Rahman & Alsayegh, 2021; Rahman & Islam, 2018). Financial performance is therefore an important consideration for investors, creditors, management and other stakeholders in assessing the health and stability of a firm (Ameer & Othman, 2012; Wissink, 2012).

Financial performance encompasses several measures, and this study employs Return on Assets (ROA) and Market Value per Share (MVS). ROA provides an accounting-based measure of how effectively a firm uses its assets to generate returns, while MVS provides a market-based indication of investor assessment and firm

value. The use of both measures provides a broader assessment of financial performance by incorporating both internal financial efficiency and external market valuation.

ESG disclosure may positively affect financial performance through several channels. Transparent ESG reporting can signal a firm's commitment to managing environmental, social and governance risks, potentially reducing liabilities and operational costs. It may also attract ethically minded investors, expand the investor base and potentially reduce the cost of capital. In addition, improved ESG practices may be associated with operational efficiency, innovation and stronger stakeholder relationships, thereby supporting long-term sustainability and competitiveness (Abdul-Rahman & Alsayegh, 2021; Rahman & Islam, 2018; Sar, 2018; Unum, 2022).

Return on Assets

Return on Assets is an accounting-based measure of financial performance that assesses the ability of a firm to generate earnings from its total assets. In this study, ROA is measured as Profit Before Interest and Tax divided by Total Assets (Abdul Rahman & Alsayegh, 2021; Almeyda & Darmansya, 2019).

ROA is relevant to the study because it provides an indication of the efficiency with which insurance firms utilise their asset base to generate returns. A positive relationship between ESG disclosure and ROA may suggest that responsible ESG practices contribute to improved operational efficiency, risk management and profitability.

Market Value per Share

Market Value per Share is a market-based measure of financial performance and is measured in this study using the firm's market share price (Almeyda & Darmansya, 2019).

MVS captures the market's assessment of the value and prospects of a firm and therefore provides a useful complement to the accounting-based ROA measure. While ROA reflects the firm's internal ability to generate returns from its assets, MVS reflects investor confidence and market valuation. The combination of the two measures therefore provides a broader assessment of the financial implications of ESG disclosure.

Theoretical Review

Legitimacy Theory

Legitimacy theory is based on the premise that an organisation's continued existence depends partly on the extent to which its activities are perceived as desirable, proper or appropriate within the socially constructed system of norms, values and beliefs in which it operates. Suchman (1995) describes legitimacy as a generalised perception or assumption that the actions of an entity are appropriate within such a system. The theory therefore suggests that firms must continually demonstrate that their activities conform to acceptable societal norms and expectations. In the context of corporate reporting, firms may voluntarily disclose information about their activities, including environmental, social and governance information, when management perceives that such information is expected by the societies in which they operate.

Legitimacy theory has particular relevance to ESG disclosure because organisations seek to acquire and maintain legitimacy by demonstrating conformity with societal expectations. Firms may employ social responsibility initiatives, transparent reporting, stakeholder engagement and environmental sustainability programmes to enhance their legitimacy and maintain positive relationships with customers, investors, regulators and the wider public (Azhar et al., 2018). ESG disclosures consequently serve not only as a mechanism for communicating non-financial information but also as a means through which firms demonstrate their commitment to socially and environmentally responsible conduct. However, the theory recognises that legitimacy can be fragile because societal norms and stakeholder expectations change over time. It has also been criticised on the grounds that organisations may engage in symbolic or tokenistic actions merely to create an appearance of social responsibility without achieving substantive change (Wissink, 2012; Wong, 2017).

Relevance of Legitimacy Theory to the Study

Legitimacy theory provides the theoretical foundation for this study because it explains why listed insurance firms may disclose environmental, social and governance information to demonstrate conformity with societal expectations and maintain legitimacy. By communicating their ESG practices, insurance firms can signal that their operations are consistent with expectations concerning responsible and sustainable business conduct. Such disclosure may influence how stakeholders perceive the firms and, consequently, may affect financial outcomes through improved stakeholder relationships, reputation and investor confidence. The thesis therefore adopts legitimacy theory as the theoretical framework for examining the relationship between ESG disclosure and financial performance of listed insurance firms in Nigeria.

Theoretical Framework

The theoretical framework of the study is anchored on legitimacy theory. The theory provides a basis for explaining the relationship between ESG disclosure and financial performance by suggesting that firms use disclosure as a mechanism for aligning their activities with societal expectations and maintaining organisational legitimacy (Suchman, 1995). In the Nigerian insurance industry, disclosure of environmental, social and governance practices may therefore serve as a strategic communication mechanism through which firms demonstrate responsible corporate behaviour to their stakeholders. The perceived legitimacy arising from such disclosure may subsequently influence stakeholder responses and financial outcomes.

Empirical Review

Environmental Disclosure and Return on Assets

The relationship between environmental disclosure and financial performance has produced mixed empirical evidence across different contexts. Sila and Cek (2017), in their study of Australian firms covering 2010–2016, examined the effect of ESG dimensions on economic performance using lagged independent variables and regression analysis. The study found that social disclosure made the largest contribution to economic performance, while environmental disclosure received partial support for a positive relationship with financial performance. Governance performance, however, did not have a significant effect. These findings suggest that the financial implications of environmental disclosure may differ from those of other ESG dimensions.

Evidence from emerging economies also produces mixed results. Kweh et al. (n.d.), in Malaysia, found that environmental and social factors did not have a similar effect on firm efficiency, while governance was positively associated with financial performance. Similarly, Owolabi and Adetayo (2020), using data from Mutual Benefit Assurance Plc in Nigeria, reported a weak relationship between ESG indicators and financial performance. However, their study was limited to a single insurance company, making sector-wide generalisation difficult.

The evidence from insurance firms in advanced economies presents a somewhat different picture. Brogi et al. (2022) examined publicly traded insurance companies in the United States from 2010 to 2018 and reported a favourable relationship between ESG factors and the financial characteristics of insurance companies. The study further observed that more profitable and larger insurance firms were quicker to adopt ESG policies. However, the study measured financial performance using solvency and firm size rather than ROA, thereby leaving uncertainty concerning the relationship between environmental disclosure and accounting profitability as measured by ROA.

Environmental Disclosure and Market Value per Share

Environmental disclosure may also influence market valuation because investors can interpret environmental information as an indication of a firm's exposure to environmental risks, management quality and long-term sustainability. Emeka-Nwokeji et al. (2019) investigated sustainability disclosures and firm market value among 93 non-financial firms listed on the Nigerian Stock Exchange between 2006 and 2015, using Tobin's Q as the measure of market value. The study found that overall sustainability disclosure had a significant positive effect on firm value and, when the dimensions were considered individually, environmental sustainability

disclosure and corporate governance disclosure had significant positive effects on market value. Social sustainability disclosure, however, had a negative and insignificant effect.

The findings of Emeka-Nwokeji et al. (2019) contrast with the evidence from Kweh et al. (n.d.), who reported that environmental disclosure did not have a similar effect on firm performance in Malaysia. The contrasting findings indicate that the market response to environmental information may depend on institutional conditions, stakeholder awareness and the extent to which investors perceive environmental disclosure as financially relevant. The thesis also identifies this inconsistency as an important motivation for examining the relationship within the Nigerian insurance sector.

Social Disclosure and Return on Assets

Social disclosure has generally received stronger empirical support than environmental disclosure in some studies. Sila and Cek (2017) found that social disclosure made the largest contribution to the economic performance of Australian firms, suggesting that information relating to employees, communities and other social responsibilities may have meaningful implications for corporate performance. The possible explanation is that effective social practices can strengthen employee relationships, customer confidence and stakeholder engagement, which may translate into improved operational performance.

Evidence from Nigeria is less conclusive. Ndukwe and Nwakanma (2018), in examining sustainability reporting and profitability among selected quoted Nigerian companies, found a negative relationship between sustainability reporting and return on equity, although a significant relationship was reported between sustainability reporting and earnings per share. Similarly, Owolabi and Adetayo (2020) reported only a weak relationship between ESG indicators and financial performance in their study of Mutual Benefit Assurance Plc.

These mixed findings demonstrate that the relationship between social disclosure and accounting performance is not conclusive. Differences in industry, sample coverage, disclosure practices and financial-performance measures may explain the divergent results. This provides justification for examining social disclosure specifically in relation to ROA among the entire population of listed Nigerian insurance firms.

Social Disclosure and Market Value per Share

Social disclosure may affect market value through its influence on corporate reputation, stakeholder relationships and investor perceptions. Emeka-Nwokeji et al. (2019), however, reported a negative and insignificant relationship between social sustainability disclosure and firm market value among Nigerian non-financial firms. This result suggests that investors did not attach sufficient market value to social sustainability information in the period examined.

In contrast, Sila and Cek (2017) reported that social disclosure made the largest contribution to economic performance among Australian firms. The difference between the findings may reflect variations in market development and investor awareness. In a more developed sustainability-reporting environment, investors may have greater capacity and willingness to incorporate social information into their assessments of firm value, whereas the relevance of such information may be less pronounced in emerging markets.

The Nigerian insurance-sector evidence remains limited. Appah and Onowu (2021) examined integrated reporting among ten Nigerian insurance companies and found that integrated reporting positively and significantly affected corporate financial performance. However, the study covered only 10 of the 22 firms in the population at the time, representing approximately 45% of the sector, and therefore had limitations regarding generalisability.

Governance Disclosure and Return on Assets

Governance disclosure is expected to improve transparency and accountability and may consequently influence corporate financial performance. Abebe Zelalem et al. (2022), in a study of nine Ethiopian insurance companies covering 2012–2020, examined governance-related variables including board size, management soundness, board remuneration and financial disclosure alongside debt and dividend policy. The study found

that board size, management soundness, board remuneration and financial disclosure had positive and significant effects on insurance-company financial performance measured by ROA and ROE.

Evidence from other emerging economies, however, is not uniform. Kweh et al. (n.d.) found governance to be positively associated with firm efficiency in Malaysia, while Rahman and Islam (2018) reported a positive and significant relationship between corporate governance attributes and bank financial performance in Bangladesh. In contrast, Azhar and Mehmood (2018) found that board size was statistically insignificant in relation to ROA among Pakistani textile firms. These divergent findings suggest that the financial implications of governance practices may be influenced by sectoral and institutional characteristics.

Governance Disclosure and Market Value per Share

Governance disclosure may have a particularly important relationship with market valuation because investors often use governance information to assess transparency, accountability, managerial quality and potential agency risks. Emeka-Nwokeji et al. (2019) found that corporate governance disclosure had a significant positive effect on the market value of Nigerian non-financial firms. This finding suggests that investors may reward firms that provide greater information about their governance practices.

The insurance-sector evidence also indicates the relevance of governance to financial outcomes. Abebe Zelalem et al. (2022) found that governance-related variables significantly affected financial performance among Ethiopian insurance companies, although their study used ROA and ROE rather than market value. Kweh et al. (n.d.) similarly reported a positive association between governance and firm efficiency in Malaysia. These findings provide support for the proposition that governance may have stronger financial consequences than some other ESG dimensions, although the direction and magnitude of the relationship remain context-dependent.

The evidence therefore remains inconclusive concerning the relationship between governance disclosure and market valuation in the Nigerian insurance sector. This is particularly important because previous studies have often focused on accounting measures of performance or on sectors other than insurance. The present study addresses this gap by examining governance disclosure alongside environmental and social disclosure and relating all three dimensions to Market Value per Share, while controlling for firm size.

Literature Gap

The empirical literature reveals considerable inconsistency in the relationship between ESG disclosure and financial performance. Sila and Cek (2017) found social disclosure to make the largest contribution to financial performance, while environmental disclosure received only partial support and governance disclosure was insignificant. Kweh et al. (n.d.) reported a positive association between governance and financial performance but negative associations for environmental and social disclosure. Similarly, Emeka-Nwokeji et al. (2019) found positive effects of environmental and governance disclosures on market value but a negative and insignificant effect for social disclosure. These inconsistencies indicate that the financial consequences of individual ESG dimensions are not uniform across countries, industries and performance measures.

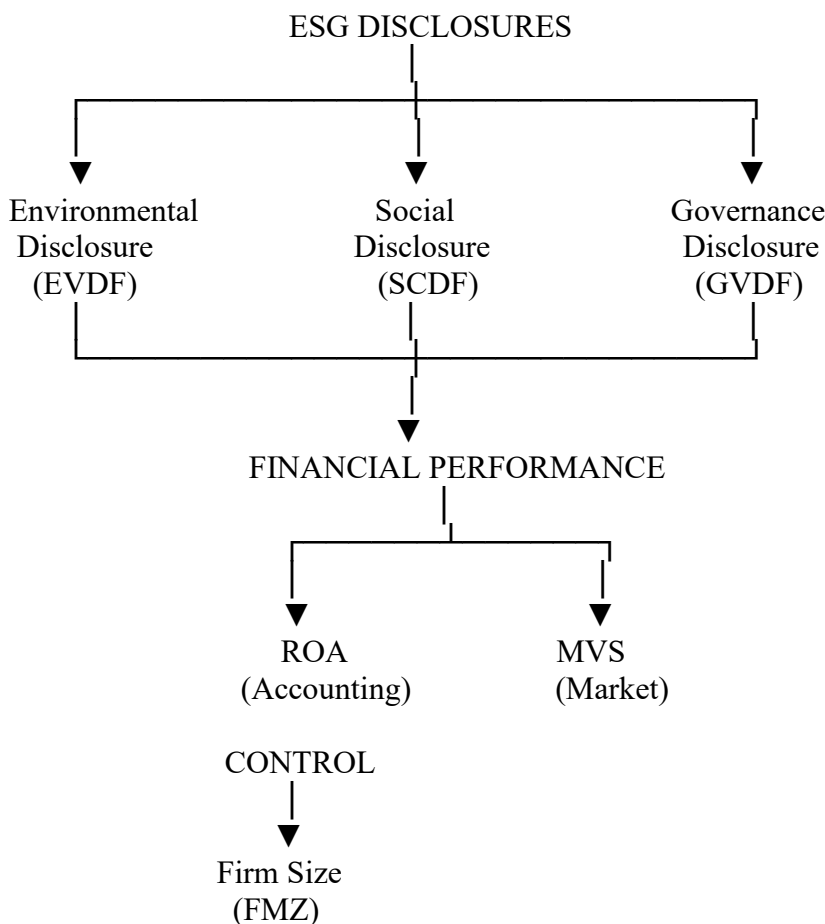
A further gap concerns the insurance sector. Much of the existing literature has focused on manufacturing, banking, real estate and other non-insurance sectors. Within Nigeria, Owolabi and Adetayo (2020) examined only one insurance company, while Appah and Onowu (2021) covered only ten insurance companies. Consequently, their findings have limited generalisability to the entire Nigerian insurance sector.

There is also a measurement gap. Brogi et al. (2022) examined insurance firms but measured financial performance using solvency and firm size rather than ROA and MVS. Khovrak (2020), meanwhile, focused largely on ESG reporting guidelines and comparisons rather than establishing the statistical relationship between ESG disclosure and financial performance. Existing studies have therefore provided limited evidence on how the three individual ESG dimensions jointly relate to both accounting performance (ROA) and market performance (MVS) in listed Nigerian insurance firms.

Accordingly, this study addresses the identified gaps by examining all 23 listed insurance firms in Nigeria over the 2012–2023 period and by disaggregating ESG disclosure into environmental, social and governance dimensions. It further employs both ROA and MVS as measures of financial performance, thereby providing evidence on whether the three ESG dimensions have different implications for accounting profitability and market valuation.

Conceptual Framework

The conceptual framework of this study presents the expected relationship between Environmental, Social and Governance (ESG) disclosures and financial performance of listed insurance firms in Nigeria. ESG disclosure constitutes the explanatory construct and is disaggregated into Environmental Disclosure (EVDF), Social Disclosure (SCDF), and Governance Disclosure (GVDF). Financial performance constitutes the dependent construct and is measured using Return on Assets (ROA) and Market Value per Share (MVS). Firm Size (FMZ) is incorporated as a control variable because differences in firm size may influence both the extent of ESG disclosure and financial performance. This framework is consistent with the study's objective of determining whether the individual dimensions of ESG disclosure have different implications for accounting and market measures of financial performance.



Source: Researcher's Conceptualisation, 2025

The framework is anchored on the proposition that ESG disclosure is expected to influence financial performance through the different channels associated with environmental responsibility, social relationships and corporate governance. Environmental disclosure is expected to influence performance through environmental risk management and operational efficiency; social disclosure is expected to influence stakeholder relationships, employee welfare and customer confidence; while governance disclosure is expected to enhance transparency, accountability, risk management and investor confidence. The framework consequently treats the three ESG dimensions separately and links each dimension to both ROA and MVS, thereby allowing the study to determine whether ESG disclosures have differential implications for the accounting profitability and market valuation of listed insurance firms in Nigeria. This approach is consistent

with the study's adoption of legitimacy theory, which suggests that firms use disclosure to demonstrate conformity with societal expectations and maintain organisational legitimacy.

METHODOLOGY

Research Design

The study employed an ex post facto research design. The design was considered appropriate because the study relied on historical data on Environmental, Social and Governance (ESG) disclosures and financial performance obtained from the audited annual reports of listed insurance firms for the period 2012–2023, without manipulating the variables under investigation. The ex post facto approach therefore enabled the study to examine the relationships between ESG disclosures and financial performance within their natural organisational and institutional settings.

Population of the Study

The population of the study comprised the entire twenty-three (23) insurance firms listed on the Nigerian Exchange Group (NGX) as at 31 December 2023. The study covered the entire population rather than selecting a sample in order to provide comprehensive coverage of the listed insurance sector and minimise potential sampling bias.

Sample Size and Sampling Technique

The study adopted a census sampling technique, whereby all 23 listed insurance firms constituting the population were included in the study. The use of the census approach was considered appropriate because the population was relatively small and all the firms had the potential to provide relevant information for examining ESG disclosures and financial performance. Consequently, the sample size was 23 insurance firms covering the 2012–2023 period.

Sources and Method of Data Collection

The study relied on secondary data obtained from the annual reports of the 23 listed insurance firms for the period 2012–2023. ESG disclosures were measured using a scoring method, an approach widely applied in ESG and sustainability disclosure studies (Owolabi & Adetayo, 2020; Michelon et al., 2015; Clarkson et al., 2008). The scoring and indexing approach enabled the disclosed ESG information to be quantified and expressed as percentages, thereby facilitating comparability across firms and over time. The disclosure checklist for the three ESG dimensions was guided by relevant global reporting standards, particularly the Global Reporting Initiative (GRI, 2021) and Sustainability Accounting Standards Board (SASB, 2021), together with the regulatory framework of the National Insurance Commission (NAICOM, 2018).

Model Specification

The study examined the effect of Environmental Disclosure (EVDF), Social Disclosure (SCDF) and Governance Disclosure (GVDF) on financial performance, measured by Return on Assets (ROA) and Market Value per Share (MVS), while controlling for Firm Size (FMZ). In line with the six research objectives, the relationships were specified in two principal panel regression models.

Model One: Return on Assets

$$ROA_{it} = \beta_0 + \beta_1 EVDF_{it} + \beta_2 SCDF_{it} + \beta_3 GOVDF_{it} + \beta_4 FMZ_{it} + \mu_{it}$$

Model Two: Market Value per Share

$$MVS_{it} = \beta_0 + \beta_1 EVDF_{it} + \beta_2 SCDF_{it} + \beta_3 GOVDF_{it} + \beta_4 FMZ_{it} + \mu_{it}$$

Where:

- ROA = Return on Assets of firm i in year t
- EVDF = Environmental Disclosure
- SCDF = Social Disclosure
- GVDF = Governance Disclosure
- FMZ = Firm Size
- β_0 = Constant/intercept
- β_1 – β_4 = Regression coefficients
- ε = Error term
- i = Individual insurance firm
- t = Year
- MVS = Market Value per Share of firm i in year t

Method of Data Analysis

The data were analysed using descriptive statistics, correlation analysis and panel regression techniques. Descriptive statistics were used to summarise the characteristics and distribution of the variables, while correlation analysis was employed to examine the degree and direction of association among the study variables. Panel regression analysis was used to estimate the relationships between the three ESG disclosure dimensions and the two measures of financial performance.

The appropriate panel estimation technique was determined through specification testing, including the Hausman test. The study also conducted diagnostic tests for potential econometric problems, including cross-sectional dependence, serial correlation and heteroskedasticity, as well as the Ramsey RESET test for model specification. The thesis reports the use of the residual cross-sectional dependence test, Breusch-Godfrey LM test, ARCH and Breusch-Pagan-Godfrey heteroskedasticity tests and Ramsey RESET test.

Operationalisation of Variables

The variables employed in the study were operationalised as follows:

Variable	Symbol	Measurement
Environmental Disclosure	EVDF	Environmental disclosure score/index
Social Disclosure	SCDF	Social disclosure score/index
Governance Disclosure	GVDF	Governance disclosure score/index
Return on Assets	ROA	Profit Before Interest and Tax / Total Assets
Market Value per Share	MVS	Market share price
Firm Size	FMZ	Firm-size measure used as control variable

RESULTS AND DISCUSSION

Table 4.1 Descriptive Statistics

	ROA	MVS	EVDF	SCDF	GOVDF	FMZ
Mean	1.390779	0.107586	0.343116	0.678623	0.802536	7.424876
Median	1.287500	0.076866	0.400000	0.700000	0.800000	7.413946
Maximum	5.700000	0.177699	0.700000	0.900000	0.900000	8.502555
Minimum	0.110000	0.010057	0.000000	0.400000	0.600000	7.097921
Std. Dev.	0.939518	0.062470	0.177015	0.157525	0.086302	0.276330
Skewness	3.719945	0.096592	0.234013	-0.360384	-0.286710	2.651827
Kurtosis	17.47042	1.144666	2.529064	2.067798	1.929868	9.618592
Jarque-Bera	3044.567	40.01522	5.069531	15.96785	16.95093	827.2468
Probability	0.000000	0.000000	0.079280	0.000341	0.000209	0.000000
Sum	383.8550	29.69386	94.70000	187.3000	221.5000	2049.266
Sum Sq. Dev.	242.7407	1.073191	8.616920	6.823877	2.048225	20.99854
Observations	276	276	276	276	276	276

Source: EViews 12 outputs (2025)

Descriptive Statistics

Table 4.1 presents the descriptive statistics for the study variables based on 276 firm-year observations covering the 23 listed insurance firms over the 2012–2023 period. The mean values of ROA, MVS, EVDF, SCDF, GOVDF and FMZ are 1.3908, 0.1076, 0.3431, 0.6786, 0.8025 and 7.4249, respectively. The corresponding standard deviations are 0.9395, 0.0625, 0.1770, 0.1575, 0.0863 and 0.2763. The results indicate variations in the extent of ESG disclosure and financial performance among the listed insurance firms during the study period.

The results further show that ROA, MVS, EVDF and FMZ are positively skewed, while SCDF and GOVDF are negatively skewed. ROA and FMZ are leptokurtic, with kurtosis values of 17.4704 and 9.6186 respectively, whereas MVS, EVDF, SCDF and GOVDF are platykurtic. The Jarque-Bera statistics are significant for all the variables, indicating departure from normality at the 5% level. However, given the panel-data structure and the subsequent regression analysis, the descriptive statistics primarily provide an overview of the distributional characteristics of the variables.

Table 4.2: Model 3.1 & 3.2

Covariance Analysis: Spearman rank-order

Date: 01/22/25 Time: 19:54

Sample: 2012 2023

Included observations: 276

Correlation Probability	ROA	MVS	EVDF	SCDF	GOVDF
ROA	1.000000 ----				
MVS	-0.317967 0.0000	1.000000 ----			
EVDF	-0.104970 0.0817	0.096809 0.1085	1.000000 ----		
SCDF	-0.004064 0.9464	0.198394 0.0009	0.617038 0.0000	1.000000 ----	
GOVDF	-0.013699 0.8208	0.130702 0.0299	0.553561 0.0000	0.433541 0.0000	1.000000 ----
FMZ	-0.399862 0.0000	0.570725 0.0000	0.037771 0.5321	0.160471 0.0076	0.005119 0.9325

Source: EViews 12 outputs (2025)

Correlation Analysis

The Spearman rank-order correlation results indicate that ROA has negative associations with EVDF, SCDF, GOVDF and FMZ, with coefficients of -0.1050, -0.0041, -0.0137 and -0.3999, respectively. The correlations between ROA and EVDF, SCDF and GOVDF are statistically insignificant, whereas the relationship between ROA and FMZ is significant at the 5% level.

In contrast, MVS has positive correlations with EVDF (0.0968), SCDF (0.1984), GOVDF (0.1307) and FMZ (0.5707). The relationships between MVS and SCDF, GOVDF and FMZ are statistically significant, whereas the correlation between MVS and EVDF is insignificant. Among the explanatory variables, EVDF and SCDF have a correlation coefficient of 0.6170, while SCDF and GOVDF correlate at 0.5536 and EVDF and GOVDF at 0.4335. These coefficients do not indicate perfect linear relationships among the explanatory variables.

Regression Results: ESG Disclosures and Return on Assets

Table 4.3 presents the panel regression results for ROA. The Hausman test produces a probability value of 0.2572, which is greater than 0.05. The null hypothesis that the random-effects model is appropriate is therefore not rejected. Accordingly, the random-effects model is used for interpretation of Model 1.

Variable	Coefficient	p-value
Constant	5.28839	0
EVDF	0.0162	0.6405
SCDF	0.06222	0.0707
GOVDF	-0.0718	0.2306
FMZ	0.52362	0
R-squared	0.78186	
Adjusted R-squared	0.77569	
F-statistic	94.2733	0
Durbin-Watson	2.00358	
Hausman test	0.2572	

Source: EViews 12 output (2025)

The results indicate that environmental disclosure has a positive but statistically insignificant relationship with ROA ($\beta = 0.0162$; $p = 0.6405$). Social disclosure has a positive relationship that is not statistically significant at the conventional 5% level ($\beta = 0.0622$; $p = 0.0707$), although the p-value indicates relatively stronger evidence of association than the other ESG dimensions. Governance disclosure has a negative and statistically insignificant relationship with ROA ($\beta = -0.0718$; $p = 0.2306$). Firm size has a positive and statistically significant relationship with ROA ($\beta = 0.5236$; $p = 0.0000$).

The model has an R-squared value of 0.7819, indicating that approximately 78.19% of the variation in ROA is explained jointly by environmental disclosure, social disclosure, governance disclosure and firm size. The F-statistic of 94.2733 with a probability value of 0.0000 indicates that the model is statistically significant overall. The Durbin-Watson statistic of 2.0036 also provides no indication of first-order autocorrelation in the reported model.

Environmental Disclosure and Return on Assets

Environmental disclosure has a positive coefficient of 0.0162 with a p-value of 0.6405. Although the coefficient indicates a positive relationship between environmental disclosure and ROA, the p-value is greater

than the 5% significance level. Therefore, the null hypothesis is not rejected. This implies that environmental disclosure does not have a statistically significant effect on the ROA of listed insurance firms in Nigeria.

Social Disclosure and Return on Assets

Social disclosure has a positive coefficient of 0.0622 with a p-value of 0.0707. Since the p-value exceeds the 5% significance level, the null hypothesis is not rejected. Thus, social disclosure does not have a statistically significant effect on ROA at the 5% level, despite the positive direction of the relationship.

Governance Disclosure and Return on Assets

Governance disclosure has a coefficient of -0.0718 and a p-value of 0.2306. The negative coefficient indicates an inverse relationship with ROA; however, the p-value is greater than 0.05. Therefore, the null hypothesis is not rejected, indicating that governance disclosure does not have a statistically significant effect on ROA.

Regression Results: ESG Disclosures and Market Value per Share

Variable	Coefficient	p-value
Constant	-2.728754	0
EVDF	-0.024514	0.4524
SCDF	0.01065	0.7414
GOVDF	0.110254	0.0508
FMZ	0.370247	0
R-squared	0.822757	
Adjusted R-squared	0.812925	
F-statistic	10.49029	0
Durbin-Watson	2.076199	
Hausman test	0	

Table 4.4 presents the panel regression results for MVS. The Hausman test produces a probability value of 0.0000, which is below the 5% significance level. The null hypothesis that the random-effects model is appropriate is rejected, and the fixed-effects model is therefore selected for interpretation of Model 2.

The results show that environmental disclosure has a negative but statistically insignificant relationship with MVS ($\beta = -0.0245$; $p = 0.4524$). Social disclosure has a positive but statistically insignificant relationship with MVS ($\beta = 0.0107$; $p = 0.7414$). Governance disclosure has a positive relationship with MVS ($\beta = 0.1103$; $p = 0.0508$). Firm size has a positive and statistically significant relationship with MVS ($\beta = 0.3702$; $p = 0.0000$).

The R-squared of 0.8228 indicates that approximately 82.28% of the variation in MVS is explained by the explanatory and control variables. The F-statistic of 10.4903 with a probability value of 0.0000 indicates that the model is statistically significant overall. The Durbin-Watson statistic of 2.0762 does not indicate first-order autocorrelation in the reported model.

Environmental Disclosure and Market Value per Share

Environmental disclosure has a coefficient of -0.0245 with a p-value of 0.4524. The negative coefficient indicates an inverse relationship between environmental disclosure and MVS, but the relationship is statistically insignificant because the p-value exceeds 0.05. Consequently, the null hypothesis is not rejected, indicating that environmental disclosure does not have a statistically significant effect on MVS.

Social Disclosure and Market Value per Share

Social disclosure has a positive coefficient of 0.0107 and a p-value of 0.7414. Since the p-value is substantially greater than 0.05, the null hypothesis is not rejected. Therefore, social disclosure does not have a statistically significant effect on MVS, notwithstanding the positive direction of the coefficient.

Governance Disclosure and Market Value per Share

Governance disclosure has a positive coefficient of 0.1103 with a p-value of 0.0508. At the conventional 5% significance level, the p-value is marginally above 0.05. Therefore, the null hypothesis is not rejected at 5%. However, because 0.0508 is below 0.10, the relationship is statistically significant at the 10% level. Thus, governance disclosure has a positive and statistically significant effect on MVS at the 10% level.

Diagnostic Tests

The study conducted a series of diagnostic tests to assess the adequacy of the regression models, including tests for normality, serial correlation, heteroskedasticity and functional form. The Ramsey RESET test for the ROA model produced an F-statistic of 0.001362 with a p-value of 0.9706, indicating no evidence of model misspecification (appendix 1).

DISCUSSION OF FINDINGS

Environmental Disclosure and Return on Assets

The study found that environmental disclosure has a positive but statistically insignificant relationship with Return on Assets (ROA), with a coefficient of 0.0162 and a p-value of 0.6405. This indicates that although greater environmental disclosure is associated with a positive direction of accounting performance, the evidence is insufficient to conclude that environmental disclosure significantly affects the profitability of listed insurance firms in Nigeria. The finding is consistent with Owolabi and Adetayo (2020), who reported a weak relationship between ESG indicators and financial performance in their study of a Nigerian insurance firm. It also agrees with Kweh et al. (n.d.), who found that environmental disclosure did not significantly contribute to firm performance among Malaysian firms.

However, the finding differs from Sila and Cek (2017), who reported partial support for a positive relationship between environmental disclosure and financial performance among Australian firms. It also contrasts with Brogi et al. (2022), who found a favourable relationship between ESG factors and the financial characteristics of insurance companies in the United States. The difference may reflect variations in institutional environment, regulatory pressures, stakeholder awareness and the development of ESG reporting practices across the countries examined. The relatively insignificant result in Nigeria may also suggest that environmental information has not yet become sufficiently financially material to influence the accounting profitability of listed insurance firms.

Environmental Disclosure and Market Value per Share

Environmental disclosure has a negative and statistically insignificant relationship with Market Value per Share (MVS), with a coefficient of -0.0245 and a p-value of 0.4524. The result suggests that environmental disclosure does not significantly influence the market valuation of listed insurance firms in Nigeria. The negative direction indicates that, during the period studied, increased environmental disclosure was not accompanied by an increase in market value per share. This finding is consistent with the broader evidence from Kweh et al. (n.d.), which found that environmental disclosure did not significantly contribute to firm performance.

The finding contrasts with Emeka-Nwokeji et al. (2019), who found that environmental sustainability disclosure had a significant positive effect on firm market value among Nigerian non-financial firms. It also differs from Smith et al. (2021), who reported that environmental disclosures positively influenced profitability

and stock returns among S&P 500 companies, and from the favourable ESG-performance relationship reported by Brogi et al. (2022) for U.S. insurance companies. The differences may be associated with sectoral and institutional characteristics, as well as differences in investors' sensitivity to environmental information. In the Nigerian insurance sector, investors may place greater emphasis on conventional financial information than on environmental disclosure when assessing short-term market value.

Social Disclosure and Return on Assets

The results indicate that social disclosure has a positive relationship with ROA, with a coefficient of 0.0622 and a p-value of 0.0707. Although the relationship is not statistically significant at the 5% level, it is significant at the 10% level. The positive coefficient suggests that greater attention to social matters is associated with improved accounting performance among listed insurance firms. This finding is consistent with Sila and Cek (2017), who found that social disclosure made the largest contribution to financial performance among Australian firms.

The result may reflect the importance of social practices such as employee welfare, workforce diversity, community engagement and customer relationships to the operations of insurance firms. Stronger social practices may contribute to employee commitment, customer confidence and stakeholder relationships, which can support operational efficiency and profitability. However, because the relationship is not significant at the conventional 5% level, the evidence should be interpreted cautiously. The finding therefore provides limited evidence that social disclosure is associated with accounting performance rather than conclusive evidence of a statistically significant effect at the 5% level.

Social Disclosure and Market Value per Share

Social disclosure has a positive but statistically insignificant relationship with MVS, with a coefficient of 0.0107 and a p-value of 0.7414. This indicates that although firms with greater social disclosure recorded a positive direction of market valuation, the evidence does not support a statistically significant relationship between social disclosure and MVS. The finding is consistent with Emeka-Nwokeji et al. (2019), who reported a negative and insignificant relationship between social sustainability disclosure and firm market value among Nigerian firms.

The finding differs from Sila and Cek (2017), whose study reported that social disclosure made the strongest contribution to financial performance. The difference may be associated with variations in market environment and investor perception of social information. While social initiatives may generate long-term benefits through improved stakeholder relationships and corporate reputation, such benefits may not immediately be incorporated into the market valuation of Nigerian insurance firms. Thus, the insignificant relationship suggests that social disclosure, in isolation, may not be sufficient to influence investors' valuation decisions during the study period.

Governance Disclosure and Return on Assets

Governance disclosure has a negative and statistically insignificant relationship with ROA, with a coefficient of -0.0718 and a p-value of 0.2306. The result indicates that increased governance disclosure is associated with a reduction in ROA in the sample, although the relationship is not statistically significant. Therefore, the study does not provide sufficient evidence that governance disclosure affects the accounting profitability of listed insurance firms in Nigeria. The finding is consistent with Azhar and Mehmood (2018), who reported that board size, as a corporate governance variable, was not significantly related to ROA.

The finding also contrasts with Kweh et al. (n.d.), who found a positive association between governance and financial performance, and with Abebe Zelalem et al. (2022), who reported that governance-related variables had positive and significant effects on financial performance among Ethiopian insurance companies. The differences suggest that governance mechanisms may operate differently across institutional and industry settings. In the Nigerian insurance sector, the disclosure of governance practices may not necessarily translate

into immediate improvements in operational profitability, particularly where governance reforms require longer periods to produce measurable financial outcomes.

Governance Disclosure and Market Value per Share

Governance disclosure has a positive relationship with MVS, with a coefficient of 0.1103 and a p-value of 0.0508. Although the relationship is marginally above the conventional 5% significance threshold, it is statistically significant at the 10% level. The result therefore provides evidence of a positive association between governance disclosure and market value per share at the 10% level. This suggests that investors may attach greater importance to governance information when assessing the market value of listed insurance firms than when assessing their accounting profitability.

The finding is consistent with Emeka-Nwokeji et al. (2019), who found that corporate governance disclosure had a significant positive effect on firm market value among Nigerian firms. It is also broadly consistent with Garcia et al. (2020), whose study examined the relationship between ESG disclosure and financial performance among European companies and highlighted the importance of governance-related disclosure to financial outcomes. However, the finding differs from Sila and Cek (2017), who reported no significant impact of governance on financial performance. The positive market-based result in the present study suggests that governance transparency, accountability and related corporate practices may increasingly form part of investors' assessment of insurance firms in Nigeria, even though such disclosure has not translated into significant accounting profitability.

OVERALL DISCUSSION

Taken together, the findings demonstrate that the three dimensions of ESG disclosure do not have uniform relationships with the two measures of financial performance. Environmental disclosure is positive but insignificant in relation to ROA and negative and insignificant in relation to MVS. Social disclosure is positive in relation to both ROA and MVS but is statistically insignificant at the 5% level. Governance disclosure is negative and insignificant in relation to ROA but positive and significant at the 10% level in relation to MVS. These divergent results reinforce the argument that ESG disclosure should not necessarily be treated as a homogeneous construct when examining financial performance. The findings are also consistent with the mixed evidence reported in previous studies, which has identified differences in the effects of individual ESG dimensions across countries, industries and financial-performance measures.

CONCLUSION, RECOMMENDATIONS AND CONTRIBUTION TO KNOWLEDGE

Conclusion

This study examined the relationship between Environmental, Social and Governance (ESG) disclosures and the financial performance of listed insurance firms in Nigeria, using Return on Assets (ROA) and Market Value per Share (MVS) as measures of financial performance. Based on the panel regression results, environmental disclosure had a positive but statistically insignificant relationship with ROA, while its relationship with MVS was negative and statistically insignificant. Social disclosure was positively related to both ROA and MVS, but the relationships were not statistically significant at the 5% level. Governance disclosure, on the other hand, had a negative and statistically insignificant relationship with ROA but a positive relationship with MVS that was statistically significant at the 10% level.

The findings suggest that ESG disclosure does not exert a uniform influence on the financial performance of listed insurance firms in Nigeria. In particular, the relatively stronger association between governance disclosure and MVS indicates that governance-related information may be more relevant to market valuation than to accounting profitability. The limited statistical significance observed for environmental and social disclosures may reflect the relatively developing nature of ESG reporting and its integration into financial decision-making within the Nigerian insurance sector. The study therefore concludes that greater attention to the quality, consistency and relevance of ESG disclosure is necessary if such disclosures are to generate stronger financial and market outcomes.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Listed insurance firms should strengthen the quality and consistency of their environmental disclosures. Although environmental disclosure had a positive relationship with ROA, the relationship was statistically insignificant. Firms should therefore move beyond basic disclosure towards meaningful environmental strategies that are integrated into their operational and business decisions.
2. Insurance firms should strengthen their social disclosure practices. The positive relationships between social disclosure and both ROA and MVS suggest that stronger social practices may contribute to improved financial outcomes over time. Firms should therefore give greater attention to employee welfare, customer relations, community engagement and other relevant social responsibilities.
3. Insurance firms should place greater emphasis on governance disclosure and transparency. The positive and marginally significant relationship between governance disclosure and MVS indicates that governance information may be relevant to investors' valuation of insurance firms. Firms should enhance transparency in areas such as board effectiveness, accountability, risk management and corporate governance practices.
4. NAICOM and other relevant regulatory authorities should strengthen ESG reporting requirements within the insurance sector. Clearer and more consistent reporting guidelines would improve comparability among firms and enhance the usefulness of ESG information to investors and other stakeholders.
5. Investors and other stakeholders should give greater consideration to ESG information when evaluating insurance firms. Increased stakeholder demand for credible ESG information could encourage firms to improve the quality and relevance of their disclosures and promote greater integration of sustainability considerations into corporate decision-making.

Contribution to Knowledge

The study contributes to knowledge in several respects.

1. It provides empirical evidence on the relationship between the individual dimensions of ESG disclosure and financial performance within the Nigerian insurance sector, using both ROA and MVS to capture accounting and market dimensions of financial performance. This provides a more comprehensive assessment than treating financial performance as a single-dimensional construct.
2. The study contributes by demonstrating that the three dimensions of ESG disclosure do not have uniform relationships with financial performance. While environmental and social disclosures generally produced positive or mixed relationships that were statistically insignificant at the 5% level, governance disclosure demonstrated a positive and marginally significant relationship with MVS. This finding highlights the importance of examining ESG components separately rather than relying solely on an aggregate ESG measure.
3. By covering all 23 listed insurance firms in Nigeria, the study provides comprehensive sector-level evidence on ESG disclosure and financial performance. This broad coverage helps address the relative paucity of empirical evidence on ESG practices within Nigeria's insurance industry and provides a basis for further research on ESG reporting and corporate performance in emerging markets.

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APPENDIX (I)

List of Quoted Insurance Firms in Nigeria from 2012-2023

1. African Alliance Insurance
2. AIICO Insurance
3. AXA Mansard Insurance
4. Consolidated Hallmark Insurance
5. Cornerstone Insurance
6. Goldlink Insurance
7. Guinea Insurance
8. International Energy Insurance
9. Lasaco Assurance
10. Law Union and Rock Insurance
11. Linkage Assurance
12. Mutual Benefit Insurance
13. NEM Insurance

14. Niger Insurance
15. Prestige Assurance Co
16. Regency Alliance Insurance
17. Sovereign Trust Insurance
18. Staco Insurance
19. Standard Alliance Insurance
20. SUNU Assurances Nigeria
21. Universal Insurance
22. Veritas Kapital Assurance
23. Wapic Insurance

Appendix 1

	ROA	MVS	EVDF	SCDF	GOVDF	FMZ
Mean	1.390779	0.107586	0.343116	0.678623	0.802536	7.424876
Median	1.287500	0.076866	0.400000	0.700000	0.800000	7.413946
Maximum	5.700000	0.177699	0.700000	0.900000	0.900000	8.502555
Minimum	0.110000	0.010057	0.000000	0.400000	0.600000	7.097921
Std. Dev.	0.939518	0.062470	0.177015	0.157525	0.086302	0.276330
Skewness	3.719945	0.096592	0.234013	-0.360384	-0.286710	2.651827
Kurtosis	17.47042	1.144666	2.529064	2.067798	1.929868	9.618592
Jarque-Bera	3044.567	40.01522	5.069531	15.96785	16.95093	827.2468
Probability	0.000000	0.000000	0.079280	0.000341	0.000209	0.000000
Sum	383.8550	29.69386	94.70000	187.3000	221.5000	2049.266
Sum Sq. Dev.	242.7407	1.073191	8.616920	6.823877	2.048225	20.99854
Observations	276	276	276	276	276	276

Appendix 2

Covariance Analysis: Spearman rank-order

Date: 01/22/25 Time: 19:54

Sample: 2012 2023

Included observations: 276

Correlation Probability	ROA	MVS	EVDF	SCDF	GOVDF
ROA	1.000000 -----				
MVS	-0.317967 0.0000	1.000000 -----			
EVDF	-0.104970 0.0817	0.096809 0.1085	1.000000 -----		
SCDF	-0.004064 0.9464	0.198394 0.0009	0.617038 0.0000	1.000000 -----	
GOVDF	-0.013699 0.8208	0.130702 0.0299	0.553561 0.0000	0.433541 0.0000	1.000000 -----
FMZ	-0.399862 0.0000	0.570725 0.0000	0.037771 0.5321	0.160471 0.0076	0.005119 0.9325

Appendix 3

Dependent Variable: ROA
Method: Panel Least Squares
Date: 01/22/25 Time: 20:03
Sample: 2012 2023
Periods included: 12
Cross-sections included: 23
Total panel (balanced) observations: 276

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.302904	0.204984	25.86988	0.0000
EVDF	0.016728	0.034645	0.482843	0.6296
SCDF	0.062649	0.034291	1.826952	0.0689
GOVDF	-0.072435	0.059742	-1.212476	0.2265
FMZ	-0.525564	0.026923	-19.52099	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.997613	Mean dependent var	1.390779
Adjusted R-squared	0.997363	S.D. dependent var	0.939518
S.E. of regression	0.048242	Akaike info criterion	-3.132456
Sum squared resid	0.579503	Schwarz criterion	-2.778286
Log likelihood	459.2789	Hannan-Quinn criter.	-2.990333
F-statistic	4001.978	Durbin-Watson stat	1.667233
Prob(F-statistic)	0.000000		

Appendix 4

Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 01/22/25 Time: 23:23
Sample: 2012 2023
Periods included: 12
Cross-sections included: 23
Total panel (balanced) observations: 276
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EVDF	0.016196	0.034639	0.467563	0.6405
SCDF	0.062220	0.034287	1.814677	0.0707
GOVDF	-0.071767	0.059734	-1.201444	0.2306
FMZ	-0.523617	0.026908	-19.45958	0.0000
C	5.288387	0.289377	18.27506	0.0000

Effects Specification

	S.D.	Rho
Cross-section random	0.980097	0.9976
Idiosyncratic random	0.048242	0.0024

Weighted Statistics

R-squared	0.781858	Mean dependent var	0.019760
Adjusted R-squared	0.775686	S.D. dependent var	0.074239
S.E. of regression	0.048359	Sum squared resid	0.633747
F-statistic	94.27633	Durbin-Watson stat	2.003582
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	-0.109150	Mean dependent var	1.390779
Sum squared resid	269.2358	Durbin-Watson stat	2.003587

Appendix 5

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.307347	4	0.2572

Appendix 6

Dependent Variable: MVS

Method: Panel Least Squares

Date: 01/22/25 Time: 22:29

Sample: 2012 2023

Periods included: 12

Cross-sections included: 23

Total panel (balanced) observations: 276

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EVDF	-0.024514	0.032570	-0.752647	0.4524
SCDF	0.010650	0.032238	0.330346	0.7414
GOVDF	0.110254	0.056164	1.963074	0.0508
FMZ	0.370247	0.025311	14.62811	0.0000
C	-2.728754	0.192708	-14.16006	0.0000

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.822757	Mean dependent var	0.107586
Adjusted R-squared	0.812925	S.D. dependent var	0.062470
S.E. of regression	0.045353	Akaike info criterion	-3.255966
Sum squared resid	0.512172	Schwarz criterion	-2.901796
Log likelihood	476.3233	Hannan-Quinn criter.	-3.113844
F-statistic	10.49029	Durbin-Watson stat	2.076199
Prob(F-statistic)	0.000000		

Appendix 7

Dependent Variable: MVS

Method: Panel EGLS (Cross-section random effects)

Date: 01/22/25 Time: 23:16

Sample: 2012 2023

Periods included: 12

Cross-sections included: 23

Total panel (balanced) observations: 276

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EVDF	0.004388	0.020916	0.209791	0.8340
SCDF	0.021114	0.022109	0.955020	0.3404
GOVDF	0.063354	0.037829	1.674750	0.0951
FMZ	-0.002223	0.010002	-0.222235	0.8243
C	0.057413	0.082174	0.698671	0.4854

Effects Specification

	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	0.045353	1.0000

Weighted Statistics

R-squared	0.816847	Mean dependent var	0.107586
Adjusted R-squared	0.802335	S.D. dependent var	0.062470
S.E. of regression	0.062397	Sum squared resid	1.055111
F-statistic	1.160970	Durbin-Watson stat	2.034157
Prob(F-statistic)	0.328386		

Unweighted Statistics

R-squared	0.016847	Mean dependent var	0.107586
Sum squared resid	1.055111	Durbin-Watson stat	2.034157

Appendix 8

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	260.567047	4	0.0000

Appendix 9

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	385.514	Prob. F(2,269)	0
Obs*R-squared	204.613	Prob. Chi-Square(2)	0

Appendix 11

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	86.6436	Prob. F(4,271)	0
Obs*R-squared	154.8875	Prob. Chi-Square(4)	0
Scaled explained SS	813.4287	Prob. Chi-Square(4)	0

Appendix 12

Ramsey RESET Test			
Equation: UNTITLED			
Specification: ROA EVDF SCDF GOVDF FMZ C			
Omitted Variables: Squares of fitted values			
	Value	df	Probability
t-statistic	0.036910	270	0.9706
F-statistic	0.001362	(1, 270)	0.9706
Likelihood ratio	0.001393	1	0.9702
F-test summary:			
	Sum of Sq.	df	Mean Squares
Test SSR	0.001107	1	0.001107
Restricted SSR	219.4550	271	0.809797
Unrestricted SSR	219.4538	270	0.812792
LR test summary:			
	Value		
Restricted LogL	-359.99		
Unrestricted LogL	-359.989		

Appendix 12

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: Untitled			
Periods included: 12			
Cross-sections included: 23			
Total panel observations: 276			
Cross-section effects were removed during estimation			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	2486.419	253	0
Pesaran scaled LM	99.28756		0
Bias-corrected scaled LM	98.24211		0
Pesaran CD	48.32519		0