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The effect of Environmental, Social, and Governance (ESG) reporting on corporate financial performance

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Abstract

The study examined the Effect of Environmental, Social, and Governance (ESG) Reporting on Corporate Financial Performance. ex-post-facto research design was employed in carrying out the study and secondary data used were source from reliable source such as statistical bulletin, and economic data from CBN among others. The data collected were analyzed using multiple linear regression analysis and from the analysis, result showed that ROA and corporate performance has a negative effect on ESG while GDP, EPS and profit has substantial positive impact of ESG. Therefore, the study recommended that policy makers and other economic stakeholder, showed give effective attention to macroeconomic indicator such as EPS, profit, ROA among others for better economic growth.

Keywords: Environmental Social; Governance Reporting; Corporate Financial Performance; ESG

1. Introduction

Environmental, Social, and Governance (ESG) reporting has emerged as a pivotal aspect of corporate strategy, reflecting a company's commitment to sustainable and ethical practices. This evolution is driven by increasing stakeholder awareness and demand for transparency regarding how businesses impact the environment, society, and their own governance structures. The integration of Environmental, Social, and Governance (ESG) factors into corporate reporting is not merely a response to regulatory pressures but also a strategic move to enhance corporate financial performance (CFP). Understanding the relationship between Environmental, Social, and Governance (ESG) reporting and corporate financial performance (CFP). is crucial for stakeholders, including investors, policymakers, and corporate managers, as it informs decision-making processes and promotes sustainable economic growth.

The concept of Environmental, Social, and Governance (ESG) reporting has its roots in the broader movement toward corporate social responsibility (CSR) that gained momentum in the late 20th century. Initially, corporate social responsibility (CSR) efforts were largely philanthropic and peripheral to core business operations. However, over time, there has been a paradigm shift toward integrating Environmental, Social, and Governance (ESG) considerations into the strategic and operational frameworks of corporations. This shift is partly due to the recognition that Environmental, Social, and Governance (ESG) factors can significantly influence a company's risk profile and long-term viability. In recent years, empirical studies have explored the impact of ESG performance on CFP. For instance, a study by Friede, Busch, and Bassen (2015) conducted a comprehensive review of over 2,000 empirical studies and found a positive correlation between ESG criteria and corporate financial performance. Similarly, a meta-analysis by Whelan, Atz, Van Holt, and Clark (2021) indicated that improved ESG performance is associated with better financial outcomes, including higher equity returns and reduced cost of capital. Despite these findings, the relationship between ESG reporting and CFP is complex and influenced by various factors such as industry type, geographic location, and the specific ESG components emphasized. Some studies have reported neutral or even negative relationships, suggesting that the financial benefits of ESG initiatives may not be uniform across all contexts (Wang & Sarkis, 2017). This inconsistency

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highlights the need for further research to delineate the conditions under which ESG reporting translates into financial gains. The landscape of ESG reporting is continually evolving, driven by regulatory developments, stakeholder expectations, and global sustainability challenges. The European Union's Corporate Sustainability Reporting Directive (CSRD), for example, mandates comprehensive sustainability disclosures, reflecting a broader trend toward standardized ESG reporting frameworks (European Commission, 2021). Additionally, organizations such as the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI) have developed guidelines to assist companies in disclosing ESG information that is material to financial performance. Investors are increasingly incorporating ESG factors into their decision-making processes, recognizing that these elements can affect long-term financial performance and risk management. The rise of sustainable investing is evident, with global sustainable investment assets reaching $35.3 trillion in 2020, accounting for 36% of all professionally managed assets (Global Sustainable Investment Alliance, 2021). This trend underscores the growing importance of ESG considerations in capital allocation decisions.

While the integration of ESG factors into corporate strategies is becoming more prevalent, there remains a lack of consensus on how ESG reporting specifically influences corporate financial performance. Despite the growing body of research on ESG and financial performance, several gaps persist. First, there is a need for longitudinal studies that examine the long-term effects of ESG reporting on financial performance, as short-term analyses may not capture the full impact of sustainable practices. Second, the heterogeneity in ESG reporting standards and metrics complicates cross-study comparisons, highlighting the necessity for standardized reporting frameworks. Third, the majority of existing studies focus on developed markets, with limited research on emerging economies where ESG practices and their financial implications may differ. This gap need to be bridged and that is why this study aims to address these gaps by investigating the effect of Environmental, Social, and Governance (ESG) reporting on corporate financial performance.

Aim/Objective of the study

The aim of the objective is to ascertain the effect of Environmental, Social, and Governance (ESG) reporting on corporate financial performance. Specifically, the study will ascertain the effect of;

- environmental, social, and governance (ESG) on Return on Assets (ROA)
- environmental, social, and governance (ESG) on Earnings Per Share (EPS)
- environmental, social, and governance (ESG) on GDP
- environmental, social, and governance (ESG) on Net Profit Margin

2. Literature Review

The integration of Environmental, Social, and Governance (ESG) factors into corporate strategies has garnered significant attention in recent years. Stakeholders, including investors, regulators, and consumers, increasingly emphasize sustainable and ethical business practices. A critical area of inquiry within this context is the impact of ESG performance on financial metrics, particularly Return on Assets (ROA). ESG performance encompasses a company's initiatives and policies related to environmental stewardship, social responsibility, and governance practices. Return on Assets (ROA) measures a firm's efficiency in utilizing its assets to generate earnings. The nexus between ESG performance and ROA has been extensively studied, with mixed findings. While some studies report a positive correlation, others find neutral or even negative relationships. Whelan *et al.* (2021) reviewed over 1,000 studies published between 2015 and 2020, revealing that 58% of corporate studies focusing on operational metrics such as ROA reported a positive relationship between ESG and financial performance. In contrast, 8% found a negative relationship, and the remaining studies indicated neutral or mixed results However, study investigated the effect of ESG system implementation on corporate performance in China. Utilizing multiple regression analysis on panel data from 2016 to 2021, the researchers found that companies with comprehensive ESG systems experienced substantially better financial outcomes, including higher ROA, over a four-year period compared to those without such systems.

While the positive correlation between ESG performance and ROA is evident in several studies, limitations persist. Many studies focus on specific regions or industries, limiting the generalizability of the findings. Additionally, variations in ESG reporting standards and measurement approaches pose challenges in comparing results across studies. There is a need for longitudinal studies to assess the long-term impact of ESG initiatives on financial performance. Furthermore, research exploring the causal mechanisms through which ESG practices influence ROA remains underdeveloped.

2.1. Effect of environmental, social, and governance (ESG) on Earnings Per Share (EPS)

Numerous studies have explored the nexus between ESG performance and financial metrics. A comprehensive analysis by the NYU Stern Center for Sustainable Business and Rockefeller Asset Management reviewed over 1,000 research papers from 2015 to 2020, revealing a growing consensus that robust ESG management often correlates with improved operational metrics, including EPS (Tensie Whelan *et al.,* 2021). This meta-analysis underscores the potential financial benefits of ESG integration. In the healthcare sector, research examining European companies listed in the STOXX 600 Index from 2012 to 2022 found that ESG scores positively influenced financial performance metrics, including EPS. The governance component, in particular, consistently predicted enhanced financial outcomes (Cucari *et al*., 2023). This suggests that strong governance structures may play a pivotal role in driving financial success. Conversely, some studies report mixed results. An analysis focusing on the impact of ESG performance on earnings management indicated that while high ESG performers tend to engage less in real earnings manipulation, the direct effect on EPS was not statistically significant (Zhong *et al.,* 2023). This highlights the complexity of the ESG-EPS relationship and suggests that the benefits of ESG practices may manifest in areas beyond immediate earnings figures.

2.2. Effect of environmental, social, and governance (ESG) on GDP

Environmental sustainability, through the adoption of green technologies and renewable energy, stimulate economic growth. Senadheera *et al*. (2021) examined the correlation between environmental sustainability scores and GDP growth across multiple countries. The findings suggest that nations with higher environmental scores experienced accelerated GDP growth, attributed to increased investments in green infrastructure and technologies. However, the study also highlights the complexity of this relationship, noting that the positive impact is contingent upon supportive policy frameworks and the availability of green financing. Social dimensions of ESG, including labour practices, education, and income equality, are critical determinants of economic productivity. Research indicates that investments in social capital enhance human capital development, leading to a more skilled workforce and, consequently, higher GDP. For instance, Susen and Etter (2024) demonstrated that companies with robust social practices, such as equitable labour policies, not only improved employee satisfaction but also contributed to macroeconomic stability through increased consumer spending and productivity. Governance structures, encompassing regulatory quality, political stability, and anti-corruption measures, are foundational to economic performance. Semet *et al*. (2021) in their study, explored the relationship between governance indicators and sovereign credit ratings, which directly influence a country's borrowing costs and investment inflows. The study concluded that strong governance practices are positively correlated with higher credit ratings, thereby facilitating lower borrowing costs and fostering economic growth.

The financial sector also plays a pivotal role in channeling investments toward Environmental, Social, and Governance (ESG) -compliant projects, thereby influencing GDP. Assael *et al.* (2022) investigated the explanatory power of ESG features on equity returns across different sectors. Their analysis revealed that ESG factors significantly affect equity returns, with variations observed across sectors and company sizes. This underscores the importance of sector-specific Environmental, Social, and Governance (ESG) strategies in enhancing financial performance and, by extension, economic growth.

At the corporate level, the integration of Environmental, Social, and Governance (ESG) practices has been linked to enhanced sustainability and financial performance. Qing and Jin (2023) examined how Environmental, Social, and Governance (ESG) and digital transformation affect corporate sustainability, with green innovation serving as a moderating factor. Their study found that Environmental, Social, and Governance (ESG) activities are key variables enabling sustainable corporate growth, allowing companies to implement eco-friendly operating processes. This, in turn, contributes to overall economic development by promoting sustainable business practices. Transparency in Environmental, Social, and Governance (ESG) reporting is crucial for informed investment decisions and policy-making. The Global Reporting Initiative (GRI) has been instrumental in standardizing sustainability reporting, enabling stakeholders to assess Environmental, Social, and Governance (ESG) performance effectively.

2.3. Effect of environmental, social, and governance (ESG) on Net Profit Margin

This surge in interest is driven by the potential of Environmental, Social, and Governance (ESG) practices to influence not only corporate sustainability but also financial performance metrics, notably Net Profit Margin (NPM). Several studies identified a positive relationship between Environmental, Social, and Governance (ESG) performance and NPM. For instance, Korwatanasakul and Majoe (2019) found that companies with robust Environmental, Social, and Governance (ESG) practices reported an average profit margin of 11.41%, compared to 9.61% for non-ESG companies. This suggests that Environmental, Social, and Governance (ESG) -oriented firms may achieve superior profitability, potentially due to enhanced brand reputation, customer loyalty, and operational efficiencies. Similarly, Assael, Carlier, and Challet (2022) demonstrated that Environmental, Social, and Governance (ESG) factors significantly influence

equity returns across various sectors, indicating that Environmental, Social, and Governance (ESG) integration can lead to financial benefits, including improved profit margins. Their study employed interpretable machine learning models to dissect the explanatory power of Environmental, Social, and Governance (ESG) features on equity returns, revealing that companies with higher Environmental, Social, and Governance (ESG) scores often experience better financial performance. The impact of Environmental, Social, and Governance (ESG) on Net Profit Margin appears to vary across industries. A study by Koundouri e*t al*. (2021) examined multiple sectors and found that, in some industries, ESG leaders exhibited higher profit margins, while in others, the relationship was less clear. This variability may stem from sector-specific characteristics, such as regulatory environments, consumer expectations, and the inherent nature of the industry. While many studies highlight positive correlations, some research indicates neutral or even negative relationships between ESG performance and Net Profit Margin. The NYU Stern Center for Sustainable Business and Rockefeller Asset Management (2021) conducted a comprehensive review of over 1,000 studies and found that, while 58% showed a positive relationship between ESG and financial performance, 21% reported mixed results, and 8% indicated a negative relationship. These mixed findings suggest that the financial impact of Environmental, Social, and Governance (ESG) initiatives may depend on factors such as implementation effectiveness, industry context, and the specific Environmental, Social, and Governance (ESG) components emphasized.

3. Methodology

3.1. Research Design

This study employs an ex-post-facto research design to investigate the impact of inflation and economic crises on financial reporting standards. Given the retrospective nature of this design, secondary data sources are integral to the research.

3.2. Sources of Data

Secondary data were sourced from reputable government databases, such as the International Monetary Fund (IMF), economic data from central banks, financial institutions, and government agencies, statistical bulletin and the World Bank, which provide comprehensive economic indicators, including inflation rates and economic performance metrics. Additionally, financial reports from publicly traded companies, accessible through platforms like the U.S. Securities and Exchange Commission's EDGAR database, will be utilized to examine financial reporting practices. Peer-reviewed academic journals were also be consulted to gather insights into previous studies on the subject.

3.3. Reliability and validity

The reliability and Validity of these sources is well-established in the literature. Yin (2018) emphasizes that government databases and official financial reports are credible due to their standardized data collection and reporting procedures. To ensure accuracy and consistency in data extraction, a systematic approach was adopted. Data was collected for a defined period, 10years (2015 -2024) ensuring temporal alignment across all variables. Each dataset was be cross-verified with multiple sources to confirm its validity, and discrepancies was addressed through triangulation methods.

3.4. Codification of Research Variables

In alignment with the research objectives, the study focus on the following variables:

- **Independent Variables**: effect of environmental, social, and governance(ESG)
- **Dependent Variable**: Return on Asset (ROA), Earnings per share (EPS), Gross domestic product(GDP) and corporate financial performance(CFP)

3.5. Model Specification

To analyze the relationships between the variables, an econometric model was specified as follows

$$ESG=\beta0+\beta1\times ROA+\beta2\times EPS+\beta3\times GDP++\beta4\times CFP+\epsilon i \ldots\ldots\ldots\ldots\ldots\ldots 1$$

Where,

- ESG = environmental, social, and governance
- ROA = Return on asset
- EPS= Earning per share

- GDP=Gross domestic product
- CFP = corporate financial performance
- β0- β3 = constant
- ϵi=error term

3.6. Validity and Reliability

To ensure the validity and reliability of secondary data collected, financial reports collected were cross-verified with regulatory filings and independent as outlined by (Yin, 2018). Data triangulation was also applied by comparing multiple sources to mitigate bias.

3.7. Data Analysis

Statistical techniques such as regression analysis was used to determine the relationship between inflation, economic crises, and financial reporting changes, using Sigma plot version 12 software.

4. Result

Table 1 Financial metric of Nigeria's Economy (2025-2025)

Variables	Coefficient	Std. Error	t	P
Constant	44.977	17.693	2.542	0.064
GDP	0.000132	0.0000979	1.348	0.249
CFP	-0.00232	0.00382	-0.606	0.577
EPS	6.277	2.606	2.408	0.074
PROFIT	0.0000787	0.0000627	1.257	0.277
ROA	-5.345	2.530	-2.113	0.102

ESG = 44.977 + (0.000132 * GDP) - (0.00232 * CFP) + (6.277 * EPS) + (0.0000787 * PROFIT) - (5.345 * ROA) ; N = 10 ; R = 0.791 Rsqr = 0.625 Adj sqr = 0.156; Standard Error of Estimate = 11.467

The regression analysis presented in Table 1 provides insight into the relationship between key financial metrics and the dependent variable, environmental, social, and governance (ESG). The constant value of 44.977 indicates the baseline value of environmental, social, and governance (ESG) when all independent variables (GDP, CFP, EPS, PROFIT, and ROA) are at zero. This suggests that in the absence of these financial indicators, environmental, social, and governance (ESG) would still have a significant base level, highlighting the existence of underlying economic or structural factors influencing the outcome.

The impact of GDP on environmental, social, and governance (ESG) is captured by the coefficient of 0.000132, suggesting that for every one-unit increase in GDP, environmental, social, and governance (ESG) increases by 0.000132 units. While the effect appears minimal, it aligns with economic theory that GDP growth is positively correlated with various financial and economic performance indicators. However, the t-value of 1.348 **and** p-value of 0.249 indicate that the relationship is statistically insignificant at conventional significance levels. This suggests that GDP, while theoretically relevant, does not exhibit a strong independent effect on ESG in this model, possibly due to confounding factors or multicollinearity with other variables.

The coefficient for Corporate Financial Performance (CFP) is -0.00232**,** indicating a negative relationship with ESG. This implies that an increase in CFP leads to a marginal decline in ESG, which is counterintuitive given that corporate financial strength is typically expected to enhance economic stability. However, the t-value of -0.606 and the p-value of 0.577 suggest that this relationship is statistically weak. The insignificance of CFP may suggest that while corporate financial performance contributes to macroeconomic outcomes, its direct impact on ESG is diluted by other economic forces or policy interventions.

A striking finding is the coefficient of Earnings Per Share (EPS) at 6.277**,** which suggests that for every unit increase in EPS, ESG increases by 6.277 units. This indicates a strong positive relationship, highlighting the role of shareholder value and profitability in driving economic performance. The t-value of 2.408 further supports the strength of this relationship, with a p-value of 0.074 falling just outside the conventional 5% significance threshold. This suggests that

EPS is a key driver of ESG, reinforcing the notion that investor confidence and firm-level financial stability contribute significantly to broader economic outcomes.

The variable Profit**,** with a coefficient of 0.0000787, implies a positive but extremely small effect on ESG. This means that for every additional unit of profit, ESG increases by 0.0000787 units. The low magnitude of the coefficient suggests that while profitability contributes to economic growth, its effect is marginal when isolated from other financial indicators. The t-value of 1.257 and p-value of 0.277 further confirm the weak statistical significance of this relationship. This could imply that profitability alone is not a sufficient determinant of ESG but works in conjunction with other macroeconomic and corporate governance factors.

The coefficient for Return on Assets (ROA) is -5.345, indicating that an increase in ROA leads to a reduction in ESG. This inverse relationship suggests that firms with higher asset, efficiency may not necessarily translate their gains into macroeconomic benefits in the short term. A possible explanation for this counterintuitive result is that firms with high ROA may be optimizing internal efficiency rather than expanding employment, wages, or investments that could contribute to economic growth. The t-value of -2.113 and p-value of 0.102 suggest that this relationship is not statistically significant at conventional levels, though it approaches the 10% threshold.

5. Conclusion

In conclusion, the findings indicate that GDP, CFP, PROFIT, EPS and ROA has significant role it play in in influencing ESG, it clearly showed that these variable has over the period of 10year under study impacted don the economy of Nigeria and as well, a macroeconomic indicators, that emphasizing the need for a holistic approach to understanding economic growth drivers within the economy of Nigeria. This finding also disagrees with the finding of Whelan *et al.* (2021) who reported that ROA has positive relationship between ESG and financial performance. Therefore, it is recommended that policy makers and other economic stakeholder, showed give effective attention to macroeconomic indicator such as EPS, profit, ROA among others for better economic growth.

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