Influence of Environmental Social and Governance criteria on Accounting Standards

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Abstract
As the global business environment increasingly emphasizes sustainability and ethical governance, there is a pressing need to understand how Environmental, Social, and Governance (ESG) criteria influence accounting standards, particularly in aligning financial reporting with stakeholder expectations. This study explores the impact of ESG factors on the evolution of accounting standards, addressing the gap between the rising importance of ESG metrics and their integration into traditional financial frameworks. Employing a survey design, data were collected through structured questionnaires distributed to investors, regulators, and consumers across various industries using simple random sampling. The analysis, conducted through Structural Equation Modelling (SEM) using AMOS software version 23.0, reveals that governance and environmental considerations significantly drive the incorporation of ESG into accounting standards, while the social dimension shows a relatively weaker direct influence. These findings highlight the increasing relevance of ESG in reshaping financial reporting practices and underline the need for greater emphasis on the social aspect of ESG integration.

Keywords: Accounting Standards, Environmental Metrics, Financial Transparency, Governance Metrics, Social Metrics,

1. Introduction

The growing emphasis on sustainability and ethical business practices has brought Environmental, Social, and Governance (ESG) criteria to the forefront of corporate strategy and financial reporting (Jámbor, & Zanócz 2023). ESG factors, encompassing issues such as climate change, resource management, social equity, and corporate governance, are no longer peripheral concerns but key determinants of a company's long-term viability and success (Li, et, al. 2024). This shift reflects increasing demands from investors, regulators, and other stakeholders for greater transparency and accountability in how organizations address these pressing issues (Nørreklit, et, al. 2024). As businesses face mounting pressure to align their practices with global sustainability goals, the implications for accounting standards are profound and far-reaching (Wong, et, al. 2021).

Traditionally, accounting standards have been designed to provide an accurate view of a company's financial position, emphasizing metrics like profitability, liquidity, and solvency. Frameworks such as the International Financial Reporting Standards (IFRS) and Generally Accepted Accounting Principles (GAAP) have successfully guided financial reporting for decades (Ho, (2022). However, these standards were not initially designed to incorporate non-financial elements like ESG factors, which are increasingly critical to assessing corporate performance (Olayinka, 2022). This misalignment has sparked a growing debate about how accounting frameworks can evolve to adequately reflect the complexities of

ESG-related risks and opportunities (Raghavan, 2022).

Efforts to address these challenges have led to the emergence of voluntary reporting frameworks, such as the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) (Ibrahim, et, al. 2024). While these frameworks provide valuable tools for ESG reporting, they are not universally adopted or integrated into mandatory accounting standards (Bose, 2020). This creates inconsistencies in reporting practices, making it difficult for stakeholders to compare and evaluate ESG performance across organizations (Darnall, et, al. 2022). The lack of standardized guidance also poses challenges for accountants and auditors tasked with ensuring the reliability and completeness of ESG disclosures (Salin, et, al. 2024).

Among existing solutions, the integration of ESG criteria into established accounting standards appears to be the most promising approach (Raghavan, et, al. 2022). This would ensure consistency, comparability, and reliability in financial reporting while addressing the growing demand for ESG accountability. However, achieving this integration is complex, requiring collaboration between standard-setting bodies, industry stakeholders, and regulators (Blind, & Heß, 2023). It also demands a rethinking of traditional accounting concepts to capture the interplay between financial and non-financial elements effectively (Bychkova, et, al. 2021).

This paper explores the influence of ESG criteria on the evolution of accounting standards, with a focus on how these factors are reshaping the traditional financial reporting landscape. By analyzing the integration of ESG into existing accounting frameworks, the study seeks to provide a comprehensive understanding of the opportunities and challenges presented by this transformation. Ultimately, the research aims to shed light on how the measurement and incorporation of ESG factors can drive meaningful changes in corporate reporting practices, ensuring they meet the demands of a rapidly evolving global business environment.

2. Literatures Review

2.1 Environmental, Social, and Governance (ESG)

According to Aldowaish, et, al. (2022) Environmental, Social, and Governance (ESG) refers to a set of criteria used to evaluate a company’s operations and performance in three key areas environmental, social, and governance. Empirical studies have increasingly shown that (ESG) criteria significantly influence various corporate outcomes (Chen, & Gao, 2023). Companies with strong ESG performance tend to have improved financial performance, enhanced risk management, and greater investor appeal. For example, a study by Chen, & Gao, (2023) analyzed over 2,000 empirical studies and found a positive relationship between ESG factors (Environmental, Social, and Governance) and corporate financial performance (CFP) in most cases. Similarly, Lilas, (2024) demonstrated that high-sustainability companies - those that adopt ESG practices early - outperform their counterparts in stock market and accounting performance over the long term. Additionally, evidence suggests that firms with robust ESG practices enjoy lower capital costs, as investors favor companies with strong sustainability profiles, seeing them as lower-risk investments (Alduais, (2023). These findings emphasize the increasing importance of ESG factors (Environmental, Social, and Governance) in determining a company's financial health, investor relations, and overall sustainability, highlighting the need for their integration into corporate strategy and financial reporting (Chen, & Gao, 2023).

Environmental, social, and governance (ESG) metrics are widely recognized as the three core components used to measure a company's sustainability and ethical impact (Keeley, et, al. 2022). Numerous studies and ESG frameworks, such as the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB) (Ahi, & Searcy, (2015), Adu-Gyamfi, et, al. (2021), Stahl, et, al. (2020), Previtali, & Cerchiello, (2023), Sarhan, & Gerged, (2023), Githaiga, (2024)), categorize these metrics into environmental, (carbon footprint, Energy Consumption, Waste Management, Water Usage, compliance with environmental regulations.), social (Employee Diversity, Labor Practices, Community Engagement, Human Rights, company's contributions to the local and global community), and governance (Board diversity, Executive Compensation, Transparency, Anti-Corruption Practices, internal controls) dimensions. Empirical research consistently supports the use of these three metrics to comprehensively assess how companies manage risks and opportunities related to sustainability and ethical governance (Jámbor, & Zanócz, 2023).

2.1.1 Environmental Metrics

Empirical research on environmental metrics in ESG such as Kordsachia, Focke, & Velte, (2022) has shown their significant impact on corporate performance and investor behavior. Metrics such as carbon footprint, energy consumption, and waste management are increasingly important to stakeholders as they indicate a company's environmental responsibility and long-term sustainability. For instance, a study by Han, et, al. (2023) found that companies with lower carbon emissions tend to have higher valuations and better stock performance, as investors increasingly consider the risks associated with carbon-intensive operations. Similarly, research by Wang, Wu, & Zhang, (2022) demonstrated that firms with higher levels of carbon emissions face higher capital costs, reflecting investor concerns about future regulatory risks and potential liabilities. Energy efficiency metrics have also been shown by Gennitsaris, et, al. (2023) to have a positive correlation with financial performance, as companies that optimize energy usage often experience cost savings and operational efficiencies. Waste management practices, particularly the reduction and recycling of waste, have been linked to improved corporate reputation and stakeholder trust, further enhancing a company's market position (Afum, et, al. (2022). These empirical findings suggest that environmental metrics are critical variables that not only reflect a company's environmental impact but also influence its financial performance and investor attractiveness, making them essential components of ESG assessment (Kao, 2023).

2.1.2 Social Metrics

Empirical studies on social metrics in ESG research have revealed their significant effect on corporate results, mostly in areas connected to employee engagement, corporate reputation, and financial performance (Coelho, Jayantilal, & Ferreira, 2023). Social metrics, such as employee diversity, labor practices, community engagement, and human rights compliance, are gradually acknowledged as key drivers of organizational success (Fatima, & Elbanna, 2023). For instance, research by Dixon-Fyle, et, al. (2020) highlights that companies with greater gender and ethnic diversity are more likely to outperform their peers in profitability, reflecting the positive influence of diverse viewpoints on innovation and decision-making. Similarly, studies by Altman, (2020) found that firms with high employee contentment, as reflected in favorable labor practices, tend to achieve superior long-term stock returns, suggesting that positive workplace environments contribute to improved productivity and financial performance. Community engagement and corporate

philanthropy have also been linked to better brand loyalty and consumer trust, as shown in research by Sanchez, & Miller, (2024), which found that corporate social responsibility (CSR) initiatives can significantly augment customer satisfaction and financial performance. Moreover, compliance with human rights standards has been empirically associated with reduced risk of legal and reputational damages, further featuring the importance of robust social metrics in corporate ESG strategies. These findings illustrate that social metrics are not only crucial for assessing a company's social impact but also play a vital role in driving its financial success and sustaining its competitive advantage (Cader, Koneczna, & Smol, 2022).

2.1.3 Governance Metrics

Empirical research on governance metrics in ESG studies has consistently revealed that strong governance practices are fundamental for improving corporate performance, reducing risk, and attracting investment (Chen, Song, & Gao, 2023). Governance metrics, such as board composition, executive compensation, transparency, anti-corruption practices, and internal control have been linked to various positive corporate outcomes. For instance, studies by Abu Alia, et, al. (2022) revealed that companies with robust governance structures characterized by a higher proportion of independent directors and transparent board practices tend to perform better financially and experience lower volatility in stock returns. Similarly, research by van Wyk, & Wesson, (2021) found that excessive executive compensation misaligned with company performance is associated with poor financial outcomes, highlighting the importance of aligning compensation with shareholder interests. Transparency in corporate reporting, particularly regarding financial disclosures and ESG-related risks, has been empirically shown to enhance investor trust and reduce the cost of capital, as documented by Moussa, & Elmarzouky, (2024). Moreover, studies on anti-corruption practices, such as those by Ajayi, (2024), indicate that companies with strong anti-corruption policies are less likely to encounter legal and reputational risks, which in turn positively impacts their market valuation. These findings underscore the critical role of governance metrics in ensuring corporate accountability, fostering investor confidence, and driving sustainable financial performance, making them an essential component of comprehensive ESG evaluation.

2.2 Accounting Standards and Financial Reporting Practices

Empirical research on accounting standards and financial reporting practices has extensively examined how these practices evolve in response to various internal and external pressures, including the integration of ESG factors (Aureli, et, al. 2020). Studies have shown that the adoption of rigorous accounting standards enhances the quality and comparability of financial reporting, which is crucial for investor decision-making and market efficiency. For instance, research by Mensah, (2021) found that firms adopting International Financial Reporting Standards (IFRS) generally exhibit higher quality financial reporting, with reduced earnings management and improved transparency. Additionally, empirical studies have demonstrated that the integration of ESG criteria into financial reporting such as the adoption of integrated reporting frameworks leads to more comprehensive disclosures that better reflect a company's overall performance and risk profile. For example, a study by Caputo, et, al. (2021) highlights how integrated reporting, which combines financial and non-financial information, enhances corporate transparency and stakeholder trust. Furthermore, research by Singhania, & Gupta, (2024) suggests that companies with superior ESG disclosures

experience a lower cost of equity, as investors perceive these firms as less risky due to their proactive approach to sustainability and governance. These findings collectively underscore the impact of evolving accounting standards and financial reporting practices on corporate transparency, investor confidence, and market outcomes, highlighting the critical role that accurate and comprehensive reporting plays in the modern financial landscape (Sari, & Muslim, (2024).

2.3 Theoretical review

The theoretical foundation for understanding the influence of Environmental, Social, and Governance (ESG) criteria on accounting standards is rooted in several key theories that explore the interplay between corporate behavior, stakeholder expectations, and financial reporting.

One prominent framework is Stakeholder Theory, which posits that businesses are accountable not only to shareholders but to a broader array of stakeholders, including employees, customers, suppliers, and the community. As ESG factors increasingly shape stakeholder expectations, firms are compelled to integrate these criteria into their accounting practices to meet the demands for greater transparency and accountability (Dmytriyev, Freeman, & Hörisch, 2021).

Institutional Theory suggests that organizations are influenced by the norms, rules, and standards established within their industry or by regulatory bodies. The increasing institutionalization of ESG criteria through frameworks like the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) is driving changes in accounting standards to incorporate these non-financial elements (Burdon, & Sorour, 2020). These theories collectively underscore the dynamic relationship between ESG factors and accounting standards, highlighting how shifts in societal values, stakeholder demands, and institutional pressures are reshaping the landscape of financial reporting.

3. Methodology

This study employs a quantitative research design to explore the influence of Environmental, Social, and Governance (ESG) criteria on accounting standards. The research focuses on publicly traded companies across diverse industries, analyzing their ESG ratings and financial reporting practices over a specified timeframe. This approach enables the study to establish measurable relationships between ESG metrics and their impact on accounting standards. The methodology combines primary data collection through structured questionnaires with secondary data analysis from existing datasets, ensuring a robust and comprehensive investigation.

3.1 Data Collection Procedure

To gain deeper insights into the motivations, challenges, and impacts of integrating ESG criteria into accounting standards, a structured questionnaire was developed. The questionnaire was designed using a 5-point Likert scale, ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). It included sections covering environmental, social, and governance metrics, as well as questions on the perceived impact of these metrics on financial reporting practices. The target population included industry experts, accountants, and regulatory bodies, as these groups possess relevant expertise and experience regarding ESG integration. A sample of 270 respondents was selected using simple random sampling to ensure unbiased representation of opinions across the diverse population. Questionnaires were distributed through email and in-person surveys, ensuring high response rates and diverse feedback. The collected data were validated for completeness and consistency before proceeding to analysis.

3.2 Measurement of Variables

The independent variable (IV), Environmental, Social, and Governance (ESG) criteria, was measured using specific metrics for each dimension:

- Environmental: Carbon emissions, energy efficiency, and resource management practices.
- Social: Employee diversity, community engagement, and labor practices.
- Governance: Board composition, executive compensation, and shareholder rights.

The dependent variable (DV), Accounting Standards and Financial Reporting Practices, was measured through specific indicators such as:

- Disclosure Quality: The comprehensiveness and transparency of ESG-related disclosures in financial statements.
- Alignment with Standards: The extent to which companies incorporate ESG factors in compliance with IFRS or GAAP frameworks.
- Stakeholder Relevance: The perceived usefulness of ESG disclosures by stakeholders.

3.3 Data Analysis Procedure

The study utilized Structural Equation Modeling (SEM) for data analysis, employing AMOS software version 23.0 to test the relationships between ESG criteria and accounting standards. SEM was chosen for its ability to evaluate complex relationships among multiple variables, including latent constructs and observed indicators. Based on the formulation of the problem, theoretical review, and the conceptual framework of the research hypothesis are as follows:

H1. Environmental Metrics has a significant effect on Accounting Standards

The integration of environmental metrics into accounting standards is driven by the increasing recognition of the financial materiality of environmental factors (Javed, 2024). Climate change, carbon emissions, and resource depletion have a direct impact on business operations and financial performance. Regulators and stakeholders demand transparent reporting of these environmental factors to evaluate a company's sustainability (Wong, et, al. 2021). For instance, carbon pricing and emissions targets often translate into tangible costs and liabilities that need to be disclosed in financial reports.

Studies have shown that firms with high environmental risks, such as those in energy-intensive industries, are more likely to adopt rigorous reporting standards for environmental metrics (Liu, et, al. 2024).

H2. Social Metrics have a significant effect on Accounting Standards.

Social metrics, such as employee diversity, labor practices, and community engagement, have become critical components of corporate sustainability (Kandpal, et, al. 2024). These factors influence brand reputation, employee productivity, and customer loyalty key drivers of financial performance. However, traditional accounting standards do not adequately capture the intangible benefits or risks associated with these social dimensions, prompting calls for their inclusion (Giner, et, al. 2022).

Research indicates that firms with strong social practices often outperform their peers financially, suggesting a link between social responsibility and accounting practices. Companies with poor labor standards, for instance, face reputational risks that can significantly affect their financial disclosures (Lipton, 2020).

H3. Governance Metrics has a significant effect on Accounting Standards

Governance metrics, which include board independence, executive compensation, and shareholder rights, are critical to ensuring accountability and transparency in corporate decision-making (Larcker, & Tayan, 2020). Strong governance practices reduce risks of financial misstatements, fraud, and poor strategic decisions, directly

influencing the quality of financial reporting (Rostami, & Rezaei, 2022). Studies have consistently shown that companies with strong governance structures, such as those with independent audit committees, exhibit higher-quality financial reporting. Governance practices are also closely linked to compliance with global accounting standards (Hasan, et, al. 2022).

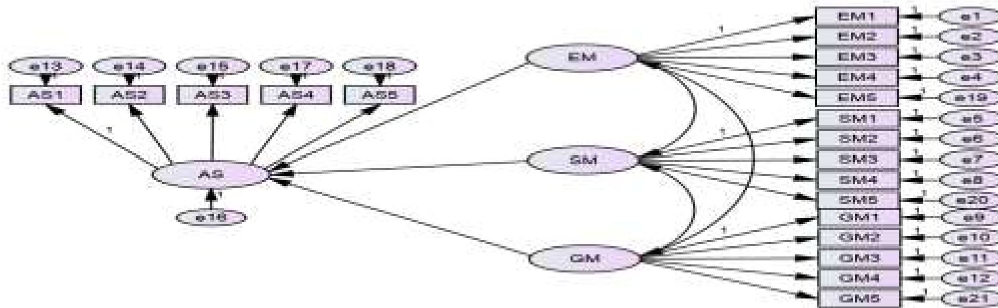

Fig 1 Research model
Fig 2. AMOS Result Analysis

4. Result and Discussion
The research data from the questionnaires were run in the SEM-AMOS 23 program; the following are the results of the analysis.

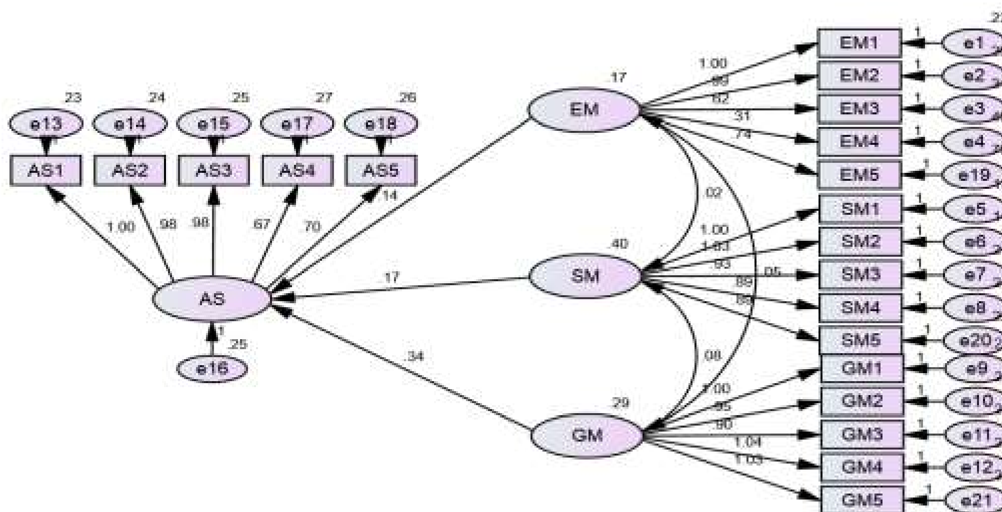

Table 1. Regression Weights: (Group number 1 -Default model)

			Estimate	S.E.	C.R.	P	Label
AS	<---	EM	.169	.039	4.337	***	par_12
AS	<---	SM	.138	.072	1.923	.055	par_13
AS	<---	GM	.336	.053	6.393	***	par_14
EM1	<---	EM	1.000				
EM2	<---	EM	.987	.121	8.174	***	par_1
EM3	<---	EM	.615	.087	7.034	***	par_2
EM4	<---	EM	.310	.087	3.562	***	par_3
SM1	<---	SM	1.000				
SM2	<---	SM	1.032	.036	28.574	***	par_4
SM3	<---	SM	.926	.038	24.453	***	par_5
SM4	<---	SM	.886	.039	22.646	***	par_6
GM1	<---	GM	1.000				
GM2	<---	GM	.949	.058	16.233	***	par_7
GM3	<---	GM	.903	.058	15.700	***	par_8
GM4	<---	GM	1.039	.061	16.915	***	par_9
AS1	<---	AS	1.000				
AS2	<---	AS	.983	.056	17.482	***	par_10
AS3	<---	AS	.976	.056	17.292	***	par_11
AS4	<---	AS	.671	.048	13.845	***	par_18
AS5	<---	AS	.699	.049	14.390	***	par_19
EM5	<---	EM	.735	.118	6.229	***	par_20
SM5	<---	SM	.891	.038	23.341	***	par_21
GM5	<---	GM	1.035	.062	16.705	***	par_22

***= P-Value < 0.05

Environmental Metrics (EM) Influence on Accounting Standard

Based on the result of AMOS calculation the result shows that, the coefficients of the path has a positive sign of 0.17, estimate of 0.169, with a critical ratio (C.R.) of 4.337 and a highly significant p-value ($p < 0.001$). This suggests that environmental factors have a positive and statistically significant influence on the evolution of accounting standards. As organizations place greater emphasis on environmental performance e.g., carbon footprint, energy consumption, Waste Management, Water Usage, compliance with environmental regulations this leads to increased integration of environmental considerations into financial reporting frameworks as revealed in the study of García Martín, & Herrero, (2020). The measurement variables for EM (EM1 to EM5) also show strong factor loadings, reinforcing the robustness of environmental metrics in driving changes in accounting standards.

Social Metrics (SM) Influence on Accounting Standard

Based on the result of AMOS calculation the result shows that, the coefficients of the path has a positive sign of 0.40, estimate of 0.138, with a C.R. of 1.923 and a p-value of 0.055, which is marginally above the conventional threshold of statistical significance ($p = 0.05$). While this suggests a positive relationship between social factors and accounting standards, the borderline significance indicates that social metrics may have a weaker or more

conditional influence compared to environmental or governance metrics as posits by Pedersen, Fitzgibbons, & Pomorski, (2021). This result implies that while companies are increasingly incorporating social metrics such as employee diversity and community engagement into their reporting, the influence of these factors on formal accounting standards is still developing.

Governance Metrics (GM) Influence on Accounting Standard

Based on the result of AMOS calculation the result shows that, Governance metrics show the strongest influence on accounting standards, coefficients of the path is a positive sign of 0.29, estimate of 0.336, with a C.R. of 6.393, and a highly significant p-value ($p < 0.001$). This indicates that governance factors, such as board composition, executive compensation, anti-corruption practices and internal control, play a critical role in shaping accounting standards as suggested by Shuvo, (2024). The strong factor loadings for GM1 to GM5 further emphasize that governance practices are fundamental drivers in the development and adaptation of accounting standards, particularly as stakeholders demand more transparency and accountability from firms.

Findings

The research findings reveal that Environmental, Social, and Governance (ESG) metrics significantly influence accounting standards, albeit to varying degrees. Governance metrics emerged as the most impactful, reflecting the critical role of robust corporate governance in ensuring transparency and accountability in financial reporting. Environmental metrics also demonstrated a strong influence, highlighting the increasing importance of addressing sustainability issues such as carbon emissions and resource management in accounting frameworks. While social metrics showed a relatively weaker effect, they remain essential for capturing the social dimensions of corporate responsibility. Overall, the study underscores the growing integration of ESG considerations into accounting standards, driven by stakeholder demands for more comprehensive and reliable reporting on non-financial factors.

5. Conclusion and Recommendations

The measurement variables for EM, SM, and GM all exhibit strong factor loadings and high significance, suggesting that the individual items (EM2, SM3, GM4) effectively capture the underlying constructs of environmental, social, and governance metrics. These loadings indicate that the chosen indicators for each ESG dimension are valid and reliable measures in assessing their influence on accounting standards.

Governance factors (GM) have the most substantial and statistically significant impact on accounting standards, implying that firms with better governance practices are more likely to adopt comprehensive and transparent financial reporting standards. Environmental factors (EM) also have a significant influence, indicating that sustainability-related reporting is increasingly being integrated into accounting standards. Social factors (SM), while positive, show a weaker and marginally significant effect, suggesting that the social dimension of ESG, although important, is still emerging as a direct influencer on accounting practices. These results highlight the growing integration of ESG factors into accounting standards, driven primarily by governance and environmental considerations, while the social dimension lags slightly in its direct impact.

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