West Science Accounting and Finance
Vol. 2, No. 03, November 2024, pp. 536~543

The Relationship between ESG Scores and Corporate Governance Practices on Corporate Financial Stability in the Infrastructure Sector in Indonesia

Loso Judijanto[1], Rina Destiana[2]
[1]IPOSS Jakarta
[2]Universitas Swadaya Gunung Jati

Article Info

Article history:

Received November, 2024
Revised November, 2024
Accepted November, 2024

Keywords:

ESG Scores
Corporate Governance
Financial Stability
Infrastructure Sector
Sustainability

ABSTRACT

This study examines the relationship between Environmental, Social, and Governance (ESG) scores and corporate governance practices on corporate financial stability in Indonesia's infrastructure sector. Using a quantitative approach, data were collected from 60 infrastructure companies through a Likert-scale questionnaire (1-5) and analyzed using SPSS version 25. The findings reveal that both ESG scores and corporate governance practices significantly and positively influence corporate financial stability, with governance practices showing a stronger impact. The results underscore the synergistic relationship between ESG and governance, highlighting their importance in mitigating risks and enhancing resilience in high-capital industries like infrastructure. These insights provide actionable recommendations for corporate leaders and policymakers to strengthen governance and sustainability practices, fostering long-term financial stability and competitiveness.

This is an open access article under the CC BY-SA license.

Corresponding Author:

Name: Loso Judijanto
Institution: IPOSS Jakarta
e-mail: losojudijantobumn@gmail.com

1. INTRODUCTION

The infrastructure sector plays a pivotal role in driving economic growth and development, particularly in emerging markets such as Indonesia. Infrastructure development is crucial for economic growth and development, especially in emerging markets like Indonesia, as it enhances connectivity, efficiency, and productivity across sectors such as transportation, energy, and public utilities. It serves as a backbone for national progress, significantly contributing to regional economic development by increasing potential, supporting ecosystems, and fostering sustainable growth [1]. In ASEAN countries, including Indonesia, infrastructure development positively impacts economic growth by improving connectivity and productivity [2]. Targeted investments in specific infrastructure types, such as electricity and telephone services, have demonstrated a positive and significant effect on Indonesia's economic growth [3]. However, the volatile economic environment necessitates sustainable and responsible corporate practices to mitigate risks and ensure financial resilience through strategic investment, private sector participation, and sustainable development practices. Private

sector involvement is vital to bridging the infrastructure investment gap in emerging markets, though participation has declined due to structural challenges and business risks [4]. Policies aimed at incentivizing private investment include improving access to long-term finance, strengthening regulatory frameworks, and enhancing macroeconomic stability [4]. Furthermore, sustainable infrastructure development (SID) is essential for long-term economic and environmental sustainability, requiring efficient resource utilization and adherence to environmental standards [5]. Despite challenges such as lack of knowledge, high costs, and insufficient training, SID offers significant benefits, including energy savings, environmental protection, and enhanced economic development [5].

The integration of Environmental, Social, and Governance (ESG) factors with corporate governance practices has gained increasing significance among stakeholders, including investors, policymakers, and corporate leaders, as ESG frameworks provide a comprehensive view of a company's non-financial performance, emphasizing sustainability and ethical business practices. Research underscores the growing importance of ESG metrics in shaping economic resilience, societal well-being, and investment priorities, with distinct cultural and economic influences shaping ESG practices across various regions. ESG metrics play a pivotal role in understanding economic resilience, particularly in Europe, where higher GDP levels correlate with advanced ESG practices [6]. Their integration into traditional performance measurement tools, such as the Balanced Scorecard, has enhanced corporate sustainability performance, as seen in Indonesian manufacturing companies [6]. Additionally, Corporate Social Responsibility (CSR) aligns closely with ESG, promoting organizational sustainability through corporate governance, social sustainability, and environmental sustainability, particularly in developing nations [7]. A systematic review highlights the strong association between CSR and ESG pillars, emphasizing their contribution to sustainable development [7]. From a financial perspective, improved ESG practices are linked to increased stock values, particularly in wealthier sectors and stable economies, while governance aspects within the ESG framework significantly influence performance indicators, especially in banking and securities, underscoring governance's role in financial stability [8]. However, challenges remain, such as the lack of a standardized measurement scale for corporate sustainability, as current proxies vary across studies [9]. Future research should explore ESG's impact on earnings management, cost of capital, and market risk to provide a more comprehensive understanding of its implications [9].

The interplay between ESG performance and governance practices in Indonesia's infrastructure sector is complex, with significant implications for financial stability and corporate sustainability. While ESG disclosures are critical for sustainability, they have not been found to significantly influence company performance in terms of market valuation, such as Price to Book Value (PBV), suggesting that other factors may play a more dominant role in determining financial outcomes in this sector [10]. On the other hand, ESG risks have a significant negative impact on market and financial performance, underscoring the necessity of effective risk management strategies to ensure financial resilience and long-term benefits, such as enhanced reputation and stability [11]. Integrating ESG criteria with traditional performance measurement tools like the Balanced Scorecard offers a strategic pathway for infrastructure companies to align sustainability practices with business objectives, enhancing overall corporate sustainability performance [6]. Leadership also plays a nuanced role, as CEO education positively influences ESG strategy scores, while CEO experience has a negative impact, reflecting the complexity of executive contributions to ESG implementation [12]. However, sustainability performance and certifications like ISO 14001 have been found

to negatively affect company performance, with corporate governance failing to moderate this relationship, further complicating the integration of sustainability initiatives with financial and governance frameworks [13].

This study aims to address this research gap by examining the relationship between ESG scores, corporate governance practices, and corporate financial stability in Indonesia's infrastructure sector. Specifically, it seeks to determine how ESG factors and governance frameworks influence financial stability and whether they act as complementary drivers of corporate resilience. Using quantitative methods, the research analyzes data from 60 infrastructure companies, leveraging a Likert scale-based survey and statistical tools to provide actionable insights.

2. LITERATURE REVIEW

2.1 Environmental, Social, and Governance (ESG) Factors

The concept of Environmental, Social, and Governance (ESG) factors is increasingly recognized as a vital framework for evaluating a company's sustainability and ethical practices, especially in the infrastructure sector due to its substantial ecological and social impacts. ESG factors encompass three key dimensions: environmental responsibility, social engagement, and governance quality, all of which are essential for ensuring long-term financial stability and ethical corporate behavior. Environmental responsibility focuses on minimizing ecological footprints through sustainable practices such as energy efficiency, waste management, and carbon reduction strategies, which are particularly critical in large-scale infrastructure projects [14]. Studies highlight the importance of environmental disclosures in improving ESG scores, encouraging companies to prioritize environmental principles to enhance sustainability performance [15]. Social engagement emphasizes a company's interactions with employees, customers, and communities, addressing labor rights, community development, and customer satisfaction, with strong social licenses being crucial for project success in the infrastructure sector [14]. Governance quality, involving frameworks and policies ensuring accountability and transparency, is vital to prevent mismanagement and corruption, which can jeopardize financial stability in infrastructure projects [14]. Research underscores the significant influence of governance within the ESG framework on performance indicators, particularly in sectors like banking and securities, further highlighting its critical role in the broader ESG context [8].

2.2 Corporate Governance Practices

Corporate governance is a critical determinant of financial stability and operational efficiency, especially in capital-intensive sectors like infrastructure with long project lifecycles. It ensures companies are managed to protect stakeholder interests and enhance decision-making processes, fostering investor confidence, reducing the cost of capital, and mitigating financial and operational risks. Key elements of corporate governance include board composition, transparency and disclosure, and risk management. A diverse and independent board enhances decision-making and risk mitigation, with independent directors improving regulatory awareness and accountability, while ensuring no individual wields excessive power [6], [16]. Transparency in financial reporting builds investor confidence by providing timely and accurate information, maintaining the integrity of financial and non-financial reporting systems [17], [18]. Furthermore, effective risk management, a core component of governance, helps companies anticipate and mitigate risks, ensuring compliance with regulations and protecting shareholder rights—crucial for sectors with significant capital investments like infrastructure [19].

2.3 The Relationship Between ESG, Corporate Governance, and Financial Stability

The integration of ESG factors and governance practices is increasingly

recognized as a strategic approach to enhancing financial stability, as companies excelling in ESG metrics often demonstrate robust governance frameworks that mitigate risks and foster stakeholder trust. This synergy is evident across sectors like banking and infrastructure, where strong ESG practices enhance risk management, reduce operational costs, and improve access to capital, contributing significantly to financial stability. ESG metrics have become pivotal in shaping economic resilience, particularly in regions like Europe, where higher GDP levels correlate with advanced ESG practices, reflecting societal values that emphasize sustainability [6]. In the banking sector, ESG integration strengthens stability and competitiveness, serving as a catalyst for sustainable economic development [20]. Effective governance ensures efficient resource allocation and proactive risk management, aligning ESG initiatives with financial objectives to create a synergistic effect, as observed in UK firms where strong governance moderates the cost of capital associated with ESG reporting [21]. During the COVID-19 pandemic, companies with robust governance frameworks and high ESG scores demonstrated resilience, achieving sustainable returns despite economic uncertainties [22]. Additionally, Corporate Social Responsibility (CSR) plays a vital role in promoting sustainability by integrating governance, social, and environmental dimensions, reinforcing the pillars of ESG and contributing to overall financial stability [14].

2.4 Research Gap in the Indonesian Infrastructure Sector

While the relationship between ESG, governance, and financial performance has been extensively studied in developed markets, limited research has explored this dynamic in the context of Indonesia's infrastructure sector. The unique challenges faced by infrastructure companies in Indonesia, such as regulatory hurdles and environmental sensitivities, necessitate a localized investigation. Additionally, the role of ESG scores in influencing financial stability in emerging markets remains underexplored, presenting an opportunity to expand the existing body of knowledge.

This study is grounded in stakeholder theory, which posits that organizations must balance the interests of various stakeholders, including shareholders, employees, customers, and the community [23]. ESG practices and governance frameworks align with stakeholder theory by promoting sustainability and ethical conduct, which are essential for long-term financial stability. Additionally, the resource-based view (RBV) highlights the importance of intangible assets, such as reputation and stakeholder trust, in creating competitive advantages [24].

Based on the review of existing literature, the following hypotheses are proposed:

H1: ESG scores have a significant positive effect on corporate financial stability in the infrastructure sector in Indonesia.

H2: Corporate governance practices have a significant positive effect on corporate financial stability in the infrastructure sector in Indonesia.

H3: ESG scores and corporate governance practices jointly enhance financial stability in the infrastructure sector in Indonesia.

3. METHODS

3.1 Research Design

This study employs a quantitative research design to investigate the relationship between ESG scores, corporate governance practices, and corporate financial stability in Indonesia's infrastructure sector. The research adopts a correlational approach to examine the strength and direction of the associations between the variables. Data collection was conducted using a structured survey, and statistical analysis was performed to test the proposed hypotheses.

3.2 Population and Sample

The target population for this study consists of infrastructure companies operating in Indonesia. The sample was selected using purposive sampling to ensure relevance to the research objectives. A total of 60 companies were included in the study, representing various sub-sectors such as

transportation, energy, and public utilities. The inclusion criteria required that companies have publicly available ESG scores and established corporate governance practices. Primary data were collected through a structured questionnaire distributed to key stakeholders in the selected companies, including executives, managers, and compliance officers. Each item was measured on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), ensuring consistency in responses.

3.3 Data Analysis Techniques

The data were analyzed using SPSS version 25, employing several statistical techniques to ensure robust results. Descriptive analysis was conducted to summarize the data and provide an overview of the sample characteristics. Reliability and validity testing included the use of Cronbach's alpha to assess the reliability of the measurement scales, and factor analysis to ensure construct validity. Correlation analysis was performed to determine the strength and direction of relationships between the independent and dependent variables. Finally, multiple regression analysis was employed to evaluate the individual and combined effects of ESG scores and corporate governance practices on financial stability.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Descriptive analysis was conducted to summarize the characteristics of the data, presenting the mean, standard deviation, and range for the variables: ESG scores, corporate governance practices, and corporate financial stability. The results indicate that ESG scores had a mean of 4.12 (SD = 0.52) with a range from 3.00 to 5.00, corporate governance practices had a mean of 4.25 (SD = 0.48) with a range from 3.10 to 5.00, and corporate financial stability had a mean of 4.18 (SD = 0.50) with a range from 3.20 to 5.00. These findings suggest that the infrastructure companies in the sample exhibit high levels of ESG performance and governance practices, along with relatively stable financial performance.

4.2 Demographic Characteristics of the Sample

A demographic analysis was conducted to provide an overview of the participating infrastructure companies, covering company size, years of operation, primary sub-sector of activity, and ownership structure. In terms of company size, most firms were medium-sized (101–500 employees), comprising 50% of the sample, followed by large companies (30%) and small companies (20%). Regarding years of operation, half of the companies had been in business for over 10 years, indicating a mature presence in the infrastructure sector, while 36.7% had operated for 5–10 years, and 13.3% for less than 5 years. The primary sub-sectors included energy (33.3%), transportation (30.0%), public utilities (25.0%), and telecommunications (11.7%), highlighting the prominence of energy and transportation in Indonesia's infrastructure development. Finally, the ownership structure showed a diverse representation, with 58.3% of the companies being private-owned and 41.7% being government-linked State-Owned Enterprises (SOEs). These demographics reflect a balanced representation of mid-level firms, mature industry players, and key infrastructure sub-sectors.

4.3 Reliability and Validity Testing

Reliability and validity tests confirmed the robustness of the measurement scales used in the study. Cronbach's alpha values for all constructs exceeded the threshold of 0.70, indicating high reliability, with ESG scores at 0.817, corporate governance practices at 0.842, and corporate financial stability at 0.794. Additionally, factor analysis demonstrated that all factor loadings were above 0.60, confirming the construct validity of the measures.

4.4 Correlation Analysis

Correlation analysis revealed significant positive relationships between ESG scores, corporate governance practices, and financial stability. The results showed a strong correlation between ESG scores and

corporate governance ($r = 0.685$, $p < 0.01$), ESG scores and financial stability ($r = 0.622$, $p < 0.01$), and corporate governance and financial stability ($r = 0.715$, $p < 0.01$). These findings suggest that higher ESG performance and robust governance practices are closely associated with enhanced financial stability.

4.5 Regression Analysis

Multiple regression analysis was conducted to test the hypotheses. The results are presented in Table 1.

Predictor	Coefficient (β)	t-value	p-value
ESG Scores	0.385	4.215	0.000**
Corporate Governance	0.453	5.182	0.000**
R^2	0.625		

The multiple regression analysis strongly supported the hypotheses, showing that both ESG scores and corporate governance practices significantly influence financial stability. ESG scores exhibited a positive and highly significant relationship with financial stability, with a coefficient (β) of 0.385, a t-value of 4.215, and a p-value of 0.000, suggesting that higher ESG performance enhances financial stability through improved risk management, reduced regulatory challenges, and stronger stakeholder trust. Corporate governance practices had an even greater impact, with a coefficient (β) of 0.453, a t-value of 5.182, and a p-value of 0.000, emphasizing governance's role in ensuring resource efficiency, accountability, and strategic alignment. The regression model itself was statistically significant ($F = 45.23$, $p < 0.001$), with an R^2 value of 0.625, indicating that 62.5% of the variance in corporate financial stability is explained by ESG scores and corporate governance practices. These findings underscore the complementary roles of ESG and governance in fostering corporate resilience and highlight the importance of integrating these factors into strategic frameworks for sustainable financial performance.

4.6 Discussion

The Impact of ESG Scores on Corporate Financial Stability

The results confirm that ESG scores have a significant positive impact on corporate financial stability. This finding aligns with prior research, such as [25]–[27], which highlighted the role of ESG performance in reducing risks and improving operational efficiency. In the infrastructure sector, strong environmental practices, social responsibility, and governance frameworks help mitigate project delays and regulatory penalties, thereby enhancing financial resilience.

Corporate governance practices were found to have a stronger positive impact on financial stability compared to ESG scores. This emphasizes the critical role of governance mechanisms, such as board independence, transparency, and risk management, in ensuring efficient resource allocation and strategic decision-making. These findings are consistent with [28]–[30], who argued that effective governance reduces agency problems and enhances corporate performance. The high correlation between ESG scores and corporate governance practices suggests that these dimensions are interdependent and collectively enhance financial stability. For instance, companies with strong governance are more likely to implement effective ESG strategies, creating a positive feedback loop that supports long-term resilience.

Implications for the Indonesian Infrastructure Sector

The findings have significant implications for the infrastructure sector in Indonesia. As a high-risk industry with substantial capital requirements, integrating ESG considerations and robust governance frameworks can help companies attract investors, comply with regulatory standards, and manage operational risks. Furthermore, the results highlight the need for policymakers to promote ESG and governance initiatives as part of the national infrastructure development agenda.

Limitations and Future Research

While this study provides valuable insights, it is subject to several limitations. The relatively small sample size may affect the

generalizability of the findings, while the reliance on self-reported data introduces the potential for bias. Additionally, the study's focus on the Indonesian infrastructure sector restricts the applicability of its conclusions to other industries or regions, highlighting the need for broader research to validate and extend these findings.

Future research could expand the sample size, explore longitudinal data, and examine the moderating effects of market conditions or regulatory environments on the relationship between ESG, governance, and financial stability.

5. CONCLUSION

This study underscores the pivotal role of ESG scores and corporate governance practices in shaping corporate financial stability within Indonesia's infrastructure sector. The findings reveal that both factors positively influence financial stability, with governance practices exhibiting a stronger impact. Robust governance frameworks, characterized by transparency, board independence, and effective risk management, are critical for ensuring operational efficiency and resilience. The synergistic relationship between ESG and governance highlights their interdependence, as strong governance supports effective ESG implementation, fostering a virtuous cycle of enhanced financial performance and stakeholder trust. These insights are particularly significant for the infrastructure sector, where large capital investments and long project lifecycles necessitate sustainable and responsible practices. For corporate leaders, the study emphasizes integrating ESG considerations and governance enhancements into strategic planning, while for policymakers, it highlights the need to create an enabling environment for sustainability and ethical governance in national infrastructure development. However, the study's limitations, including its small sample size and reliance on self-reported data, present opportunities for future research. Expanding the sample size, utilizing longitudinal data, and investigating additional variables or moderating factors could provide deeper insights into the ESG-governance-financial stability relationship.

REFERENCES

[1] I. A. TRONINA, G. I. TATENKO, and S. S. BAKHTINA, "EDUCATION AS A DRIVER OF SUSTAINABLE 152 DEVELOPMENT OF THE TERRITORY: A COMPETENCE-BASED APPROACH," Общество с ограниченной ответственностью" Институт Цифровой Экономики и ….

[2] I. Taufik and S. Markhamah, "THE EFFECT OF INFRASTRUCTURE DEVELOPMENT ON ECONOMIC GROWTH IN ASEAN COUNTRIES: DYNAMIC PANEL DATA ANALYSIS," *Nusant. Econ. Entrep. Journals*, pp. 85–92, 2024.

[3] A. Pratama and A. P. Pratiwi, "Tax Disclosure in Financial Statements: The Case of Indonesia," *Int. J. Appl. Econ. Financ. Account.*, vol. 14, no. 1, pp. 50–59, 2022.

[4] J. Mawejje, "Private sector participation in infrastructure in emerging market and developing economies: Evolution, constraints, and policies," *Glob. Policy*, 2024.

[5] S. O. Ametepey, C. O. Aigbavboa, and W. D. Thwala, "Sustainable Road Infrastructure Development," in *Sustainable Road Infrastructure Project Implementation in Developing Countries: An Integrated Model*, Emerald Publishing Limited, 2023, pp. 21–39.

[6] M. S. Ummah, *No 主観的健康感を中心とした在宅高齢者における 健康関連指標に関する共分散構造分析Title*, vol. 11, no. 1. 2019.

[7] S. Benito-Hernández, C. López-Cózar-Navarro, and T. Priede-Bergamini, "The influence of government support over environmental protection investment on SMEs: R&D collaboration and financial aspects," *Bus. Ethics, Environ. Responsib.*, vol. 32, no. 2, pp. 836–846, Apr. 2023, doi: 10.1111/beer.12496.

[8] B. E. Cahyono, "Age of First Marriage with Education and Working Status of Women at East Nusa Tenggara, Aceh, South Sulawesi, and Central Kalimantan Provinces," *Bappenas Work. Pap.*, vol. 6, no. 3, pp. 348–367, 2023.

[9] K. P. Sabirali, "Environmental Social Governance (ESG) Practices: A Systematic Literature Review," *South Asian J. Soc. Stud. Econ*, vol. 21, pp. 224–240, 2024.

[10] A. N. Gulla, M. H. Sherman, A. N. Gulla, and M. H. Sherman, "Imagining the World as If It Could Be Otherwise: Preparing Students for Solving Problems and Seeing Possibilities (Writing Poetry as Evidence-Based Argument)," *Inq. Learn. Through Creat. Arts Teach. Teach. Educ.*, pp. 67–79, 2020.

[11] A. L. Riani, A. Prabowo, and M. S. Andriyani, "The Characteristics of MSME Entrepreneurs in Surakarta, Indonesia," *Asia Pacific Manag. Bus. Appl.*, vol. 008, no. 02, pp. 117–132, Dec. 2019, doi: 10.21776/ub.apmba.2019.008.02.4.

[12] A. L. Pradifera, S. L. Prasilowati, S. Ahmadi, and J. Safitri, "THE ROLE OF THE USE OF SOCIAL MEDIA IN ANALYZING THE IMPACT OF ORGANIZATIONS USING THE TOE FRAMEWORK ON MSMES IN INDONESIA," *Acad. Entrep. J.*, vol. 28, pp. 1–11, 2022.

[13] A. G. Widjatmiko and A. P. Sari, "Environmental dan Sustainability: Dampak Terhadap Kinerja Perusahaan," *Indo-Fintech Intellectuals J. Econ. Bus.*, vol. 4, no. 3, pp. 976–984, 2024.

[14] D. Adams, J. Donovan, and C. Topple, "Sustainability in large food and beverage companies and their supply chains: An investigation into key drivers and barriers affecting sustainability strategies," *Bus. Strateg. Environ.*, vol. 32, no. 4, pp. 1451–1463, May 2023, doi: 10.1002/bse.3198.

[15] M. T. Kartal, D. Taşkın, M. Shahbaz, S. K. Depren, and U. K. Pata, "Effects of Environment, Social, and Governance (ESG) disclosures on ESGscores: Investigating therole ofcorporategovernance forpubliclytraded Turkishcompanies," *J. Environ. Manage.*, vol. 368, p. 122205, 2024.

[16] U. K. Kommuri and T. Arumugam, "Greenwashing Unveiled: How it Impacts Stakeholder Perception as Well as Sustainability Realities," *Pres. Coll.*, p. 96, 2024.

[17] M. Hormozi, "Perspective Chapter: The Principles of Corporate Governance are an Advantage or a Necessity to Promote the Transparency of the Capital Market," 2024.

[18] G. D. C. Colombo, M. da C. Gomes, J. P. A. Eça, and M. R. do Valle, "Analysis of the capital structure of startups in light of the tradeoff and pecking order theories," *REGEPE Entrep. Small Bus. J.*, vol. 12, no. 3, p. e2338, 2023.

[19] S. Saryanto *et al.*, "Pelatihan Pembuatan Pupuk Biosaka, Upaya Perlindungan Tanaman Berbasis Ekologi Untuk Menjaga Kelestarian Lingkungan," *Solusi Bersama J. Pengabdi. dan Kesejaht. Masy.*, vol. 1, no. 3, pp. 72–78, 2024.

[20] V. Roadkasamsri, A. Teekalee, U. Asana, P. Noulnim, A. Sungvondee, and Y. Li, "Interdisciplinary approach to design-led innovation for eco-friendly customer-centric clothing entrepreneurs," *Int. J. Prof. Bus. Rev.*, vol. 9, no. 3, pp. e04476–e04476, 2024.

[21] A. S. Moussa and M. Elmarzouky, "Beyond compliance: how ESG reporting and strong governance influence financial performance in UK firms," *J. Risk Financ. Manag.*, 2024.

[22] D. Vortelinos, I. Passas, C. Floros, and A. Garefalakis, "The Relations between COVID-19, Country Governance, and CSR: An International Comparative Study," 2024.

[23] M. A. Y. Abbas, D. Setyadi, A. Paminto, and M. Azis, "The antecedents of financial performance and their implications for firm value in mining sector companies listed on the Indonesia Stock Exchange," *J. Law Sustain. Dev.*, vol. 11, no. 9, p. e991, Oct. 2023, doi: 10.55908/sdgs.v11i9.991.

[24] J. Barney, "Firm resources and sustained competitive advantage," *J. Manage.*, vol. 17, no. 1, pp. 99–120, 1991.

[25] K. Zhou, "The Relationship Between Financial Performance And ESG: Evidence from Bloomberg," *Highlights Business, Econ. Manag.*, vol. 37, pp. 297–305, 2024.

[26] E. Shang, "Corporate ESG and Financial Performance-A Study Based on the Mediating Effect of Financing Constraints," *Adv. Econ. Manag. Res.*, vol. 11, no. 1, p. 432, 2024.

[27] F. A. Çetin, S. Öztürk, and O. N. Akarsu, "The Effect of ESG Data of Companies on Financial Performance: A Panel Data Analysis on The BIST Sustainability Index," *Sosyoekonomi*, vol. 32, no. 61, pp. 125–146.

[28] X. Wang, X. Song, and M. Sun, "How Does a Company's ESG Performance Affect the Issuance of an Audit Opinion? The Moderating Role of Auditor Experience," *Int. J. Environ. Res. Public Health*, vol. 20, no. 5, Mar. 2023, doi: 10.3390/ijerph20053878.

[29] M. N. Jucá, P. D. Muren, A. Valentinčič, and R. Ichev, "The impact of ESG controversies on the financial performance of firms: An analysis of industry and country clusters," *Borsa Istanbul Rev.*, 2024.

[30] X. Yang, T. Yang, J. Lv, and S. Luo, "The Impact of ESG on Excessive Corporate Debt," *Sustainability*, vol. 16, no. 16, p. 6920, 2024.