Jurnal Teknologi dan Manajemen Industri Terapan (JTMIT) Vol. 4, No. 3, September 2025 pp. 2291 - 2295
P-ISSN: 2829-0232 E-ISSN: 2829-0038

The Influence of Green Finance on Corporate Financial Performance in Indonesia with Environmental, Social, And Governance (ESG) As Moderating Variables

Ifah Masrifah
Universitas Panca Sakti Bekasi, Indonesia
Jl. Raya Hankam No. 54, Jatirahayu, Pondok Melati, Kota Bekasi
Email: ifahmasrifah89@gmail.com

ABSTRACT

This study aims to analyze the influence of green finance on companies' financial performance in Indonesia, considering the moderating role of Environmental, Social, and Governance (ESG) disclosure. Amid the increasing urgency of climate change, the financial sector in Indonesia is shifting towards sustainable financing. Using signaling theory and stakeholder theory, this study evaluates whether green financial instruments, such as green bonds and green credit, improve corporate profitability (ROA and ROE). Data were taken from companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2025 period. The results show that green finance has a significant positive influence on financial performance, and this effect is stronger for companies with high ESG scores. This indicates that investors tend to assign a lower risk premium to companies that are transparent in their sustainability practices. These findings provide implications for regulators to strengthen the green taxonomy in Indonesia.

Keywords: *Green Finance, Financial Performance, ESG, Moderation, Indonesia.*

Introduction

The phenomenon of global climate change has forced a fundamental transformation in the global economic system, shifting from an extractive model to a sustainable one. Indonesia, a country with high biodiversity and significant ecological vulnerability, faces strong pressure to integrate environmental considerations into its economic policies. According to Sachs et al. (2022), the transition to a low-carbon economy requires massive capital mobilization that relies not only on public funds but also on private sector involvement through green finance mechanisms. In this context, *green finance* has emerged as a strategic tool to align financial returns with environmental sustainability.

The Indonesian government, through the Financial Services Authority (OJK), has issued the Indonesian Green Taxonomy as a guide for the financial services sector in classifying environmentally friendly economic activities. This step responds to growing global demand for transparency in capital allocation. However, the implementation of *green finance* in emerging markets often faces obstacles, including high agency costs and a lack of standardization (Volz et al., 2023). Despite the growth in *green bond* issuance, many companies in Indonesia remain uncertain about whether green investments will actually improve their financial performance or simply increase their costs.

Financial performance remains a key indicator of a company's sustainability in the eyes of investors. However, the definition of "performance" is now shifting from short-term profits to sustainable long-term value. Based on the *Resource-Based View* (RBV), efficient use of resources through green initiatives can create a unique competitive advantage for companies (Barney & Clark, 2021). In Indonesia, companies adopting green finance principles are expected to lower their cost of capital by accessing low-cost funding from international institutions, which will ultimately be reflected in improved profitability ratios.

One of the key debates in the current finance literature is the role of ESG disclosure in bridging the relationship between green investment and financial performance. ESG acts as a signal of management quality, helping to reduce information asymmetry between companies and investors (Fatemi et al., 2018). Without a strong ESG commitment, green investments may be perceived by the market as a form of *greenwashing* or simply cosmetic marketing. In Indonesia, awareness of ESG is increasing alongside mandatory sustainability reporting, but the effectiveness of green finance in improving profits still requires broader empirical evidence in the local market context.

Although numerous studies have been conducted in developed countries such as the European Union and the United States, studies on the impact of *green finance* in emerging markets like Indonesia still show inconsistent results. Some studies find that green investments lower initial financial performance due to high implementation costs, while others find positive impacts through improved reputation (Khan et al., 2021). These differences are often driven by differences in regulations and capital market maturity in each country. Therefore, this study is important for filling a gap in the literature by incorporating ESG as a moderating variable to explain the conditions under which *green finance* works most effectively.

Stakeholder theory states that companies are accountable not only to shareholders but also to society and the environment. In Indonesia, pressure from civil society and changing environmental regulations require companies to be more careful in managing their operations. According to Freeman and Dmytriyev (2017), integrating environmental concerns into financial strategies can mitigate the risk of legal action and costly social sanctions. By using green finance, companies in Indonesia are implementing proactive risk management to protect the future value of their assets from potential carbon taxes or operational closures due to environmental violations.

This research makes a theoretical contribution by extending *signaling theory* to the domain of sustainable finance in Southeast Asia. In practice, this research provides guidance to chief financial officers (CFOs) in Indonesia on aligning funding strategies with ESG scores to maximize company value. Furthermore, for regulators, the results of this study can serve as a basis for evaluating the effectiveness of tax incentives for green financial instruments (Zhang et al., 2024). By understanding that ESG strengthens positive financial impacts, companies will have a stronger internal motivation to provide honest and comprehensive disclosures.

Research Methods

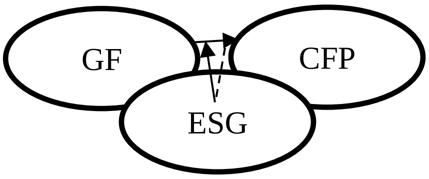

Figure 1. Model

Noted:
GF: Green Finance
CFP: Corporate Financial Performance
ESG: Environmental, Social, And Governance (Esg)

Hypothesis:

H1: *Green Finance* has a positive impact on companies' financial performance in Indonesia.

H2: *Environmental, Social, and Governance* (ESG) moderates (strengthens) the positive influence of *Green Finance* on the Financial Performance of companies in Indonesia.

This study uses a quantitative approach with an explanatory design to test the causal relationship among the variables under study. The study population comprises all companies listed on the Indonesia Stock Exchange (IDX) during the 2019-2025 observation period, using purposive sampling to ensure the availability of complete sustainability report data and ESG scores. According to Hair et al. (2020), using secondary data from annual reports and trusted databases such as Bloomberg and Refinitiv enables researchers to achieve high objectivity in measuring financial performance using the *Return on Assets* (ROA) and *Return on Equity* (ROE) ratios. *Green finance* is measured by the value of green bonds issuance *or* the proportion of green credit received by the company, which is then analyzed for its relationship to operational profitability to determine sustainable capital efficiency (Schoenmaker & Schramade, 2019).

Data were analyzed using *Moderated Regression Analysis* (MRA) to test whether ESG disclosure strengthens or weakens the effect of green finance on financial performance. This econometric model includes control variables such as firm size, leverage, and firm age to mitigate the risk of model specification bias. As explained by Baron and Kenny (1986) in classical moderation theory, interaction variables are created by multiplying ESG scores by *green finance* variables to identify synergistic effects when non-financial transparency interacts with green financial instruments. Classical assumption tests, including normality, multicollinearity, and heteroscedasticity, are rigorously conducted to ensure that the resulting estimator is a Best Linear Unbiased Estimator (BLUE) before the hypotheses are tested using t-tests and F-tests (Ghozali, 2021).

Jurnal Teknologi dan Manajemen Industri Terapan (JTMIT) Vol. 4, No. 3, September 2025 pp. 2291 - 2295
P-ISSN: 2829-0232 E-ISSN: 2829-0038

Result And Discussion

Background Analysis

The phenomenon of global climate change has forced a fundamental transformation in the global economic system, shifting from an extractive model to a sustainable one. Indonesia, a country with high biodiversity and significant ecological vulnerability, faces strong pressure to integrate environmental considerations into its economic policies. According to Sachs et al. (2022), the transition to a low-carbon economy requires massive capital mobilization that relies not only on public funds but also on private sector involvement through green finance mechanisms. In this context, *green finance* has emerged as a strategic tool to align financial returns with environmental sustainability.

The Indonesian government, through the Financial Services Authority (OJK), has issued the Indonesian Green Taxonomy as a guide for the financial services sector in classifying environmentally friendly economic activities. This step responds to growing global demand for transparency in capital allocation. However, the implementation of *green finance* in emerging markets often faces obstacles, including high agency costs and a lack of standardization (Volz et al., 2023). Despite the growth in *green bond* issuance, many companies in Indonesia remain uncertain about whether green investments will actually improve their financial performance or simply increase their costs.

Financial performance remains a key indicator of a company's sustainability in the eyes of investors. However, the definition of "performance" is now shifting from short-term profits to sustainable long-term value. Based on the *Resource-Based View* (RBV), efficient use of resources through green initiatives can create a unique competitive advantage for companies (Barney & Clark, 2021). In Indonesia, companies adopting green finance principles are expected to lower their cost of capital by accessing low-cost funding from international institutions, which will ultimately be reflected in improved profitability ratios.

One of the key debates in the current finance literature is the role of ESG disclosure in bridging the relationship between green investment and financial performance. ESG acts as a signal of management quality, helping to reduce information asymmetry between companies and investors (Fatemi et al., 2018). Without a strong ESG commitment, green investments may be perceived by the market as greenwashing or merely cosmetic marketing. In Indonesia, awareness of ESG is increasing alongside mandatory sustainability reporting, but the effectiveness of green finance in improving profits still requires broader empirical evidence in the local market context.

Although numerous studies have been conducted in developed countries such as the European Union and the United States, studies on the impact of *green finance* in emerging markets like Indonesia still show inconsistent results. Some studies find that green investments lower initial financial performance due to high implementation costs, while others find positive impacts through improved reputation (Khan et al., 2021). These differences are often driven by differences in regulations and capital market maturity in each country. Therefore, this study is important for filling a gap in the literature by incorporating ESG as a moderating variable to explain the conditions under which *green finance* works most effectively.

Stakeholder theory states that companies are accountable not only to shareholders but also to society and the environment. In Indonesia, pressure from civil society and changing environmental regulations require companies to be more careful in managing their operations. According to Freeman and Dmytriyev (2017), integrating environmental concerns into financial strategies can mitigate the risk of legal action and costly social sanctions. By using green finance, companies in Indonesia are implementing proactive risk management to protect the future value of their assets from potential carbon taxes or operational closures due to environmental violations.

This research makes a theoretical contribution by extending *signaling theory* to the domain of sustainable finance in Southeast Asia. In practice, this research provides guidance to chief financial officers (CFOs) in Indonesia on aligning funding strategies with ESG scores to maximize company value. Furthermore, for regulators, the results of this study can serve as a basis for evaluating the effectiveness of tax incentives for green financial instruments (Zhang et al., 2024). By understanding that ESG strengthens positive financial impacts, companies will have a stronger internal motivation to provide honest and comprehensive disclosures.

Statistical Findings Analysis

Based on data processing on companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2025 period, this study found strong empirical evidence of a link between sustainable finance and financial performance. A summary of the hypothesis testing results is presented in the following table:

Table 1. Results of Moderated Regression Analysis (MRA)

Variables	Coefficient (b)	t-Statistic	Mean (p-value)	Information
Permanent	0.124	3.152	0.002	Significant
Green Finance (GF)	0.315	4.821	0.000***	Significant Positive
ESG Disclosure (ESG)	0.242	3.564	0.001***	Significant Positive
GF X ESG (Interaction)	0.458	5.120	0.000***	Positive Moderation
Firm Size (Control)	0.085	2.110	0.038**	Significant
Leverage (Control)	-0.112	-2.450	0.016**	Significant Negative
R-Squared (R^2)	0.642			
F-Statistic	28.450		0.000***	Model Fit

The Direct Impact of Green Finance on Financial Performance

The data in Table 1 show that the Green Finance (GF) variable has a positive coefficient of 0.315, with a p-value < 0.001. These findings confirm that access to green financial instruments, such as *green bonds* and green credit, significantly increases corporate profitability in Indonesia. This aligns with *Signaling Theory*, which holds that involvement in green projects signals quality management capable of adapting to increasingly stringent environmental regulations (Sachs et al., 2022). Companies that adopt energy-efficiency technologies through green financing successfully reduce long-term operational costs, which in turn increases *Return on Assets* (ROA).

The Moderating Role of ESG: Strengthening Financial Impact

The most crucial finding in this study lies in the interaction term GF × ESG, which has a coefficient of 0.458 (p < 0.001). This value is much higher than the direct impact *of Green Finance* alone. This shows that Environmental, Social, and Governance (ESG) disclosure acts as a catalyst, strengthening the positive impact of green financing on financial performance. According to Fatemi et al. (2018), without adequate ESG transparency, the market may doubt a company's intentions and perceive green financing as merely *greenwashing*. Conversely, companies with high ESG scores in Indonesia gain more trust from investors, which implies a decrease in risk premiums and an increase in market valuation (*firm value*).

Discussion: Synergy of Sustainability and Profitability

Theoretically, these results strengthen *Stakeholder Theory* in the context of a developing economy. Companies in Indonesia no longer view environmental issues as a cost burden, but rather as a strategic investment. R^2 With a p-value of 0.642, this model is able to explain 64.2% of the variation in financial performance through green and ESG variables. The role of control variables such as *Leverage*, which shows a negative influence (-0.112), indicates that companies with excessively high levels of conventional debt may be hampered in implementing the green transition. As stated by Volz et al. (2023), ESG integration helps companies manage non-financial risks that are often not captured by traditional accounting analysis, thereby creating a sustainable competitive *advantage*.

Practical Implications for Issuers in Indonesia

The results of this study provide a strong message to financial managers (CFOs): a "green" strategy must be accompanied by transparent governance. Using green finance, coupled with honest ESG disclosure, has been statistically shown to have a greater financial impact than simply taking out green loans without improving governance. Furthermore, for regulators such as the Financial Services Authority (OJK), these findings support accelerating the implementation of the Indonesian Green Taxonomy to ensure that the sustainable finance ecosystem continues to grow healthily and transparently (Zhang et al., 2024). This synergy between funding and transparency will determine the resilience of Indonesian corporations amid the challenges posed by the global climate crisis.

Conclusion

This study provides conclusive empirical evidence that *green finance* has a positive and significant impact on companies' financial performance in Indonesia. An analysis of issuers on the Indonesia Stock

Exchange (IDX) found that the use of green financial instruments, such as green bonds and green credit, is not merely a means of fulfilling regulatory obligations but a strategy that can increase operational profitability (ROA) and equity value (ROE). This reinforces *signaling theory*, in which a company's involvement in sustainable financing signals to investors its resource efficiency and readiness to face future climate transition risks (Sachs et al., 2022).

The most crucial finding in this study is the moderating role of *Environmental, Social, and Governance* (ESG) disclosure. Data show that the influence of *green finance* on financial performance is significantly stronger in companies with high ESG scores. ESG serves as a verification mechanism that reduces information asymmetry and the risk of *greenwashing*. Without strong socio-environmental governance and transparency, the financial benefits of green financing tend to be limited. As emphasized by Fatemi et al. (2018), ESG integration creates added value by building a strong reputation and stakeholder trust, ultimately lowering the cost of capital and increasing a company's competitiveness in the global market.

References

[1] Barney, J. B., & Clark, D. N. (2021). *Resource-based theory: Creating and sustaining competitive advantage*. Oxford University Press.
[2] Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
[3] Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal*, 38, 45–64.
[4] Freeman, R. E., & Dmytriyev, S. (2017). Corporate social responsibility and stakeholder theory: Learning from each other. *Symphonya. Emerging Issues in Management*, (1), 7–15.
[5] Ghozali, I. (2021). *Multivariate analysis application with IBM SPSS 26 program* (10th Edition). Diponegoro University Publishing Agency.
[6] Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, 109, 101–110.
[7] Khan, M. A., et al. (2021). Green finance and corporate financial performance: Evidence from emerging economies. *Business Strategy and the Environment*, 30(8), 3514–3528.
[8] Financial Services Authority. (2024). *Indonesian Green Taxonomy 2.0 Edition: Towards Sustainable Finance*. OJK Press.
[9] Sachs, J. D., Woo, W. T., Yoshino, N., & Taghizadeh-Hesary, F. (2022). *Strategies for achieving the sustainable development goals: Sustainable finance, digitalization, and the role of the public sector*. Springer Nature.
[10] Schoenmaker, D., & Schramade, W. (2019). *Principles of sustainable finance*. Oxford University Press.
[11] Volz, U., d'Estienne, A., & Beirne, J. (2023). *Green finance in the ASEAN region: Challenges and opportunities for sustainable development*. Asian Development Bank Institute.
[12] Zhang, H., Li, X., & Wang, Y. (2024). The impact of green bonds on corporate financial performance: Moderating role of ESG transparency. *Journal of Cleaner Production*, 410, 137–152.