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The Influence of Profitability and Capital Structure on Firm Value with Environmental, Social, and Governance (ESG) as a Moderating Variable in Banking Companies on the Indonesia Stock Exchange (2019-2023)

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ABSTRACT

This study aims to analyze the influence of profitability and capital structure on firm value with Environmental, Social, and Governance (ESG) as a moderating variable in banking companies listed on the Indonesia Stock Exchange (IDX) for the 2019–2023 period. The research method uses panel data regression analysis with a Moderated Regression Analysis (MRA) approach. The research sample consists of six banks selected through a purposive sampling technique. The results show that: (1) Profitability (ROA) does not have a significant effect on firm value; (2) Capital structure (DER) has a significant positive effect on firm value; (3) ESG strengthens the relationship between capital structure and firm value; (4) ESG does not significantly moderate the relationship between profitability and firm value. The Adjusted R^2value of 0.4754 indicates that the model is fairly representative in explaining the variation in firm value. The implications of this research emphasize the importance of integrating ESG into banking financial strategies to enhance long-term firm value.

Keyword: Profitability, Capital Structure, Firm Value, ESG, Banking, Panel Data Regression.

INTRODUCTION

The banking sector plays a crucial role in the Indonesian economy, with total assets continuously increasing from IDR 8,000 trillion in 2019 to over IDR 11,000 trillion in 2023. Banking firm value is traditionally influenced by fundamental financial factors such as profitability and capital structure (Bakis et al., 2016; Maham & Bhatti, 2019; Ohorela, 2021; Purwanto, 2023; Ulum et al., 2014). However, in the contemporary business paradigm, non-financial factors like Environmental, Social, and Governance (ESG) are increasingly being considered by investors (Adebayo & Ackers, 2024; Fuadah et al., 2022; Nguyen & Ngo, 2022; Shaikh, 2021).

Recent developments show that global institutional investors are increasingly integrating ESG factors into their investment decisions. In Indonesia, regulations such as Financial Services Authority Regulation (POJK) No. 51/POJK.03/2017 concerning Sustainable Finance Implementation have encouraged banks to adopt ESG practices in their operations (Christiani et al., 2023; Noor, 2023; Setyowati & Agung Prabowo, 2021; Wibowo et al., 2022). However, there remains uncertainty regarding the extent to which these ESG practices can moderate the relationship between traditional financial performance and firm value in the banking sector.

This research examines how ESG moderates the relationship between profitability (ROA), capital structure (DER), and firm value (PBV) in banking companies on the IDX for the 2019–2023 period. This research period is quite interesting as it includes the COVID-19 pandemic, which put significant pressure on the banking sector, while also being a moment for banks to demonstrate resilience through good ESG practices (De

Lucia et al., 2020; Feng et al., 2022; Sul & Lee, 2020; Targetti et al., 2021). This study is expected to provide a holistic perspective for management and investors in strategic decision-making.

A systematic review of previous studies reveals varied findings regarding the relationship between financial performance, ESG, and firm value. Buallay et al. (2020) found that sustainability practices weaken the link between traditional financial performance and market value in the global banking sector. El Ghoul et al. (2018) demonstrated that firms with strong environmental performance enjoy lower costs of debt, indirectly enhancing firm value. In the Indonesian context, Sutedi and Husnan (2021) reported that ESG disclosure positively influences firm value in non-financial sectors, but its moderating effect remains underexplored in banking. Conversely, Purnamawati and Yuyetta (2022) found that ESG did not significantly moderate the effect of profitability on firm value in Indonesian mining companies, indicating sector-specific dynamics. These studies collectively highlight a research gap: the moderating role of ESG in the relationship between profitability, capital structure, and firm value within the Indonesian banking industry remains inconsistent and insufficiently examined, particularly in a post-pandemic setting.

The urgency of this research is underscored by both practical and theoretical needs. Practically, the implementation of Financial Services Authority Regulation (POJK) No. 51/POJK.03/2017 concerning Sustainable Finance requires banks to integrate ESG into their operations. Theoretically, this study addresses the need to reconcile conflicting findings from prior research and extends the application of signaling and stakeholder theories in a moderating context. Understanding how ESG interacts with financial metrics is critical for banks seeking to enhance long-term value and for investors prioritizing sustainable investments.

The novelty of this research lies in its focused investigation of ESG as a moderating variable within the unique context of Indonesian banking during the 2019–2023 period, which encompasses the COVID-19 pandemic and its aftermath. This period represents a critical test of corporate resilience and the relevance of sustainability practices. Unlike previous studies that often treated ESG as a direct determinant, this research examines its interactive effects with key financial drivers, thereby offering a more nuanced understanding of how sustainability practices shape investor perceptions in a dynamic economic environment.

This research examines how ESG moderates the relationship between profitability (ROA), capital structure (DER), and firm value (PBV) in banking companies on the IDX for the 2019–2023 period. This study is expected to provide empirical evidence and strategic insights for banking management, investors, and regulators in enhancing firm value through integrated financial and sustainability strategies.

Hypothesis Development

H1: Profitability (ROA) has a positive effect on firm value.

H2: Capital structure (DER) has a positive effect on firm value.

H3: ESG moderates the effect of profitability on firm value.
H4: ESG moderates the effect of capital structure on firm value.

RESEARCH METHOD

This research used a quantitative approach with secondary data from the financial and sustainability reports of banking companies for the 2019-2023 period. The quantitative approach was chosen to objectively and measurably test the causal relationships between the research variables.

The research population included 28 banks listed on the IDX. The sample was selected using a purposive sampling technique, with the criteria: Provided complete financial and sustainability reports for 2019-2023. Did not experience delisting during the research period. The final sample consists of 6 banks with a total of 30 observations. Although the sample size is limited, the data used is complete for five consecutive years, making it fairly representative for panel data analysis.

Data Analysis

Data analysis uses panel data regression with Moderated Regression Analysis (MRA). The best model selection was conducted through the Chow test, Hausman test, and Lagrange Multiplier test. The regression models used are:

1. Model 1: $PBV = \alpha + \beta_1 ROA + \beta_2 DER + \varepsilon$
2. Model 2: $PBV = \alpha + \beta_1 ROA + \beta_2 DER + \beta_3 (ROA \times ESG) + \beta_4 (DER \times ESG) + \varepsilon$

Prior to regression analysis, classical assumption tests were conducted, including tests for normality, multicollinearity, heteroscedasticity, and autocorrelation to ensure the validity of the regression model.

RESULTS AND DISCUSSION

Descriptive Statistics

The research data covers 30 observations with the following characteristics:

1. ROA: average 13.836% (min 1%, max 23.5%)
2. DER: average 84.825 (min 3.17, max 506)
3. PBV: average 1.785 (min 0.23, max 4.9)
4. ESG: average 74.824 (min 54.61, max 87.04)

The DER variable shows a high standard deviation (179.30), indicating significant variation in the capital structure among banks. This is reasonable considering the research sample includes banks with different business characteristics.

Panel Data Regression Results

Model 1 (Without Moderation):

1. ROA not significant ($p = 0.9221$) → H1 rejected
2. DER significantly positive ($p = 0.0001$) → H2 accepted
3. Adjusted $R^2 = 0.4754$

Model 2 (With ESG Moderation):

1. ROA × ESG interaction not significant ($p = 0.0565$) → H3 rejected
2. DER × ESG interaction significantly positive ($p = 0.0158$) → H4 accepted
3. Adjusted R^2 increased to 0.6256

Profitability (ROA) is not significant, indicating that banking investors consider other factors more heavily, such as asset quality and funding stability. This finding is consistent with Buallay et al. (2020), who stated that the relationship between traditional financial performance and market value becomes weaker in banks with high sustainability practices.

Capital Structure (DER) is significantly positive, in line with the characteristics of the banking industry, which relies on leverage for business expansion. In the banking industry, debt (especially third-party funds) is the primary source of funding for generating income through credit distribution.

ESG strengthens the relationship between DER and firm value, showing that sustainability practices enhance investor confidence in the bank's funding policies. This result aligns with El Ghoul et al. (2018), who found that companies with good environmental performance enjoy lower costs of debt.

The finding that ESG does not moderate the profitability-firm value relationship can be explained by the complexity of investor perception. Investors may view high profitability as a short-term indicator that is not necessarily sustainable. Meanwhile, ESG practices are considered more relevant in validating the bank's long-term funding policies.

The Non-Significant Effect of Profitability (ROA) on Firm Value

The finding that Return on Assets (ROA) does not significantly affect firm value (PBV) in the banking sector can be attributed to several industry-specific factors. First, investors in the banking sector may perceive high profitability, especially during volatile periods like the 2019-2023 timeline which included the COVID-19 pandemic, as potentially transient or a result of short-term strategies that may not be sustainable. This aligns with the concept of "window dressing" in earnings, where banks might employ accounting techniques to present a more favorable short-term financial picture, which astute investors may see through. Consequently, the market might not fully reward such profitability with a higher valuation.

Second, and more fundamentally, the business model of banking differs from non-financial firms. For banks, asset quality, capital adequacy (as reflected in CAR), and the stability of third-party funds are often more critical indicators of long-term health than raw profitability metrics like ROA. A high ROA driven by aggressive lending can signal higher risk to investors if it is not accompanied by strong risk management and governance. Therefore, investors likely prioritize a more holistic assessment of a bank's stability and risk profile over a single profitability metric, explaining the insignificance of ROA in this model.

The Significant Positive Effect of Capital Structure (DER) on Firm Value

The significant positive effect of Debt-to-Equity Ratio (DER) on firm value is consistent with the fundamental nature of the banking business. Banks are inherently highly leveraged institutions; their primary business model involves using debt (primarily from customer deposits) to generate income through loans and other interest-earning assets. A higher DER, within prudent limits, signals a bank's ability to mobilize significant third-party funds and leverage them effectively for profit generation. This finding strongly supports the Trade-off Theory, where the tax shield benefits of debt and the operational leverage it provides in banking outweigh the potential costs of financial distress in the eyes of investors, leading to a higher market valuation.

The Moderating Role of ESG: Explaining the Divergent Effects

The core of this discussion lies in why ESG successfully moderates the relationship between capital structure and firm value but fails to do so for profitability.

1. ESG as a Reinforcer for Capital Structure (DER): The finding that ESG strengthens the positive relationship between DER and firm value can be powerfully explained using Legitimacy Theory. Banks, as pivotal financial intermediaries, operate under a social contract that requires them to maintain public trust. A high leverage ratio inherently carries reputational and operational risks. Strong ESG performance acts as a legitimizing tool. It signals to stakeholders—including depositors, regulators, and investors—that the bank manages its substantial debt responsibly, considers social and environmental impacts in its lending (e.g., avoiding financing environmentally harmful projects), and upholds strong governance. This enhanced legitimacy reduces perceived risk and builds stakeholder confidence, making investors more comfortable with and more likely to reward a highly leveraged capital structure. Thus, ESG provides a "sustainability assurance" that validates the bank's funding strategy.
2. The Lack of Moderating Effect on Profitability (ROA): The inability of ESG to moderate the ROA-PBV relationship is best understood through the lens of Stakeholder Theory. While ESG performance addresses the concerns of a broad set of stakeholders (e.g., communities, employees, the environment), the link between profitability and firm value is predominantly driven by the expectations of a specific, powerful stakeholder group: shareholders and short-term investors. These investors may view profitability and ESG as serving different, and sometimes competing, time horizons. High current profitability might be seen as a result of prioritizing shareholder returns, potentially at the expense of long-term ESG investments. Conversely, high ESG scores might be perceived as incurring immediate costs that dampen short-term profits. Therefore, in the eyes of the market, ESG does not effectively "validate" or enhance the quality of current earnings in the same way it validates the sustainability of a bank's capital structure. The signals are decoupled; profitability signals short-term financial performance, while ESG signals long-term resilience and risk management, which aligns more directly with the sustainability of the capital structure.

These findings carry significant strategic implications for bank management:

1. Strategic Communication: Banks should explicitly and transparently link their ESG initiatives to their financial stability and risk management frameworks, particularly concerning their funding and lending activities. This demonstrates how ESG directly supports the core, leveraged banking model.
2. Capital and Funding Strategy: Management should not fear a prudent level of leverage. Instead, they should actively couple their capital structure strategy with robust ESG disclosure. Highlighting how a strong deposit base and leveraged lending are channeled into sustainable and socially responsible projects can turn high DER from a potential risk signal into a strength.
3. Beyond Profitability Reporting: While profitability is important, management must ensure that communication with investors goes beyond ROA. They should emphasize asset quality, capital adequacy ratios, and, crucially, how ESG practices underpin long-term value creation and mitigate risks associated with both their asset and liability sides.

4. Integrating ESG into Core Operations: To make ESG relevant to the profitability-value link, banks need to better articulate how ESG leads to cost savings (e.g., energy efficiency), opens new revenue streams (e.g., green financing), and mitigates risks that could impact future earnings, thereby making current profits more sustainable.

CONCLUSION

Based on the results of data analysis and discussion, it can be concluded that profitability does not have a significant influence on the value of banking companies in the 2019–2023 period, while capital structure has a positive and significant effect on the value of the company. In addition, ESG has been shown to strengthen the relationship between capital structure and company value, but it does not moderate the relationship between profitability and company value. These findings confirm the unique characteristics of the banking industry, where capital structure plays a more important role than profitability in shaping corporate value, and ESG practices are effective in improving the validity of bank funding policies in the eyes of investors. Implicitly, banking management needs to integrate ESG into financial and operational strategies, optimize capital structures with sustainability aspects in mind, and increase transparency in ESG reporting. For investors, these findings emphasize the importance of considering ESG factors in investment decisions, particularly in high-leverage banks, using more holistic valuation metrics. For regulators, it is necessary to strengthen the regulatory framework that encourages ESG implementation and provide incentives for banks that are committed to sustainability practices. Meanwhile, researchers are further advised to expand the variables and research periods for stronger generalizations, as well as explore the mediation mechanisms between ESG and corporate value through variables such as capital cost and reputation.

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