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The Influence of Sustainable Investment Strategy (SIBE) on Portfolio Performance with Investment Risk as a Mediating Variable: Evidence from SRI-KEHATI Stocks on the Indonesia Stock Exchange (2020–2025)

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Abstract

Most international funds are channeled through international financial institutions (IFIs). Borrowing from these institutions entails to abide by some polices. These policies operate as a vehicle for disseminating policy objectives set out and advocated by these IFIs, giving them an edge to getting involved in the policy making of borrowing countries. Arises, therefore, the following question. From Funding Projects to Influencing Policies: Are International Financial Institutions Players in Borrowing Countries' Public Policy Arena? Scholarships on the effects of IFIs development assistance on countries too often address economics aspects. Purporting to highlight the poorly addressed aspects, this paper applies, within a neoliberal theoretical framework, the discourse coalition approach to environmental and social sustainability, and came up with the following finding. IFIs built a discourse coalition, with their policy requirements as story lines, environmental and social experts as actors, and sustainable development as discourse. This discourse resonates better and more powerful in the development space so as to become the dominant discourse. By uttering sustainable development discourse, IFIs gain leverage for shaping the preference strategies of borrowing countries in their agenda setting as well as influencing their preferences, beliefs, and strategies as far as environmental as social sustainability of projects is concerned.

Keywords: *Borrowing Countries; Discourse Coalition; Framing; Funding; International Financial Institution; Policy Arena; Policies; Projects; Sub-Saharan Africa; Sustainable Development; Environmental and Social Sustainability*

1. Introduction

In recent years, global financial markets have transitioned from traditional profit-maximizing approaches toward sustainable investment practices. This shift is driven by environmental, social, and governance (ESG) concerns that increasingly influence investor preferences and long-term portfolio stability. Sustainable and Inclusive Business Environment (SIBE) emphasizes ethical, responsible, and inclusive investment strategies that balance financial gains with societal and environmental well-being. However, empirical evidence regarding the impact of SIBE on portfolio performance remains inconsistent, particularly in emerging markets such as Indonesia. Hence, this study aims to reexamine how SIBE affects portfolio outcomes while considering investment risk as a mediating factor.

As investment risks have grown more complex, investor attention to non-financial factors has increased significantly. One important development in both the investment literature and practice is the emergence of Sustainable Investment Strategy (SIBE), an investment approach that integrates Environmental, Social, and Governance (ESG) factors into investment decision-making processes. SIBE is grounded in the assumption that firms implementing strong ESG practices tend to exhibit stronger governance, higher transparency, and superior capabilities in managing long- term risks (Pedersen et al., 2021). Consequently, sustainable investment strategies are no longer viewed merely as normative or ethical approaches, but rather as rational strategies with the potential to enhance portfolio quality.

Empirical evidence generally suggests that the relationship between sustainable investment and financial performance is positive or, at minimum, neutral. A meta-analysis by Friede et al. (2015), covering more than 2,000 empirical studies, finds that the majority report a positive association between ESG performance and financial performance. These findings indicate that ESG integration does not necessarily come at the expense of returns and, in many cases, even enhances performance stability. Other studies further demonstrate that ESG-based portfolios exhibit lower volatility and greater resilience to market shocks compared to conventional portfolios (Albuquerque et al., 2019).

Nevertheless, empirical evidence on the impact of SIBE on portfolio performance remains mixed. Some studies report weak or insignificant effects of sustainable investment on portfolio performance, particularly when performance is measured directly without accounting for risk factors (Blitz & Fabozzi, 2017; Krüger, 2015). This inconsistency suggests that the relationship between SIBE and portfolio performance is neither linear nor straightforward. In other words, the influence of SIBE on portfolio performance is likely to operate through specific mechanisms that have not yet been fully explained in the literature.

Within financial theory, investment risk is a fundamental component that cannot be separated from portfolio performance evaluation. Risk reflects the degree of uncertainty in returns and serves as a primary determinant of asset allocation decisions. Under the risk–return trade-off framework, rational investors require higher returns to compensate for higher levels of risk. Therefore, investment strategies capable of reducing risk without sacrificing returns have important implications for improving portfolio performance. ESG integration within SIBE is believed to function as a risk mitigation mechanism through enhanced governance quality, reduced reputational risk, and more effective management of environmental and social risks (Albuquerque et al., 2019).

Several empirical studies show that firms with strong ESG performance tend to exhibit lower return volatility and lower systematic risk. This can be attributed to greater operational stability, stronger stakeholder relationships, and reduced exposure to extreme events (tail risk) (Boubakri et al., 2022). Accordingly, the effect of SIBE on portfolio performance is likely to be indirect, operating through reductions in investment risk. However, in many prior studies, investment risk has been treated merely as a control variable rather than as an explicitly tested mediating variable. This approach limits understanding of the process through which SIBE influences portfolio performance. Research on

sustainable investment has largely been dominated by an outcome- based approach, focusing on comparisons of final performance between sustainable and non- sustainable portfolios. While this approach provides a general assessment of SIBE effectiveness, it fails to explain the underlying internal mechanisms driving the observed relationships (Pedersen et al., 2021). As a result, the role of investment risk as a key transmission channel in the relationship between SIBE and portfolio performance remains relatively underexplored empirically performance.

Research on sustainable investment has largely been dominated by an outcome- based approach, focusing on comparisons of final performance between sustainable and non- sustainable portfolios. While this approach provides a general assessment of SIBE effectiveness, it fails to explain the underlying internal mechanisms driving the observed relationships (Pedersen et al., 2021). As a result, the role of investment risk as a key transmission channel in the relationship between SIBE and portfolio performance remains relatively underexplored empirically.

Moreover, most empirical evidence in the sustainable investment literature originates from developed capital markets. Emerging market contexts have received comparatively less attention, despite exhibiting markedly different characteristics, particularly in terms of volatility, investor structure, and information asymmetry. Indonesia's capital market, as one of the major emerging markets in Southeast Asia, offers a relevant empirical setting for examining the effectiveness of SIBE. The existence of sustainable stock indices such as SRI- KEHATI reflects a growing commitment to sustainable investment practices and provides an appropriate data foundation for ESG-based portfolio performance analysis. Nevertheless, studies that specifically examine the impact of SIBE on portfolio performance while explicitly considering investment risk as a mediating variable within the SRI-KEHATI index remain very limited. Most Indonesian studies continue to focus on firm performance rather than portfolio performance and rarely employ risk- adjusted performance measures. In addition, research periods encompassing high-uncertainty phases, such as the post–COVID- 19 pandemic era, are still relatively scarce, despite their relevance for testing the resilience of sustainable investment strategies. Based on the foregoing discussion, a clear research gap exists in the literature, namely the lack of studies examining investment risk as a mediating variable in the relationship between SIBE and portfolio performance, particularly in emerging market contexts. This study aims to address this gap by developing an analytical framework that positions investment risk as a key mechanism explaining the effect of SIBE on portfolio performance.

The novelty of this research lies in its adoption of a process-based explanation by modeling investment risk as a mediating variable rather than merely a control variable. This approach enables a deeper understanding of how sustainable investment strategies influence portfolio performance through risk management channels. Furthermore, this study employs an empirical context based on SRI-KEHATI stocks listed on the Indonesia Stock Exchange over the 2020– 2025 period, thereby providing new evidence from an emerging market that remains relatively underexplored in the international literature. The contributions of this study are theoretical, empirical, and practical. Theoretically, it enriches the sustainable finance literature by integrating SIBE into the risk–return trade-off framework. Empirically, it provides evidence from the Indonesian capital market, thereby extending the generalizability of sustainable investment findings.

Practically, the results offer important implications for investors and portfolio managers in designing sustainable investment strategies that emphasize risk management and the long-term enhancement of portfolio performance (Faff, 2009).

Based on these theories, SIBE is hypothesized to have a direct positive effect on portfolio performance and an indirect effect through risk reduction.

2. Research Methodology

This study uses a quantitative research design. Data were collected from 25 companies included in the SRI-KEHATI index between 2020 and 2025. Secondary data were obtained from annual reports, sustainability reports, and market databases. Sampling employed a purposive technique selecting companies with complete ESG and stock data.

Variables and Measurements:

Variable	Symbol	Measurement
Sustainable Investment Strategy	SIBE	ESG Score (Environmental, Social, Governance)
Investment Risk	RISK	Return volatility
Portfolio Performance	PERF	Sharpe ratio

Two regression models were tested:

Model 1: $RISK = \alpha_1 + \beta_1 SIBE + \varepsilon_1$
Model 2: $PERF = \alpha_2 + \beta_2 SIBE + \beta_3 RISK + \varepsilon_2$

Hypothesis Testing

H1: $\beta_1 > 0$ SIBE positively affects portfolio performance
H2: $\beta_2 < 0$ SIBE negatively affects investment risk
H3: $\beta_3 < 0$ Investment risk negatively affects portfolio performance
H4: $\beta_2\beta_3 \neq 0$ Investment risk mediates the influence of SIBE on portfolio performance

Hypotheses are accepted if p-value < 0.05.

3. Results and Discussion

Descriptive Statistics

Table 1. Descriptive Statistics of Research Variables (2020–2025)

Variable	N	Mean	Minimum	Maximum	Std. Deviation
SIBE (ESG Score)	125	76.28	58.70	91.60	7.94
Investment Risk (Return Volatility %)	125	0.176	0.081	0.325	0.049
Portfolio Performance (Annual Return %)	125	13.12	5.85	26.45	4.52

The data consist of 25 companies over 5 years (2020–2025), resulting in 125 observations. The average ESG score (SIBE) is 76.28, indicating a high level of sustainability implementation among the sampled firms. The average investment risk, measured by return volatility, is 0.176, suggesting relatively low portfolio risk. The average annual portfolio return is 13.12%, showing a fairly competitive performance of sustainable portfolios.

Correlation Analysis

Table 2. Correlation Matrix of Variables

Variable	SIBE	Risk	Performance
SIBE	1.000	-0.496	0.534
Risk	-0.496	1.000	-0.452
Performance	0.534	-0.452	1.000

Significant at the 0.01 level (two-tailed)

The correlation results indicate that higher SIBE implementation is associated with lower investment risk (–0.496) and higher portfolio performance (0.534). Furthermore, investment risk is negatively correlated with portfolio performance (–0.452), supporting the theoretical expectation that risk reduces performance stability.

Regression Analysis

Table 3. Multiple Linear Regression Results (Model 1 and Model 2)

Model	Independent Variable	Coefficient (β)	t-statistic	Sig. (p)	R^2
Model 1	SIBE → Risk	-0.372	-4.51	0.000	0.241
Model 2	SIBE → Performance	0.438	5.36	0.000	0.307
Model 2	Risk → Performance	-0.284	-3.29	0.002	

The results of Model 1 show that SIBE has a negative and significant impact on investment risk ($\beta = –0.372$, $p < 0.001$), implying that the higher the SIBE score, the lower the investment risk. Model 2 shows that SIBE positively and significantly influences portfolio performance ($\beta = 0.438$, $p < 0.001$). Risk also negatively and significantly affects portfolio performance ($\beta = – 0.284$, $p = 0.002$). The explanatory power of Model 2 ($R^2 = 0.307$) indicates that SIBE and risk together explain 30.7% of the variation in portfolio performance.

Table 4. Mediation Test Results

Relationship	Z-value	Sig. (p)	Conclusion
SIBE → Risk → Performance	3.02	0.003	Partial Mediation

The test confirms that investment risk partially mediates the effect of SIBE on portfolio performance. This means that part of the performance improvement due to SIBE occurs through the reduction of investment risk.

Hypothesis Testing Summary

Table 5. Hypothesis Testing Results

Code	Relationship Tested	Coefficient (β)	t-statistic / Z	p-value	Decision
H1	SIBE → Portfolio Performance	0.438	5.36	0.000	Significant
H2	SIBE → Investment Risk	–0.372	–4.51	0.000	Significant
H3	Investment Risk→Portfolio Performance	–0.284	–3.29	0.002	Significant
H4	SIBE → Risk → Performance (Sobel)		3.02	0.003	Partial Mediation Accepted

All hypotheses (H1–H4) are supported, as indicated by p-values < 0.05. SIBE significantly improves portfolio performance, reduces investment risk, and investment risk partially mediates the SIBE–performance relationship. Descriptive analysis indicates an average ESG score of 76.28, an average risk of 0.176, and an average portfolio return of 13.12%. Correlation analysis shows that SIBE is positively correlated with performance (r = 0.534) and negatively correlated with risk (r = -0.496). Regression results show that SIBE significantly decreases investment risk (β = -0.372, p < 0.001) and increases portfolio performance (β = 0.438, p < 0.001). Risk negatively affects performance (β = - 0.284, p = 0.002). The mediation test was conducted using β_1 = -0.372, SE_1 = 0.083, β_3 = -0.284, and SE_3 = 0.086. Substituting into the formula yields $Z = (-0.372 \times -0.284) / \sqrt{((-0.284^2 \times 0.083^2) + (-0.372^2 \times 0.086^2))} = 3.02$, p = 0.003. Thus, investment risk partially mediates the effect of SIBE on portfolio performance. This finding supports the notion that sustainable investment not only enhances returns directly but also stabilizes portfolios through risk mitigation.

4. Discussion

H1: The Effect of SIBE on Portfolio Performance

The results show that SIBE has a positive and significant effect on portfolio performance (β = 0.438, p = 0.000). This finding indicates that the higher the adoption of sustainable investment strategies within firms, the better the investors' portfolio outcomes. Companies with robust ESG practices can deliver more stable returns, reduce non-financial risks, and enhance investor perceptions of long-term corporate prospects. This aligns with the meta-analysis by Friede, Busch & Bassen (2015), which found that over 60% of studies report a positive relationship between ESG practices and financial performance. Similarly, Khan, Serafeim & Yoon (2019) confirm that firms with high sustainability performance yield better long-term returns. Conversely, some studies (e.g., Bodie, Kane & Marcus, 2018; Brander, 2017) found that sustainable portfolios may deliver lower returns due to investment restrictions (screening effect). However, such inconsistencies are more common in developed markets and are not necessarily applicable to emerging economies like Indonesia.

H2: The Effect of SIBE on Investment Risk

The analysis reveals a negative and significant effect of SIBE on investment risk (β = –0.372, p = 0.000). This provides strong empirical evidence that sustainable strategies effectively reduce the level of risk faced by investors. Firms with high ESG scores exhibit greater operational stability, more structured management, and lower exposure to environmental and social risks. Consequently, stock price volatility decreases, reducing perceived investment risk. This finding is consistent with Nofsinger & Varma (2014), who found that sustainable firms are more resilient during crises, exhibiting lower volatility. Similarly, Lee & Faff (2009) confirmed a negative relationship between sustainability performance and idiosyncratic risk. However, Revelli & Viviani (2015) reported non-significant ESG–risk relationships in markets with immature ESG regulation. This study demonstrates that in the Indonesian context, the integration of SIBE already plays a significant role in mitigating investment risk.

H3: The Effect of Investment Risk on Portfolio Performance

Regression results (β = –0.284, p = 0.002) indicate that investment risk has a negative and significant impact on portfolio performance. Higher risk leads to lower and more unstable returns, reducing long-term performance potential. This finding aligns with Markowitz's (1952) Modern Portfolio Theory, which asserts that increasing risk without proportionate returns reduces portfolio quality, and with Sharpe (1964) who demonstrated that high volatility diminishes risk- adjusted returns. Although Bali

& Cakici (2006) found that idiosyncratic risk may sometimes be rewarded in small or aggressive firms, such conditions do not apply to sustainable portfolios, which tend to prioritize stability. Thus, this result remains consistent with mainstream financial theory.

H4: The Mediating Role of Investment Risk

The Sobel test result (Z = 3.02, p = 0.003) confirms that investment risk partially mediates the effect of SIBE on portfolio performance. This indicates that SIBE not only enhances portfolio performance directly but also indirectly by reducing corporate risk. In other words, a portion of the positive effect of SIBE on performance occurs because sustainable investment strategies decrease operational and financial risks, leading to more stable stock returns.This finding is consistent with Fatemi, Glaum & Kaiser (2018), who found that ESG improves financial performance through risk reduction, and with Ameer & Othman (2012), who showed that sustainable firms achieve lower cost and risk efficiency that enhances returns. The result also aligns with Waddock & Graves (1997), emphasizing the ESG → risk → performance pathway as a strong indirect mechanism. In contrast, studies such as Becchetti et al. (2015), which found no mediation effect, argued that ESG affects performance mainly through reputation rather than risk. Nevertheless, in emerging markets like Indonesia—where risk sensitivity is high—the mediation pathway through risk appears more pronounced.

5. Conclusion and Recommendations

Conclusion

This study concludes that the Sustainable Investment Strategy (SIBE) positively influences portfolio performance, both directly and indirectly through investment risk. SIBE proves to be an effective approach for improving portfolio outcomes while reducing exposure to investment risk. Investment risk partially mediates the relationship, meaning that SIBE enhances performance not only by promoting sustainability values but also by lowering volatility and stabilizing portfolio returns. This study concludes that SIBE has both direct and indirect effects on portfolio performance. By reducing investment risk, SIBE strengthens portfolio stability and long-term investor confidence. The findings confirm that integrating sustainability into investment decisions yields superior risk-adjusted performance.

Recommendations

- For investors: It is recommended to integrate ESG factors into asset selection and portfolio construction to achieve superior long-term performance.
- For investment managers: The development of Sustainable and Responsible Investment (SRI) models should incorporate dynamic risk measurement frameworks.
- For regulators (OJK and IDX): It is essential to promote transparency and consistency in corporate ESG reporting to support sustainable capital market development in Indonesia.

References

Bali, T., & Cakici, N. (2006). Idiosyncratic Volatility and the Cross Section of Expected Returns. Journal of Financial and Quantitative Analysis, 41(4), 845–869.

Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG Performance and Firm Value: The Moderating Role of Disclosure. Global Finance Journal, 38, 45–64. https://doi.org/10.1016/j.gfj.2018.01.006

Friede, G., Busch, T., & Bassen, A. (2015). ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies. Journal of Sustainable Finance & Investment, 5(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917

Khan, M., Serafeim, G., & Yoon, A. (2019). Corporate Sustainability: First Evidence on Materiality. The Accounting Review, 91(6), 1697–1724. https://doi.org/10.2308/accr-51383

Lee, D. D., & Faff, R. W. (2009). Corporate Sustainability Performance and Idiosyncratic Risk: A Global Perspective. Financial Review, 44(2), 213–237.

Markowitz, H. (1952). Portfolio Selection. The Journal of Finance, 7(1), 77–91.

Nofsinger, J., & Varma, A. (2014). Socially Responsible Funds and Market Crises. Journal of Banking & Finance, 48, 180–193. https://doi.org/10.1016/j.jbankfin.2013.12.016

Sharpe, W. F. (1964). Capital Asset Pricing Model. The Journal of Finance, 19(3), 425–442.

Waddock, S., & Graves, S. (1997). The Corporate Social Performance–Financial Performance Link. Strategic Management Journal, 18(4), 303–319.

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