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Risk management practice in Indonesian banking industry: The role of sustainable leadership and environmental volatility

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Abstract

This research aims to enhance risk management practices, and an approach based on sustainable leadership is necessary. The study aims to develop a strategic model to enhance sustainable performance by strengthening risk management practices based on sustainable leadership. Additionally, this study aims to test the moderating impact of environmental volatility on the relationship between sustainable leadership and sustainable firm performance. The research sample consists of a survey of commercial banks in the KBMI II, III, and IV groups in Indonesia, with samples taken from the managerial level of banks composed of C-level, SVP, VP, AVP, and manager levels. This study uses convenience sampling to gather the required data by distributing an online questionnaire of 55 questions. A total of 117 valid responses were received and analyzed using partial least squares structural equation modeling. The results of the study prove that sustainable leadership positively influences risk management practices. The results also show that risk management practices and sustainable leadership positively affect sustainable firm performance. Further, environmental volatility insignificantly moderates the relationships between sustainable leadership and sustainable firm performance. These results indicate that the banks in Indonesia should implement a comprehensive approach that encompasses sustainable performance.

Keywords: Bank, Environmental volatility, Risk management practice, Sustainable firm performance, Sustainable leadership.

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1. Introduction

The banking industry plays a crucial role in a country's economic engine. Banks act as financial intermediaries and are pivotal in driving the real sector and the economy. The banking sector serves as a conduit that determines the smooth flow of funds, which are the lifeblood of economic development activities [1].

Banks facilitate economic growth by creating business capital, stimulating consumer spending and economic activities, developing money markets through market penetration, producing financial products, and strengthening the financial sector [2]. The banking industry in Indonesia faces challenges similar to those of global banks, where generating profits is not easy. Increasing economic pressures, resulting in reduced purchasing power of the public and exacerbated by intensifying competition among banks, lead to high management of non-performing loans and tight liquidity due to the slowdown in the growth of third-party funds contributed by the public [3].

Indeed, this momentum of stable performance in the banking industry should be leveraged to further explore how banks in the country can achieve increasingly improved business performance each year and, more importantly, how banks can allocate their efforts to maintain the sustainability of their business. The push for banks to play a role in sustainability activities is further realized in the sustainable finance scheme, where banks implement sustainable finance principles through financing environmentally friendly sectors such as renewable energy, energy efficiency, waste management, sustainable agriculture and fisheries, green buildings, and sustainable tourism. With OJK Regulation No. 51/POJK.03/2017 issuance on implementing Sustainable Finance, commercial banks are encouraged to support projects and investments that contribute to sustainable development goals, such as reducing carbon emissions, promoting renewable energy, and supporting social activities.

The global bank risk survey conducted by Ernst & Young Global Limited & Institute of International Finance [4] reveals that Chief Risk Officers, as survey respondents, highlight the top five changes needed to manage risks associated with digital asset strategies, namely: 1) changes related to risk management, 2) the need to have employees with the appropriate skill set and knowledge, 3) changes related to technology, 4) enhanced employee training, and 5) banks having a deep understanding, the ability to manage situations, and regulatory changes. In point 5 above, banks require expertise and leadership experience in handling various disruptions/potential business disruptions [5].

Moreover, changes in risk management practices are a focal point of attention in building bank performance that is not only for today but also needs to be sustainable. Organizations must not only practice risk management to meet banking regulations or a compliance checklist, but are encouraged to predict unprecedented risks by relying more on historical data [6].

Effective risk management in the banking industry is necessary, as improper risk management practices can adversely affect the bank and the global economy [7]. Therefore, risk management discipline has become more important, especially in the financial sector. Effective risk management has been proven to help banks survive during global crises. An effective risk culture and integrated corporate mechanisms have been shown to support value-added performance and high economic profits. Frameworks and guidelines on risk management in the banking industry primarily discuss the concepts and application of bank risk management as guided by OJK regulation No. 18/POJK.03/2016 concerning risk management implementation in commercial banks. The results of risk management implementation can vary depending on the size of the bank, operational complexity, and available resources. However, in general, the banking industry in Indonesia continues to strive to improve its risk maturity to ensure that it can withstand a changing and challenging business environment [8].

One of the increasing challenges due to climate change, as one of the top risks today [9], is pushing businesses to adopt sustainable leadership to enhance sustainable performance [10]. Studies conducted by Iqbal et al. [11] show that sustainable leadership significantly enhances organizational learning, which in turn strengthens sustainable performance. This research emphasizes the importance of developing sustainable leadership competencies, such as valuing employees and fostering a shared vision, to improve the quality of life of long-term stakeholders and company performance.

Learning from the experiences of banks since the Asian financial crisis of 1997 to the COVID-19 pandemic of 2019, banks recognize that the ups and downs of running their business are inseparable from a volatile environment. In the banking industry, this refers to market conditions that change rapidly and are not easily predictable. In the context of the banking industry, this can include various factors such as regulatory changes, the advent of new technologies, competition from non-banks, customer behavior, conditions, emerging risks originating from outside the bank, and the impact of globalization. In facing this volatile environment, banks in Indonesia must adapt quickly, make the right strategic decisions, and continue to innovate to maintain their competitiveness and business sustainability.

Based on the above description, it is understood that sustainable firm performance refers to the ability of a financial institution to consistently deliver positive financial results while ensuring long-term sustainability and adhering to sustainability principles. Furthermore, in order to measure the variable, based on the concept review above, the variable of sustainable firm performance is measured by referring to Burawat [12].

Building on this foundation, this study explores how Sustainable Leadership and Risk Management Practices impact Sustainable Firm Performance in the banking sector. This framework seeks to provide actionable insights into addressing the sector's challenges through risk management practices to support banking sustainability.

H_1: Risk Management Practice (RM) positively affects Sustainable Firm Performance (SP).

H_2: Sustainable Leadership (SL) positively affects Sustainable Firm Performance (SP).

H_3: Sustainable Leadership (SL) positively affects Risk Management Practice (RM).

H_4: Environmental Volatility (EV) moderates Sustainable Leadership (SL) and Sustainable Firm Performance (SP).

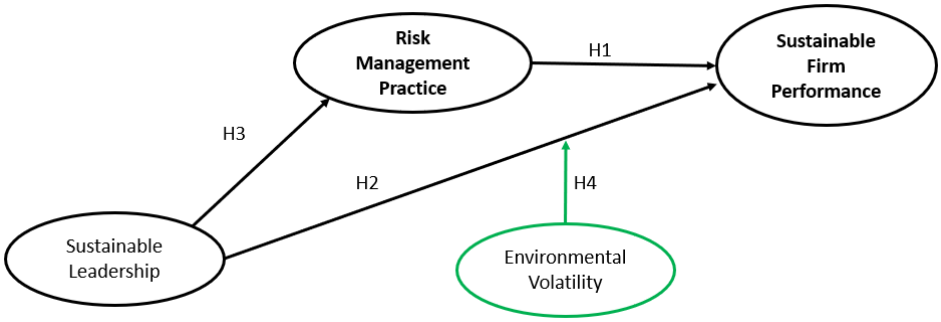

Figure 1.
Research Model.

2. Methodology

The study employs a quantitative approach to investigate the relationship between Sustainable Leadership, Risk Management Practice, and Sustainable Firm Performance within Indonesia's banking sector. A cross-sectional research design was chosen to capture data from a single time point, providing a snapshot of industry trends which affected by Environmental Volatility. This design is suitable for assessing risk management practice and leadership impact in a rapidly evolving industry.

Using stratified sampling techniques, this study targeted commercial banks actively operating in Indonesia as identified by the Indonesian Financial Services Authority [13]. The sampling techniques, which involve collecting data from banking respondents, were selected to maximize the study's representativeness and ensure comprehensive industry insights. The respondents were individuals from each bank at the senior management level, namely, C-level, senior vice president, vice president, and assistant vice president, resulting in a total of 117 respondents. This focus on decision-makers provides a strategic perspective on Sustainable Leadership, Risk Management Practice, and the Environmental Volatility role in driving sustainable performance across Indonesia's banking sector.

The respondents in Table 1 comprise banking respondents predominantly aged between 28 – 43 years old. A significant portion holds advanced degrees, with 57% having completed a master's degree and 38% possessing a bachelor's degree. This highly educated and experienced group brings valuable insights into the strategic risk and leadership challenges to sustainable performance. Additionally, banking respondents were represented by 49% of banks from core capital between IDR 14 trillion – IDR 70 trillion (Kelompok Bank dengan Modal Inti / KBMI III), 27% of banks with core capital > IDR 14 trillion (KBMI IV), and 23% of banks with core capital <IDR 14 trillion (KBMI II). By bank category, this provides a robust foundation for analyzing how organizational scale and structure impact sustainable performance.

The key variables, Sustainable Leadership, Risk Management Practice, Environmental Volatility, and Sustainable Firm Performance, were operationalized as reflective constructs, each measured using multiple items to capture each construct's nuances comprehensively.

Table 1.
Respondent Profile.

Variable	Category	Frequency	Percentage
Gender	Male	93	79.5%
	Female	24	20.5%
Age	between 44 - 59 years old	44	37.6%
	between 28 - 43 years old	67	57.3%
	between 12 - 27 years old	6	5.1%
Education level	Doctor (S3)	4	3.4%
	Master (S2)	67	57.3%
	Bachelor (S1)	45	38.5%
	Diploma (D3)	1	0.9%
Work experience in the banking industry	less than 5 years	12	10.3%
	6 - 10 years	15	12.8%
	more than 10 years	90	76.9%
Work experience in the current bank	less than 5 years	46	39.3%
	6 - 10 years	23	19.7%
	more than 10 years	48	41.0%
Job Position	Manager	12	10.3%
	Senior Manager	9	7.7%
	Assistant Vice President	20	17.1%
	Vice President	33	28.2%
	Senior Vice President	26	22.2%
	Senior Executive Vice President	4	3.4%

	Board of Directors	4	3.4%
	Others	9	7.7%
Bank Category	KBMI 4 (core capital > IDR 70 trillion)	32	27.4%
	KBMI 3 (core capital IDR 14 trillion – IDR 70 trillion	58	49.6%
	KBMI 2 (core capital < IDR 14 trillion)	27	23.1%
Majority Shareholder	SOE bank	38	32.5%
	Regional Development Bank	5	4.3%
	Private bank	19	16.2%
	Foreign bank	55	47.0%

(Source: survey research data)

The questionnaires employed a 6-point Likert Scale, ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). Here are some reasons why to choose a six-point Likert Scale, i.e., to avoid neutral responses, increase variability, and balance between differentiation and overwhelm [14, 15].

1. Sustainable Leadership assessed the bank that integrates the principles of sustainability into the practice of leadership that promotes a long-term and short-term perspective, financial market orientation, corporate social responsibility, decision making, culture, trust, and enhances key performance drivers.
2. Risk Management Practice measures how the systematic process of understanding the risk, identifying, assessing, and responding to risks in order to minimize the negative impact they may have on an organization.
3. Environmental Volatility measures the unpredictability and rate of fast variability in a situation where market conditions and external factors affecting a business change rapidly and unpredictably.
4. To gauge overall organizational success, sustainable firm performance was evaluated using key performance indicators, including economic, environmental, and social performance.

Data analysis was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS software (version 4.0). PLS SEM was chosen for its effectiveness in managing complex models that involve small sample sizes and non-normal data distributions, making it suitable for exploratory studies with latent constructs [16]. This approach enables the simultaneous testing of the measurement model (outer model) and the structural model (inner model), offering insights into the relationships among Sustainable Leadership, Risk Management Practices, Environmental Volatility, and Sustainable Firm Performance.

3. Results

The study evaluated the internal consistency and validity of each construct using Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha (Table 2). Convergent validity, per Fornell and Larcker [17], was confirmed for all constructs if the AVE exceeded 0.50, meaning the constructs accounted for more than half the variance in their measured indicators. Risk Management Practice demonstrated the most substantial indicator representation (AVE=0.776), while Sustainable Leadership (0.686), Sustainable Firm Performance (0.607), and Environmental Volatility (0.520) also met the validity threshold.

Composite Reliability (CR) values, which assess the internal consistency of a set of indicators, exceeded the minimum threshold of 0.70 for all constructs. Risk Management Practice achieved the highest CR at 0.965, reflecting exceptional reliability, while other constructs demonstrated the following CR values: Sustainable Leadership (SL) = 0.955, Sustainable Firm Performance (SP) = 0.938, and Environmental Volatility (EV) = 0.864. These results indicate strong reliability across the model. Higher CR values further suggest that the indicators consistently represent their underlying constructs, ensuring robustness in the measurement model.

TO further ensure internal consistency and reliability, the factor loadings of each indicator were examined. All items threshold of 0.70, confirming that individual indicators strongly correlate with their respective constructs [18]. The practice aligns with best practices in structural equation modeling (SEM), which comprehensively integrates CR and loading factors to validate measurement models. These findings reinforce the robustness of the constructs, consistent with the approach used in similar studies [19].

Additionally, Cronbach's Alpha values for all constructs exceeded 0.70, further validating construct reliability. Risk Management Practice (RM) exhibited the highest Cronbach's Alpha at 0.958, indicating high consistency in measuring this construct. Together, these metrics confirm that the construct in the model possesses convergent validity and high internal reliability, supporting the robustness of the measurement model in this study.

Table 2.
Convergent validity and reliability.

	Average Variance Extracted (AVE)	Composite Reliability (rho_c)	Cronbach's Alpha
Sustainable Leadership	0.686	0.955	0.947
Risk Management Practice	0.776	0.965	0.958
Environmental Volatility	0.520	0.864	0.810
Sustainable Firm Performance	0.607	0.938	0.926

Discriminant validity was assessed using the Fornell-Larcker criterion, which is met when each construct's square root of the Average Variance Extracted (AVE) exceeds its correlations with other constructs. This criterion ensures that each construct is distinct within the model. In this study, Environmental Volatility (EV) has a square root of AVE of 0.501, which is higher than its correlations with other constructs, confirming its uniqueness. Risk Management Practice (RM) shows a diagonal value of 0.812, which is better than its correlations with other constructs, supporting its discriminant validity. Sustainable Firm Performance (SP) has a value of 0.572, indicating it is well-differentiated from other constructs. Sustainable Leadership (SL) has a robust diagonal value of 0.575, confirming its distinct role in the model. These results, as shown in Table 3, validate that each construct is unique and distinct, supporting the model's overall reliability and robustness. Furthermore, Table 4 shows that all Heterotrait-Monotrait (HTMT) ratios were below 0.85, proving that the constructs are distinct and not overlapping.

Table 3.
Fornell-Larcker criterion.

	EV	**RM**	**SP**	**SL**
Environmental Volatility (EV)	0.501			
Risk Management Practice (RM)	0.124	0.612		
Sustainable Firm Performance (SP)	0.119	0.512	0.572	
Sustainable Leadership (SL)	0.138	0.482	0.562	0.575

Table 4.
Heterotrait-Monotrait (HTMT) ratio.

	EV	**RM**	**SP**	**SL**
Environmental Volatility (EV)	-	0.248	0.264	0.248
Risk Management Practice (RM)	0.254	-	0.778	0.733
Sustainable Firm Performance (SP)	0.264	0.778	-	0.802
Sustainable Leadership (SL)	0.248	0.733	0.802	-

The analysis in Table 5 reveals distinct insights into how Risk Management Practice, Sustainable Leadership shape Sustainable Firm Performance in the banking sector. The result confirms that Risk Management Practice influences Sustainable Firm Performance with p-values of 0.000, thereby supporting Hypothesis 1 (H1). This outcome implies that banks focusing on risk management practice, from risk understanding, risk identification, risk analysis, and risk monitoring, are prepared to safeguard bank performance effectively.

This research aligns with the study conducted by Sleimi and Okechukwu Lawrence [20] in the banking industry, which found that strong risk management practices, including understanding and analyzing risk, risk assessment, identification, and monitoring, particularly in the area of credit risk analysis, significantly improve bank performance. Similarly, the research by Soyemi et al. [21] supports these findings, demonstrating the importance of reinforcing risk management practices in enhancing financial resilience and overall bank performance, providing valuable insights for the banking sector.

Similarly, Sustainable Leadership substantially and positively affects Sustainable Firm Performance as evidenced by a p-value of 0.000, supporting Hypothesis 2 (H2). The findings of this study are consistent with the research conducted by Fatoki [22], which found a significant positive relationship between sustainable leadership and sustainable performance. The findings indicate that a sustainable leader will not only enhance the financial performance of the company but also its social and environmental performance [12].

This research also aligns with the findings of Iqbal et al. [23], which highlight the role of championing sustainable leadership practices, allowing organizations to effectively respond to increasing demands for sustainability and climate change mitigation. Similarly, the research by Su et al. [24] emphasizes that environmental leadership is crucial, particularly concerning environmental and financial outcomes, significantly enhancing the influence of leadership in green innovation.

In evaluating Hypothesis 3 (H3), which posits that Sustainable Leadership (SL) positively impacts Risk Management Practice (RM), the results show that this hypothesis is supported with p-values of 0.000, thereby supporting Hypothesis 3 (H3).

This finding is consistent with the research conducted by Iqbal et al. [23] and Khan et al. [25], which asserts that sustainable leadership can enhance corporate risk management related to future uncertainties. This result aligns with the research by Banerjee and Gupta [26], which states that the implementation of risk management in facing future uncertainties through establishing risk tolerance as the tone from the top in promoting sustainable development requires leadership and their teams to share a vision and goals in achieving social and environmental objectives.

Conversely, the data do not support Hypothesis 4 (H4), which posits that Environmental Volatility (EV) has moderating impacts on Sustainable Leadership (SL) and Sustainable Firm Performance (SP). The results indicate that this hypothesis is not supported. The path coefficient of 0.072, while the T-statistics of 1.048 and p-value of 0.102 confirm that this moderating relationship is statistically insignificant.

Instead, its impact on performance may be moderated through other variables. This highlights that Sustainable Leadership fosters an environment conducive to bank performance directly, but its influence is not moderated by Environmental Volatility into immediate performance gains.

Table 5.
Path coefficients and hypothesis testing.

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Explanation
H1: RM → SP	0.234	0.233	0.064	5.234	0.000	Accepted
H2: SL → SP	0.408	0.408	0.072	8.201	0.000	Accepted
H3: SL → RM	0.482	0.482	0.061	11.441	0.000	Accepted
H4: EV x SL → SP	0.072	0.067	0.069	1.048	0.102	Rejected

The results demonstrate that the Sustainable Leadership and Risk Management Practice establishes a solid foundation for Sustainable Firm Performance. While Risk Management as a business enabler and leadership style contribute to tangible performance improvements. The following section, illustrated in Figure 2, further visualizes how these constructs interact within the model, emphasizing the role of Risk Management Practice in linking strategic enablers to measurable outcomes.

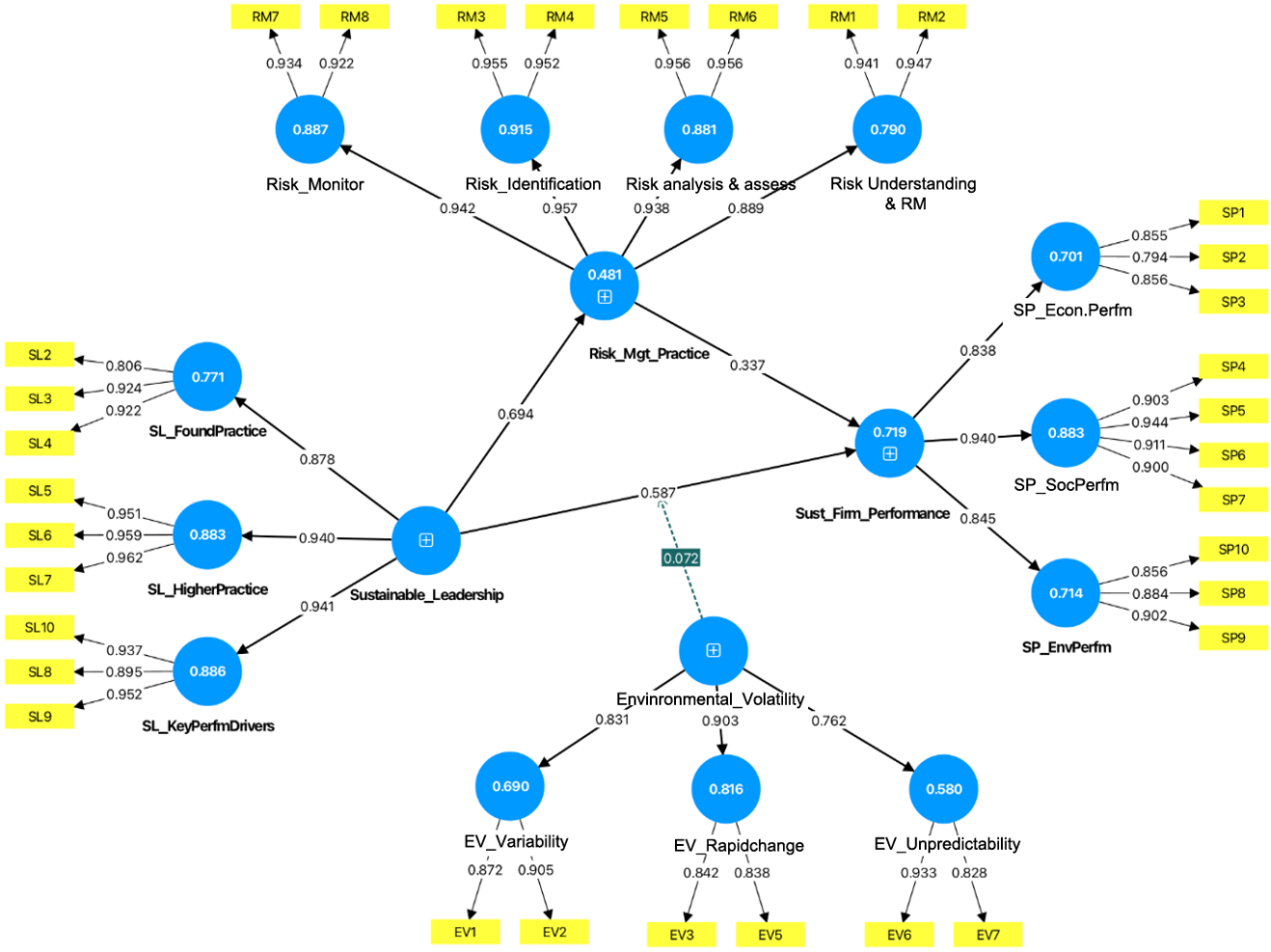

Figure 2.
Measurement Model Result.

Figure 2 illustrates these dynamics within the measurement model, highlighting the interactions among Sustainable Leadership, Risk Management Practice, Environmental Volatility, and Sustainable Firm Performance. The figure shows that although Sustainable Leadership positively influences Risk Management Practice, its direct impact on Sustainable Firm Performance is statistically significant.

Additionally, Figure 2 emphasizes the strong positive effect of Risk Management Practice on Sustainable Firm Performance, underscoring its role as a critical mediator. The coefficient of determination (R^2) values in Table 6 reveal the model's explanatory power concerning each key variable. Risk Management Practice (RM) explains a substantial portion of variance in Sustainable Firm Performance (SP) (R^2 = 0.719), underscoring the pivotal role of risk management in driving sustainable performance within the sector. Similarly, Sustainable

Leadership (SL) accounts for a moderate proportion of variance in RM (R^2 = 0.481), highlighting the importance of this leadership style in facilitating risk management efforts. F^2 results further elucidate the relative importance of each predictor in the model. RM demonstrates a medium effect (F^2 = 0.209) on SP, confirming its role in driving performance in the bank. While SL also demonstrates significant effects with F^2 = 0.928 on RM and F^2 = 0.619 on SP. This result indicates their significant contributions to fostering Risk Practice and Performance.

Table 6.
R2 and F2 values for explanatory power and predictor effect sizes.

Path	R^2	Adjusted R^2	F^2	Effect Size of Interpretation
RM → SP	0.719	0.709	0.209	Medium Effect
SL → RM	0.481	0.477	0.928	Large Effect
SL → SP	-	-	0.619	Large Effect

The mediation model underscores that while Sustainable Leadership is an important predictor of Risk Management Practice, it is Risk Management Practice itself that significantly mediates the relationship between Sustainable Leadership and Sustainable Firm Performance.

Table 7.
Mediation effects.

Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Explanation
SL → RM → SP	0.234	0.232	0.046	5.064	0.000	Significant

The significant indirect effects, shown by the SL → RM → SP, further emphasize that the risk management efforts facilitated by this leadership style are the key driver of improved sustainable firm performance outcomes in the banking sector, as shown in Table 7. Overall, R^2 and F^2 values confirm the robustness of the model, emphasizing that Sustainable Leadership indirectly bolsters Sustainable Firm Performance through its influence on Risk Management Practice as a mediating factor [27].

4. Discussion

The results affirm the pivotal role of Risk Management Practice in improving Sustainable Firm Performance (SP) in the Indonesian banking industry. Risk Management Practice directly enables the business performance and sustainability initiatives, supported by its moderate path coefficient (0.234), R^2 value of 0.719, medium effect size (F^2 = 0.209), and significant p-value ($p<0.000$). This aligns with Resource-Based Theory, emphasizing that.

In the context of banks, risk management can be considered one of the important resources. Good risk management practices include the identification, assessment, and mitigation of risks that can affect the bank's performance by preventing significant financial losses and enhancing the trust of customers and other stakeholders, which in turn can enhance loyalty and the acquisition of new customers.

Sustainable Leadership (SL) significantly influences Sustainable Firm Performance (path coefficient = 0.408, p value < 0.000) and indirectly impacts SP by fostering risk management. While its direct effect on SP is statistically significant, Sustainable leadership supports the sustainable performance of banks through risk management by creating a long-term vision, fostering a strong organizational culture, making data-driven decisions, encouraging innovation, engaging stakeholders, and ensuring compliance with social responsibility. All of these contribute to better risk management and, in turn, enhance the overall performance of the bank.

Similarly, Sustainability Leadership (SL) significantly impacts Risk Management Practice (path coefficient = 0.482, p value = 0.000, large effect size F^2 = 0.619). Leaders who promote sustainability from a long-term perspective foster a sustainability culture and have strategic innovation to enhance sustainability practices. Sustainable leadership fosters a culture of awareness regarding environmental, social, and governance (ESG) risks. Leaders who emphasize sustainability encourage employees at all levels to recognize and address potential risks, creating a proactive approach to risk management. Sustainable leaders advocate for the inclusion of ESG factors in risk assessment processes. By considering these factors, banks can identify risks that may not be apparent through traditional financial analysis, leading to more comprehensive risk management strategies.

Environmental Volatility does not support moderating impacts of Sustainable Leadership (SL) to Sustainable Firm Performance (Path coefficient = 0.072, p-value = 0.102, confirming that this moderating relationship is statistically insignificant. Environmental volatility can be a challenge; factors such as strong adaptability, a focus on sustainability, proactive risk management, stakeholder engagement, innovation, compliance with regulations, and the development of internal capabilities can mitigate the negative impact of environmental volatility on sustainable leadership and sustainable firm performance. This explains why such factors may not have a significant influence on both variables.

Demographic profile of the respondents indicates that they are experienced individuals with high education levels, holding managerial positions in banks operating across various categories. The majority of the respondents are male, and they are predominantly aged between 28 and 59 years, with significant work experience in the banking industry.

Overall, effective risk management, supported by sustainable leadership, is key to achieving sustainable performance in banking. By integrating risk management practices into the organizational culture and business strategy, banks can enhance resilience, innovation, and long-term performance, ultimately leading to sustainable success.

5. Conclusion

This study investigates how Sustainable Leadership, Risk Management Practices, and Environmental Volatility influence Sustainable Firm Performance in Indonesia's banking sector, with Environmental Volatility acting as a moderating factor.

The findings reveal that Sustainable Leadership significantly contributes to Sustainable Firm Performance in the Indonesian banking sector by promoting ethical practices, enhancing reputation, ensuring compliance, attracting investment, engaging employees, and fostering innovation. Meanwhile, Sustainable Leadership significantly enhances Risk Management Practices in the Indonesian banking sector by promoting a comprehensive approach to risk, fostering trust, ensuring compliance, preparing for crises, encouraging innovation, and instilling a risk-aware culture. The results of this study suggest that sustainable leadership can directly affect sustainable bank performance without requiring risk management practices as a mediator. In the Indonesian banking industry, sustainable leadership is perceived by respondents to function sufficiently well to guide banks in implementing sustainable performance practices, particularly through direct support from sustainable leadership in the decision-making process and supportive cultural aspects.

The environmental volatility variable may not moderate the relationship between sustainable leadership and sustainable bank performance. If sustainable leadership is focused on long-term strategies, it may remain effective regardless of environmental changes. Sustainable leadership often emphasizes stability, ethical practices, and long-term goals. Besides, banks with sustainable leadership may already have adaptive strategies in place to handle environmental changes, making the moderating effect of volatility less pronounced.

From these results, several key conclusions emerge. First, Sustainable Leadership significantly enhances Sustainable Firm Performance and Risk Management Practices in Indonesia's banking sector by promoting ethical practices, enhancing reputation, ensuring compliance, attracting investments, engaging employees, and fostering innovation. Second, the study suggests that Sustainable Leadership can directly influence Sustainable Bank Performance without requiring Risk Management Practices as a mediator, highlighting its effectiveness in guiding banks through decision-making and fostering a supportive culture. Third, Environmental Volatility does not significantly moderate the relationship between Sustainable Leadership and Sustainable Bank Performance, as Sustainable Leadership's long-term focus and adaptive strategies enable banks to remain effective despite environmental changes.

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