Operational and Externality Risk Management on Cooperative Performance: Moderating Role of Good Governance in Indonesia

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ABSTRACT

Cooperatives face performance challenges influenced by operational and external risks, thereby necessitating effective risk management and the application of good governance to strengthen resilience, competitiveness, and long-term sustainability. This study examined how operational and externality risk management affect Indonesian cooperative performance, with excellent governance as a moderator. To quantify variable interactions more precisely, the research used a quantitative method with an associative approach. Two hundred managers and cooperative administrators from Indonesian areas participated in the study. These individuals were chosen based on their roles because they directly influence decision-making and how their cooperatives manage risks and governance. Partial Least Squares (PLS) with SmartPLS 3.0 software was used to analyze complex models and examine moderating effects. Findings highlighted numerous key insights. First, cooperative performance improved greatly with operational risk management. To run more efficiently, cooperatives must anticipate system, human resource, and process failures. Second, externality risk management improved cooperative performance significantly, emphasizing the need for cooperatives to anticipate market, policy, and social changes that may threaten their stability. Most importantly, excellent governance improves these connections by encouraging transparency, accountability, and fairness, boosting risk management benefits. These findings show that risk management and good governance help Indonesian cooperatives succeed.

Keywords: *Cooperative Performance, Externality Risk Management, Good Governance, Moderating Effects, Operational Risk Management.*

ABSTRAK

Koperasi menghadapi tantangan kinerja yang dipengaruhi oleh risiko operasional dan eksternal, sehingga memerlukan manajemen risiko yang efektif dan penerapan tata kelola yang baik untuk memperkuat ketahanan, daya saing, dan keberlanjutan jangka panjang. Studi ini mengkaji bagaimana manajemen risiko operasional dan risiko eksternal mempengaruhi kinerja koperasi Indonesia, dengan tata kelola yang sangat baik sebagai moderator. Untuk mengukur interaksi variabel secara lebih tepat, penelitian menggunakan metode kuantitatif dengan pendekatan asosiatif. Dua ratus pengelola dan pengurus koperasi dari wilayah Indonesia berpartisipasi dalam penelitian ini. Individu-individu ini dipilih berdasarkan peran mereka karena mereka secara langsung memengaruhi pengambilan keputusan dan bagaimana koperasi mereka mengelola risiko dan tata kelola. Partial Least Squares (PLS) dengan perangkat lunak SmartPLS 3.0 digunakan untuk menganalisis model kompleks dan memeriksa efek moderasi. Temuan menyoroti banyak wawasan utama. Pertama, kinerja kerja sama meningkat pesat dengan manajemen risiko operasional. Untuk berjalan lebih efisien, koperasi harus mengantisipasi kegagalan sistem, sumber daya manusia, dan proses. Kedua, manajemen risiko eksternalitas meningkatkan kinerja koperasi secara signifikan, menekankan perlunya koperasi untuk mengantisipasi pasar, kebijakan, dan

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perubahan sosial yang dapat mengancam stabilitas mereka. Yang terpenting, tata kelola yang sangat baik meningkatkan koneksi ini dengan mendorong transparansi, akuntabilitas, dan keadilan, meningkatkan manfaat manajemen risiko. Temuan ini menunjukkan bahwa manajemen risiko dan tata kelola yang baik membantu keberhasilan koperasi Indonesia.

***Kata kunci**: Kinerja Koperasi, Manajemen Risiko Eksternalitas, Tata Kelola yang Baik, Memoderasi Efek, Manajemen Risiko Operasional.*

INTRODUCTION

Cooperatives boost Indonesia's economy. Article 33, paragraph 1 of the 1945 Constitution declares that cooperatives are the foundation of the national economy and an essential aspect of it. The Constitution contains this clause. Due to their importance to the nation's economy, cooperatives must improve their performance year after year to meet the standards of the Constitution of 1945. This matches Antara News' 2024 report. The investigation showed that cooperatives remain crucial to Indonesia's economy, particularly in funding, which is comparable to the banking industry. Even though banks have significantly more assets than cooperatives, cooperatives in Indonesia satisfy household needs as well as banks do (Fernandi et al., 2024). A Warta Ekonomi media report says cooperatives are vital to Indonesia's economic progress, especially in achieving Vision 2045. This is shown by cooperatives' expanding contribution to the nation's GDP and business volume, which is approaching IDR 200 trillion. Cooperatives promote the growth of several Micro, Small, and Medium-Sized Enterprises (MSMEs) sectors (Garuda, 2018). The sectors include agriculture, plantations, livestock, and home-based industry.

To become a pillar of the national economy, cooperatives must continuously improve their performance each year, which is influenced by several factors, including risk management, covering financial, operational, strategic, and external aspects, as well as the implementation of good governance (Andriani, 2018; Shamsuddin et al., 2018; Paudel, 2021). However, this study focuses on cooperative performance in relation to operational risk management, externality risk management, and good governance. Risk management identifies, analyzes, and controls company risks to increase efficiency and efficacy (Darmawi, 2016). A business management perspective, "risk management," incorporates all social dangers. These risks include property, life, financial, business, and other losses (Basyirah et al., 2022).

In this analysis, operational and externality risks are the most relevant risk management factors. The word "operational risk" refers to potential deviations from expected outcomes caused by failures in internal processes, human resources, technology, or other business components. Externality risk, on the other hand, comes from factors beyond the business's control. The external influences include legislative changes, macroeconomic instability, natural disasters, societal transformations, and geopolitical wars. These risks make firms more vulnerable, making it harder to implement corporate plans and reducing efficiency. Due to their financial fragility and resource constraints, MSMEs must manage externality risk. Micro, small, and medium-sized firms face many threats to their operational sustainability (Wielgórka, 2016). These variables include rapid fiscal or taxation policy changes, consumer purchasing power declines, and manufacturing price increases (Kurniawati & Kristanto, 2021; Rupeika-Apoga & Petrovska, 2022; Sukesi & Sugiyanto, 2022).

Without adequate risk management, these vulnerabilities may result in a drop in sales, operational inefficiencies, or, in the worst case, the company's insolvency. In this situation, competent governance is essential. Settembre-Blundo et al. (2021) defines governance as a leadership and management system that balances stakeholder responsibility with organizational survival. Organizations need governance to survive. Strong governance can regulate risk management for operational and externalities, improving cooperative performance when executed properly.

Past research has highlighted the importance of risk management to business performance. Florio and Leoni (2017) concluded that risk management strategies improved Italian company performance. Similarly, Asir et al. (2023) emphasized that effective risk management enhances corporate outcomes and allocates resources toward profitability and growth. However, despite these positive findings, there are inconsistencies in previous studies. Husaini et al. (2023) found that risk management did not affect business performance after examining sustainable governance and risk management practices, while Yuliani and Visiana (2022) found no significant correlation between financial performance, corporate governance, and risk management. These conflicting results indicate that contextual or moderating variables, such as governance practices, may influence the relationship between risk management and performance. This inconsistency forms the basis of the research gap in this study, suggesting that risk management may not always improve performance depending on the presence of good governance.

Considering the aforementioned points, cooperative performance represents a critical area of research, particularly in Indonesia, where cooperatives play a significant role in the national economy. Although previous studies have explored the determinants of cooperative performance, their findings remain inconsistent and inconclusive. Therefore, this study aims to advance the existing literature by investigating the influence of operational and externality risk management on cooperative performance, as well as examining the moderating role of good governance in these relationships.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Risk Management and Cooperative Performance

Companies use structured risk management as a precaution and a strategic instrument to improve efficiency and effectiveness (Darmawi, 2016). Organizations can foresee issues before they become major issues by methodically identifying, assessing, and controlling risks. Risk management prevents interruptions and helps organizations adjust to unexpected situations. Operational risk, caused by human mistake, poorly planned procedures, technical failures, or unexpected events, is a major concern (Settembre-Blundo et al., 2021). Unmanaged risks can compromise business continuity and operations. Operations risk mitigation frequently needs people development, technology upgrades, and organizational process improvements. These variables underpin organizational resilience.

Internal risk control is not possible for all. External risks, such as theft, market competition, variations in prices, or sudden changes in government rules, originate outside the company and are significantly harder to foresee or affect (Low et al., 2009). Companies can directly handle operational risks, but external dangers require regular environmental monitoring, strategic flexibility, and contingency preparation for unanticipated shocks. Even companies with strong internal procedures might be exposed to fiscal policy changes or raw material price surges. Recognizing the difference between internal and external risks underscores the need for a comprehensive, holistic approach to risk management, one that enhances internal systems while also nurturing the agility needed to survive and prosper in dynamic and competitive markets (Qian et al., 2023; Mala & Jumono, 2025). Therefore, risk management not only protects cooperatives from losses but also becomes a driver of innovation and adaptability in volatile market conditions (Widiasmara et al., 2024).

H1: Operational risk management has a significant effect on cooperative performance.
H2: Externality risk management has a significant effect on cooperative performance.

Good Governance and Performance in Cooperatives

Cooperative performance reflects the extent to which an organization effectively utilizes its resources to achieve operational and financial objectives. According to Rivai and Sagala (2015), performance encompasses an organization's actions over a defined

period, serving as a measure of managerial accountability, efficiency, and overall organizational effectiveness. These evaluations are commonly benchmarked against established financial and operational standards. Fahlevi et al. (2023) further emphasize that performance is a practical goal, not merely an abstract concept, highlighting the necessity of translating organizational intentions into tangible outcomes. Human resources play a pivotal role in achieving these outcomes, as employees contribute essential skills, competencies, motivation, and personal commitment. This interplay between human and structural elements underscores that cooperative performance is closely linked to how resources are managed and how individual capabilities are leveraged. In the context of Indonesia, cooperative performance is influenced not only by internal management systems but also by active member participation and supportive regulatory frameworks, given that cooperatives perform both social and economic functions in community empowerment (Sunaryo et al., 2023).

Good governance is a key determinant of cooperative performance, ensuring accountability, transparency, and effective oversight (Efunniyi et al., 2024). The World Bank defines it as a framework for managing social and economic resources competently and openly, aiming for equitable, just, and sustainable development (Wahab, 2021). Governance functions both as an organizational process and a social mechanism, linking authority with social responsibility beyond mere regulatory compliance. Empirical evidence shows that cooperatives with transparent and participatory governance achieve higher operational efficiency and financial stability (Murtadlo & Nuraeni, 2022). According to the United Nations Development Programme (UNDP), effective governance involves managing political, economic, and administrative affairs across multiple levels, connecting internal practices with broader societal systems and ensuring responsiveness to stakeholders while maintaining internal accountability (Safitri & Suparwito, 2023). Scholars stress that balancing market efficiency with responsible administration enhances resilience amid rapid economic, technological, and social changes (Ahmed et al., 2024; Brown & Mersden, 2023; Jamaluddin et al., 2023). Thus, cooperatives integrating robust governance with performance management can foster trust, equitable participation, community engagement, and sustainable financial and social outcomes (Dasuki & Lestari, 2019).

H3: Operational risk management has a significant effect on cooperative performance, moderated by good governance.
H4: Externality risk management has a significant effect on cooperative performance, moderated by good governance.

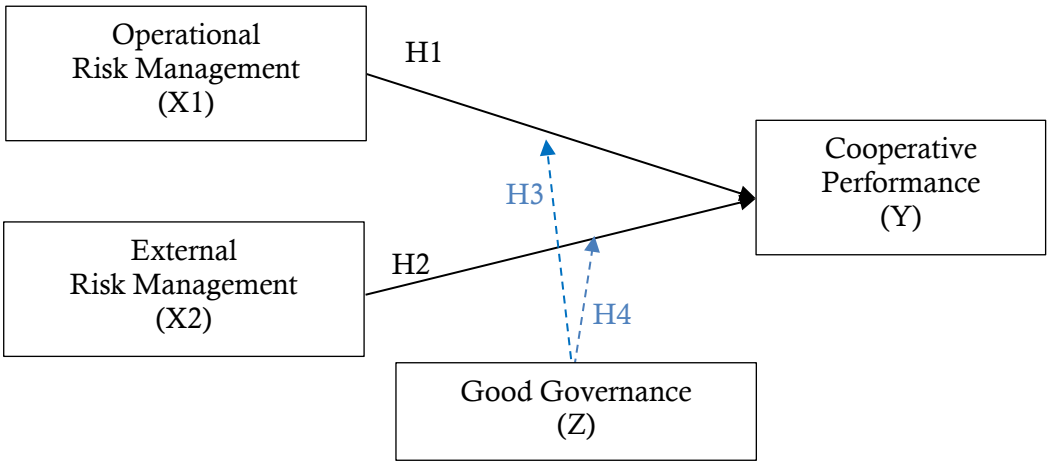

Figure 1. Conceptual Framework

Figure 1 shows the conceptual framework. This research presents Indonesian risk management, governance, and cooperative performance insights. The first hypothesis suggests that operational risk management boosts cooperative performance. Cooperatives should perform better when they identify, manage, and control internal systems, processes, human resources, and technological risks. The second hypothesis is that externality risk management considerably improves cooperative performance. Anticipating government rules, market developments, and community dynamics helps cooperatives establish resilience. Third and fourth hypotheses stress governance's moderation. The third hypothesis is that effective governance boosts operational risk management and cooperation. Transparency, accountability, and justice promote operational risk management, addressing internal issues. The fourth hypothesis is that good governance increases externality risk management and cooperative performance. Strong governance allows cooperatives to strategically adapt to external restrictions, building stakeholder trust and sustainability. The assumptions provide a comprehensive framework to research how risk management and governance affect cooperative performance in Indonesia's dynamic environment. This framework is expected to guide further empirical testing using Indonesian cooperatives as a context where governance and risk management practices directly influence resilience and sustainable member welfare.

RESEARCH METHODS

This study adopts a quantitative associative approach to objectively measure the interactions among variables. Quantitative methods are employed to identify patterns and test hypotheses through systematic data collection and statistical analysis. Given that surveys are effective tools for capturing respondents' opinions, perceptions, and behavioral trends, this study utilized a structured survey to obtain reliable and representative information. The survey design enables the identification of relationships between operational risk management, externality risk, good governance, and cooperative performance within real organizational contexts.

The research focuses on Indonesian cooperatives, involving employees and managers as respondents because they possess direct experience and decision-making authority related to risk management and governance practices. A total of 398 cooperative workers from various regions in Indonesia participated in the study. The sample size was determined using Slovin's formula, which calculates the appropriate number of respondents based on the population size and a predefined margin of error to ensure representativeness. With a 5% margin of error and a 95% confidence level, a minimum of 200 respondents was considered adequate to produce statistically reliable results.

Respondents were selected based on their positions as cooperative managers, administrators, and staff involved in operational and governance processes, ensuring that the data reflected informed perspectives. Data were collected using a structured questionnaire designed to maintain consistency across responses and improve analytical comparability.

To test the relationships between variables and the moderating effect of good governance, data were analyzed using the Partial Least Squares (PLS) method, a variance-based structural equation modeling (SEM) technique suitable for complex models and small to medium sample sizes. The analysis was conducted using SmartPLS 3.0 software. PLS was chosen for its robustness in estimating both direct and moderating effects, allowing the study to comprehensively evaluate how operational and externality risk management influence cooperative performance under varying levels of good governance.

RESULTS

The evaluation of the outer model includes testing construct validity as well as construct reliability. Validity testing is conducted to ensure that the measurement items accurately assess what they are intended to measure and to evaluate the capability of the instrument. Reliability testing, on the other hand, is employed to assess the consistency

of the measurement tool in capturing a particular concept. Convergent validity testing is carried out using the outer loading or loading factor values. An indicator is considered to meet the requirements of convergent validity, or to be categorized as acceptable, if it has an outer loading value greater than 0.7.

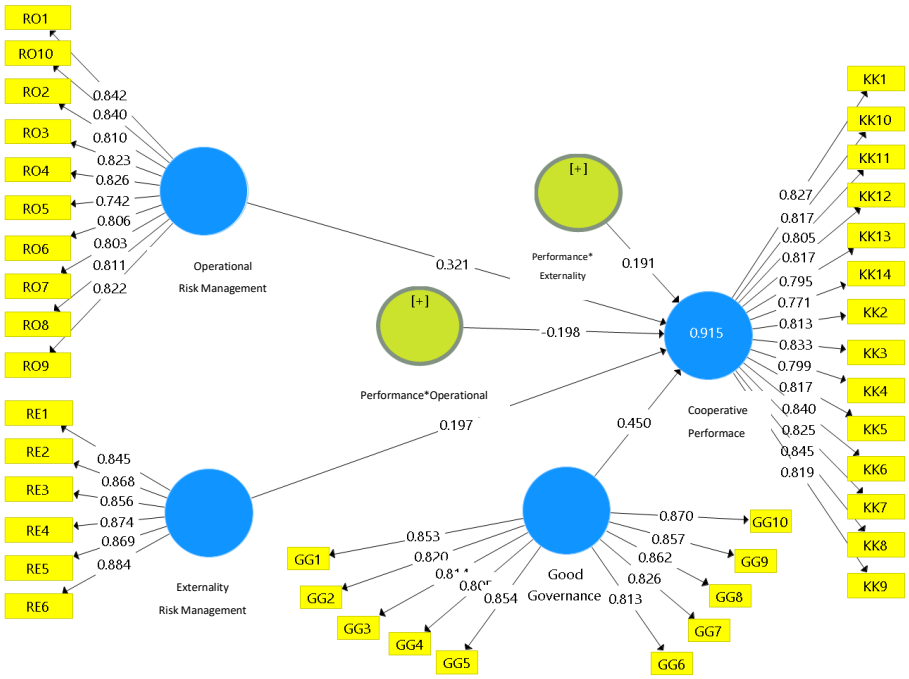

Figure 2. Outer Model

Figure 2 shows the outer model. The outer loading study shows that all research variable indicators have outer loading values larger than 0.6. As all indicators meet the recommended threshold values, they have good convergent validity. According to Ghozali (2021), outer loading values between 0.5 and 0.6 may be acceptable under certain scenarios. Values above 0.6 exceed minimum validity standards. This shows that each measurement model dimension is statistically valid and can be used in future investigations. This study uses reliable measurement instruments to capture operational risk management, externality risk management, cooperative performance, and excellent governance, guaranteeing that the structural analysis is based on credible metrics. Figure 2's outer model scheme shows the strength of the variables' associations. The strongest correlation is 0.321 between operational risk management and cooperative performance. This indicates that operational risks stemming from internal procedures, human resources, or technology have a greater impact on cooperative performance compared to other interactions in the model. The path coefficient between externality risk management and cooperative performance is 0.197, the lowest. This shows that external risk management, such as market fluctuations or regulatory changes, is beneficial but less so than internal risk management. These findings emphasize the importance of operational risk management in improving cooperative performance and the reduced role of externality risk management on organizational outcomes.

The Average Variance Extracted (AVE) values for each research variable were used to test discriminant validity. In structural equation modeling, AVE measures a construct's uniqueness. Methodological literature states that an AVE value above 0.5 implies that a variable explains more than half of its indicators' variance, indicating construct validity. Thus, when this threshold is met, the construct indicators are more closely related to their latent variable than to other variables in the model, meeting the requirements of a successful measurement model.

Table 1. Average Variant Extracted (AVE)

Variables	AVE	Validity
Operational Risk Management	0.661	Valid
Externality Risk Management	0.750	Valid
Good Governance	0.702	Valid
Cooperative Performance	0.666	Valid

All variables investigated in this pass the minimal AVE criterion of 0.5, according to the discriminant validity test in Table 1. This confirms the study's constructs, proving convergent and strong discriminant validity. This implies that each construct measures a different concept and does not overlap with other variables. Operational risk management, strong governance, and cooperative performance are empirically distinct. This validity provides a solid foundation for structural analysis, making this study's measuring approach more reliable and robust.

Composite reliability testing checks each study variable's indications for consistency and stability. Composite reliability, unlike Cronbach's Alpha, takes into account indicator loadings to better analyze structural equation modeling's internal consistency. Methodological standards define reliability as a composite reliability value above 0.6, with higher thresholds indicating greater dependability and measurement precision. The measuring model is more reliable when values exceed this threshold since the construct indicators consistently represent the same concept.

Table 2. Composite Reliability

Variables	Composite Reliability	Reliability
Operational Risk Management	0.951	Reliable
Externality Risk Management	0.947	Reliable
Good Governance	0.959	Reliable
Cooperative Performance	0.965	Reliable

Table 2 shows that all research variables had composite reliability ratings of 0.7 or higher. Results show that the study's assessment tools are valid and reliable, assessing the desired constructs across indicators. The high dependability scores suggest that survey responses are steady and reliable for statistical analysis. Operational risk management indicators consistently represent the underlying concept, like cooperative performance indicators. Composite reliability requirements strengthen the measurement model, ensuring reliable and consistent data for hypothesis testing and structural model analysis.

Cronbach's Alpha is a common research instrument internal consistency metric. Composite reliability accounts for different indicator loadings, whereas Cronbach's Alpha confirms that all indicators in a construct assess the same underlying dimension to improve reliability evaluation. When a variable's Cronbach's Alpha value exceeds 0.75, the tested items have strong internal consistency. This shows that responses to elements within the same construct are correlated, indicating consistency and coherence in conveying the intended concept.

Table 3. Cronbach's Alpha

Variables	Cronbach Alpha	Reliability
Operational Risk Management	0.943	Reliable
Externality Risk Management	0.933	Reliable
Good Governance	0.953	Reliable
Cooperative Performance	0.961	Reliable

Table 3 shows that all research variables have Cronbach's Alpha values of at least 0.7. A number above 0.7, just below the 0.75 criterion indicated in certain methodological sources, is typically acknowledged in social science research as reliable, especially when backed by strong composite reliability testing. Each variable's indicators are consistent, confirming the study's instruments' robustness. Similar to how cooperative performance

measures match the framework, operational risk management items do too. Cronbach's Alpha and composite reliability show that this study's measuring approach is reliable, ensuring that subsequent analyses and hypothesis testing are based on reliable and internally consistent data.

The inner model, or structural model, is crucial to evaluating this study's construct linkages. The strength and significance of hypotheses are assessed by analyzing R-square values, parameter coefficients, and t-statistics. A hypothesis is accepted or rejected based on statistical markers, such as t-statistics and p-values, which demonstrate the relationship's dependability. The study generates verification values using bootstrapping and resampling to reinforce statistical estimations. A hypothesis is considered supported if the t-statistic exceeds 1.96 at a 5% significance level (p-value ≤ 0.05) and has a positive beta coefficient. These thresholds verify that the analyzed relationships are statistically significant and follow the expected theoretical direction. The inner model visualizes the findings of the bootstrapping technique, illustrating how operational risk management, externality risk management, and excellent governance impact cooperative performance in this study. Figure 3 shows inner model evaluation.

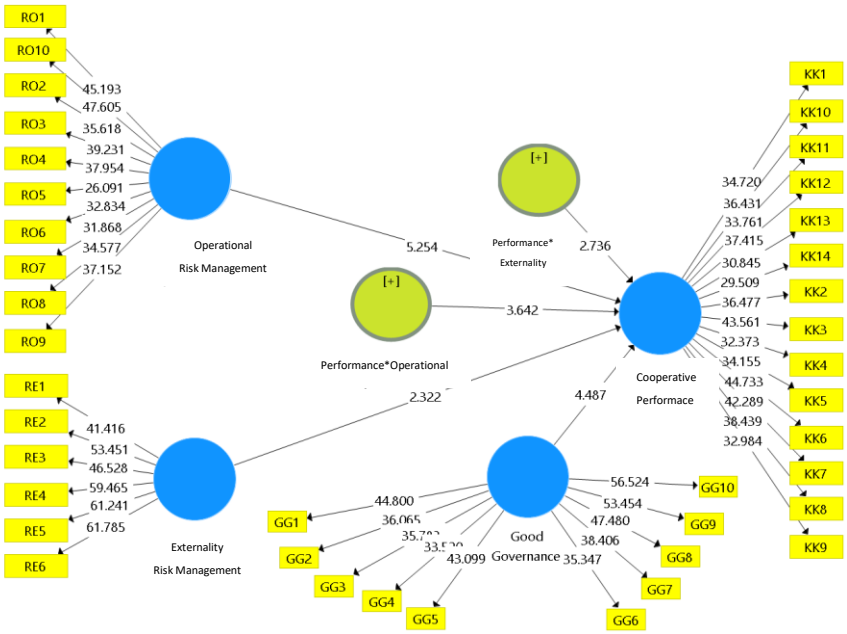

Figure 3. Inner Model

Figure 3 illustrates the inner model of this research. Path coefficient testing is a crucial analytical method for assessing the intensity and direction of independent variables' effects on dependent variables in a structural model. The coefficient of determination, or R-Square, measures how much the model's external variables explain the endogenous variable variance. These two indicators reveal the direct correlations between constructs and the study framework's explanatory power. At a t-statistic value of 5.254, the inner model analysis shows that operational risk management has the greatest effect on cooperative performance. This shows that addressing internal risks, including process, technology, and human resource risks, helps cooperative outcomes. The association between externality risk management and cooperative performance is the smallest but statistically significant (t-statistic 2.322). All independent variables have positive path coefficients, demonstrating that operational or externality risk management improves cooperative performance, although to varying degrees.

Table 4. Hypothesis Test

Hypothesis		Original Sample	T-Statistics	P-Values	Result
H1	Operational Risk Management => Cooperative Performance	0.321	5.254	0.000	Accepted
H2	Externality Risk Management => Cooperative Performance	0.197	2.322	0.021	Accepted
H3	Operational Risk Management => Cooperative Performance moderated by Good Governance	-0.198	3.642	0.000	Accepted
H4	Externality Risk Management => Cooperative Performance moderated by Good Governance	0.191	2.736	0.007	Accepted

Table 4 shows important research variable correlations. Operational risk management improves cooperative performance, as shown by a t-value of 5.254, over the critical threshold of 1.96. Internal risks from procedures, human resources, or technology must be managed to improve cooperation. Externality risk management improves cooperative performance, as shown by a t-value of 2.322, which exceeds 1.96. To succeed, organizations must anticipate and mitigate external problems, including legislative changes, market volatility, and social dynamics. Effective governance modifies these linkages, complicating them. The relationship between operational risk management and excellent governance negatively impacts cooperative performance, as shown by a t-value of 3.642, which exceeds 1.96. This shows that governance structures may change or lessen the direct benefits of operational risk management, possibly due to increased constraints or procedural complexity. Externality risk management and excellent governance positively affect cooperative performance, as shown by a t-value of 2.736, which exceeds 1.96. Analyzing the original sample data shows that risk management and governance are interconnected, with both positive and negative moderating effects. The R-Square value of the cooperative performance variable is 0.915. This suggests that cooperative performance can be attributed to operational risk management and externality risk management to the extent of 91.5%, with the remaining 8.5% potentially influenced by other variables not examined in this study.

DISCUSSION

This study provides strong evidence that operational risk management affects cooperative performance. A t-value of 5.254, which exceeds the essential criterion of 1.96, indicates that operational risk management has a positive and significant impact. The path coefficient of 0.321 shows that operational risk management accounts for 31.2% of cooperative performance, whereas other variables account for 68.8%. This shows that operational risk management is important for cooperative success, but it is only one of several factors that affect organizational outcomes (Lion & Abakasanga, 2024). This research shows that cooperatives must incorporate operational risk management into governance and everyday management to generate resilience and sustain growth. Darmawi (2016) defines risk management as methodically finding, analysing, and managing possible risks to improve efficiency and effectiveness. System failures, technology failures, and human resource shortages may disrupt normal processes and lower performance. These hazards may diminish output, service delivery, and even the cooperative's survival if not controlled appropriately. Effective operational risk management helps cooperatives anticipate and resolve issues quickly, ensuring smooth operations. This study aligns with Florio and Leoni (2017), Cahyaningtyas and Sasanti (2019), Sleimi (2020), Asir et al. (2023), and Mustapha and Abdullahi (2023) findings that operational risk management increases organizational performance. These consistent findings show that cooperatives require risk management to remain competitive, flexible, and sustained in changing conditions.

This research found that externality risk management improves cooperative performance, as shown by the t-value of 2.322, which is larger than 1.96. The path coefficient of 0.197 shows that externality risk management affects cooperative performance by 19.7%, whereas the remaining 80.3% is impacted by other variables not studied in this study. External risk management does not explain all performance factors, but its contribution is significant and cannot be disregarded. Theft, severe rivalry, price volatility, and government policy changes are common external threats for cooperatives (Low et al., 2009). If unanticipated, these elements may destabilise cooperative activities fast. Cooperatives may decrease susceptibility, react faster to unanticipated events, and assure long-term stability and growth by using proactive external risk management measures. The data also show that external threats may directly affect strategic positioning and company vulnerability, potentially closing enterprises if left uncontrolled. Effective externality risk management helps cooperatives anticipate hazards, develop adaptive tactics, and include stakeholders in designing inclusive and practical remedies. This supports earlier research by Florio and Leoni (2017), Cahyaningtyas and Sasanti (2019), Sleimi (2020), Asir et al. (2023), and Mustapha and Abdullahi (2023) showing that external risk management improves organizational performance. These studies show that cooperatives, which frequently have limited resources, must adopt organized ways for detecting and resolving external obstacles to stay competitive and resilient in an unpredictable world.

This study shows that governance significantly moderates the link between risk management and cooperative performance. For operational risk management, governance strengthens its effect on performance (t-value = 3.642 > 1.96) by ensuring transparency, accountability, and fairness in decision-making (Keping, 2018). Under strong governance, cooperatives can identify risks openly, respond effectively, and build member trust, leading to resilience and competitiveness. Prior studies by Muslih and Marbun (2020), Hikmawati and Sutrisno (2021), and Naibaho and Mayayogini (2023) also confirm that governance enhances operational risk management's impact on performance. Similarly, governance moderates external risk management and performance (t-value = 2.736 > 1.96), where threats such as market shifts, regulation changes, or competition can be mitigated through equitable and transparent governance (Ahmed et al., 2024). By embedding governance principles, cooperatives move from reactive responses to strategic, long-term planning, strengthening stakeholder trust and adaptability (Gius et al., 2018; Dahmen, 2023; Fiore et al., 2020; Olson & Elliott, 2023). These findings affirm that effective governance maximises both operational and external risk management, supporting cooperative stability, competitiveness, and long-term success.

CONCLUSION

This study's findings show that cooperative performance is greatly improved by operational risk management. This means that cooperatives that can manage risks in their internal processes, such as human resources, systems, and technology, are more likely to operate smoothly and achieve better results. Operational risk management helps cooperatives prevent interruptions, boost resilience, and sustain productivity and service delivery, improving performance. Researchers found that externality risk management boosts cooperative performance. External risks, such as regulated changes, price fluctuations, competition, and social or economic pressures, are beyond the organization's control, unlike operational risks. Actively identifying, anticipating, and responding to external obstacles helps cooperatives stay stable and competitive. Effective governance moderates both situations, according to the research. Transparency, accountability, and effective practice execution improve operational risk management and performance. Good governance helps cooperatives engage stakeholders, promote equality, and strategically react to external shocks, improving externality risk management performance. Risk management and governance must be integrated to achieve sustainable cooperative development, according to the results.

This study contributes both theoretically and practically to the development of risk management and governance in cooperatives. The findings highlight that effective operational risk management supported by proper systems, procedures, and skilled human resources directly enhances performance, while external risk management strengthens resilience in volatile environments. Strong governance principles such as transparency, accountability, fairness, and independence further amplify these effects, reinforcing the importance of governance in risk management theory. Practically, Indonesian cooperatives are encouraged to adopt technology to reduce errors, strengthen communication and stakeholder engagement, comply with regulations, and uphold governance practices that ensure inclusivity and fairness, thereby fostering trust and long-term stability. For managers, the results emphasize the need to invest in adaptive strategies, technology, and skilled labour while proactively anticipating external risks through community engagement and regulatory alignment. Finally, future research should extend beyond Indonesian cooperatives and explore additional variables to provide a broader, more generalizable understanding of how risk management and governance shape organizational performance across different contexts.

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