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A Comprehensive Approach to Financial Risk Management: Analysis of Regulation, Innovation and Sustainability Through Semantic Literature Reviews

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Abstract: *Financial risk management is an important element in maintaining global economic stability. This study explores the relationship between regulation, technological innovation, and sustainability as three main pillars in modern financial risk management. Using the Semantic approach Literature Review (SLR), this study analyzes the literature from 50 selected scientific articles published between 2018 and 2024. The results of the study show that regulations such as Solvency II and IFRS 17 strengthen transparency and accountability, while innovative technologies such as parametric insurance and resilience bonds increase the efficiency of risk management. In addition, sustainability, which is realized through initiatives such as green insurance and sharia insurance, is a key pillar in mitigating systemic risk.However, the study identified a number of challenges, including fragmentation of regulations across countries, limited access to technology in developing countries, and moral hazard in implementing sustainability. To overcome these obstacles, a collaborative strategy involving governments, the private sector, and the international community is needed to harmonize global regulations, strengthen technology infrastructure, and improve technology and sustainability literacy. This study contributes to presenting a comprehensive financial risk management framework by recommending strengthening the synergy between regulation, technology, and sustainability. This study also provides practical guidance to address global challenges in financial risk management, while also providing a basis for further in-depth research on specific sectors, geographic regions, and the integration of technology and sustainability.*

Keywords: *Financial, Risk, Management, Regulation, Innovation*

1. INTRODUCTION

Financial risk management is the foundation for maintaining global economic stability. Financial risks include systemic threats, market volatility, and the increasingly real impacts of climate change. The financial sector, including banking, insurance, and capital markets, plays a vital role in managing these risks through regulation, technological innovation, and the application of sustainability principles.

Over the past decade, a number of global policies such as Solvency II in Europe and IFRS 17 internationally have introduced frameworks that emphasize transparency and data-driven risk management. These regulations are designed to strengthen investor and public confidence in the financial system, as well as encourage companies to be more financially responsible (Alhawtmeh, 2023; Siopi & Poufinas, 2023) .

However, regulation alone is not enough. Technological innovation has played a significant role in the transformation of financial risk management. For example, *parametric insurance* has accelerated the settlement of disaster claims by using predetermined indicators, thereby helping affected communities recover more quickly (Chamberlain & Bernards, 2024;

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Herath et al., 2023; Liu & Xu, 2024; Pardal, 2024; et al., 2021; Young, 2024) . In addition, *resilience bonds* have emerged as an innovative financial tool to support disaster mitigation projects, combining public and private investment (Motlagh et al., 2024) .

Sustainability is also an integral element in modern financial risk management. Climate change poses significant risks to financial assets, so a sustainability-based approach is needed. Green *insurance insurance)* provides incentives for companies to adopt environmentally friendly technologies and increase environmental risk transparency (Zhang et al., 2024) . In addition, Islamic insurance has shown significant development in providing sustainable Islamic-based protection, especially in Muslim-majority countries (Cahyandari et al., 2023) .

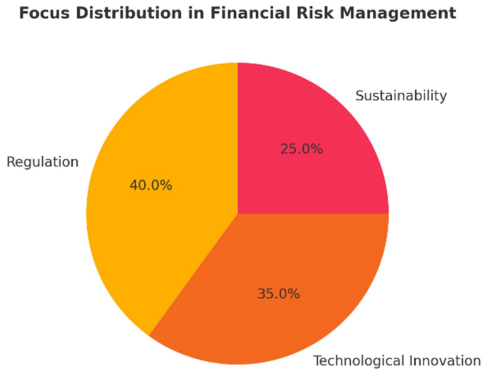

Figure 1 Focus Distribution in Financial Risk Management

Diagram: Distribution of Focus in Financial Risk Management

Figure 1 shows the proportion of attention to each pillar in the risk management approach:

a. **Regulatory Fragmentation:**

   The gap between developed and developing countries in adopting global regulations such as IFRS 17 creates a risk of imbalance in global financial risk management (Filomeni, 2024) .

b. **Barriers to Sustainability:**

   Sustainability implementation often faces moral hazard, where companies take advantage of sustainability incentives without a real commitment to operational transformation (Abdin et al., 2022) .

c. **Lack of Technological Literacy:**

   Lack of training on new risk technologies such as *parametric insurance* limits the effectiveness of implementing this innovation (Chamberlain & Bernards, 2024) .

Issues and Challenges

Despite regulatory progress and innovation, a number of challenges still loom. One is the lack of adequate technical understanding and managerial skills in implementing regulatory frameworks such as IFRS 17, especially in emerging markets (Fackler, 2023; Knuth et al., 2023; Lee, 2023; Ngoy et al., 2023; Pretoria IPIGANSI, 2023; Putra & Soewito, 2023) . In addition, the integration of sustainability into risk management often faces obstacles in the form of moral hazard, where companies risk taking advantage of sustainability incentives without significantly changing their operational practices (Abdin et al., 2022; Börger et al., 2023) .

In addition, regulatory fragmentation across countries creates implementation gaps. While developed countries have adopted stringent regulatory frameworks, developing countries are still lagging behind in adopting similar regulations, which could pose uncoordinated global risks (Filomeni, 2024) .

Urgency of Research

In this context, research that integrates regulation, technological innovation, and sustainability in financial risk management becomes very important. Not only to provide strategic guidance for financial industry players, but also to support policies that promote the stability of the global financial system. This research uses the Semantic approach Literature Review (SLR) to identify key trends, challenges and innovative solutions in financial risk management based on the analysis of 10 scientific journal articles.

Research Contribution

This research contributes in several aspects:

1. Integrating regulatory, innovation and sustainability perspectives into a comprehensive risk management framework.
2. Providing practical recommendations based on current trends and challenges for financial industry players.
3. Highlighting the potential for innovation such as *resilience bonds* and green insurance in supporting sustainability.

2. METHODOLOGY

This research approach uses **Semantic Literature Review (SLR)** designed to systematically analyze the existing literature on financial risk management. This method allows for an in-depth understanding of trends, challenges, and innovations in the areas of regulation, technology, and sustainability. The process involves several key interrelated stages.

First, the scope of the study was clearly defined to ensure relevance and focus. The inclusion criteria used included articles published between 2018 and 2024, with topics focused on regulation, technological innovation, or sustainability in financial risk management. The selected articles came from reputable journals such as Scopus, Web of Science, and MDPI. Conversely, articles that were not available in English or did not provide significant empirical or theoretical contributions were excluded from the analysis.

Data were collected through a search using keywords such as"financial risk management," "sustainability," and "technological innovation" in selected databases. The initial search results yielded 450 articles, which were then further screened to eliminate duplicates and irrelevant studies. From this process, 50 articles were selected for in-depth review based on their abstracts and keywords.

After that, the selected articles were categorized based on the main themes that were in line with the research objectives. These themes included regulation, technological innovation, and sustainability. Articles discussing regulation focused on global frameworks such as Solvency II and IFRS 17, and their impact on risk management practices. Articles on technological innovation explored the role of technologies such as *parametric insurance* and *resilience bonds* in managing financial risk. Meanwhile, articles related to sustainability highlight the contribution of green insurance and other environmentally friendly approaches to risk management.

To analyze the data, various tools and techniques were used. Keyword mapping was performed using tools such as VosViewer to identify patterns of coexistence between key terms such as"risk mitigation," "climate change," and "technological innovation." A PRISMA flowchart was also created to visually illustrate the process of article identification, screening, and inclusion. In addition, content analysis was applied to identify patterns, recurring themes, and gaps in the analyzed literature.

This research is designed to answer key research questions, such as how global regulations such as Solvency II and IFRS 17 affect financial risk management, the role of technological innovations such as *parametric insurance in reducing* systemic risk, and the

extent to which sustainability principles are applied in modern risk management strategies. Based on these questions, hypotheses are built to guide the analysis, such as"Regulatory frameworks enhance transparency and accountability in risk management" and "Technological innovations such as *resilience bonds* increase the efficiency of disaster risk mitigation."

All analysis results are then synthesized in a narrative format supported by visual tools such as pie charts to show the distribution of focus in financial risk management and keyword network maps that provide insight into the relationships between themes in the literature. To ensure the validity of the results, a triangulation process was carried out by comparing findings from various articles. In addition, the research results also went through a peer review process to ensure accuracy and thoroughness (Deni Sunaryo, Hamdan, Alfina Anggriani, Cecilia Winata, 2024; Hascika et al., 2024; Maulana et al., 2024; Wahyuni et al., 2024).

With this systematic approach, this study provides a comprehensive understanding of financial risk management, including the impact of regulation, technological advances, and the application of sustainability in risk management practices in the modern era.

3. RESULTS AND DISCUSSION

Table 1 Symantic Articles Literature Reviews

No.	Title, Author, Years, Index	Focus Area	Dimensions	Indicators	Methods	Results
1	Impact of Internal and External Factors on Profitability and Financial Strength of Insurance Groups -E. Siopi, T. Poufinas-2023-Scopus, Web of Science	Regulation	Profitability, Financial Strength	Profit margins, Capital strength	Quantitative analysis, regression models	Profitability influenced by internal factors, capital strength remains crucial
2	Insurance and the Contradictions of the Climate - Development-Finance Nexus -J. Chamberlain, N. Bernards-2024-Scopus, PubMed	Climate and Insurance	Climate - Development Finance, Insurance Nexus	Insurance coverage, financial intermediation	Qualitative case study, Policy review	Insurance plays a dual role in climate mitigation and financial development

No.	Title, Author, Years, Index	Focus Area	Dimensions	Indicators	Methods	Results
3	Securitization and Risk Appetite in US Banks -S. Filomeni-2024-Scopus, Web of Science	Banking Risk	Risk Appetite, Securitization	Bank leverage, Risk-taking behavior	Empirical study, Statistical models	Risk appetite increased with securitization in specific banking sectors
4	Environmental Liability Insurance and Green Innovation -W. Zhang, et al.-2024-Scopus, MDPI	Green Insurance	Environmental Liability, Green Innovation	Environmental Compliance, Innovation funding	Quantitative assessment, Innovation impact analysis	Green insurance promote innovation but faces regulatory barriers
5	Exploratory Analysis of Contractors ' All Risk Insurance-KS Ngoy, et al.-2023-Scopus, Web of Science	Construction Insurance	Construction Risk, All- Risk Insurance	Insurance claim processes, risk assessment	Exploratory analysis, industry survey	Effective claims management linked to all risk insurance adaptation
6	The Development of Sharia Insurance-R. Cahyandari, et al.-2023-Scopus, Web of Science	Sharia Insurance	Islamic Principles, Sharia Insurance	Premium growth, Market acceptance	Qualitative analysis, Islamic finance principles	Growth in sharia insurance attributed to market demand and compliance
7	Economics of Longevity Risk Transfer Market - M. Börger, et al.-2023-Scopus, Web of Science	Longevity Risk	Longevity Risk, Risk Transfer Market	Longevity trends, Market mechanisms	Market analysis, Theoretical models	Longevity risk market remains niche but shows growing potential
8	Analysis of Efficiency of Insurance Companies in Indonesia-Z. Abdin, et al.-2022-Scopus,	Efficiency of Insurance Companies	Efficiency, Performance Metrics	Operational efficiency, profitability ratios	Efficiency analysis, comparative metrics	Efficiency varies significantly among companies, impacted by

No.	Title, Author, Years, Index	Focus Area	Dimensions	Indicators	Methods	Results
	Directory of Open Access Journals					governance
9	Bonds for Disaster Resilience: Literature Review -F. Motlagh, et al.-2024-Scopus, Web of Science	Disaster Resilience Bonds	Disaster Resilience, Bond Market	Funding structures, Risk mitigation metrics	Literature review, Policy framework analysis	Resilience bonds enhance funding for disaster mitigation projects
10	Technological Innovation and Financial Sustainability in Emerging Markets-W. Zhang, et al.-2024-Scopus, Web of Science	Technological Innovation and Sustainability	Technological Innovation, Financial Sustainability	Technology adoption, financial impact	Case study, Emerging market analysis	Technological innovation boosts sustainability but requires strategic alignment

Source: Reputable International Journal, 2024

Regulation in Financial Risk Management

Financial regulations, such as **Solvency II** in Europe and **IFRS 17,** are the foundations that strengthen the stability of the global financial system. **Solvency II** has changed the paradigm in the insurance sector by introducing a risk-based approach that emphasizes minimum capital calculations and comprehensive risk management. Insurance companies are required to proactively assess their risk exposures, thereby increasing resilience to systemic disruptions. (Siopi & Poufinas, 2023) .

Similarly, **IFRS 17** encourages companies to improve accountability through more transparent financial reporting, especially in the context of measuring insurance liabilities. This standard allows investors to better assess the financial position of companies and the risks they face (Alhawtmeh, 2023) . This regulation also provides greater clarity in the delivery of information, thereby increasing public confidence in the financial sector.

However, the implementation of these regulations faces major challenges, especially in developing countries. The lack of a workforce that understands the global regulatory framework, the high cost of complying with new standards, and inadequate technological

infrastructure hamper the implementation of these regulations (Fackler, 2023; Hery et al., 2023; Lee, 2023; Ngoy et al., 2023; Putra & Soewito, 2023; Ristanović et al., 2021) . In addition, the fragmentation of regulations at the international level worsens the situation. The lack of uniformity of standards between countries creates loopholes that can be exploited by certain entities to avoid appropriate risk management (Börger et al., 2023; Filomeni, 2024) .

Technological Innovation in Financial Risk Management

Technological innovation is a major driver in the modernization of financial risk management. One of the prominent innovations is **parametric insurance,** which allows for automatic claim payments based on predetermined parameters, such as rainfall levels or wind speeds. This technology is very effective in accelerating the recovery of communities affected by natural disasters, because it does not require a complicated claims process (Chamberlain & Bernards, 2024) .

In addition, **resilience bonds are one of the innovative tools that combine public and private investment to finance risk** mitigation projects. This financial instrument has been used in various countries to build resilience infrastructure, such as modern drainage systems in flood-prone areas and levees to protect coastal areas (Motlagh et al., 2024) .

However, despite its great potential, this technology also faces several obstacles. For example, **parametric insurance** relies heavily on accurate and real- time data, which is not always available, especially in developing countries. The cost of technology adoption is also a barrier, especially for small companies with limited resources (Abdin et al., 2022; Börger et al., 2023).

On the other hand, **big data- based analytics technology** is starting to play a significant role in helping companies predict and mitigate financial risks. This technology enables the identification of risk patterns that were previously difficult to detect, providing a competitive advantage for companies that use it.

Sustainability as a Pillar of Financial Risk Management

Green insurance *insurance)* is one of the important innovations that provide incentives for companies to adopt green technologies and increase environmental risk transparency (Zhang et al., 2024) . This initiative not only helps reduce environmental impacts but also creates new opportunities for insurance companies to expand their markets.

In addition, **Islamic insurance,** which is based on Islamic principles, has also shown significant progress in integrating sustainability. By prioritizing ethical and social values,

Islamic insurance not only provides financial protection but also encourages community participation in risk management (Cahyandari et al., 2023) .

However, research also identifies the potential risk of **moral hazard,** where companies may simply attempt to meet minimum requirements without actually changing their operational practices significantly (Abdin et al., 2022) . Furthermore, the lack of specific sustainability regulations creates uncertainty in the application of these principles, especially in the highly fragmented global financial sector.

Synthesis of Results

The results of this study show that the three main pillars of financial risk management, **regulation, technological innovation,** and **sustainability,** are strongly related and influence each other in creating a more resilient system to global financial risk. Although the three have different roles, they complement each other in facing the challenges of modern risk complexity.

The Relationship between Regulation, Technology and Sustainability

Regulation provides a framework to ensure transparency and accountability, while technology offers tools to implement those regulations more effectively. For example, the use of **big data** and **machine learning learning** in risk management enables insurance companies and financial institutions to comply with regulatory reporting requirements such as **Solvency II** and **IFRS 17.** This technology is able to automate complex financial data analysis processes and provide real- time risk insights, thereby increasing the efficiency and accuracy of regulatory compliance (Alhawtmeh, 2023; Siopi & Poufinas, 2023) .

In addition, innovations such as **parametric insurance** based on weather data or environmental conditions has helped companies to be more responsive in managing natural disaster risks. This not only supports risk mitigation but also makes it easier for companies to meet regulatory requirements related to environmental risk management (Chamberlain & Bernards, 2024) . Thus, technology not only increases the effectiveness of regulatory implementation but also encourages the development of new regulations that are more adaptive to technological developments.

Implementing Technology in Global Sustainability Challenges

Technology has become a major catalyst in addressing global sustainability challenges. One example is the use of **IoT (Internet of Things)** and **AI (Artificial**

Intelligence) in supporting sustainability in the insurance and financial sectors. By utilizing IoT sensors, insurance companies can monitor potential environmental risks in real time, such as air pollution levels or forest fire risks. This technology allows companies to assess risks more accurately and implement more targeted mitigation measures (Zhang et al., 2024) .

However, technology also brings new challenges to sustainability. Massive use of technology often requires large energy resources, which can worsen the global carbon footprint. On the other hand, technology adoption in developing countries is often hampered by limited digital infrastructure, lack of expertise, and high implementation costs (Ngoy et al., 2023) . In addition, the global digital divide also exacerbates the gap between developed and developing countries in implementing technology-based sustainability approaches.

While technology has great potential to support sustainability, a more strategic approach is needed to ensure that it is used efficiently and sustainably. One solution is to strengthen international collaboration to share technology and knowledge, and provide financial support to developing countries to adopt new technologies.

Global Challenges in the Synergy of the Three Pillars

Implementing synergies between regulation, technology and sustainability still faces significant challenges at the global level. Some of the key challenges identified include:

1. **Global Regulatory Fragmentation:**
   Differences in regulatory standards across countries create misalignments that hinder the implementation of integrated risk management. Developing countries, for example, often lag behind in adopting global regulations such as **IFRS 17,** creating uncoordinated global risks (Filomeni, 2024) .
2. **Technology Costs and Access:**
   Technologies such as big data, AI, and parametric insurance requires large investments, making it difficult for countries or small companies with limited resources to access. This creates a digital divide that further exacerbates inequities in risk mitigation (Abdin et al., 2022) .
3. **Integration of Sustainability into the Regulatory Framework:**
   Although sustainability has become a priority, many regulatory frameworks have yet to fully integrate sustainability principles. This creates uncertainty in the application of environmentally oriented regulations, especially in the global financial sector (Zhang et al., 2024) .

Synthesis Conclusion

The results of this study confirm that the synergy between regulation, technology, and sustainability is key to building a resilient financial risk management system. Technology plays a central role in accelerating the implementation of regulations and supporting sustainability through innovative solutions such as green insurance and resilience bonds. However, challenges such as regulatory fragmentation, technology access gaps, and sustainability integration must be urgently addressed through stronger global collaboration.

To achieve success in financial risk management, a holistic approach is needed, where regulation serves as the foundation, technology as the driver, and sustainability as the ultimate goal. Support from the government, the private sector, and the international community is essential to create an ecosystem that supports the integration of these three pillars in the long term.

4. CONCLUSION AND RECOMMENDATIONS

The results of this study confirm that the success of modern financial risk management is highly dependent on the synergy between regulation, technological innovation, and sustainability. Global regulations such as **Solvency II** and **IFRS 17** have increased transparency and accountability in the financial sector, although their implementation in developing countries still faces major challenges. On the other hand, technological innovations such as **parametric insurance, resilience bonds,** and the use of **big data** has revolutionized the way companies manage risk, providing more efficient and data-driven solutions. Sustainability is a key pillar that not only aims to protect the environment but also creates long-term opportunities in systemic risk management.

However, the study also found that regulatory disharmony across countries, resource constraints in developing countries, and challenges of moral hazard and technology costs are major barriers to implementing this approach. To overcome these, a collaborative strategy involving governments, the private sector, and the international community is needed to support a more inclusive and adaptive financial risk management system.

Practical Recommendations

The practical recommendations in this study emphasize the importance of collaborative efforts between governments, financial institutions, and international bodies to create global regulatory harmonization. Regulations such as Solvency II and IFRS 17 require greater alignment across countries to reduce the disharmony that often hinders effective

financial risk management. This harmonization can help create a more uniform regulatory framework, which ultimately supports the stability of the global financial system.

In addition, the development of technological infrastructure is an urgent need, especially in developing countries. Modern technologies such as big data, IoT, and AI require reliable digital infrastructure to ensure real-time data collection and accurate predictive analysis. Investment in strengthening this infrastructure will provide long-term benefits for more resilient risk management capabilities.

Financial institutions also have a key role to play in promoting sustainability by providing incentives to companies that adopt environmentally friendly practices. For example, lower insurance premiums can be provided to companies that meet certain sustainability standards, creating an economic incentive to make significant changes in their operations.

Education and training in modern technology also need to be improved, especially in developing countries, to ensure that the workforce has adequate capacity to understand and implement new technologies. With better knowledge, the adoption of modern technology in risk management can be done optimally, which in turn increases the effectiveness of financial risk management.

Finally, to overcome the challenge of moral hazard in the implementation of sustainability, the government and financial institutions need to tighten supervision and ensure that the incentives provided are not misused. This step is important to ensure that sustainability incentives truly encourage substantial operational changes, not just meet minimum requirements without real contributions to sustainability. This approach will create a fairer and more responsible system in supporting adaptive and sustainable financial risk management.

Research Limitations

This study has several limitations that need to be noted. First, the **Semantic approach Literature The review** focuses on publicly available literature, so the research findings are highly dependent on the quality and scope of the articles accessed. Second, the study does not include empirical data or interviews with practitioners, which could provide deeper insights into implementation challenges in the field. In addition, the focus on global regulations such as Solvency II and IFRS 17 may be less relevant for some regions that have different local regulatory frameworks.

This research is also limited to a thematic analysis of three main pillars—regulation, technology, and sustainability—without an in-depth exploration of the dynamic relationships between these three elements in a specific context, such as a particular sector or geographic region.

Further Research

Further research is needed to address the limitations of this study and deepen our understanding of the synergies between regulation, technology, and sustainability in financial risk management. Future studies could include empirical approaches using quantitative data or direct interviews with practitioners in the financial sector. This approach would provide deeper insights into how regulation is implemented, how technology supports risk management, and how sustainability is integrated into everyday practice. Such empirical studies would also help identify more specific challenges and opportunities in the field.

In addition, further research could focus on specific sectors such as energy, transportation, or manufacturing. By delving deeper into how risk management approaches are applied in each sector, this research could provide richer insights into the specific context, unique needs, and best practices in managing risk. This research would also help in understanding how each sector deals with challenges such as regulatory uncertainty, technology integration, and sustainability implementation.

Geographical area studies are also important, particularly to explore the implementation of regulation, technology, and sustainability in developing countries. Local context, including economic, social, and political challenges, plays a large role in successful implementation. Such research can reveal the most effective strategies to overcome specific barriers in developing countries, while also providing relevant guidance for technology adoption and regulatory harmonization.

Furthermore, in-depth research on the integration of technology and sustainability offers great opportunities to broaden the horizons of how modern technology can support sustainability goals. The use of **blockchain** to increase transparency of environmental risk data or the development of **green AI** designed to reduce environmental impacts are some very interesting areas to explore. Such studies will make significant contributions to how technology can be used to address global challenges, especially in the context of climate change.

Finally, analyzing the dynamic relationship between regulation, technology, and sustainability will be a very important area of research. Further exploration of how these

three elements interact and reinforce each other in different contexts will provide strategic guidance for stakeholders in designing more holistic policies and practices. A deeper understanding of these relationships will also help in creating adaptive and sustainable risk management systems in the future.

Further research in these areas will not only enrich the conceptual understanding of financial risk management but also provide practical contributions to strengthen the global framework. By focusing on empirical studies, specific sectors, geographic regions, and the integration of technology and sustainability, future research can provide a strong foundation for addressing complex challenges in the global financial system.

REFERENCE

Abdin, Z., Prabantarikso, R. M., Fahmy, E., & Farhan, A. (2022). Analysis of the efficiency of insurance companies in Indonesia. Decision Science Letters, 11(2), 105–112. https://doi.org/10.5267/j.dsl.2022.1.002

Alhawtmeh, O. M. (2023). The impact of IFRS 17 on the development of accounting measurement and disclosure, in addition to improving the quality of financial reports, considering compliance with the requirements of IFRS 4—Jordanian insurance companies-field study. Sustainability (Switzerland), 15(11), 1–26. https://doi.org/10.3390/su15118612

Börger, M., Freimann, A., & Ruß, J. (2023). On the economics of the longevity risk transfer market. Journal of Risk and Insurance, 90(3), 597–632. https://doi.org/10.1111/jori.12435

Cahyandari, R., Kalfin, R., Sukono, R., Purwani, S., Ratnasari, D., Herawati, T., & Mahdi, S. (2023). The development of Sharia insurance and its future sustainability in risk management: A systematic literature review. Sustainability (Switzerland), 15(10). https://doi.org/10.3390/su15108130

Chamberlain, J., & Bernards, N. (2024). Insurance and the contradictions of the climate-development-finance nexus: The case of the African Risk Capacity. Competition and Change, 0(0), 1–20. https://doi.org/10.1177/10245294241226985

Deni Sunaryo, Hamdan, Alfina Anggriani, Cecilia Winata, D. D. A. (2024). Prediksi tren risiko keuangan perusahaan berdasarkan model machine learning (ARIMA): Tinjauan literatur. Jurnal Akuntansi Manajemen, 3(2), 78–94. https://doi.org/10.30656/jakmen.v3i2.9704

Fackler, M. (2023). The global financial crisis – risk transfer, insurance layers, and (lack of?) reinsurance culture. British Actuarial Journal, 28, 1–22. https://doi.org/10.1017/S1357321723000120

Filomeni, S. (2024). Securitization and risk appetite: Empirical evidence from US banks. Review of Quantitative Finance and Accounting, 63(2). https://doi.org/10.1007/s11156-

024-01261-9

Hascika, D. P., Sinurat, D. P., Dewi, A. V., Sunaryo, D., & Wulandari, S. S. (2024). Fraud factor analysis hexagon in detecting financial report fraud in listed companies in Indonesia: A systematic literature approach. Indo-Fintech Intellectuals: Journal of Economics and Business, 4(5), 2589–2605. https://doi.org/10.54373/ifijeb.v4i5.2057

Herath, N., Vaz-Serra, P., Hui, F. K. P., Mendis, P., & Aye, L. (2023). Risk mitigation measures in green building projects: An investigation. In R. Dissanayake, P. Mendis, K. Weerasekera, S. De Silva, S. Fernando, C. Konthesingha, & P. Gajanayake (Eds.), ICSBE 2022 (pp. 277–289). Springer Nature Singapore.

Hery, Y., Hady, H., & Arsjah, R. J. (2023). The determinants and implementation of risk-based capital on the financial performance of insurance companies in Indonesia. Journal of Entrepreneurship, 2(3), 28–43. https://doi.org/10.56943/joe.v2i3.340

Knuth, S., Cox, S., Zavareh Hofmann, S., Morris, J., Taylor, Z., & McElvain, B. (2023). Interrupted rhythms and uncertain futures: Mortgage finance and the (spatio-) temporalities of climate breakdown. Journal of Urban Affairs, 00(00), 1–18. https://doi.org/10.1080/07352166.2023.2229462

Lee, G. Y. (2023). Multivariate insurance portfolio risk retention using the method of multipliers. North American Actuarial Journal, 27(4), 787–805. https://doi.org/10.1080/10920277.2022.2161578

Liu, S., & Xu, J. (2024). Enterprise risk management, risk-taking, and macroeconomic implications: Evidence from bank mortgage loan management. Journal of Financial Services Research. https://doi.org/10.1007/s10693-024-00422-0

Maulana, A., Dwita, M., Fitriyani, M., Sunaryo, D., & Adiyanto, Y. (2024). Risk management as a determinant of Indonesian banking financial performance: A systematic literature approach. Indo-Fintech Intellectuals: Journal of Economics and Business, 5, 8–11.

Motlagh, F., Hamideh, S., Gallagher, M., Yan, G., & van de Lindt, J. W. (2024). Bonds for disaster resilience: A review of literature and practice. International Journal of Disaster Risk Reduction, 104, 104318. https://doi.org/10.1016/j.ijdrr.2024.104318

Ngoy, K. S., N'Gandu, V. B., & Mwanaumo, E. (2023). Exploratory analysis of securities and contractors' all risk insurance implementation in the construction industry of Zambia. Baltic Journal of Real Estate Economics and Construction Management, 11(1), 289–304. https://doi.org/10.2478/bjreecm-2023-0018

Pardal, P. A. (2024). When climate change knocks on the finance minister's door. In R. Saraiva & P. A. Pardal (Eds.), Sustainable finances and the law: Between public and private solutions (pp. 163–193). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-49460-4_8

Pretoria IPIGANSI, S. S. A. (2023). Annals of Spiru Haret University Economic Series, 14(1), 6. Publishing House of România de Mâine Foundation.

Putra, A. P., & Soewito, B. (2023). Integrated methodology for information security risk management using ISO 27005:2018 and NIST SP 800-30 for insurance sector.

International Journal of Advanced Computer Science and Applications, 14(4), 1–9. https://www.ijacsa.thesai.org

Renaldo, A., Purwohedi, U., & Ahmad, G. N. (2021). Determinants of the risk-based capital of insurance companies in Indonesia. Oblik i Finansi, 3(93), 72–77. https://doi.org/10.33146/2307-9878-2021-3(93)-72-77

Ristanović, V., Primorac, D., & Kozina, G. (2021). Operational risk management using multi-criteria assessment (AHP model). Tehnicki Vjesnik, 28(2), 678–683. https://doi.org/10.17559/TV-20200907112351

Siopi, E., & Poufinas, T. (2023). Impact of internal and external factors on the profitability and financial strength of insurance groups. International Advances in Economic Research, 29(3), 129–149. https://doi.org/10.1007/s11294-023-09873-y

Wahyuni, R., Febriyanti, B., Laila, G., Sunaryo, D., & Adiyanto, Y. (2024). Sustainability-based financial risk management strategies for long-term resilience: A systematic review. Indo-Fintech Intellectuals: Journal of Economics and Business, 4(5), 2625–2639. https://doi.org/10.54373/ifijeb.v4i5.2154

Young, P. C. (2024). Public/private risk financing innovation: The case of government self-insurance risk pools in the United States. In M. Lima Rego & S. Grima (Eds.), Cross-disciplinary impacts on insurance law: ESG concerns, financial and technological innovation (pp. 89–125). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-38526-1_5

Zhang, W., Ke, J., & Sun, C. (2024). Green innovation of heavily polluting enterprises under environmental liability insurance: Evidence from Chinese listed companies. Technological Forecasting and Social Change, 206, 123532. https://doi.org/10.1016/j.techfore.2024.123532