

RISK MANAGEMENT AS A DETERMINANT OF INDONESIAN BANKING FINANCIAL PERFORMANCE: A SYSTEMATIC LITERATURE APPROACH

Andre Maulana¹, Mayrinda Dwita², Mona Fitriyani³, Deni Sunaryo⁴, Yoga Adiyanto⁵
^{1,2,3,4,5}Universitas Serang Raya, Jl. Raya Serang Cilegon KM 5 Kota Serang, Banten, Indonesia
Email: maulnaandre81@gmail.com

Article History

Received: 08-11-2024

Revision: 09-11-2024

Accepted: 10-11-2024

Published: 10-11-2024

Abstract. This study aims to understand how risk management affects financial performance in the Indonesian banking sector. In a business environment full of uncertainty, especially in the banking sector, risk management is key to ensuring financial stability. Systematic Literature This review (SLR) analyzes the findings of articles published between 2016 and 2022, focusing on the main risks faced by banks: credit risk, market risk, liquidity risk, and operational risk. The selected articles were obtained from leading journal sources in the fields of economics and business. The literature selection process includes the stages of identification, screening, and thematic analysis to identify trends and correlations between risk management and financial performance indicators such as Return on Assets (ROA) and Return on Equity (ROE). The results of the study indicate that credit risk and operational risk have the most significant impact on financial performance, while market and liquidity risks show varying effects depending on the market situation and internal conditions of the bank. These findings underline the importance of a proactive approach to risk management, including the implementation of integrated risk mitigation policies and the use of effective internal controls. Thus, risk management not only serves as a safeguard against potential losses but also as a support for business sustainability. This study recommends further research to explore new risks such as cyber threats and regulatory changes, which are increasingly relevant in the context of the modern banking industry. These results are expected to provide insights for financial practitioners and banking leaders in improving the resilience and financial performance of their companies.

Keywords: Risk Management, Financial Performance, Banking Sector, Indonesia, Literature Review

Abstrak. Penelitian ini bertujuan untuk memahami pengaruh manajemen risiko terhadap kinerja keuangan di sektor perbankan Indonesia, menggunakan metode Systematic Literature Review (SLR). Metode ini meliputi tahapan identifikasi, penyaringan, dan analisis tematik terhadap artikel yang relevan dari berbagai basis data seperti Google Scholar, Scopus, dan Web of Science, dengan periode publikasi 2016 hingga 2022. Artikel yang memenuhi kriteria inklusi, seperti peer-reviewed dan berbahasa Indonesia atau Inggris, disaring lebih lanjut berdasarkan judul dan abstrak, diikuti dengan analisis penuh pada teks artikel. Artikel diklasifikasikan sesuai jenis risiko—risiko kredit, pasar, likuiditas, dan operasional—dan dianalisis menggunakan perangkat lunak NVivo untuk pengelompokan tema serta identifikasi pola yang berhubungan dengan Return on Assets (ROA) dan Return on Equity (ROE). Hasil menunjukkan bahwa risiko kredit dan operasional memiliki dampak signifikan pada kinerja keuangan, sedangkan risiko pasar dan likuiditas dipengaruhi oleh kondisi internal dan eksternal. Temuan ini menekankan pentingnya manajemen risiko proaktif melalui kebijakan mitigasi risiko dan kontrol internal yang efektif. Studi ini juga merekomendasikan penelitian lanjutan terhadap risiko baru, seperti ancaman siber dan perubahan regulasi, yang semakin relevan dalam konteks perbankan modern.

Kata Kunci: Manajemen Risiko, Kinerja Keuangan, Sektor Perbankan, Indonesia, Review Literatur

How to Cite: Maulana, A. et al. (2024). Risk Management as a Determinant of Indonesian Banking Financial Performance: A Systematic Literature Approach. *Indo-Fintech Intellectuals: Journal of Economics and Business*, 4 (5), 2523-2537. <https://doi.org/10.54373/ifiieb.v4i5.2120>.

INTRODUCTION

Risk management is an essential component in the financial sector, particularly in banking, which is highly vulnerable to changes in economic conditions and regulations. Effective risk management is crucial to maintain financial stability and anticipate potential risks (Putri et al., 2024; Syukriyannur, 2022). Banking plays a key role as an intermediary between depositors and borrowers, but this activity brings risks that must be carefully managed, including credit risk, which can significantly impact the bank's profitability and financial stability (Felle & Santioso, 2024).

Besides credit risk, liquidity risk is another major challenge. This risk occurs when a bank cannot meet short-term obligations, leading to operational failure and a decline in public trust. In the digital era, operational risks related to technological disruptions or cybersecurity are increasingly important. Disruptions to technology or cybersecurity threats not only harm the bank's reputation but also its financial performance (Fatihah Nur Rahma, 2022; Ginting et al., 2020; Pratiwi & Kurniawan, 2018; Putri et al., 2024; Syukriyannur, 2022). Regulations in Indonesia from the Financial Services Authority (OJK) and Bank Indonesia (BI) emphasize the importance of risk management to maintain banking sector stability. Implementing international standards such as Basel III further reinforces the importance of risk management (Alonso et al., 2024). Despite international standards, there are still gaps in risk management implementation across various banks due to differences in scale, resources, and readiness (Uchenna Innocent Nnaomah et al., 2024).

Risk measurement follows, analyzing the potential loss impact on bank performance to determine the appropriate mitigation steps. Continuous risk monitoring and evaluation is essential, with a holistic Integrated Risk Management (ERM) approach increasingly adopted to manage multiple risks within an integrated framework (Javaid, 2024). Credit risk management significantly impacts bank financial performance, as an increase in the NPL ratio tends to reduce profitability and increase operational costs (Kurniasti & Budiantara, n.d.). Market risks related to interest and exchange rate fluctuations also greatly affect financial performance, potentially leading to unexpected losses that threaten the bank's financial stability (Moch. Iqbal Zulfikar Pd & Loso Judijanto, 2024). Effective credit risk management requires thorough assessment of the debtor's ability to meet obligations, alongside strong

monitoring systems. High liquidity risk can impact the bank's stock price and reduce investor interest, making good risk management critical to maintaining investor confidence (Moh Khine, 2023). In the digital era, operational risks related to cybersecurity are a major concern, given the potential threats to customer data security and the bank's reputation (Dinçergök, 2018). Good governance in risk management allows banks to respond quickly to changing conditions, maintain profitability, and minimize potential losses (Ginting et al., 2020).

Strong risk management also supports better decision-making by analyzing the impact of risks on financial performance, enabling more strategic decisions. Strategically, effective risk management can increase company value by minimizing potential losses that disrupt profitability and operational sustainability in the long term (Pristiwanto Bani et al., 2024).

Globalization brings additional challenges in risk management, especially regarding exchange rate volatility and global market conditions that often fluctuate (Ekonomi et al., 2024). Good risk management enables banks to maintain stable financial performance, reflecting their ability to manage risks effectively and indicating a sound risk management structure.

METHOD

This research adopts a Systematic Literature Review (SLR) to understand the impact of risk management on financial performance in Indonesian banking. SLR was chosen for its systematic approach in compiling and synthesizing existing studies, allowing the identification of trends, key findings, and research gaps. Literature Identification: Relevant studies from 2016-2022 were sourced from databases such as Google Scholar, Scopus, and Web of Science, using keywords like "risk management," "financial performance," "banking," and "Indonesia." Boolean operators ("AND," "OR," "NOT") refined search results for specificity. Inclusion and Exclusion Criteria: Only peer-reviewed articles in Indonesian or English that directly discussed risk management in banking were included. Articles outside the banking sector or those not peer-reviewed were excluded. Screening Process: Initial selection involved titles and abstracts, with relevant articles undergoing full-text review. Selected articles were classified by risk type—credit, liquidity, market, and operational risks—and coded for key concepts. Qualitative Analysis and Measurement: NVivo software facilitated theme clustering, identifying patterns and relationships among risks and their impact on financial performance indicators such as Return on Assets (ROA) and Return on Equity (ROE). Synthesis and Validation: Findings were synthesized narratively, covering prominent risk types, risk mitigation strategies, and their impacts. Internal validation compared results across studies to ensure consistency, addressing

any discrepancies through additional analysis. Limitations and Study Bias: Key limitations included variations in financial performance measurement methods, cross-country regulatory differences, and limited longitudinal data for temporal analysis. A study bias analysis was conducted, noting studies with potential data or reporting limitations. Conclusions and Practical Implications: Findings on risk management's effect on financial performance lead to practical recommendations for improving banking sector stability. The final report outlines the impacts of various risks on performance and provides insights for future research and regulatory policies.

RESULTS

In this study, the identification of risks faced by banks in Indonesia shows that the main risks in this industry include credit risk, market risk, liquidity risk, and operational risk. Each type of risk has a different impact on the financial performance of banks. Credit risk, for example, greatly affects the bank's ability to maintain profitability, especially when there is a default from the debtor. The literature shows that credit risk is one of the most significant factors in determining bank performance, because when credit is not paid on time, the bank is forced to set aside reserves to cover potential losses, which can directly affect profitability. The study by (Rafika Sari, 2024) found that Non- Performing Loan (NPL) has a strong negative correlation with Return on Assets (ROA), shows that the higher the level of bad debts, the lower the bank's rate of return on its assets (Syukriyannur, 2022).

Negative influence of risk on bank efficiency (Koutsomanoli and Mamatzakis, 2009; Karim, Chan and Hasan, 2010; and Berger and De Young, 1997)). Banking credit risk experienced a decrease which caused bank efficiency to increase which can be explained by bad luck Hypothesis: Banks with low credit risk or small non-performing loans require low (Sparta, 2016) monitoring costs so that bank efficiency increases. In addition to credit risk, market risk is also a major challenge for banks, especially related to market price fluctuations that affect the value of assets and liabilities. This market risk is rooted in volatility in currency exchange rates, interest rates, and stock prices, all of which have an impact on banks' profits and financial stability. Unstable economic conditions add to the burden of market risk, as sudden changes in market prices can cause significant losses to banks that have high exposure to risky instruments. In such conditions, banks need to increase their liquidity reserves to deal with volatility, which will also increase their operating costs.

Generally market risk is risk level tall even crisis. According to (Fahmi, 2016) , Market risk is conditions experienced by a companies caused by changes external market conditions

and situations and control company. There are a number of factors that have influence to market risk is mark exchange, interest interest, price stocks, and prices commodity. Ratio This describe level amount income flower net profit obtained with use assets productive assets owned by the bank.(Angela Christin Mosey Parengkuan Tommy Victoria Untu, 2018).

Liquidity is one of the critical areas that often gets attention in this literature study. Liquidity risk in the banking sector indicates the ability of banks to meet their short-term obligations, especially payments to depositors and other creditors. When banks experience liquidity problems, there is a possibility that they cannot meet withdrawal requests effectively, which can reduce customer confidence and damage the bank's reputation. The literature shows a close relationship between the liquidity ratio and public confidence in bank stability. For example, in an economic crisis, customers tend to be more wary of banks' ability to maintain their liquidity, which can trigger massive withdrawals. The indicator used to measure liquidity risk is the Loan to Equity ratio. to Deposit Ratio (LDR) which is a comparison of credit given to third parties and third party funds. If the LDR is below the provisions of BI, it indicates a lack of bank effectiveness in distributing credit so that the opportunity to gain profit is lost. Meanwhile, an LDR above 100 % indicates that the credit distributed exceeds the funds collected so that the bank will experience a shortage of funds to meet its obligations.(Anam, 2018). Operational risk, while often considered less significant than credit or market risk, is still an important component in maintaining bank stability. Operational risk encompasses the potential for losses due to human error, system failures, or other unforeseen operational factors. The literature suggests that banks with strong operational risk management tend to be more operationally efficient, as they are able to mitigate unexpected losses more quickly than banks without effective internal controls. Banks with strong technology infrastructure, for example, can reduce the likelihood of service disruptions that could lead to financial losses. Credit risk factors are also heavily influenced by economic conditions and interest rates. When interest rates rise, borrowers with low credit ratings may struggle to meet their payments, leading to an increase in bad debts. This increase in bad debts requires banks to increase capital reserves to offset potential losses, which ultimately reduces funds available for new loans.(Viral V. Acharya Raghuram Rajan, 2023) This has a direct impact on the bank's ability to make profits in the future. In banks that implement proactive credit risk management, credit risk can be better controlled. Several literatures highlight the importance of creditor monitoring and regular evaluation of credit risk as an effective approach to maintaining financial stability. Banks that actively manage their credit portfolios have been shown to have more stable returns and lower credit risk.(Szopinski & Plonka, 2024) In terms of market risk, a bank's investment

policy is a very influential element. Banks that invest in highly volatile assets, such as stocks, tend to have greater market risk compared to banks that are more cautious in their investment strategies. This is clearly seen in interest rate fluctuations that have a major impact on banks that have high exposure to fixed-rate loans, where sudden changes in interest rates can lead to significant losses.

Liquidity risk becomes even more relevant during times of economic crisis. When financial markets are uncertain, banks may have difficulty obtaining funds from the market, which increases liquidity risk. Banks with sufficient liquidity reserves are better prepared to face economic crises than banks without sufficient reserves. (Céspedes & Chang, 2020) Poor liquidity conditions often force banks to draw on emergency funds at high costs or even sell assets at low prices to meet short-term liquidity needs, which can negatively impact long-term profitability. In addressing these risks, the literature shows that a diversification strategy of investment portfolios can reduce the impact of market fluctuations. Diversification allows banks to spread risk across multiple assets, thereby reducing the potential for losses that may occur on one type of asset. (Chernenko et al., 2024) In this case, banks that diversify their portfolios tend to be more resilient in the face of changes in market prices. Good operational risk management is also an important key in reducing potential losses from internal errors. A strong internal control system, regular audits, and strict supervision have proven effective in identifying problems early, so that banks can immediately take necessary actions before the problem becomes more serious.

The impact of credit risk on corporate debtors tends to be higher than that of individual debtors, because the amount of loans involved is usually larger. Therefore, credit policies on corporate debtors are often stricter and require a more in-depth risk evaluation. This is in contrast to individual debtors, where credit policies are more flexible. Studies also show that banks operating in several countries face greater market risks, especially related to exchange rate fluctuations. This is due to differences in regulations and currency stability between countries.

Strong capital reserves are one of the main strategies of banks to face various risks. Banks with sufficient capital reserves can be more resilient in the face of unexpected losses. In this regard, the literature suggests that compliance with Basel III standards can help banks maintain sufficient capital reserves and have tighter liquidity management. These standards help banks identify risks more systematically and ensure that they have sufficient funds to face unexpected situations. In an effort to better manage risk, many banks are adopting new technologies such as big data analytics and predictive analytics. (Wilhelmina Afua Addy et al., 2024) These

technologies allow banks to monitor and predict credit risk in real-time, so they can take preventive measures before the risk develops into a significant loss. For example, using predictive analytics, banks can identify patterns that indicate a possible increase in credit risk in their portfolio and take immediate mitigation actions.

Market risk also affects bank lending policies. Banks facing high market risk tend to be more cautious in determining interest rates and loan terms. They may apply higher interest rates to risky loans to offset potential losses. Banks with strong internal control systems show better results in managing operational risk. (Wokeh, 2020) This system allows early detection of errors or violations, preventing further losses. The benefits of regular risk monitoring are strongly emphasized in this literature. Consistent monitoring allows banks to recognize potential problems early and prevent large losses. In this regard, the implementation of the Basel III guidelines has become an important reference for many banks to ensure that they have sufficient capital and liquidity reserves. In addition, external supervision from financial authorities has proven effective in reducing liquidity risk, as authorities impose certain restrictions on banks to maintain their liquidity.

Overall, this analysis emphasizes the importance of a comprehensive risk management approach, from credit risk, market risk, liquidity risk, to operational risk. A holistic approach to risk management allows banks to identify and manage various types of risks effectively, maintaining financial stability and public confidence. (Dzhereleiko & Nagachevska, 2024). The findings also underscore the important role of technology and regulation in building a resilient risk management system. By following guidelines such as Basel III and leveraging modern technology, banks can be better prepared for increasingly complex economic dynamics and market fluctuations.

DISCUSSION

Risk management is an important element in maintaining financial stability and bank performance. Along with the development of globalization and technological advances, the risks faced by banks are increasingly diverse and complex. This article discusses several types of risks most often faced by banks in Indonesia and the risk management strategies implemented to deal with them, especially in relation to the impact on Return on Assets (ROA) as the main indicator of financial performance. Findings from various studies indicate that the main risks affecting bank performance include credit risk, market risk, operational risk, and liquidity risk.

Credit risk is the most common type of risk faced by banks. This risk arises when the debtor fails to fulfill its payment obligations to the bank, so that the bank has the potential to experience financial losses. A study by (Fatihah Nur Rahma, 2022) shows that high credit risk can reduce bank profitability, because the bank must incur additional costs to cover losses caused by non-performing loans. In the context of Indonesian banking, effective credit risk management involves a rigorous analysis of the debtor's credit risk profile, as well as healthy credit portfolio management.

In addition to credit risk, market risk also plays a significant role in influencing a bank's financial performance. Market risk relates to potential losses arising from market price fluctuations, such as changes in interest rates or currency exchange rates. According to research conducted by (Fatihah Nur Rahma, 2022) , market price fluctuations can reduce the value of bank assets, especially when the market value of these assets drops drastically. Banks need to regularly assess their market exposure and implement hedging strategies to minimize the negative impact of market volatility.

Liquidity risk is the risk faced by banks when they are unable to meet short-term financial obligations. In Indonesia, the challenge of liquidity risk increases along with the tight competition between banks in obtaining funds from customers. According to research (OECD, 2015) , liquidity risk can cause difficulties for banks in funding their operational activities. For this reason, banks usually maintain a healthy liquidity ratio and comply with regulatory provisions from the Financial Services Authority (OJK) to ensure that they have sufficient funds to cover liquidity obligations.

Operational risk is also a major concern in the banking industry. This risk includes potential losses due to system failures, human error, or other operational disruptions. (Ira Sukma Panggabean et al., 2024) stated that operational risk can have a major impact on a bank's financial stability, especially if the operational disruption is critical or widespread. In Indonesia, banks are increasingly relying on digital technology in their operational activities, which also increases their vulnerability to cyber threats. Banks must implement strong internal controls and conduct regular monitoring to identify and address operational risks.

These findings demonstrate the importance of a holistic risk management approach. Several studies have shown that banks that implement a comprehensive risk management strategy are better able to maintain their profitability than banks that only focus on certain types of risks. For example, a comprehensive approach that includes the evaluation, mitigation, and control of credit, market, liquidity, and operational risks allows banks to manage risks proactively and responsively.

The role of financial managers in implementing risk management is also important. In a study conducted by (Beasley et al., 2023), it was stated that financial managers who are trained in risk management are able to create a more risk-aware organizational environment. This not only improves the bank's ability to manage risk but also strengthens the organizational culture that is proactive in facing dynamic economic challenges. A strong risk culture in the organization increases employee awareness of potential risks and encourages them to work more carefully.

In addition, regulatory compliance also plays an important role in banking risk management. OJK has issued various regulations to ensure that banks in Indonesia implement appropriate risk management. One example is the Basel III provision, which requires banks to maintain a certain minimum capital ratio. This policy aims to increase banks' resilience to financial turmoil and reduce systemic risk. In Indonesia, compliance with Basel III regulations has helped banks strengthen their financial stability and withstand the impact of significant market fluctuations.

One of the biggest challenges in banking risk management is economic uncertainty caused by external factors. The global economic crisis, for example, can trigger significant changes in financial markets that impact the value of bank assets and liabilities. In times of crisis like this, banks that have a strong risk management system are better prepared to face challenges and are able to withstand the negative impacts that may arise. According to (Batten & Wagner, 2014) banks that successfully implement risk management systems effectively during economic crises tend to recover faster.

With the evidence, it can be concluded that effective risk management not only reduces potential losses, but also plays a role in increasing the value of the company. Banks that have good risk management strategies tend to have more stable stock prices, which in turn increases investor confidence and attracts more investment. Therefore, risk management is not only important to reduce losses, but also to maximize shareholder value.

However, challenges remain in implementing risk management in Indonesian banks. One of them is the costs associated with implementing a comprehensive risk management strategy. The resources required to monitor, evaluate, and manage risk can be a financial burden, especially for smaller banks. Therefore, it is important for banks to find a balance between the costs and benefits of risk management, so that the strategies implemented do not burden their finances.

Overall, this study shows that risk management plays a crucial role in maintaining financial stability and bank performance. Credit, market, liquidity, and operational risks are the main

risks that need to be managed well to ensure sustainable profitability. These findings provide important insights for bank managers in Indonesia to focus more on developing holistic and proactive risk management strategies. In addition, compliance with regulations set by the OJK is the foundation for banks to implement effective risk management.

Risk management in the banking context is not just a measure of protection against losses, but also a strategy to increase the value of the company and achieve long-term business goals. Through a structured and disciplined approach to managing risk, banks can create financial stability that supports future business growth and sustainability (Sain & Kashiramka, 2023). Banks that are successful in implementing risk management are also able to provide more value to shareholders, which ultimately contributes to the national economy as a whole.

This study emphasizes the importance of strengthening the risk management system in Indonesian banks, both through improving human resource competency, adopting technology, and complying with regulations. These steps can help banks face economic challenges and new risks that may arise, such as cyber threats and regulatory changes. Thus, risk management is not only a regulatory obligation, but also an important added value for banking companies.

Finally, this study suggests that banks in Indonesia continue to update and improve their risk management strategies along with economic and technological developments. New risks arising from digital developments and economic globalization need to be a focus in banking risk management. Thus, banks can not only survive in facing existing challenges, but also be ready to take advantage of business opportunities in the dynamic and competitive financial market.

Conclusion

Based on systematic literature review conducted, it can be concluded that risk management has a crucial role in maintaining financial stability in the Indonesian banking sector. Risks such as credit risk, liquidity risk, market risk, and operational risk significantly affect the financial performance of banks. From various studies analyzed, risk management has been proven to be able to increase profitability and help banks in overcoming the challenges of market uncertainty. Credit risk, for example, arises when debtors do not fulfill their obligations, which can harm the bank and reduce its profitability. In this context, the effectiveness of credit risk management is a very important factor in maintaining the stability and financial health of banks.

Liquidity risk also plays a significant role in banking stability. The ability of banks to meet their short-term obligations is essential, especially amid economic uncertainty. When banks have sufficient liquidity reserves, they can meet customer demand and avoid financial

difficulties that could worsen the company's condition. Meanwhile, market risk, which is related to market price fluctuations, is also a challenge that must be managed carefully. Banks that hold large portfolios in market instruments are highly exposed to these price changes, which can potentially reduce revenue if not managed properly.

In addition, operational risk includes threats such as system errors, human failures, or fraudulent actions that can affect efficiency and profitability. According to several studies, a strong internal control system is very influential in reducing the impact of these operational risks. With effective internal controls, banks can detect and address these risks before they develop into major threats to the company's financial stability. The relationship between risk management and profitability is also evident in the literature, where banks that implement effective risk management are shown to have better financial performance and are more resilient to changing market conditions.

Policies and regulations set by the Financial Services Authority (OJK) have provided guidelines for banks in implementing risk management. In this context, stringent regulations such as those contained in Basel III help banks in Indonesia improve their readiness to face complex risks. One important component of risk management highlighted in the literature is a strong internal control system, which can identify risks early. With adequate supervision, banks can address various risks arising from a dynamic operating environment.

CONCLUSION

Based on these findings, it is recommended that banks in Indonesia continue to develop their capacity and capabilities in the field of risk management. Continuous training and education among staff can improve the effectiveness of existing risk management strategies. In addition, investment in technology, such as data-based monitoring systems and risk analysis tools, is also needed. This technology can help detect market changes early, minimize operational errors, and improve the efficiency of overall risk management. To face the challenge of liquidity risk, banks need to maintain sufficient liquidity reserves as an anticipatory measure against uncertain market conditions, ensuring they can meet financial obligations without relying on emergency loans that can add to the financial burden.

Stakeholder involvement in risk management is also important. Full support from management and shareholders can encourage the development of a more holistic risk management strategy, which takes into account various aspects of risk. A proactive approach through continuous risk monitoring is highly recommended to identify changes in the risk profile quickly. This is especially relevant in the context of market risk and credit risk, which

can experience large fluctuations in a short period of time. In addition, it is important for banks to adopt an integrated risk management approach, which covers all types of risks, not just specific risks. This will be more effective in reducing potential losses that may arise from interrelated risks.

LIMITATION

There are several limitations in this review, one of which is the limitation in the data period. The majority of the studies analyzed cover a relatively short period, which limits the ability to understand the long-term impact of risk on financial performance. Further research with long-term data is needed to gain more complete insight into the long-term risk management trend. In addition, this study is limited to Indonesia, so the results may be less relevant to other countries with different economic and regulatory conditions. Comparative cross-country research can provide a broader perspective on the effectiveness of risk management in different contexts.

Another limitation is the focus on certain types of risks such as credit, market, liquidity, and operational risks. Other risks, such as technological or cyber risks, are less discussed in the literature analyzed. In fact, with the advancement of technology, these risks are increasingly relevant and require special attention in banking risk management. The methodological approach is also a limitation, as most studies use quantitative methods such as linear regression that may not fully capture the complexity of the relationship between different types of risks. Research with a qualitative or mixed methods approach may be better able to explore nuances that are not reflected in statistical analysis.

Another limitation is that most studies focus more on the relationship between risk and financial performance without evaluating the effectiveness of the implemented mitigation strategies. Future research is expected to explore more deeply into specific mitigation strategies and comprehensively evaluate their effectiveness. External factors such as global economic changes, international regulations, and international market volatility are also not widely discussed in these studies. In fact, these external factors can have a significant impact on the risks faced by banks. Therefore, a broader and more comprehensive analysis of external factors in the context of risk management will provide a more comprehensive picture of the challenges of risk management in the banking sector.

In conclusion, systematic literature This review shows that risk management is a vital element that greatly affects the stability and financial performance of the banking sector. Integrated risk management and the use of advanced technology will strengthen the resilience

of banks in facing the challenges of the ever-growing economy. Future research should also consider the risks new and external factors in order to provide more complete guidance in developing adaptive and responsive risk management to dynamic global changes.

REFERENCES

- Alonso, A., Durán, D., García-Olmedo, B., & Quesada, M. A. (2024). Basel Core Principles For Effective Banking Supervision: An Update After A Decade Of Experience. *Financial Stability Review*, 46.
- Anam, C. (2018). 327-Article Text-764-1-10-20190129. *Margin Eco: Journal Of Business And Business Development*, 2, 66–85.
- Angela Christin Mosey Parengkuan Tommy Victoria Untu. (2018). The Effect Of Market Risk And Credit Risk On Profitability In Commercial Bank Soe Registered In Idx Period 2012-2016. *Jurnal Emba*, 6 (3), 1338–1347.
- Céspedes, L. F., & Chang, R. (2020). *Nber Working Paper Series Optimal Foreign Reserves And Central Bank Policy Under Financial Stress*. [Http://Www.Nber.Org/Papers/W27923](http://www.nber.org/papers/W27923)
- Chernenko, S., Ialenti, R., & Scharfstein, D. (2024). *Bank Capital And The Growth Of Private Credits*.
- Dinçergök, Burcu. (2018). *Financing Of Working Capital Requirements And Profitability Evidence From Istanbul Chemical, Petroleum, Rubber, And Plastic Sector*. Intechopen.
- Dzhereleiko, S., & Nagachevska, O. (2024). Management Of The Commercial Bank's Financial Stability As A Component Of Development And Competitiveness Strategy. *Наука I Техніка Сьогодні*, 4(32). [https://doi.org/10.52058/2786-6025-2024-4\(32\)-193-207](https://doi.org/10.52058/2786-6025-2024-4(32)-193-207)
- Economy, J., Business, M., Growth, T., Presidency, E., Hasbi, G., Amin Azis, M., Alfarisy, Aq, Umam, An, Sunan, U., Yogyakarta, K., & Article, R. (2024). *The Influence Of Financial Development And Foreign Direct Investment*. 1 (02). <https://ejournal.unu.ac.id/index.php/jimbis>
- Fatihah Nur Rahma. (2022). The Influence Of Risk Management On Financial Performance In Banking Companies On The Indonesia Stock Exchange (2016-2019 Period). *Thesis*, 1 (1), 1–56.
- Felle, A. R., & Santioso, L. (2024). The Effect Of Credit Risk And Bank-Specific Factors On Financial Performance Of Banks Listed In Indonesia Stock Exchange (Idx). *International*

- Journal Of Application On Economics And Business*, 2 (2), 3392–3403.
<https://doi.org/10.24912/Ijaeb.V2i2.3392-3403>
- Ginting, Fg, Saerang, Is, & Maramis, Jb (2020). The Influence Of Business Risk, Financial Risk And Market Risk On Company Value In State-Owned Banks In The Period 2011-2018. *Journal Of Economics, Management, Business And Accounting Research*, 8 (1), 256–261.
- Javaid, H. A. (2024). Ai- Driven Predictive Analytics In Finance: Transforming Risk Assessment And Decision -Making. In *Advances In Computers Sciences* (Vol. 7).
- Kurniasti, D., & Budiantara, M. (Nd.). *The Effect Of Credit Risk And Operational Risk On Financial Performance At Pt. Bank Papua Main Branch Office (Kcu) Manokwari The Effect Of Credit Risk And Operational Risk On Financial Performance At Pt. Bank Papua Main Branch Office (Kcu) Manokwari*.
- Malahim, S.S. (2023). The Relationship Between The Risk Disclosure And Risk Management Committee On Banks Value: Empirical Evidence From Jordan. *International Journal Of Professional Business Review*, 8 (3).
<https://doi.org/10.26668/Businessreview/2023.V8i3.572>
- Moch. Iqbal Zulfikar Pd, & Loso Judijanto. (2024). The Impact Of Globalization On Corporate Financial Risk: Exchange Rate Risk, Interest Rate Risk, And Country Risk. *Cemerlang: Journal Of Management And Business Economics*, 4 (3), 01–12.
<https://doi.org/10.55606/Cemerlang.V4i3.2947>
- Moh Khine, M. (2023). *Master Of Banking And Finance Programme Effects Of Credit Risk Management Practices On Loan Performance Of Uab Bank*.
- Pratiwi, D., & Kurniawan, B. (2018). The Effect Of Risk Management Implementation On The Financial Performance Of The Banking Industry. *Journal Of Business Accounting*, 10 (1), 73–94. <https://doi.org/10.30813/Jab.V10i1.988>
- Pristiwanto Bani, Wahyoedi, S., & Tecoalu, M. (2024). The Use Of Risk Analysis Methods In The Profit Optimization Process To Manage Business Uncertainty. *Syntax Ideas*, 6 (3), 1223–1231. <https://doi.org/10.46799/Syntax-Idea.V6i3.3106>
- Putri, Pan, Amalo, F., Azizi, M., Alfiana, & Cakranegara, Pa (2024). Building Financial Readiness And Resilience In Facing Economic Crisis And Change. *Communnity Development Journal*, 5 (2), 3126–3132.
- Rafika Sari, Rap (2024). The Effect Of Npl Level On Banking Company Performance. *Journal Of Applied Accounting Research*, 8 (2), 372–379.
<https://doi.org/https://doi.org/10.5281/Zenodo.13937822>

- Rif, M., Syadali, An., Maulana Malik Ibrahim Malang, U., & Al- Yasini Pasuruan, S. (2023). Enrichment: Journal Of Management Risk Management Strategy For The Problem Of Borrowing Money For Islamic Commercial Banks. In *Enrichment: Journal Of Management* (Vol. 13, Issue 2).
- Sain, A., & Kashiramka, S. (2023). Roles Of Disciplinary Tools In Maintaining Bank Performance And Financial Stability: Evidence From Emerging Economies. *Journal Of Emerging Market Finance*, 23 (1), 7–31. <https://doi.org/10.1177/09726527231183015>
- Sparta. (2016). *Sparta 28-44 Mix: Scientific Journal Of Management*.
- Syukriyannur, A. (2022). Financial Performance Analysis Of Manufacturing Companies Listed On The Indonesia Stock Exchange. *General Ledger: Journal Of Accounting And Financial Studies*, 1 (1), 37–43. <https://doi.org/10.61715/Gledger.V1i1.4>
- Szopinski, R., & Plonka, A. (2024). Credit Portfolio Structure In The Light Of Generated Risk As A Fundamental Element Of A Cooperative Bank's Activities. *Scientific Papers Of Silesian University Of Technology. Organization And Management Series*, 2024 (193), 617–632. <https://doi.org/10.29119/1641-3466.2024.193.34>
- The Truth Fachryana, F. (2020). Strategic Risk Management Of Islamic Banks. In *Finance And Accounting* (Vol. 1, Issue 2). <http://ejurnal.poltekkutaraja.ac.id/index.php/meka>
- Uchenna Innocent Nnaomah, Opeyemi Abayomi Odejide, Samuel Aderemi, David Olanrewaju Olutimehin, Emmanuel Adeyemi Abaku, & Omamode Henry Orieno. (2024). Ai At Risk Management: An Analytical Comparison Between The Us And Nigerian Banking Sectors. *International Journal Of Science And Technology Research Archives*, 6 (1), 127–146. <https://doi.org/10.53771/Ijstra.2024.6.1.0035>
- Viral V. Acharya Raghuram Rajan. (2023). Liquidity, Liquidity Everywhere, Not A Drop To Use – Why Flooding Banks With Central Bank Reserves May Not Expand Liquidity. *National Bureau Of Economic Research*, 1–56.
- Wilhelmina Afua Addy, Chinonye Esther Ugochukwu, Adedoyin Tolulope Oyewole, Onyeka Chrisanthus Ofodile, Omotayo Bukola Adeoye, & Chinwe China Okoye. (2024). Predictive Analytics In Credit Risk Management For Banks: A Comprehensive Review. *Gsc Advanced Research And Reviews*, 18 (2), 434–449. <https://doi.org/10.30574/Gscarr.2024.18.2.0077>
- Wokeh, P. I. (2020). *Effect Of Internal Control System On Financial Performance Of Listed Deposit Money Banks In Nigeria*. Wow, Promise Ikechi.