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The Effect of Regional Financial Networks on Banking System Stability in Indonesia: A Literature Review of Linkages, Risks, and Impacts in a Macroeconomic Context

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ABSTRACT

This research conducts a comprehensive literature analysis to explore the linkages, risks, and impacts of regional financial networks on banking system stability in Indonesia within the broader macroeconomic context. The systematic review synthesizes findings from diverse studies, examining both positive and negative dynamics associated with regional financial integration. Positive linkages include enhanced risk-sharing mechanisms and improved access to financial resources, while negative linkages encompass susceptibility to contagion effects and systemic risks. The associated risks, such as credit, market, and operational risks, are identified and discussed. Additionally, the research delves into the multifaceted impacts of regional financial networks on economic growth, financial inclusion, and the resilience of Indonesia's banking sector to external shocks. The synthesis of these findings provides valuable insights for policymakers, financial institutions, and researchers to navigate the challenges and leverage opportunities presented by regional financial networks.

Keywords: *Regional Financial Networks, Banking System Stability, Indonesia, Macroeconomic Context, Financial Integration*

INTRODUCTION

The stability of Indonesia's banking system is critical for sustainable growth and development in a dynamic economic landscape. The interaction between domestic and international factors is further complicated by the emergence and evolution of regional financial networks [1], [2]. These networks, consisting of interconnected financial institutions, cross-border transactions, and complex market dynamics, have become an integral component of Indonesia's financial architecture [3], [4]. The application of Structure, Behaviour, and Performance analysis to the banking industry aims to achieve a sustainable banking business economy [5], [6]. Inflation, exchange rate, and BI rate are factors that affect financial system stability in Indonesia [7], [8]. Monetary policy, including money supply, interest rates, and exchange rates, plays an important role in Indonesia's financial stability in the short and long term [9], [10]. Indonesia's economic outlook is positive, driven by domestic demand and solid export performance, but risks remain due to global economic uncertainty, high inflation, and volatility in financial markets.

Indonesia's banking sector has undergone significant growth and transformation, playing an important role in the country's economic development [11], [12]. The expansion of the sector has been influenced by regional financial networks, which has presented both opportunities and challenges [13]. The government has taken steps to promote financial inclusiveness and empower ultra-micro entrepreneurs through the establishment of the Ultra Micro SOE Holding, which consists of PT BRI, PT Pegadaian, and PT PNM Permodalan Nasional Madani [14]. The COVID-19 pandemic has impacted Indonesia's economic growth, and the banking sector has the potential to contribute to the recovery by supporting economic sectors affected by the pandemic [15], [16]. The rapid growth of digital banks in Indonesia has led to legal disharmony in banking regulations, highlighting the need for updated regulations to provide legal protection and ensure industry development [17], [18]. Studies on credit risk in the Indonesian banking sector found that bank-specific variables, such as capitalisation, performance, credit growth, and diversification, affect the level of non-performing loans (NPLs). Understanding the intertwined relationship between these networks and the stability of the banking system is crucial for policymakers, financial institutions, and researchers.

LITERATURE REVIEW

Regional Financial Networks

Regional financial networks play a crucial role in shaping the financial landscape by facilitating capital flows, information dissemination, and risk transmission. Understanding the organizational structures and operational dynamics of these networks is essential for grasping their implications for banking stability. A Study study focuses on building a regional financial risk early warning model based on a neural network [19]. Another study examines the formation and commercial practices of regional merchant networks in China, including Fujian, Huizhou, and Shanxi [20]. A paper analyze the strategic incentives of regions to form interconnected markets for risk diversification and gain from exchange [21]. [22] investigate the flow of money among bank accounts in a region, revealing a network structure similar to a nationwide production network[23] highlight the importance of understanding connectedness among financial markets in the Northeast Asian region.

Regional financial networks have been extensively studied in relation to the stability of Indonesia's banking system. Some studies have found positive linkages, where regional financial networks contribute to stability through risk-sharing mechanisms and improved access to financial resources [24]. However, other studies have highlighted potential negative linkages, emphasizing the susceptibility of the banking system to contagion effects and systemic risks propagated through regional financial networks [25]. Cross-border capital flows and financial interconnectedness are important factors in understanding these linkages [26]. An empirical study specifically analyzes the impact of cross-border capital flows on the stability of Indonesian banks, providing insights into the channels through which regional financial networks influence the domestic banking sector [27].

Risks Associated with Regional Financial Networks

The literature highlights the various risks associated with regional financial networks, including credit risk, market risk, and operational risk, which pose challenges to the stability of Indonesia's banking system. Credit risk, as examined by Elda, focuses on the risk of customers failing to fulfill their obligations to the bank, emphasizing the need for effective non-performing credit policies to reduce the risk of non-performing loans and enhance financial stability [28]. Market risk, as explored by Herman and Hizkia, becomes more pronounced in volatile regional markets, affecting asset valuation and potentially leading to financial instability [29]. Operational risks, including legal and regulatory challenges within regional financial networks, are addressed in the study by Farah, emphasizing the importance of robust governance structures to mitigate these risks [30].

Impacts of Regional Financial Networks on Banking Stability

Regional financial networks in Indonesia have implications for the stability of the banking system [31]. Research has shown that regional financial integration can have both positive and negative impacts on the stability of the banking sector, affecting economic growth. Financial inclusion is another dimension that is explored, and it is found that regional financial networks can either contribute to or impede the inclusivity of banking services [32]. Financial inclusion is negatively impacted by uneven access and low financial literacy, while banking characteristics such as non-performing loans and bank size also influence banking stability. However, the capital adequacy ratio has a positive effect on banking stability [33]. Expanding financial access through education and tailored financial services is crucial for enhancing the benefits of financial inclusion and positively affecting banking stability in Indonesia.

METHODS

Data Collection

To achieve the objectives outlined in the introduction, a systematic and thorough literature review will be conducted. The process involves a comprehensive search of academic databases, including PubMed, JSTOR, Scopus, and other reputable sources, to identify relevant peer-reviewed articles, books, and reports published within the last ten years. The search will be performed using a combination of keywords such as "regional financial networks," "banking system stability," "Indonesia," and "macroeconomic context" to ensure the retrieval of pertinent literature.

The inclusion criteria for the selected literature will focus on studies that directly contribute to understanding the linkages, risks, and impacts of regional financial networks on banking stability in Indonesia. The chosen studies must align with the research objectives and meet language and time criteria. English-language publications will be prioritized to ensure consistency in data analysis.

Inclusion and Exclusion Criteria

The inclusion criteria for the literature review will be:

a. Relevance: Studies that directly address the linkages, risks, and impacts of regional financial networks on banking stability in Indonesia.
b. Publication Date: Studies published within the last ten years to ensure the inclusion of recent developments and insights.
c. Language: English-language publications to maintain consistency in data analysis and accessibility.

The exclusion criteria will be:

a. Irrelevance: Studies that do not directly contribute to the research objectives.
b. Publication Date: Studies published more than ten years ago, unless they provide foundational insights crucial to the understanding of the topic.
c. Language: Non-English publications due to potential challenges in accessibility and analysis.

Data Analysis

The gathered literature will undergo a rigorous review and thematic analysis to distill meaningful insights. Grouping the literature based on key themes related to linkages, risks, and impacts of regional financial networks on banking stability in Indonesia. Recognizing recurring patterns, trends, and commonalities across the selected literature. Drawing connections between different studies and synthesizing information to form a cohesive narrative. Extracting valuable insights from the literature to address the research objectives and contribute to a nuanced understanding of the topic.

RESULTS AND DISCUSSION

Overview of Selected Literature

The systematic literature review has uncovered a rich tapestry of studies, contributing significantly to our understanding of the intricate relationships between regional financial networks and the stability of Indonesia's banking system. Diverse in theoretical frameworks and empirical methodologies, these studies collectively offer a nuanced perspective on the multifaceted dynamics at play.

Linkages between Regional Financial Networks and Banking System Stability

Enhanced risk-sharing mechanisms and improved access to financial resources contribute to the robustness of Indonesia's banking sector [34]. The positive effect of Corporate Social Responsibility (CSR) on financial performance and stability in the banking sector is recognized, while political connections have a negative impact on both financial performance and stability [35]. The income structure of banks, particularly the proportion of interest income, plays a significant role in their resilience to external shocks [36]. The implementation of Structure, Conduct, and Performance (SCP) in the banking industry in Indonesia has a direct or indirect effect on sustainable economic performance mediated by conduct [37]. Regional development banks in eastern Indonesia have shown good soundness during the COVID-19 pandemic, reflecting their ability to maintain excellent performance and support regional development [38]. These findings highlight the importance of risk-sharing, CSR, income structure, SCP, and soundness in ensuring the stability and resilience of Indonesia's banking system.

Unchecked cross-border transactions, market volatility, and operational challenges pose threats that necessitate vigilant risk management strategies. Studies led by Choudhury et al. highlight the vulnerability of the banking system to contagion effects and systemic risks originating from regional financial networks [39]. The study conducted by Chen et al. emphasizes the importance of monitoring risk contagion in cross-border banking systems, as the interconnectedness of banking systems can lead to systemic risks [40]. Matousek's research focuses on the impact of cross-border interbank linkages in Asian emerging market economies, highlighting the need for models that can assess potential contagion risks [41]. Ullah's study develops a model of a multi-layer financial network system to simulate systemic risk, demonstrating the impact of different risk sources on the propagation of risks [42]. Jiang and Fan's research proposes a multi-channel systemic risk contagion network model for banking systems, analyzing the effects of various factors on risk contagion [43]. These studies collectively emphasize the importance of understanding and managing systemic risks in banking systems, particularly in the context of cross-border transactions and interbank linkages.

Risks Associated with Regional Financial Networks

Credit risk in cross-border transactions within regional financial networks is a significant concern for the stability of Indonesia's banking sector. The study by Elda Elda emphasizes the importance of effective non-performing credit policies in commercial banks to mitigate credit risks and strengthen overall financial stability [44]. Additionally, the study by Herman Karamoy and Hizkia Hendrick David Tasik highlights the role of market risk indicators in financial performance and the need for robust risk management frameworks in the Indonesian banking industry [45]. Furthermore, the research conducted by Cep Jandi Anwar, Indra Suhendra, S. V. Didu, and Lilis Nur Kholishoh explores the macroeconomic and bank-specific determinants of credit in Indonesia, emphasizing the impact of central bank rates and non-performing loans on different types of credits [46]. These insights underscore the importance of understanding market dynamics, implementing effective risk mitigation strategies, and strengthening governance structures to ensure the stability and resilience of Indonesian banks participating in regional financial networks.

Impacts of Regional Financial Networks on Banking Stability

A nuanced exploration of the economic growth implications of regional financial integration in Indonesia reveals both positive and negative impacts on the stability of the banking sector, highlighting the complex nature of the relationship [47]. Financial inclusion in the context of regional financial networks can contribute to accessibility of banking services, but exclusionary practices can also emerge, affecting financial inclusion [48]. The resilience of the banking sector in the face of external shocks in a regional financial context depends on adaptive capacity and preparedness [49]. The study emphasizes the importance of ensuring the continued stability of Indonesian banking amid economic uncertainty [50].

Synthesis and Contributions

The synthesis of the literature underscores the dynamic nature of the relationships between regional financial networks and the stability of Indonesia's banking system. The positive and negative linkages, coupled with identified risks and impacts, create a comprehensive understanding of this intersection. These insights form a foundation for stakeholders to navigate challenges and leverage opportunities in the ever-evolving financial landscape.

Discussion

The findings underscore the need for a holistic and well-informed approach to regional financial integration. Policymakers should weigh the potential benefits of enhanced risk-sharing and increased resource access against the associated risks. Effective risk management, governance structures, and a keen awareness of market dynamics are critical for maintaining stability.

The identified impacts on economic growth, financial inclusion, and resilience to external shocks highlight the interconnected nature of the regional financial landscape. Policymakers, financial institutions, and researchers can leverage these insights to formulate strategies that foster economic growth, ensure inclusivity, and enhance the resilience of the banking sector to external pressures.

CONCLUSION

The exploration of regional financial networks' impact on banking system stability in Indonesia reveals a complex and interconnected landscape. Positive linkages contribute to enhanced resilience and improved resource access, while negative linkages underscore challenges such as contagion effects and systemic risks. Risks associated with credit, market, and operational aspects necessitate vigilant risk management strategies. The impacts on economic growth, financial inclusion, and resilience to external shocks are multifaceted, emphasizing the need for nuanced policy responses. As Indonesia positions itself within the global financial architecture, proactive measures, adaptive strategies, and effective governance structures become imperative. This research serves as a foundational resource, offering practical insights to guide stakeholders in navigating the evolving dynamics of regional financial networks and ensuring the stability and sustainable growth of Indonesia's banking sector.

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