

Foreign Exchange Volatility and Corporate Risk Mitigation Approaches: Evidence from Indonesian SMEs

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ABSTRACT: Foreign exchange (FX) risk management is crucial for firms operating in global markets, as currency fluctuations can significantly impact financial performance. This study explores the key determinants influencing firms' hedging decisions, the role of managerial characteristics, and the effectiveness of hedging strategies. Employing a qualitative approach, data were collected through in-depth interviews with financial executives and risk managers. The findings indicate that firms with higher foreign debt exposure and liquidity constraints are more likely to hedge against FX risks. Additionally, managerial risk aversion plays a critical role in determining hedging behavior, aligning with agency theory predictions. Furthermore, the study highlights the importance of integrating both financial and operational hedging strategies to optimize FX risk management. While large firms have better access to sophisticated hedging instruments, SMEs face significant challenges in managing FX exposure due to resource limitations. The study suggests that policymakers should enhance access to hedging tools for SMEs to improve financial resilience. These findings contribute to the existing literature on FX risk management by providing empirical evidence on the interplay between firm-specific factors, managerial characteristics, and hedging effectiveness. Future research should consider longitudinal studies to examine the dynamic nature of FX risk exposure and assess the long-term impact of hedging practices on firm performance.

Keywords: Foreign Exchange Risk, Hedging Strategies, Financial Risk Management, Corporate Governance, Multinational Corporations, SMES, Currency Fluctuations.



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INTRODUCTION

The phenomenon of foreign exchange (FX) risk management has garnered significant attention in the existing literature due to the complexities and challenges faced by firms operating in an increasingly globalized economy (Pichler et al., 2021; Tang et al., 2022). Exchange rate volatility has been widely recognized as a critical issue that affects financial performance and operational stability (Nakatani et al., 2015; Yavas et al., 2020). Research indicates that exchange rate fluctuations create substantial risks for multinational corporations (MNCs), particularly those in emerging markets where currency values can be more volatile and unpredictable (Sayed &

Gayathri, 2021; Sengupta & Gupta, 2019). The impact of these fluctuations extends beyond financial reporting and can influence pricing strategies, supply chain dynamics, and overall firm competitiveness. Previous studies have also highlighted volatility clustering as a persistent characteristic of financial markets, necessitating sophisticated risk management techniques to mitigate adverse effects (Emenike, 2018; Ning et al., 2015).

Effective FX risk management is crucial for ensuring financial stability and sustaining long-term growth (Amer, 2014; Ismail & Ahmed, 2023; M. & Lukose, 2017). The literature identifies two primary approaches to managing FX risk: financial hedging and operational hedging. Financial hedging involves the use of derivative instruments such as forward contracts, options, and swaps, which are widely utilized by firms in developed markets to mitigate exchange rate exposure (Hecht & Lampenius, 2023; Lorient et al., 2019). On the other hand, operational hedging strategies include natural hedging, such as matching revenues and expenses in the same currency or relocating production to different regions to minimize currency risks (Sayed & Gayathri, 2021). However, research has shown that many firms exhibit a reluctance to hedge, often due to a lack of understanding of associated risks and benefits, leading to increased exposure to FX risks and potential financial instability (Lorient et al., 2019).

The significance of FX risk management extends beyond corporate strategy to macroeconomic stability (Hakim et al., 2022; Heipertz et al., 2022). At a global level, FX risk management is instrumental in mitigating systemic risks associated with financial market interconnectedness. Increased market integration has led to heightened risk contagion, making it imperative for firms to adopt robust risk management frameworks that consider cross-market dynamics (Moagar-Poladian et al., 2019; Zhang et al., 2020). Nationally, governments and regulatory bodies have introduced measures to promote transparency and risk mitigation through policy frameworks such as financial reporting standards and risk disclosure regulations (Geyer-Klingenberg et al., 2020). Locally, firms operating in emerging economies must navigate additional challenges, including regulatory constraints, limited access to hedging instruments, and heightened currency fluctuations, necessitating more adaptive and resilient risk management strategies (Sengupta & Gupta, 2019).

The theoretical foundations of FX risk management are rooted in multiple frameworks that provide insights into corporate decision-making. Agency theory suggests that executives with substantial equity stakes may avoid hedging to maintain the volatility of cash flows, thereby enhancing the perceived value of their holdings (Lorient et al., 2019; Hecht & Lampenius, 2023). This perspective underscores the importance of aligning managerial incentives with shareholder interests to ensure prudent risk management. Real options theory, on the other hand, emphasizes the flexibility firms possess in timing and scaling their hedging activities based on market conditions (Min & Yang, 2019). This approach highlights the strategic dimension of FX risk management, where firms can optimize their hedging decisions by leveraging market insights and forecasting models (Bogićević et al., 2016; Sendy & Basaria, 2023).

Empirical analyses have examined the impact of FX risk management on firm performance, revealing that effective hedging strategies contribute to financial stability and value creation (Bodnar et al., 2019; Hecht, 2021). A meta-analysis by Geyer-Klingenberg et al. (2020) synthesized

findings from multiple studies and confirmed the existence of a positive hedging premium, demonstrating that well-implemented risk management practices enhance firm value. Furthermore, the role of corporate governance in FX risk management has been widely studied, with research indicating that firms with strong governance structures are more likely to adopt effective hedging strategies and mitigate financial risks (Hege et al., 2021a; Lee et al., 2015).

Despite the extensive body of research on FX risk management, several gaps remain unaddressed. One notable gap is the limited understanding of how small and medium-sized enterprises (SMEs) approach FX risk management compared to larger MNCs. While much of the literature focuses on the hedging practices of large firms, SMEs often lack the resources and expertise required to implement sophisticated risk management strategies, making them particularly vulnerable to exchange rate fluctuations (Zhang et al., 2020; Moagăr-Poladian et al., 2019). Additionally, the existing literature often overlooks the impact of industry-specific factors on FX risk management, necessitating further investigation into sectoral variations in risk exposure and mitigation strategies (Hege et al., 2021b; Ślawik & Bohatkiewicz-Czaicka, 2022; Zahedi et al., 2021).

Another critical gap pertains to the role of financial innovation in FX risk management. While advancements in artificial intelligence (AI) and machine learning have enhanced forecasting models, their integration into corporate risk management frameworks remains underexplored (Lin et al., 2020). Research on how AI-driven predictive analytics can improve FX risk mitigation and decision-making is essential for bridging this gap. Moreover, the influence of regulatory changes on corporate risk management practices warrants further examination, particularly in the context of emerging markets where policy interventions play a significant role in shaping financial strategies (Geyer-Klingenberg et al., 2020).

To address these gaps, this study aims to provide a comprehensive analysis of FX risk management practices with a particular focus on SMEs and the role of corporate governance. By employing a mixed-methods approach that integrates quantitative analysis with qualitative insights, this research seeks to enhance the understanding of how firms navigate FX risk in dynamic market environments. Furthermore, this study explores the potential of AI-driven models in improving risk prediction and hedging effectiveness, offering valuable insights into the future of FX risk management.

In conclusion, the study of FX risk management is critical for corporate financial stability and broader economic resilience. While existing research provides valuable insights into hedging strategies, theoretical frameworks, and empirical analyses, significant gaps remain in understanding the unique challenges faced by SMEs, the impact of financial innovation, and the role of regulatory frameworks. This study seeks to bridge these gaps by examining FX risk management practices through a multi-dimensional approach, ultimately contributing to the development of more effective risk mitigation strategies for firms operating in an increasingly uncertain global financial landscape.

METHOD

This study employs a qualitative research approach, utilizing a case study design to explore the complexities of foreign exchange (FX) risk management in multinational corporations. The case study method is particularly suitable for capturing the depth and context of FX risk management practices within firms operating in dynamic financial environments. The study was conducted in Indonesia, where exchange rate volatility presents significant challenges for firms. Data collection was carried out over the period of 2023-2024, allowing for a thorough examination of contemporary risk management strategies.

The research involved in-depth interviews with key informants, including financial managers, risk management officers, and executives responsible for corporate financial strategies. A total of ten informants were selected based on their expertise and direct involvement in FX risk management. The selection criteria ensured that informants represented a diverse range of industries, providing a comprehensive understanding of hedging practices across different sectors. To enhance the validity of findings, purposive sampling was employed, ensuring that participants possessed relevant experience in financial decision-making related to FX exposure.

Data collection methods included semi-structured interviews, direct observations, and document analysis. The semi-structured interviews provided flexibility, allowing informants to elaborate on their experiences and decision-making processes. Observations enabled the researchers to understand the contextual factors influencing FX risk management, while document analysis involved reviewing financial reports, policy documents, and risk management frameworks.

Data analysis followed a structured approach, including data reduction, categorization, and thematization. Thematic analysis was employed to identify recurring patterns and key themes in the data. Triangulation was used to ensure credibility by cross-verifying data from multiple sources. To maintain the rigor of the study, the principles of credibility, transferability, dependability, and confirmability were strictly adhered to. Quality control measures were implemented to ensure the objectivity of the research, maintaining ethical integrity and avoiding researcher bias throughout the study process.

RESULT AND DISCUSSION

The empirical studies on foreign exchange (FX) risk management have revealed several key themes related to how firms navigate currency exposure and implement hedging strategies. These findings are categorized into determinants of hedging decisions, effectiveness of hedging strategies, managerial characteristics, market conditions, operational hedging, and contextual influences. The analysis provides a comprehensive understanding of the complexities involved in FX risk management and the diverse strategies employed by firms to mitigate associated risks.

Determinants of Hedging Decisions

Research indicates that multiple factors influence firms' decisions to hedge against FX risks, including foreign debt levels, liquidity, and firm size. Firms with significant foreign debt exposure are more inclined to adopt hedging strategies to mitigate potential currency fluctuations. As noted by an informant: "Our firm relies heavily on foreign financing, so hedging is not an option but a necessity to protect against unexpected currency shifts" (Informant S). The need for liquidity also plays a crucial role, as firms with lower cash reserves tend to hedge more aggressively to ensure financial stability during market volatility.

Effectiveness of Hedging Strategies

Studies suggest that well-implemented hedging strategies contribute to a positive hedging premium, enhancing firm value. A financial officer emphasized: "By employing forward contracts and currency swaps, we have managed to reduce financial instability and maintain investor confidence" (Informant R). Empirical findings support that firms engaging in structured hedging practices exhibit lower earnings volatility and improved financial performance over time, reinforcing the argument for proactive FX risk management.

Managerial Characteristics and Risk Management Decisions

Managerial decision-making plays a pivotal role in determining the extent and method of hedging adopted by firms. Research suggests that executives with substantial equity stakes tend to avoid hedging due to concerns over cash flow volatility. A risk manager highlighted: "There is always hesitation from top management to engage in aggressive hedging, as they believe it restricts financial flexibility" (Informant D). Additionally, personal risk aversion among executives influences hedging behavior, with risk-averse managers preferring conservative strategies to minimize exposure.

Market Conditions and Their Impact on Hedging Behavior

Volatile market conditions necessitate tailored risk management approaches, particularly in regions with fluctuating exchange rates. A financial analyst noted: "The unpredictability of emerging market currencies forces us to be more vigilant in our hedging decisions, as a single miscalculation could lead to significant financial losses" (Informant L). Empirical studies demonstrate that firms operating in highly volatile environments adopt more aggressive hedging techniques, emphasizing the importance of contextual adaptability in FX risk management.

Operational Hedging as an Alternative Risk Management Approach

Beyond financial hedging, firms increasingly rely on operational hedging strategies, such as diversifying production locations and natural hedging through revenue-expenditure alignment. As one executive stated: "We have structured our supply chain to align revenue and expenses in the same currency, reducing exposure to FX risks" (Informant P). This approach complements traditional financial instruments, allowing firms to mitigate currency exposure through strategic operational adjustments.

Contextual and Geographical Influences on Hedging Practices

Regional differences in currency behavior and financial market maturity significantly impact FX risk management approaches. In emerging economies, limited access to sophisticated hedging instruments necessitates alternative strategies. A treasury manager from an Indonesian firm explained: "Unlike in developed markets, we have fewer derivative options, so we rely on natural hedging and supplier negotiations to manage FX exposure" (Informant J). These constraints highlight the importance of tailored hedging frameworks that align with specific economic and regulatory environments.

Overall, these findings underscore the complexity of FX risk management and the necessity for firms to adopt multifaceted approaches that integrate financial instruments, managerial considerations, market dynamics, and operational strategies. By understanding these interconnected factors, firms can develop more effective risk mitigation frameworks to navigate currency volatility successfully.

The findings of this study on foreign exchange (FX) risk management highlight key insights into how firms navigate currency exposure and implement hedging strategies. The results indicate that managerial characteristics, corporate governance, market conditions, and firm-specific factors significantly influence hedging decisions. These findings align with existing literature while also revealing gaps that warrant further exploration. This section discusses the implications of the findings, their connections to previous research, and the broader theoretical and practical considerations of FX risk management.

Managerial Characteristics and Risk Management Decisions

The study underscores the influence of managerial traits on firms' FX hedging decisions. Previous research suggests that executives with substantial equity stakes may avoid hedging due to concerns over cash flow volatility (Loriot et al., 2019). This aligns with the current findings, where managerial risk aversion plays a pivotal role in shaping hedging strategies. Hecht and Lampenius (2023) highlight that risk-averse executives tend to implement more conservative hedging approaches, which can either stabilize financial outcomes or limit potential gains. These findings emphasize the importance of aligning managerial incentives with shareholder interests to optimize FX risk management.

Moreover, agency theory provides a relevant framework for interpreting these results. The misalignment between managerial incentives and risk management objectives can lead to suboptimal hedging behaviors (Hecht & Lampenius, 2023). By strengthening corporate governance structures, firms can mitigate agency conflicts and encourage prudent risk management. The implications of these findings suggest that organizations should integrate psychological assessments into executive selection processes to ensure that managerial risk preferences align with corporate financial strategies.

Determinants of Hedging Decisions

The study finds that foreign debt levels, liquidity, and firm size are critical factors influencing hedging decisions. These findings align with (Yudha et al., 2023), who argue that firms with significant foreign debt exposure are more inclined to hedge against FX risks. The rationale behind this behavior is straightforward: hedging reduces financial vulnerability and stabilizes cash flows. However, firms with strong liquidity positions may exhibit greater flexibility in their hedging approaches, opting for selective hedging rather than comprehensive coverage.

Liquidity constraints can also impact hedging decisions. Firms with limited cash reserves may prioritize FX risk mitigation to avoid financial distress, whereas firms with abundant liquidity may adopt more opportunistic approaches (Geyer-Klingenberg et al., 2020). These findings suggest that firms must tailor their risk management strategies based on their financial health, ensuring that hedging practices align with broader corporate objectives.

Effectiveness of Hedging Strategies

Empirical research consistently demonstrates that well-structured hedging strategies enhance firm value. The current study corroborates Geyer-Klingenberg et al. (2020), who found a positive hedging premium for firms that engage in FX risk management. The hedging premium reflects the reduction in earnings volatility, leading to increased investor confidence and improved financial stability. Firms operating in volatile markets benefit most from comprehensive hedging frameworks that integrate both financial and operational risk mitigation techniques.

Despite the benefits, some firms remain hesitant to adopt structured hedging practices due to concerns over cost and complexity (Loriot et al., 2019). This hesitancy underscores the need for financial education programs that equip managers with the necessary skills to implement effective hedging strategies. By fostering a culture of informed decision-making, firms can maximize the benefits of FX risk management.

Market Conditions and Hedging Behavior

The volatility of FX markets necessitates adaptive hedging strategies. (Emenike, 2018) highlights that firms operating in high-volatility environments tend to adopt more aggressive risk management practices. The current study supports this notion, demonstrating that firms in emerging markets often prioritize hedging to mitigate exposure to unpredictable currency fluctuations. These findings highlight the necessity for firms to continuously monitor market trends and adjust their hedging strategies accordingly.

Context-specific analyses further reveal that firms in developed markets may rely on a broader array of financial instruments, whereas firms in emerging economies face constraints due to limited access to sophisticated hedging tools (Min & Yang, 2019). This disparity suggests that policymakers should facilitate greater access to hedging instruments in emerging markets to enhance firms' ability to manage FX risks effectively.

Operational Hedging as a Complementary Strategy

Beyond financial hedging, operational strategies play a crucial role in mitigating FX risks. Firms employing production diversification and revenue-expense alignment strategies experience enhanced resilience against currency fluctuations (Min & Yang, 2019). The current findings reaffirm that operational hedging serves as a complementary tool that firms can use alongside financial hedging techniques.

Corporate strategies that integrate both operational and financial hedging tend to yield superior risk management outcomes. For example, firms with diversified production bases can reallocate resources to mitigate currency risks more effectively. This finding underscores the importance of a holistic approach to FX risk management that encompasses both financial instruments and operational adjustments.

Despite its contributions, this study presents several limitations. First, the reliance on qualitative data may introduce subjective biases, as informants' perspectives are inherently shaped by their individual experiences. Additionally, the study focuses on a specific geographical context, limiting the generalizability of findings to broader markets with different regulatory frameworks and economic conditions.

The methodological constraints associated with cross-sectional analyses also present challenges. Given the dynamic nature of FX risk exposure, future research should consider longitudinal studies to capture the evolving hedging behaviors of firms over time. Moreover, the limited availability of comprehensive financial data for small and medium-sized enterprises (SMEs) restricts the study's ability to draw definitive conclusions regarding their risk management strategies.

The findings of this study have significant implications for both academic research and corporate practice. From a theoretical perspective, the study reinforces the relevance of agency theory and real options theory in understanding hedging decisions. Future research should explore how these theoretical frameworks can be integrated to develop more comprehensive risk management models.

From a practical standpoint, firms should prioritize the alignment of managerial incentives with risk management objectives to optimize FX hedging strategies. Policymakers and financial institutions should also enhance access to hedging instruments, particularly in emerging markets, to enable firms to navigate currency risks more effectively.

Future research should examine the impact of digital financial innovations, such as artificial intelligence-driven risk assessment tools, on FX risk management. By leveraging technological advancements, firms can enhance their predictive capabilities and improve the efficiency of their hedging strategies. Additionally, a comparative analysis of FX risk management practices across

different industries would provide valuable insights into the sector-specific challenges and opportunities associated with currency risk mitigation.

CONCLUSION

This study has provided significant insights into foreign exchange (FX) risk management, highlighting key determinants, managerial characteristics, and the effectiveness of hedging strategies. The findings emphasize the crucial role of corporate governance and managerial decision-making in shaping firms' FX risk management approaches. Evidence suggests that firms with higher levels of foreign debt, liquidity constraints, and larger market presence are more inclined to hedge against currency fluctuations, reinforcing the importance of firm-specific financial characteristics in risk mitigation.

Moreover, this study underscores the effectiveness of structured hedging strategies in stabilizing firms' financial performance. The integration of both financial and operational hedging approaches has been identified as an optimal method for mitigating currency risk, aligning with previous research indicating that firms adopting comprehensive risk management strategies benefit from reduced earnings volatility and enhanced firm value.

Despite these insights, several challenges persist, particularly for small and medium-sized enterprises (SMEs) that face resource constraints and limited access to sophisticated hedging instruments. Future research should further explore how SMEs can effectively navigate FX risks and develop cost-effective risk management strategies. Additionally, policymakers should facilitate broader access to hedging instruments, particularly in emerging markets, to enhance firms' ability to manage FX exposure.

Overall, this study contributes to the existing literature by offering empirical evidence on the determinants of FX risk management and its implications for corporate financial stability. Future research should adopt longitudinal methodologies to capture the evolving nature of FX risk exposure and assess the long-term impact of hedging practices.

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