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Navigating Sustainability: Bank Dynamics, Market Structure, and Enterprise Risk Management in ASEAN Exchanges

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ABSTRACT

The banking sector plays a vital role in economic stability and sustainable development. As financial institutions face increasing pressure to align profitability with Environmental, Social, and Governance (ESG) commitments, Enterprise Risk Management (ERM) has gained prominence as a tool for enhancing both financial outcomes and ESG performance. While prior research has explored the impact of bank characteristics and industry concentration on performance, the mediating role of ERM remains underexamined, especially in emerging markets. This study addresses this gap by investigating how bank characteristics (ownership concentration, complexity, international diversification) and industry concentration affect financial and ESG performance, with ERM as a mediating variable. The analysis draws on data from ASEAN-listed banks between 2019 and 2023, using Partial Least Squares Structural Equation Modeling (PLS-SEM). Results show that ownership concentration negatively influences financial performance, whereas bank complexity and international diversification have no significant financial effects. Industry concentration also lacks a significant financial impact. Regarding ESG performance, bank complexity and international diversification exhibit positive effects, while ownership concentration has no influence, and industry concentration exerts a negative effect. ERM does not mediate relationships with financial performance nor the effect of industry concentration on ESG outcomes. However, it mediates the relationship between international diversification and ESG performance. The findings highlight the conditional role of ERM in advancing ESG goals, especially in internationally diversified banks. Regulators are urged to revisit ownership concentration policies, and banks are encouraged to integrate ESG into core strategies and reinforce governance frameworks to manage structural risks effectively.

KEYWORDS *Financial Performance, Enterprise Risk Management, ESG*

INTRODUCTION

Banks play a critical role in a country's economy by offering a wide range of financial services through complex business units and subsidiaries, both domestic and international (Attah et al., 2024). The complexity of banking operations exposes banks to various risks, including credit risk, market risk, liquidity risk, operational risk, legal risk, compliance risk, reputational risk, strategic risk, return risk, and investment risk (OJK, 2016).

Cases of bank failures in emerging ASEAN countries underscore the urgent need for comprehensive and integrated *Enterprise Risk Management (ERM)* frameworks. In Indonesia, the 2008 Bank Century scandal revealed serious weaknesses in internal governance and risk oversight. The bank suffered a severe liquidity crisis, failed to meet its obligations to depositors, and required a government bailout of IDR 6.7 trillion. One of the main causes of the failure was the lack of adequate risk management—from lenient credit assessments and weak internal controls to failures in the early detection of a potential bank run (Novira, 2023).

Similarly, in Vietnam, the 2014–2016 Ocean Bank case highlighted systemic governance failures. Over 50 executives and employees were involved in misuse of funds and widespread corruption. Poor credit oversight and internal conflicts of interest led to major losses and ultimately the nationalization of the bank (Reuters, 2017). In Thailand, while less severe, the surge in non-performing loans (NPLs) at Bangkok Bank and Krungthai Bank during the 1998 Asian financial crisis and the post-COVID period illustrates that even large banks are vulnerable without strong risk management frameworks (Pathan et al., 2008).

These cases reflect a broader pattern in ASEAN emerging markets, where *ERM* often fails to serve as a core component of strategic banking decisions. Without robust, data-driven risk management systems, banks remain vulnerable to economic shocks, managerial errors, and crises of trust. Therefore, strengthening *ERM* frameworks is not only about regulatory compliance but is essential to ensuring financial system resilience in developing economies.

Global economic conditions have also grown increasingly uncertain due to geopolitical tensions, climate change, and rapid technological advancement. In this complex environment, financial institutions must adopt proactive risk management approaches. Banks are under growing pressure to operate sustainably—not only in terms of financial performance but also through *Environmental, Social, and Governance (ESG)* outcomes. *ESG* is now central to long-term value creation (Cek & Eyupoglu, 2020; Velte, 2017), and investors are increasingly considering *ESG* factors in their decision-making (Azmi et al., 2021). Companies prioritizing *ESG* are viewed as more attractive investments, particularly by long-term, sustainability-focused investors (Buallay, 2019). *ESG* also functions as a risk management tool, helping firms detect and mitigate issues before they escalate (Chen et al., 2023). Banks have begun integrating *ESG* into decision-making, recognizing its strategic and financial importance (Citterio & King, 2023).

This growing focus on sustainability necessitates a strong, integrated *ERM* approach to navigate emerging risks. Effective *ERM* can significantly enhance bank financial performance through proactive risk identification, assessment, and mitigation. It improves operational efficiency, reduces potential losses, enhances asset quality, and boosts stakeholder confidence—thereby improving access to funding and competitive positioning.

ERM also plays a strategic role in managerial decision-making, moving beyond regulatory reporting to serve as an integrated framework across business functions. A comprehensive *ERM* system enables banks to systematically identify and manage various risks—including credit, operational, market, and reputational risks—across organizational units. It allows management to balance risk and return in strategic decisions, align business goals with risk tolerance, and foster a risk-aware culture. For banks in developing countries, where resilience and governance remain challenging, effective *ERM* is crucial for long-term stability and sustainability. Risk management effectiveness supports better decision-making by properly weighing trade-offs between risk and expected return (Mohammed & Knapkova, 2016; Ross et al., 2013).

Financial performance is a key indicator for evaluating resource management and business goal achievement. It can be measured using both accounting and market-based approaches. Net Interest Margin (*NIM*), from the accounting perspective, indicates how efficiently a bank generates net interest income from its productive assets. A higher *NIM* implies stronger profitability and resilience against financial crises (Fitriaty, 2022). From a market perspective, Tobin's Q—comparing a firm's market value to its intrinsic value—reflects investor perceptions of growth and profitability prospects (Aydoğmuş et al., 2022). Combining *NIM* and Tobin's Q offers a comprehensive view of financial performance from internal and external perspectives.

Beyond financial outcomes, *ERM* also supports non-financial sustainability performance. As Shad et al. (2019) suggest, *ERM* contributes to sustainable organizational development by identifying and managing sustainability-related risks such as climate change, social concerns, and reputational damage. Integrating *ESG* into *ERM* frameworks helps banks build reputational capital, strengthen stakeholder relationships, and promote sustainable development.

The Committee of Sponsoring Organizations of the Treadway Commission (*COSO*) provides internationally recognized *ERM* guidance. Since 2004, *COSO* has advanced consistent definitions of risk management. Its 2017 update emphasizes linking risk to performance and strategy. *ERM* is now framed as a strategic enabler for achieving business goals, with a focus on risk appetite, capacity, and the creation of long-term value.

Despite extensive research on bank performance and *Enterprise Risk Management (ERM)*, there is a notable lack of empirical studies that integrate *ERM* with both financial and sustainability performance—particularly within the context of ASEAN banking systems. Most existing literature either focuses on developed markets (Chang et al., 2021) or treats *ERM* and *ESG* as separate streams of inquiry, overlooking the complex and potentially mediating role that *ERM* may play in linking bank characteristics to multidimensional outcomes. In emerging markets like ASEAN, this gap is particularly critical given the region's unique institutional, regulatory, and governance challenges.

ASEAN's banking sector plays a central role in economic development and is undergoing structural transformation driven by rising competition, innovation, and the growing adoption of sustainability frameworks (Laili et al., 2023). While good corporate governance has long been recognized as essential for effective decision-making and capital allocation (Tran & Vo, 2020), the 1997 Asian financial crisis underscored the importance of regulatory reform and minority shareholder protection (Mitton, 2002), paving the way for enhanced transparency and risk oversight mechanisms. In response to global *ESG* pressures, six ASEAN member countries—Malaysia, Indonesia, the Philippines, Singapore, Thailand, and Vietnam—now publish *ESG* metrics through *ASEAN Exchanges*. Initiatives such as the *Interconnected ASEAN Sustainability Ecosystem (ISE)* further signal a regional commitment to integrated sustainability practices and capital market alignment.

However, while sustainability disclosures and *ERM* adoption are increasing, the extent to which these efforts translate into actual performance gains—financial or *ESG*-related—remains unclear. Moreover, the interplay between firm-level characteristics, ownership structures, and sectoral dynamics in shaping these outcomes is still underexplored, especially in the ASEAN context where institutional heterogeneity is high. This creates a significant research opportunity to investigate *ERM* not merely as a compliance mechanism but as a strategic mediator that could amplify or moderate the effects of organizational and industry variables on performance.

To address these gaps, this study aims to examine how bank-specific characteristics and industry concentration influence both financial and *ESG* performance among publicly listed banks in ASEAN from 2019 to 2023; and assess the mediating role of *ERM* in these relationships. By doing so, the research contributes to the literature by providing a more integrated understanding of performance drivers in ASEAN's dynamic banking sector and clarifying *ERM's* strategic relevance in emerging market contexts.

RESEARCH METHOD

The study employs a robust methodological approach utilizing secondary data sources, primarily drawn from audited financial statements and annual reports of banks listed on ASEAN stock exchanges between 2019 and 2023. The financial data was obtained from official stock exchange websites of Indonesia, Singapore, Thailand, Malaysia, the Philippines, and Vietnam, ensuring comprehensive coverage of the banking sector in the region. Additionally, stock market data and ESG scores were extracted from Refinitiv Eikon, a widely recognized financial database, providing reliable and standardized metrics for evaluating corporate sustainability and performance.

To ensure relevance and data integrity, the study adopts a purposive sampling technique. Banks included in the sample met specific criteria, including continuous listing on ASEAN exchanges throughout the study period, availability of audited financial and annual reports, and an ESG score present in the dataset. From an initial pool of 110 listed banks, only 50 met the ESG score availability criterion, ultimately yielding a dataset comprising 199 observations because some banks did not have complete ESG or financial data for all five years of the study period. This sampling method ensures that the findings accurately reflect the financial and sustainability performance of banks with verifiable ESG disclosures.

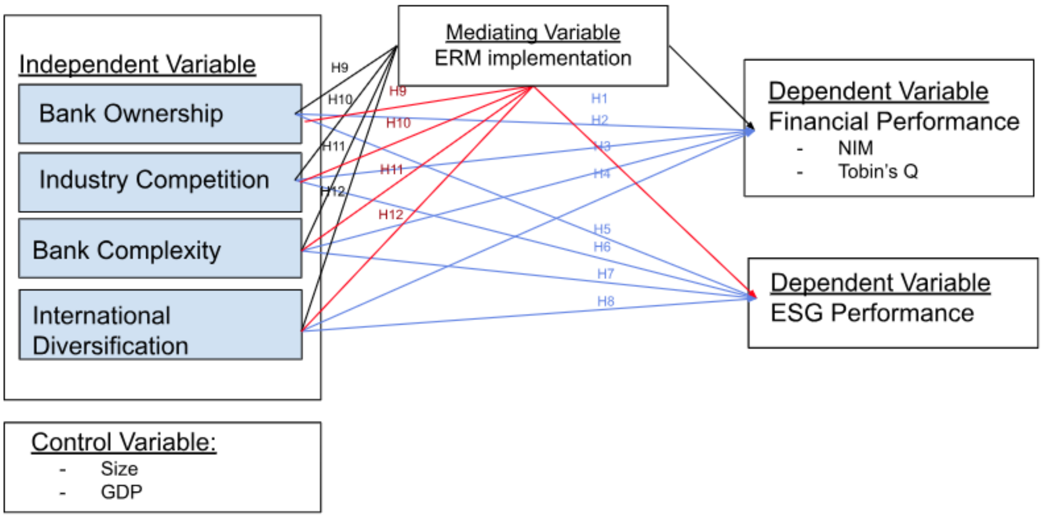

Figure 1. Conceptual Framework

The research examines multiple variables to assess their impact on bank performance. Independent variables include ownership concentration, measured as the percentage of shares held by the largest shareholder; industry concentration, assessed using the Herfindahl-Hirschman Index (HHI); bank complexity, defined by the number of subsidiaries within the bank; and international diversification, categorized as a dummy variable to indicate whether a bank has expanded operations beyond domestic markets. The study further introduces Enterprise Risk Management (ERM) as a mediating variable, evaluating its implementation through key dimensions such as internal environment, objective setting, risk assessment, risk response, and monitoring. The dependent variables encompass financial performance metrics and non-financial sustainability performance, particularly ESG scores, providing a comprehensive perspective on banking resilience and governance.

For data analysis, the study employs Partial Least Squares-Structural Equation Modeling (PLS-SEM), a technique well-suited for examining complex relationships, including mediation effects. To ensure robust measurement constructs, the analysis begins with reliability and validity testing, assessing the consistency and accuracy of the variables used in the study. Indicator reliability is assessed through factor loadings, with values exceeding 0.70 considered acceptable, while internal consistency is verified using Cronbach's Alpha and Composite Reliability, both requiring a minimum threshold of 0.70. Additionally, convergent validity is measured using the Average Variance Extracted (AVE), ensuring that all constructs capture sufficient variance in their respective indicators.

To test the structural model, the study employs bootstrapping techniques to evaluate direct, indirect, and mediating effects. This approach enhances the reliability of the statistical inferences, making it well-suited for financial research where mediating variables, such as ERM implementation, play a crucial role. The choice of PLS-SEM is further justified by its ability to handle relatively small-to-medium sample sizes, overcome normality constraints, accommodate complex variable interactions, and effectively model latent constructs that are measured indirectly through multiple observed indicators.

RESULT AND DISCUSSION

To ensure the robustness of the measurement model, validity and reliability tests were conducted prior to structural model analysis. The formative measurement model was evaluated through factor loadings to determine indicator contributions to the ERM construct. Indicators with loadings below 0.40 were excluded due to insufficient representation, while those in the 0.40–0.70 range were retained if they improved the Average Variance Extracted (AVE). The final model retained six key ERM dimensions—Internal Environment, Objective Setting, Risk Assessment, Risk Response, Control Activities, and Monitoring—which demonstrated strong convergent validity (AVE > 0.50) and reliability (Cronbach's Alpha, rho_A, and Composite Reliability > 0.70). Discriminant validity, assessed via the Heterotrait-Monotrait Ratio (HTMT < 0.90), and multicollinearity checks (VIF < 5), confirmed the distinctiveness and statistical soundness of each construct. Indicators related to Event Identification and Information & Communication were excluded due to weak empirical support. Robustness testing showed that the inclusion of control variables (GDP and firm size) altered the significance of several paths, indicating potential confounding and suppression effects. The explanatory power of the model increased notably with R^2 values for ERM and Financial Performance rising from 0.089 to 0.336 and from 0.185 to 0.370, respectively. Conversely, ESG performance showed only marginal change (R^2 from 0.186 to 0.195), suggesting it is more influenced by the independent variables than by external controls.

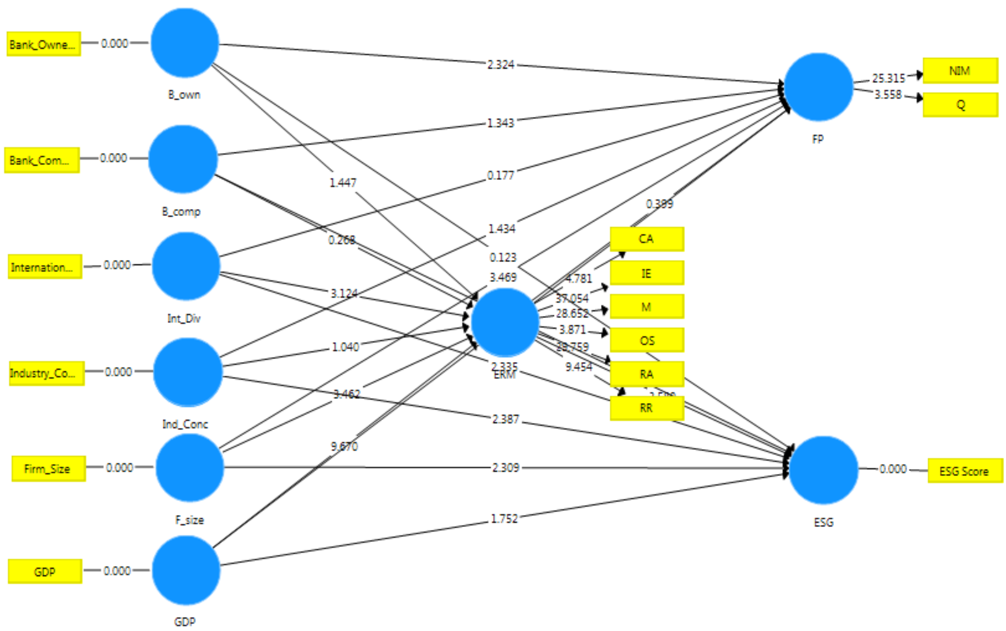

Figure 2. PLS-SEM analysis

Bank Characteristics and Industry Concentration on Financial Performance

Table 1 presents the results of the analysis on the relationship between bank characteristics, industry concentration, financial and ESG performance with Enterprise Risk Management (ERM) implementation as a mediating variable. Four independent variables were examined: bank complexity, ownership concentration, industry concentration, and international diversification.

Table 1. Bank Characteristics and Industry Concentration on Financial Performance

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
B_comp -> FP	-0.044	-0.038	0.032	1.343	0.180
B_Own -> FP	-0.139	-0.156	0.060	2.324	0.021
ERM -> FP	-0.038	-0.012	0.097	0.399	0.690
F_size -> FP	-0.087	-0.090	0.025	3.469	0.001
GDP -> FP	0.705	0.709	0.074	9.574	0.000
Ind_Conc -> FP	0.054	0.053	0.037	1.434	0.152
Int_Div -> FP	-0.011	-0.019	0.064	0.177	0.860

Bank complexity does not significantly affect financial performance ($p = 0.180$). While complexity may offer benefits such as business diversification and economies of scale (Cetorelli & Goldberg, 2016), it often leads to coordination costs, operational inefficiencies, and agency problems, particularly for banks operating across multiple countries (Bonfim & Felix, 2020). Complex banks tend to be less transparent and harder to manage, increasing the risk of moral hazard (Anani, 2024, Martynova & Vogel, 2021) and potentially encouraging risk-taking behavior due to a perception of being "too big to fail" (Cetorelli & Traina, 2018). These opposing effects may neutralize each other, resulting in no statistically significant impact on profitability.

Ownership concentration has a significant negative effect on financial performance ($\beta = -0.139$, $p = 0.021$). A high degree of ownership concentration may reduce financial efficiency by empowering dominant shareholders to act in self-interest, undermining broader firm performance. This aligns with Filatotchev and Mickiewicz (2001), who found such concentration can lead to inefficient capital allocation. Concentrated ownership may also diminish board oversight and discourage risk-taking or innovation, leading to suboptimal financial outcomes (Boubaker et al., 2012).

ERM implementation does not show a significant effect on financial performance ($p = 0.690$), potentially due to its frequent use as a compliance formality rather than a fully integrated strategic tool (Lin, 2016; Bertinetti, 2013). Additionally, ERM tends to yield long-term benefits, whereas financial performance is typically measured over the short term (Nasr et al., 2019). High initial implementation costs may also suppress immediate profitability.

Firm size has a significant negative relationship with financial performance ($p = 0.001$). Larger institutions often suffer from operational complexity, bureaucratic inertia, and coordination inefficiencies (Beck et al., 2017; Zhou, 2011; Larsen et al., 2023). These factors can reduce agility and responsiveness to market changes, ultimately affecting financial efficiency.

GDP shows a significant positive impact on financial performance ($p = 0.000$). Economic growth increases business activity and consumer demand, which boosts the demand for banking services. It also lowers default risk and improves loan repayment capacity, enhancing bank profitability (Surya et al., 2021).

Industry concentration does not significantly affect financial performance ($p = 0.152$). While concentrated markets may allow firms to exercise market power and enjoy higher margins (Kastratović et al., 2019; Perera et al., 2013), they may also lead to inefficiencies and a lack of innovation. Past studies have reported both positive (Perera et al., 2013) and negative (Kosmidou, 2008) effects of concentration on bank performance, suggesting the outcome depends on regulatory context, market dynamics, and competitive strategy (Alhassan et al., 2015; Zhang et al., 2013).

International diversification does not have a significant relationship with financial performance ($p=0.860$), confirming findings by Pangestuti et al. (2023). While expanding across countries can offer growth opportunities, it also introduces complexity due to differing legal, tax, and regulatory systems, which can raise costs and reduce operational efficiency (Lechner & Gatzert, 2018; Gordon et al., 2009). Cultural and institutional differences may also hinder strategic alignment and reduce the expected benefits of diversification (Hoyt & Liebenberg, 2011; Razali et al., 2011).

Bank Characteristics and Industry Concentration on ESG Performance

Table 2 presents the results of an analysis examining the influence of bank characteristics, industry concentration, and Enterprise Risk Management (ERM) implementation on ESG (Environmental, Social, and Governance) performance—an increasingly important metric for investors and stakeholders assessing corporate sustainability.

Tabel 2. Bank Characteristics and Industry Concentration on ESG Performance

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
B_Comp -> ESG	0.122	0.120	0.056	2.201	0.028
B_Own -> ESG	-0.011	-0.011	0.091	0.123	0.902
ERM -> ESG	0.287	0.284	0.080	3.580	0.000
F_size -> ESG	0.145	0.151	0.063	2.309	0.021
GDP -> ESG	-0.196	-0.192	0.112	1.752	0.080
Ind_Conc -> ESG	-0.265	-0.258	0.111	2.387	0.017
Int_Div -> ESG	0.187	0.197	0.080	2.335	0.020

The results show that bank complexity has a positive and significant impact on ESG scores ($\beta = 0.122$, $p = 0.028$). This suggests that more complex banks, often larger in size and structure, are subject to greater regulatory scrutiny and stakeholder expectations, thus incentivizing stronger sustainability practices (Meini & Setijaningsih, 2024). These institutions typically possess the resources and scale advantages necessary to implement ESG initiatives more effectively and cost-efficiently (Bissoondoyal-Bheenick et al., 2023).

Ownership concentration does not significantly affect ESG performance ($p = 0.902$), indicating that shareholder structure alone is not a key driver of sustainability practices—an outcome consistent with Younas et al. (2017). ESG engagement appears to be more influenced by external regulation and market pressures than by dominant shareholders.

ERM implementation significantly improves ESG performance ($\beta = 0.287$, $p = 0.000$), reinforcing its role in identifying and managing environmental, social, and governance risks. Firms with mature ERM systems are better equipped to make informed, responsible decisions that enhance ESG outcomes (Shah et al., 2024).

Firm size also shows a positive and significant relationship with ESG performance ($\beta = 0.145$, $p = 0.021$). Larger firms typically have greater visibility, stakeholder accountability, and resource capacity to invest in sustainability efforts and ensure transparent ESG disclosures (Martinez et al., 2024; Hull & Rothenberg, 2008; Lepoutre & Heene, 2006).

In contrast, GDP does not significantly influence ESG scores ($p = 0.080$), supporting prior findings that national economic growth does not necessarily align with sustainable development goals (Coscieme et al., 2020; Horodecka, 2024). ESG implementation is more closely tied to firm-level and institutional pressures than macroeconomic output.

International diversification has a positive and significant effect on ESG performance ($\beta = 0.187$, $p = 0.020$). Firms operating across borders are exposed to diverse regulatory environments and stakeholder expectations, driving them to adopt globally aligned sustainability standards and learn from best practices (Amer, 2023).

Finally, industry concentration has a negative and significant effect on ESG performance ($\beta = -0.265$, $p = 0.017$). In highly concentrated markets, firms may lack competitive pressure to improve ESG practices, focusing instead on short-term efficiency and profitability (Chang & Lee, 2024). Without strong market competition, dominant players face fewer external incentives to invest in sustainable initiatives.

These findings highlight the varying influence of internal and external organizational factors on ESG outcomes and underscore the role of ERM and institutional complexity in shaping sustainability performance in the banking sector.

The Mediating Role of ERM in Financial and ESG Performance

The findings indicate that most indirect effects in the structural model are statistically insignificant, suggesting that Enterprise Risk Management (ERM) does not sufficiently mediate the relationship between bank characteristics, industry concentration, and ESG or financial performance. Specifically, ERM does not mediate the effect of bank complexity on ESG performance ($p = 0.798$), as complexity does not significantly influence ERM. Although ERM significantly affects ESG outcomes, its mediating role is absent in this pathway. This may reflect a form of institutional decoupling (Harrison et al., 2015), where complex banks formally adopt ERM frameworks without fully embedding them into strategic or ESG-related practices.

Table 3. Mediating Role of ERM in Financial and ESG Performance

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	VAF
B_Comp -> ERM -> ESG	0.003	0.005	0.013	0.257	0.798	-
B_Own -> ERM -> ESG	-0.032	-0.031	0.022	1.430	0.153	-
F_size -> ERM -> ESG	0.042	0.043	0.017	2.413	0.016	22.40%
GDP -> ERM -> ESG	0.183	0.182	0.055	3.331	0.001	-
Ind_Conc-> ERM -> ESG	-0.010	-0.010	0.010	1.011	0.312	-

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	VAF
Int_Div -> ERM -> ESG	0.063	0.062	0.024	2.612	0.009	25.20%
B_Comp -> ERM -> FP	0.000	0.000	0.004	0.111	0.911	-
B_Own -> ERM -> FP	0.004	0.001	0.013	0.329	0.742	-
F_size -> ERM -> FP	-0.006	-0.003	0.015	0.381	0.704	-
GDP -> ERM -> FP	-0.025	-0.008	0.063	0.392	0.695	-
Ind_Conc -> ERM -> FP	0.001	0.000	0.005	0.294	0.769	-
Int_Div -> ERM ->FP	-0.008	-0.003	0.022	0.383	0.702	-

Similarly, concentrated ownership does not significantly affect ESG scores through ERM ($p = 0.153$). While dominant shareholders have the capacity to strengthen ERM and sustainability governance, they may prioritize short-term financial gains over long-term ESG objectives (Lin et al., 2024). In many cases, ERM is still narrowly implemented to manage financial and operational risks, not ESG-related risks (Mankowski, 2024).

ERM does mediate the relationship between firm size and ESG performance, albeit with a small effect ($\beta = 0.042$, $p = 0.016$). Larger firms face greater institutional pressure and regulatory scrutiny, encouraging more structured risk management practices (Malelak & Pryscillia, 2020; Martinez et al., 2024; Hull & Rothenberg, 2008). However, ERM frameworks may still lack integration with sustainability strategy, limiting their broader ESG impact.

Notably, ERM significantly mediates the relationship between GDP and ESG scores ($\beta = 0.183$, $p = 0.001$). While GDP itself does not directly impact ESG performance, it indirectly promotes ESG outcomes through more developed ERM systems in higher-income countries (Anton & Nucu, 2020; Martynova & Vogel, 2021). These countries typically offer more sophisticated institutional environments and regulatory pressure for sustainability (Mankowski, 2024).

ERM does not mediate the effect of industry concentration on ESG performance ($p = 0.312$). High market concentration may reduce competitive pressure to improve ESG practices (Tran et al., 2022). However, where ERM is effectively implemented, it can act as an internal mechanism to offset the lack of external ESG incentives in oligopolistic markets. Still, in such industries, stable risk profiles may lower firms' motivation to adopt comprehensive ERM systems (Calice et al., 2021).

ERM plays a significant partial mediating role in the relationship between international diversification and ESG performance ($\beta = 0.063$, $p = 0.009$, VAF =

25.20%). Firms operating across multiple jurisdictions face heightened ESG-related risks and institutional complexities, making integrated ERM essential for navigating diverse stakeholder expectations and regulatory landscapes (Amer, 2023; Martynova & Vogel, 2021). This supports the view that operational complexity can drive firms to embed ERM as a strategic tool for managing sustainability risks.

Conversely, ERM does not mediate the effect of bank complexity on financial performance (p = 0.911). In some cases, ERM implementation is superficial or compliance-oriented, contributing little to strategic decision-making (Lin et al., 2016; Bertinetti, 2013). Moreover, ERM's benefits are often realized in non-financial domains such as ESG, rather than in short-term financial metrics like profitability (Nasr et al., 2019).

The mediation effect of ERM is also non-significant in the relationship between ownership concentration and financial performance (p = 0.742). While ownership concentration initially has a negative direct effect, ERM weakens this effect, implying it may serve as a governance mechanism to reduce agency risks linked to dominant shareholders (Sekerci & Pagach, 2020).

ERM does not significantly mediate the impact of banking industry concentration on financial performance (p = 0.769). In highly regulated sectors such as banking, ERM is often implemented to satisfy compliance requirements rather than as a response to competitive dynamics (Fraser et al., 2024). Large banks in concentrated markets may face limited pressure to innovate in risk management, reducing the strategic role of ERM (Tran et al., 2022).

Lastly, ERM does not mediate the relationship between international diversification and financial performance (p = 0.702), consistent with prior findings by Pangestuti et al. (2023). External macroeconomic and geopolitical factors, along with country-specific regulations, appear to play a more dominant role in determining financial outcomes than internal ERM practices.

CONCLUSION

This study explored the influence of bank characteristics and industry concentration on financial and ESG performance among ASEAN-listed banks, with ERM as a potential mediator. The results showed that bank ownership concentration negatively affects financial performance, while bank complexity and international diversification had no significant impact. Industry concentration also did not affect financial performance but had a negative effect on ESG outcomes. ERM did not mediate the relationships between bank characteristics and financial performance, nor did it mediate the effect of industry concentration on ESG performance. However, ERM played a significant role in mediating the effect of international diversification on ESG performance. Limitations include the reliance on content analysis of annual reports, which introduces subjectivity and may not reflect true practices, and the lack of ESG scores for all ASEAN banks, limiting generalizability. These findings highlight the need for regulatory reassessment of ownership concentration rules, stronger ESG integration in ERM frameworks, and enhanced board independence in banks. The study suggests future research on country-specific analyses, tailored ERM-ESG models, and qualitative methods to better understand ERM's mediating role and ESG implementation best practices.

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