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THE EFFECT OF ENTERPRISE RISK MANAGEMENT AND COMPLIANCE PRACTICES ON THE FIRM PERFORMANCE OF INDONESIAN BANKING COMPANIES

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Abstract: Enterprise Risk Management (ERM) practices are particularly crucial in this industry to ensure stability and compliance with regulatory requirements. This study examines the effect of ERM on a firm's operational and financial performances by using two mediating variables of compliance practices and IT strategy. By using a quantitative approach, data was collected through purposive random sampling from 250 bank managers in Jabodetabek, Indonesia. The study found that ERM was found to influence financial and operational performance positively and significantly. Moreover, compliance practices positively and significantly affect both financial and operational performance. IT strategy also has a positive and significant impact on firm performance. In testing the mediating effect, IT strategy partially mediates the relationship between ERM and performance, as do compliance practices. These findings highlight the importance of ERM, IT strategy, and compliance practices in enhancing the performance of banking companies in Indonesia. The findings validate the increasing importance of risk management in the financial landscape in Indonesia. The recognition of the banking sector's complexity and vulnerability to diverse risk types, including credit, market, operational, and regulatory risks, underscores the critical role of risk management practices.

Keywords: enterprise risk management, compliance practices, it strategy, financial performance, operational performance

Abstrak: *Praktik Enterprise Risk Management (ERM) memiliki peranan yang sangat penting dalam industri ini untuk memastikan stabilitas dan kepatuhan terhadap persyaratan regulasi. Tujuan dari penelitian ini adalah untuk menguji ERM terhadap kinerja operasional dan keuangan perusahaan dengan menggunakan praktik kepatuhan dan strategi TI sebagai variabel mediasi. Dengan pendekatan kuantitatif, data dikumpulkan melalui pengambilan sampel acak yang disengaja dari 250 manajer bank di Jabodetabek, Indonesia. Penelitian ini menemukan bahwa Pengelolaan Risiko Enterprise ternyata memengaruhi kinerja keuangan dan operasional secara positif dan signifikan. Selain itu, praktik kepatuhan berpengaruh positif dan signifikan terhadap kinerja keuangan dan operasional. Strategi TI juga memiliki dampak positif dan signifikan pada kinerja perusahaan. Dalam pengujian efek mediasi, strategi TI sebagian menghantarkan hubungan antara ERM dan kinerja, begitu juga dengan praktik kepatuhan. Temuan ini menyoroti pentingnya ERM, strategi TI, dan praktik kepatuhan dalam meningkatkan kinerja perusahaan perbankan di Indonesia. Temuan ini memvalidasi peningkatan pentingnya manajemen risiko dalam lanskap keuangan di Indonesia. Pengakuan terhadap kompleksitas sektor perbankan dan kerentanannya terhadap berbagai jenis risiko, termasuk risiko kredit, risiko pasar, risiko operasional, dan risiko regulasi, menegaskan peran kritis praktik manajemen risiko.*

Kata kunci: *manajemen risiko, praktik kepatuhan, strategi IT, kinerja keuangan, kinerja operasional*

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INTRODUCTION

Enterprise Risk Management (ERM) is a comprehensive approach to identifying, assessing, and managing risks across an entire organization. It involves a systematic process of recognizing potential threats, both internal and external, that can impact an organization's objectives. ERM goes beyond traditional risk management by integrating risk considerations into strategic decision-making, ensuring a more holistic and proactive approach (Shad et al. 2019; Almeida et al. 2019). The importance of Enterprise Risk Management in company operations cannot be overstated. In today's dynamic business environment, organizations face an array of risks, ranging from financial and operational risks to reputational and strategic risks. ERM provides a framework that enables companies to identify these risks early on, evaluate their potential impact, and develop strategies to mitigate or exploit them. By embedding risk management into daily operations, organizations can enhance resilience, make informed decisions, and seize opportunities for growth (Perera, 2019).

Effective ERM contributes to the development of a robust risk management plan. This plan outlines the organization's risk appetite, establishes risk tolerances, and defines the roles and responsibilities of key stakeholders. It serves as a roadmap for implementing risk management strategies and ensuring alignment with organizational goals. A well-executed risk management plan enhances an organization's ability to navigate uncertainties, protect assets, and create sustainable value. Quon et al. (2012) argue that, to build an effective risk management plan, corporate risk management should impact business value and employ an approach that encompasses the entire company to manage these risks. The fundamental purpose of risk management is to enhance shareholder value. However, vulnerability has recently become a phenomenon that pervades all aspects (Krause & Tse, 2016). Managing each type of risk in isolation can lead to inefficiencies due to a lack of coordination between different risk management divisions. While the concept of risk management applies to all types of businesses, the risk assessment and risk management attitude of owner-managers determine the effectiveness of a company's risk management measures. Risk management is the key premise that entrepreneurial or managerial attention should be focused on in identifying future uncertainties, hazards, possible manifestations, and impacts to help create strategies to address these risks and limit or eliminate their impact or exposure to the company (Yolande, 2012).

However, previous studies show inconclusive findings regaring the effect of ERM on fimr performance. In their investigations, Callahan and Soileau (2017), Florio and Leoni (2017), Lechner and Gatzert (2017), Tarigan & Valerie (2023) and Lai and Shad (2017) all discovered a positive correlation between the adoption of Enterprise Risk Management (ERM) and firm performance. In contrast, Agustina and Baroroh (2016), Eikenhout (2015), Ping and Muthuveloo (2015), and Pagach and Warr (2011) reported adverse effects of ERM on firm performance. Nevertheless, it can be deduced that the relationship between ERM and firm performance remains inconclusive. The impact of implementing ERM on enhancing business performance, particularly concerning the strategic utilization of compliance practices and IT strategy in the banking sector, remains an unanswered query (Shad et al. 2019). This sector is renowned for its intricate nature and susceptibility to diverse risk categories, encompassing credit risk, market risk, operational risk, and regulatory risk. As a result, the extent to which ERM contributes to improved business performance in this context remains a topic of ongoing investigation. As banks nowadays rely heavily on information technology (IT) infrastructure for their day-to-day operations, IT strategy plays a significant role in managing technology-related risks, ensuring data security, and enhancing operational efficiency.

In this context, ERM encourages efforts to manage risks related to operational or strategic aspects in a more coordinated manner (Ward & Chapman, 2003). The main goal of risk management remains to enhance the value of the company, which is highly relevant in the context of business in Indonesia. Companies in Indonesia are increasingly recognizing the importance of risk management in facing various external and internal challenges, such as market changes, stricter regulations, and rapid technological advancements. In the development of this research, in addition to considering the influence of risk management on company performance, the importance of understanding the role of information technology strategy (IT strategy) in managing these risks in the digital era is discussed. Furthermore, the research explains how the implementation of compliance practices can strengthen the competitiveness of companies in Indonesia in the face of uncertainty and business risks. All of this contributes to providing a more comprehensive understanding of the role of risk management in the context of companies in Indonesia, particularly among corporate entities. This research is expected to provide better insights into how risk management can influence the performance of companies in Indonesia and support sustainable business growth.

METHODS

This study investigates, through empirical analysis, how Enterprise Risk Management (ERM) influences the operational and financial performance of a company, with a focus on the mediating variables of compliance practices and IT strategy. The banking sector is known for its complexity and sensitivity to various forms of risk. Financial institutions are exposed to a wide range of risks, including credit risk, market risk, operational risk, and regulatory risk. As a result, ERM practices are particularly crucial in this industry to ensure stability and compliance with regulatory requirements. In this study, we distributed 250 questionnaires to bank managers in the Jabodetabek region, by using purposive random sampling as the chosen sampling method.

In this study, various variables have been measured to assess different aspects of compliance practices, enterprise risk management (ERM), IT strategy, financial performance, and operational performance. Enterprise Risk Management was measured by five components of enterprise risk management adopted from Lai (2014), namely integration of ERM with business strategy (ERM1) and integration of ERM with objectives (ERM2), risk identification (ERM3), risk response (ERM4), and risk quantification (ERM5). The dimensions of compliance practices are likely measured by four items from Burdon & Sorour (2020), namely regulatory compliance (CMP1), ethical compliance (CMP2), financial compliance (CMP3) and control (CP4). Moreover, the dimensions of IT strategy were measured by five indicators adopted from King & Teo (1996), namely strong IT leadership (ITS1), strong IT planning capability (ITS2), perceived importance of strategic use (ITS3), tangible benefit of IT application (ITS4), and adequate knowledge about information assets (ITS5).

In addition, the dependent variable of firm performance was divided into operational and financial performance. Operational performance (OP) was assessed through four specific indicators. These indicators were evaluated using conventional metrics sourced from previous studies (Zhu et al. 2004; Truong et al. 2017). These metrics encompassed aspects like cost reduction (OPR1), enhanced service quality (OPR2), timely delivery (OPR3) and improved operational flexibility (OPR4). Lasty, financial performance (FINP) was gauged through four indicators, drawing on the work of Rao and Afum et al. (2020) as well as Zhao et al. (2021). These indicators encompassed measures of profitability (FP1), sales growth (FP2), return on assets (FP3), and return on equity (FP4).

The study considers the target population to be homogeneous because banking sector has common characteristics related to their exposure to risk. Data collection occurred simultaneously across all regions within Jabodetabek over a period of approximately three months, from November 17, 2022, to February 6, 2023. In this research, 250 questionnaires were distributed through purposive random sampling to bank managers in Jabodetabek, Indonesia. Banking managers are key decision-makers in financial institutions and possess in-depth knowledge of ERM practices, compliance requirements, and IT strategies within the industry. By selecting them as respondents, researchers can tap into their expertise, ensuring that the data collected is highly relevant and informed. Each selected SME in the sample had a representative who held the role of overall enterprise risk holder, including branch heads, supervisors, managers, heads of accounts and finance. Out of the 250 questionnaires distributed, a commendable 167 were returned, resulting in a response rate of approximately 66.8%. While 9 respondents provided incomplete information or left some answers blank, the majority of the questionnaires remained complete and filled out accurately. As a result, 158 questionnaires have been deemed eligible for further in-depth analysis, ensuring a robust and comprehensive examination of the research data. This high response rate and diligent data collection process enhance the reliability and validity of the study's findings. The study utilized SMART PLS SEM for estimating the relationship among variables.

Contingency theory posits that organizational choices, such as techniques, structures, or control systems, should be customized based on various contextual factors, including environmental conditions, risk levels, business strategies, company size, and organizational structure and activities (Bryan, 2019).

Contingency theory also emphasizes that companies should actively monitor their environmental conditions and commit to adapting to possible changes. Internal control is not a static aspect of organizational structure, and the relationship between internal control system structure and environmental factors needs to be considered (Felipe et al. 2017). Each organization should choose an internal control system that best suits the characteristics of its environmental conditions and situations (Otley & Berry, 2019). Chen et al. (2020) highlights the importance of internal controls in mitigating agency costs and improving organizational performance. Internal controls act as mechanisms to align the interests of principals and agents by reducing information asymmetry, enhancing accountability, and promoting transparency. Effective internal controls provide a structured framework for monitoring managerial actions, ensuring compliance with organizational goals, and safeguarding assets. However, some scholars emphasize that the mere design or implementation of internal control systems does not automatically lead to a reduction in agency costs (Sun et al. 2020). While internal controls are essential components, their effectiveness depends on various factors such as the organizational context, the commitment of top management, and the quality of the control environment. Merely having internal controls in place does not guarantee a decrease in agency costs; it requires a dynamic and adaptive approach to their design and implementation (Henk, 2019).

Enterprise Risk Management (ERM) is a strategic and integrated approach to identifying, assessing, and managing the full spectrum of risks that an organization faces in pursuit of its objectives. ERM is designed to provide a holistic framework that enables companies to recognize and address potential threats comprehensively, rather than dealing with risks in isolated and fragmented ways (Krüger & Meyer, 2021). It involves the systematic coordination of people, processes, technology, and information to facilitate informed decision-making and enhance an organization's ability to navigate uncertainties while optimizing opportunities for sustainable growth. ERM aims to create value for stakeholders by promoting a risk-aware culture, aligning risk management with strategic goals, and ensuring that risks are managed efficiently and effectively throughout the entire organization. Marquez-Tejon et al. (2022) suggest that the perceived effectiveness of risk management is linked to the frequency of risk assessment and reporting, as well as the utilization of quantitative risk assessment techniques. Ahmed et al. (2016) demonstrate that the implementation of an Enterprise Risk Management (ERM) framework and regulatory compliance positively influence non-financial performance. Their study supports the third hypothesis, indicating that board effectiveness reinforces the positive relationship between ERM framework adoption and non-financial performance. As a result, the following hypotheses are advanced:

H1: ERM practices have a significant effect on compliance practices

Lamine et al. (2020). In exploring the influence of enterprise risk management on competitive advantage, considering the moderating role of information technology, Saeidi et al. (2019) revealed a positive correlation between ERM implementation and a firm's competitive advantage. Additionally, the findings indicated that both IT strategy and IT structure not only directly impacted competitive advantage but also played a moderating role in the relationship between ERM and competitive advantage. Kwateng et al. (2022) find a substantial positive effect of ERM on IT security within financial institutions, highlighting the significant correlation established by ERM among various variables. Arnold et al. (2015) reveal that a strategic, broad-based approach to ERM enhances flexibility and strengthens the relationship between flexibility and performance. The results also suggest that improved IT integration is the mechanism through which ERM strengthens both flexibility and performance. Contrary to some previous studies, Mahama et al. (2022) find no evidence that the application of governance frameworks improves risk management effectiveness, challenging the mechanistic view implied by governance guidance on risk appetite and tolerance. Thus, the following hypotheses are proposed:

H2: ERM practices have a significant effect on IT strategy

Kiradoo (2008), Bromiley et al. (2015), and Schoenmaker & Schramade (2019) highlight the choices companies make between an active or passive Enterprise Risk Management (ERM) approach, a decision that significantly shapes their strategic orientation. Companies opting for an active approach to ERM tend to proactively engage with risks, integrating risk considerations into strategic decision-making, while those adopting a passive approach may address risks more reactively, often dealing with them

in a segmented manner. The selected ERM approach becomes a pivotal factor influencing how companies align their risk management strategies with broader organizational goals. Furthermore, Anton & Elena (2020) conducted research on the impact of ERM on firm performance, revealing nuanced outcomes that are yet to be fully clarified. The complex relationship between ERM and firm performance suggests that the effectiveness of ERM practices can be contingent on various factors, including organizational context, industry dynamics, and the specificities of risk management implementation. On a positive note, Kulathunga et al. (2020) corroborate the potential benefits of ERM by demonstrating favorable effects on firm performance. Their findings suggest that, when implemented effectively, ERM can contribute positively to various facets of organizational performance, underscoring its potential as a strategic tool for enhancing overall business outcomes. Thus, the literature reflects a dynamic landscape where the choice of ERM approach and its impact on firm performance warrant continuous exploration and understanding. Thus, the following hypotheses are proposed:
H3: ERM practices have a significant effect on firm performance

Compliance practices play a pivotal role in shaping firm performance by establishing a foundation of ethical and legal conduct (Nguyen et al. 2021). When companies adhere to regulatory requirements, industry standards, and internal policies, they mitigate the risk of legal and reputational damage, fostering a trustworthy and transparent corporate image (Özcan & Elçi, 2020). This, in turn, can enhance investor confidence, attract top talent, and bolster stakeholder trust (Kiradoo, 2008; Armour, Mayer, et al. 2017). Furthermore, effective compliance practices often lead to operational efficiencies as they encourage streamlined processes and risk management strategies (Alsharari, 2022). Ultimately, a strong commitment to compliance not only safeguards a company against potential pitfalls but also contributes positively to its long-term financial stability and overall success (Demirgüç-Kunt & Detragiache, 2011). Therefore, the subsequent hypotheses are put forward:
H4: Compliance practices have a significant effect on firm performance

The relationship between IT strategy and firm performance is a topic of significant interest in the fields of business and information technology. Research has shown that an effective IT strategy can have a substantial impact on a firm's overall performance and competitiveness. According to Asghar et al. (2023), a well-aligned IT strategy can enhance a firm's ability to achieve its business goals, improve operational efficiency, and drive innovation. Moreover, IT investments that are aligned with a firm's strategic objectives can lead to increased revenue, cost savings, and improved customer satisfaction (Pothineni, 2023). IT strategy also plays a crucial role in enabling firms to adapt to rapidly changing business environments and emerging technologies, which are essential for maintaining a competitive edge (Nwankpa et al. 2020). In essence, the relationship between IT strategy and firm performance underscores the strategic importance of IT as a driver of business success and growth. Thus, the following hypothesis are proposed:
H5: IT strategy has a significant effect on firm performance.

Songling et al. (2018) explored how compliance practices play a mediating role in the connection between enterprise risk management practices and company performance, along with examining how financial literacy functions as a moderator in the relationship between enterprise risk management practices and compliance practices. In the relationship between the relationship between ERM practices and firm performance, Ahmed and Manab (2016) demonstrated the substantial positive impacts of implementing an ERM framework and adhering to regulatory compliance on non-financial performance. Furthermore, Ahmed and Manab (2016) indicate that compliance practices strengthen the positive relationship between ERM framework adoption and non-financial performance. However, in the context of compliance, the interaction effect did not influence non-financial performance. In a related context, Rehman and Anwar (2019) emphasized the essential role of a risk management system for internal purposes, highlighting its direct influence on business strategy and firm performance. The study aimed to investigate how ERM practices mediate firm compliance with guidelines and corporate norms. Compliance with regulations and corporate norms, as underscored by Shimpi (2005), is a crucial factor shaping the success of risk management. Roth (2006) revealed that successful ERM adoption hinges on robust support from the compliance system. Grubb and Burke (2008) noted that compliance is intricately linked with both internal efficiency assessments and external regulatory monitoring. Establishing positive

connections between risk management, compliance, and corporate governance is imperative for achieving organizational goals, enhancing stakeholder value, and improving firm performance (Grubb & Burke, 2008). Shatnawi and Eldaia (2020) further reinforced the notion that compliance is indispensable within ERM practices to achieve optimal firm performance.
H6: The compliance practices mediate the relationship between the relationship between ERM practices and firm performance.

Saeidi et al. (2019) highlight the intermediary function of IT strategy, indicating that organizations leveraging robust ERM practices are more likely to enhance their overall performance when a well-aligned IT strategy is in place. The integration of IT strategy serves as a conduit for translating risk management efforts into strategic advantages, contributing to improved firm performance. Moreover, Gajapathy & Balanagarajan (2018) underscore how an effectively implemented IT strategy, guided by ERM principles, can enhance operational efficiency, innovation, and adaptability, thereby positively impacting firm performance metrics. On the other hand, Saleh & Al-Nimer. (2022) explores the contingent nature of this relationship, suggesting that the effectiveness of IT strategy as a mediator between ERM practices and firm performance is contingent on factors such as organizational culture, leadership support, and technological capabilities. Arnold et al. (2015) discusses factors such as resource constraints and organizational resistance that may impede the seamless integration of ERM practices and IT strategy, thereby influencing the overall impact on firm performance. Thus, the following hypothesis is proposed:
H7: IT strategy mediates the relationship between ERM practices and firm performance.

RESULTS

The measurement model underwent a rigorous analysis using PLS-SEM and Smart PLS 3.0, evaluating factor loadings, composite reliability, Cronbach's alpha, average extracted variance (AVE), and discriminant validity. This assessment aimed to ensure the reliability, internal consistency, and validity of observed and unobserved variables in the outer measurement model, crucial for establishing a strong foundation for subsequent structural model analysis. Table 1 presents the results of the outer measurement model evaluation, assessing the reliability and validity of the constructs. For Enterprise Risk Management (ERM), items ERM1 to ERM5 exhibit satisfactory factor loadings ranging from 0.709 to 0.801. The Cronbach's alpha for ERM is high at 0.942, indicating internal consistency, and the Composite Reliability (CR) and Average Variance Extracted (AVE) values are 0.950 and 0.615, respectively. Compliance Practices (CMP) and IT Strategy (ITS) also show strong reliability and validity, with high factor loadings, Cronbach's alpha, CR, and AVE values. Financial Performance (FIN) demonstrates excellent reliability, with factor loadings ranging from 0.905 to 0.916, a high Cronbach's alpha of 0.965, and robust CR and AVE values. Operational Performance (OPR) exhibits slightly lower factor loadings but maintains acceptable internal consistency and convergent validity. Overall, the results indicate that the measurement model is reliable and valid, supporting the suitability of the selected constructs for further analysis.

To assess the inner structural model, various indicators such as the coefficient of determination (R^2), path coefficient (β value), t-statistic value, effect size (f^2), predictive relevance of the model (Q^2), and goodness-of-fit index were utilized. The coefficient of determination is used to measure the extent to which the endogenous construct in the structural model explains the variation and overall effect size, indicating the model's predictive accuracy. Table 2 reveals the coefficient of determination (R Square and R Square Adjusted). Compliance Practices exhibit an R Square of 0.639, indicating 63.9% explanatory power. Financial Performance shows an R Square of 0.201, denoting 20.1% variance explanation. IT Strategy and Operational Performance have substantial R Squares of 0.685 and 0.474, respectively, with corresponding adjusted values. These results signify the model's effectiveness in explaining and predicting the variability in the examined variables.

In this study, the f2 metric gauged the impact of each exogenous latent construct on the endogenous latent construct. According to Hair et al. (2014), f2 values of 0.35 signify a strong effect, 0.15 a moderate effect, and 0.02 a weak effect. The results as shown in Table 3 showed that compliance practices and IT strategy demonstrated weak effects on financial and operational performance, while enterprise risk management showed a moderate effect on both. Confirmatory factor analysis (CFA) confirmed the structural model's good fit, as indicated by acceptable fit indices in Table 4.

Table 1. Evaluation of outer measurement model

Construct	Item	Loading	Cronbach's alpha	CR	AVE
Enterprise Risk Management (ERM)	ERM1	0.709	0.942	0.950	0.615
	ERM2	0.801			
	ERM3	0.778			
	ERM4	0.761			
	ERM5	0.788			
Compliance Practices (CMP)	CMP1	0.899	0.899	0.930	0.767
	CMP2	0.874			
	CMP3	0.874			
	CMP4	0.857			
IT Strategy (ITS)	ITS1	0.821	0.923	0.937	0.650
	ITS2	0.786			
	ITS3	0.823			
	ITS4	0.792			
	ITS5	0.860			
Financial Performance (FINP)	FINP1	0.905	0.965	0.970	0.824
	FINP2	0.914			
	FINP3	0.912			
	FINP4	0.916			
Operational Performance (OPR)	OPR1	0.616	0.898	0.915	0.534
	OPR2	0.836			
	OPR3	0.577			
	OPR4	0.790			

Table 2. Assessment of coefficient of determination

Variables	R Square	R Square Adjusted
Compliance Practices (CMP)	0.639	0.642
Financial Performance (FINP)	0.201	0.201
IT Strategy (ITS)	0.685	0.685
Operational Performance (OPR)	0.474	0.474

Table 3. Effect Size Assessment (f^2)

Variables	Financial Performance (FINP)	Operational Performance (OPR)
Compliance practices	0.007	0.008
Enterprise risk management	0.078	0.103
IT Strategy	0.010	0.013

Table 4. Goodness-of-Fit

Index	Saturated Model	Estimated Model
SRMR	0.146	0.157
d_ULS	16.081	23.535
d_G	2.802	3.631
Chi-Square	112675.032	127238.576
NFI	0.738	0.742

The results of the analysis (Table 5; Figure 2) indicate that compliance practices have a significant impact on firm financial performance. This is evidenced by the obtained T statistics value of 5.775 (>1.96) and a P-value of 0.000 (< 0.05). Additionally, compliance practices have also been proven to significantly influence operational performance, as evidenced by a T statistics value of 6.262 and a P-value of 0.000. Furthermore, the impact of enterprise risk management on firm financial performance has also been proven to be significant, with a T statistics value of 27.976 and a P-value of 0.000. Enterprise risk management has also been demonstrated to significantly influence firm operational performance, as indicated by a T statistics value of 23.932 and a P-value of 0.000. Moreover, IT strategy in influencing firm financial performance has obtained a T statistics value of 7.147 and a P-value of 0.000, indicating that IT strategy has a significant impact on firm financial performance. The influence of IT strategy on operational performance has also been proven to be significant, as evidenced by a T statistics value of 6.355 and a P-value of 0.000.

In Table 6, a mediation analysis was conducted to evaluate the mediating effects of IT strategy and compliance practices on the relationship between enterprise risk management and financial performance as well as operational performance. IT strategy, as a mediator in the relationship between enterprise risk management and financial performance, obtained a T-statistic value of 7.868 (> 1.96) and a P-value of 0.000 (< 0.05). These results indicate that IT strategy effectively mediates the relationship between enterprise risk management and financial performance. Additionally, IT strategy has proven to be a successful mediator in the relationship between enterprise risk management and operational performance, as evidenced by a T-statistic value of 7.471 and a P-value of 0.000. On the other hand, compliance practices, as a mediator in the relationship between enterprise risk management and financial performance, obtained a T-statistic value of 6.193 and a P-value of 0.000. This suggests that compliance practices effectively mediate the relationship between enterprise risk management and financial performance. Furthermore, compliance practices have also been shown to be effective mediators in the relationship between enterprise risk management and operational performance, as evidenced by a T-statistic value of 6.862 and a P-value of 0.000.

Table 5. Path Coefficients

Hypothesis	Standardized Path Coefficient	T Statistics	P Values
Compliance Practices → Financial Performance	0.215	5.775	0.000
Compliance Practices → Operational Performance	0.214	6.262	0.000
ERM → Financial Performance	0.585	27.976	0.000
ERM → Operational Performance	0.564	23.932	0.000
IT Strategy → Financial Performance	0.263	7.147	0.000
IT Strategy → Operational Performance	0.248	6.355	0.000

Table 6. Indirect effect

Indirect Relationship	Standardized Path Coefficient	T Statistics	P Values
ERM → IT Strategy → Financial Performance	0.192	7.868	0.000
ERM → IT Strategy → Operational Performance	0.180	7.471	0.000
ERM → Compliance Practices → Financial Performance	0.117	6.193	0.000
ERM → Compliance Practices → Operational Performance	0.121	6.862	0.000

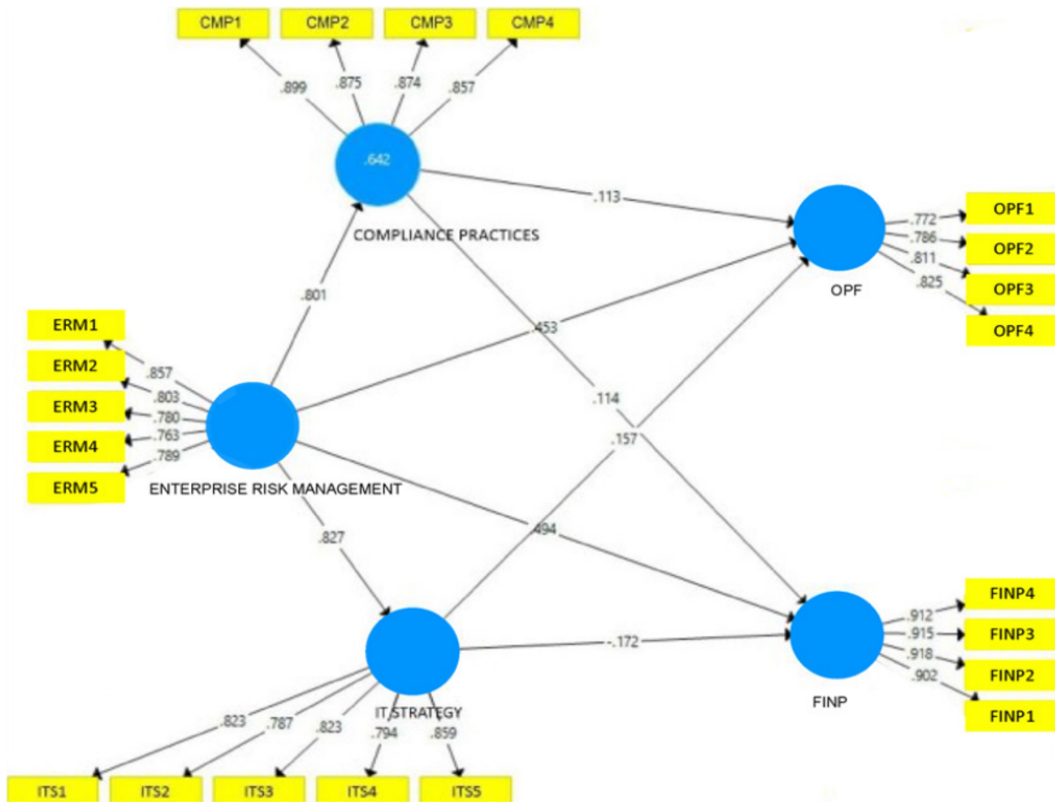

Figure 2. Measurement model

This study reveals that compliance practices have a positive and significant impact on financial performance and operational performance. This finding is consistent with previous research by Chen et al. (2020), which also found that compliance practices have a significant influence on firm performance. Furthermore, enterprise risk management has been proven to have a positive and significant impact on financial performance. Additionally, corporate risk management also has a positive and significant impact on operational performance. These results support the findings of Saeidi et al. (2019) and Adenutsi & Whajah (2023), stating that the implementation of corporate risk management can affect the overall performance of the company. Kulathunga et al. (2020) also add that the concept of corporate risk management can help companies adapt to environmental changes, provide strategic advantages, and enhance competitiveness and commercial success. Moreover, IT strategy is found to have a positive and significant impact on both financial and operational performance of the company. This finding reinforces the earlier research by Asghar et al. (2023), demonstrating a positive relationship between improved management capabilities and company value. Pothineni (2023) also supports this finding by showing that information technology strategy can enhance operational and financial performance. Furthermore, compliance practices are known to mediate the relationship between enterprise risk management and both financial and operational performance of the company. This finding aligns with the research by Adenutsi & Whajah (2023) and Songling et al. (2018), stating that compliance practices play a crucial role in mediating the relationship between corporate risk management and firm performance. Additionally, IT strategy has been proven to mediate the relationship between enterprise risk management and both financial and operational performance of the company. This finding supports the research by Nwankpa et al. (2020), stating that information technology strategy plays a crucial role in enabling companies to adapt to a changing business environment, thus maintaining a competitive advantage.

Managerial Implications

As managerial implications, bank managers should prioritize the development and enforcement of compliance protocols, as they can directly impact the organization's financial and operational success. Moreover, the findings highlight the need for organizations to strategically manage risks. Managers should allocate resources to strengthen ERM processes, ensuring a proactive approach to risk identification, assessment, and mitigation. In the context of IT strategy investment, the managers should consider investing in IT infrastructure, digital transformation, and cybersecurity measures to leverage the benefits of a well-defined IT strategy and explore how IT strategy can be leveraged to enhance financial resilience, especially in times of crisis or uncertainty.

These findings suggest that aligning compliance practices, ERM, and IT strategy with overall organizational goals and objectives can yield substantial benefits. Managers should ensure that these functions are integrated into the broader strategic planning process. Given the significant path coefficients, managers should establish ongoing monitoring mechanisms to track compliance practices, ERM, and IT strategy. Regular assessments and improvements in these areas can help maintain or enhance financial and operational performance over time. Thus, to implement effective compliance practices and IT strategies, organizations may need to invest in employee training and skill development. Managers should consider providing opportunities for staff to acquire the necessary knowledge and competencies.
The research findings carry significant managerial implications for the interplay between Enterprise Risk Management (ERM), IT Strategy (ITS), Compliance Practices (CMP), and financial and operational performance. Managers should leverage ERM and IT Strategy for improved financial and operational results, emphasizing the need for strategic alignment. Enhancing ERM can positively influence compliance practices, contributing to financial and operational excellence. A holistic approach that recognizes the interconnectedness of these components is vital. Investments in IT resources and compliance-driven initiatives are essential for performance improvement. Continuous monitoring, strategic alignment, and employee training are key to optimizing these relationships for organizational success and resilience.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The analysis provides valuable insights into the complex interplay between compliance practices, Enterprise Risk Management (ERM), IT Strategy (ITS), and the subsequent impact on financial and operational performance. Firstly, the direct relationships between compliance practices, ERM, IT, and financial and operational performance are noteworthy. The strong positive path coefficients signify that investing in compliance practices, robust ERM, and effective IT strategies can substantially enhance both financial and operational performance. This underscores the importance of adopting comprehensive approaches to these critical facets of organizational management. Secondly, the indirect relationships emphasize the intricate connections among ERM, IT Strategy, Compliance Practices, and performance outcomes. Managers should recognize that the synergy between ERM and IT Strategy plays a pivotal role in shaping financial and operational performance positively. Furthermore, the indirect influence of ERM on performance through Compliance Practices highlights the multifaceted impact of ERM, extending beyond risk management into areas crucial for organizational success.

Recommendations

These findings underscore the strategic significance of aligning compliance, ERM, and IT Strategy within organizations. This alignment can result in substantial improvements in financial resilience, performance, and overall competitiveness. Organizations should prioritize investments in these areas, adopt a holistic perspective, and implement continuous monitoring and adaptation practices to harness the full potential of these interrelated components. By doing so, they can position themselves for long-term success and adaptability in a dynamic business environment. The theoretical implications of these findings highlight the interconnectedness of compliance, Enterprise Risk Management (ERM), and IT Strategy in shaping organizational outcomes. This underscores the importance of integrating these elements into broader strategic frameworks for a more comprehensive understanding of their collective impact. The study contributes to theoretical frameworks by emphasizing the synergy of these components in enhancing financial resilience, performance, and competitiveness. Practically, the study suggests that organizations stand to gain significant advantages by aligning compliance, ERM, and IT Strategy. Investments in these areas, coupled with a holistic perspective, can lead to tangible improvements in financial resilience and overall performance. The practical implication is that organizations should prioritize strategic alignment and continuous monitoring. This entails not only meeting regulatory requirements but also proactively adapting to changing circumstances, leveraging technology, and fostering a resilient and competitive organizational culture. Such practices position organizations for long-term success and adaptability in the dynamic landscape of the business environment.

There are a few limitations in this study. While purposive random sampling was used, there may still be some sampling bias as the study focused solely on bank managers in the Jabodetabek region. The findings may not fully represent the diversity of banking institutions in Indonesia. While the study examines mediation relationships, it does not establish causation. The mediating variables may have other influences not considered in this research. Future research could employ longitudinal designs to capture changes and trends in the relationship between ERM, compliance practices, IT strategy, and performance over time. Future research is also advisable to explore the behavioral aspects of ERM implementation and compliance, including the role of organizational culture and leadership, in shaping outcomes.

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