

ANALYSIS OF FINANCIAL RISK MANAGEMENT IMPLEMENTATION FOR OPERATIONAL COST EFFICIENCY AT PARAMEDIKA BEKASI HOSPITAL

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Abstract

This study aims to analyze the implementation of financial risk management and its impact on the efficiency of operational costs at Paramedika Bekasi Hospital. The research employs the SNI ISO 31000:2018 framework as the analytical foundation. The method applied is a descriptive qualitative case study. Data were collected through in-depth interviews with key informants, documentation studies of financial reports, and field observations. The findings reveal that the implementation of financial risk management in the hospital does not meet the principles of SNI ISO 31000:2018. The process is reactive and fragmented, characterized by top-down communication, the absence of formal risk context establishment, undocumented risk assessment, treatment strategies reliant on internal borrowing, and ineffective monitoring mechanisms. This condition leads to the organization's inability to anticipate and mitigate various financial risks, which ultimately directly impacts the low efficiency of operational costs. The novelty of this research lies in its holistic approach, which integrates an international standard framework with an in-depth analysis of the unique context of private hospitals in Indonesia, particularly in an acute financial crisis situation.

Keywords: *financial risk management, operational cost efficiency, SNI ISO 31000, private hospital, qualitative case study*

INTRODUCTION

Hospitals constitute an integral part of social and health organizations with the function of providing comprehensive health services, encompassing curative and preventive aspects of disease for the community (Minarti, 2023). This definition aligns with the mandate of Law Number 17 of 2023 concerning Health, which defines hospitals as health service facilities that provide comprehensive individual health services through promotive, preventive, curative, rehabilitative, and palliative services by providing inpatient, outpatient, and emergency care. Furthermore, Minister of Health Regulation Number 3 of 2020 concerning Hospital Classification and Licensing affirms the role of hospitals as training centers for medical personnel as well as research and development centers for scientific knowledge in the health sector (Handayani et al., 2018). In the Indonesian health ecosystem, the government and private sector have synergistic roles in organizing health efforts to achieve optimal public health status. The form of ownership and organizational orientation, whether non-profit or profit-oriented, significantly influences the implementation and financial management strategies adopted (Niedar et al., 2022). In the context of rapid global health sector development, private hospitals in Indonesia bear the important responsibility of providing quality health services.

Alongside increasing public awareness of the importance of health and demands for better services, private hospitals face challenges to improve their operational efficiency and effectiveness (Karisma et al., 2024). In this regard, reliable financial management becomes the key to achieving organizational goals both from the service aspect and financial sustainability. The strategic issue faced by the contemporary health industry is the need for cost-effective healthcare provision. The trend of increasing health expenditures exacerbated by the rising prevalence of chronic diseases and aging population structures has created urgency to develop sustainable financial models (Wang et al., 2025). This surge in healthcare costs not only burdens individuals as patients but also places significant pressure on macroeconomic structures. This issue impacts how health organizations can effectively manage their financial resources to provide quality services without compromising long-term financial sustainability. Many hospitals, including those in Indonesia, experience difficulties in balancing income and expenditure. This imbalance

often leads to situations where the burden of costs incurred far exceeds the income obtained. The inability to identify, assess, and mitigate financial risks can adversely affect the financial health of hospitals and ultimately threaten their operational continuity (Marwati et al., 2022). Therefore, efficient management approaches are needed, particularly in the field of financial management. Hospital financial management must be able to produce accurate data and information that assists leadership in planning, controlling, and overseeing all operational activities so that service quality can be maintained or even improved with rational and controlled costs.

In private hospitals, the scope of financial management encompasses a series of processes that include strategic planning, resource organization, budget control, and decision-making related to fund allocation and utilization (Purwadhi et al., 2024). With proper management, hospitals can maximize the utilization of available funds, minimize waste, and ensure that services provided to patients continue to meet quality standards. Marselinus et al. (2024) suggest that financial management in health organizations has two main objectives: profitability and viability. Although profitability is not the sole objective, especially for providers of basic health services such as government entities, good financial management is absolutely necessary. Health organizations must be able to finance all operational costs including employee remuneration, procurement of medicines and medical devices, provision of facilities and infrastructure, and asset maintenance. Additionally, organizations also need to have the financial capability to expand services, adopt the latest technology, and carry out various innovations to improve service quality (Yulianto, 2023).

Although the primary objective is to provide quality health services, profit or surplus remains a prerequisite for achieving that goal. In efforts to achieve optimal profit, health organizations must be aware of the reciprocal relationship between the level of risk and return (Rahayu et al., 2025). The general principle states that the higher the risk taken, the greater the potential profit that can be obtained. However, in the context of health services, managers are required to balance high-risk and low-risk activities, especially if both activities provide equivalent health benefits to the community. Ideally, health service facilities can anticipate various risks through the selection of appropriate service types and prudent financial management.

The implementation of effective financial management is often faced with various multidimensional obstacles. One of the toughest challenges for private hospitals is the uncertainty of revenue streams. Fluctuations in the number of patient visits, which are highly vulnerable to health emergencies, can lead to unstable and difficult-to-predict income (Fuad and Soewondo, 2025). On the other hand, operational costs tend to be high and fixed, such as salaries for medical and non-medical personnel, costs for medicines and consumables, as well as maintenance costs for expensive facilities and medical equipment. This complexity is further exacerbated by the dynamics of government policies and continuously changing health sector regulations. Private hospitals must be able to adapt quickly to these policy changes, which often affect service tariffs, reimbursement mechanisms from third parties, and accreditation requirements. In addition to external factors, private hospitals must also operate within the policy corridors established by owners.

The strategic decisions of owners regarding investment, budget allocation, and business development strategies can significantly affect the financial stability and health of hospitals (Marwati et al., 2022). In some situations, the business priorities of owners may not always align with ideal medical operational needs, thus creating additional challenges in maintaining the balance between commercial financial considerations and the provision of optimal health services. These phenomena indicate that financial risk management in private hospitals requires serious and systematic attention to improve sustainability levels and financial performance. In this context, it is important to conduct an in-depth analysis of the financial risk management practices implemented, particularly at Paramedika Bekasi Hospital.

Paramedika Bekasi Hospital is a complex, labor-intensive, and capital-intensive healthcare institution. This complexity arises because its service scope encompasses various functions, levels, and medical disciplines. The hospital is committed to providing the best health services to the community with the support of professional doctors, paramedics, and other support staff. The facilities provided are quite comprehensive, including inpatient rooms, intensive care units, neonatal intensive care units, perinatal care units, pharmacy units, various polyclinics, delivery rooms, as well as medical support such as emergency installations, ambulances, laboratories, radiology, operating rooms, nutrition installations, and medical records. However, as a relatively new private hospital, Paramedika Bekasi Hospital faces severe challenges, particularly in operational cost management. The financial report as of December 31, 2024, shows a concerning condition with net polyclinic income of Rp537.48 million, which is incomparable with total operational expenses of Rp10.11 billion. The expense-to-income ratio reached 18.8 times, indicating severe structural inefficiency. Operating expenses increased more than 15-fold from Rp201.31 million in 2023 to Rp3.23 billion in 2024, with depreciation, rent, and electricity-water-telephone positions as the main contributors.

As a result, the hospital recorded a net loss of Rp9.58 billion and an equity deficit of Rp7.81 billion. To cover this deficit, the hospital relies on related party loans, which swelled to Rp39.07 billion. This condition confirms the need for transformative and urgent strategic steps in controlling operational costs to restore the hospital's financial viability. The current effort being undertaken by hospital management to address this condition is reducing the number of employees. Although this step can suppress costs in the short term, such a policy is not an optimal and sustainable solution to guarantee long-term financial stability. Workforce reduction risks lowering the morale of remaining employees and potentially affecting the quality of patient services. Therefore, a deeper and more comprehensive analysis is needed regarding the implementation of financial risk management. This approach aims to evaluate the impact of financial risk management implementation on sustainable operational cost efficiency while ensuring that every financial decision taken supports the stability and development of the hospital in the long term.

The historical track record of Paramedika Bekasi Hospital also provides valuable lessons. Initially established as a circumcision clinic in 1979, the institution later developed into a full-fledged hospital in 2023. The transformation process, which included building construction and renovation, was carried out solely based on owner policy without going through a systematic risk management process. Critical stages such as consultation with experts, context establishment, risk analysis, risk evaluation, as well as monitoring and evaluation were not conducted. The decision not to involve consultants and experts in renovation planning resulted in repeated construction errors, which in turn required additional demolition and repairs. The impact was significant budget waste. To prevent the recurrence of budget inefficiency in the future, the implementation of financial risk management in every strategic and operational decision-making process becomes a necessity. With this proactive approach, the hospital can identify potential risks early, carry out appropriate mitigation, and ensure that every investment in operations and infrastructure provides added value as well as long-term benefits efficiently and sustainably.

In practical terms, there are several risk management models or frameworks that can be adopted, including ISO 31000, COSO ERM, Basel III, NIST Risk Management Framework, and Bow Tie Analysis. In this study, the ISO 31000:2018 risk management model was chosen as the analytical foundation. The consideration for selecting this model is that the ISO 31000 framework has a generic, flexible approach and can be applied to various types of organizations and industries (Utami et al., 2024). Additionally, ISO 31000 provides a systematic and structured framework covering identification, analysis, evaluation, treatment, as well as monitoring and review of risks. Alignment with international standards, the absence of special certification requirements, and the emphasis on the role and responsibility of top management in the decision-making process related to risks make it highly relevant for implementation in hospitals (Rampini and Berssaneti, 2022).

Risk management is a comprehensive process that includes identification, assessment, and decision-making related to all forms of uncertainty that can threaten the achievement of organizational goals (Mawarni et al., 2024). Financial risk, as one of the main types of risk, arises due to various internal and external economic factors. The implementation of robust financial management in the hospital industry is crucial given that medical service costs tend to increase over time. Carmo Filho and Borges (2025) state that there is no other industry that requires more stringent and careful financial management than the healthcare service industry. Therefore, the role of financial managers in managing financial resources becomes very central in healthcare service organizations such as hospitals. Based on the financial condition experienced by Paramedika Bekasi Hospital, in-depth study is needed to comprehensively understand the current implementation of financial risk management. In this context, the approach used refers to the process stages regulated in SNI ISO 31000:2018, which includes communication and consultation, context establishment, risk assessment, risk treatment, as well as monitoring and review. Considering the operational complexity and financial challenges faced, the implementation of a systematic risk management framework is crucial to maintain the efficiency and sustainability of hospital operations.

The literature review identifies four relevant preceding studies in the context of hospital financial risk management based on ISO 31000:2018. Akbar et al. (2023) showed that the implementation of ISO 31000:2018 in the accounting and financial information system at RSUD Al Ihsan was able to identify 22 main risks, but the focus was limited to technical aspects and had not touched upon the overall financial crisis. Meanwhile, other studies reveal that organizational factors have a dominant role in patient and staff safety, making systematic risk management crucial, but these studies are international in scope and not specific to the context of Indonesian private hospitals. Based on the studies above, a research gap was identified in the form of the absence of a comprehensive study integrating the ISO 31000:2018 framework to analyze Indonesian private hospitals in a specific financial critical condition such as that experienced by Paramedika Bekasi Hospital. The novelty of this research lies in the holistic approach that develops an adaptive financial risk management model by combining international standard analysis and unique local context including the influence of ownership and national regulatory dynamics.

This research has high urgency due to the critical financial condition of Paramedika Bekasi Hospital characterized by an income-expense ratio of 1:18, negative equity, and dependence on loans. Conventional solutions such as workforce reduction have proven inadequate and potentially lower service quality. The implementation of systematic financial risk management becomes a necessity to prevent the collapse of this strategic healthcare institution while transforming the hospital management paradigm from a reactive to a proactive approach based on comprehensive risk analysis.

LITERATURE REVIEW

Enterprise Risk Management Theory

The Enterprise Risk Management (ERM) framework was first comprehensively formulated by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2004. COSO defines ERM as a systematic and structured process designed to identify, assess, manage, and monitor risks at all levels of the organization (COSO, 2004). The fundamental objective of ERM implementation is to enhance the achievement of the entity's strategic goals (Mesterjon, 2021). In the context of modern corporate management, ERM is no longer viewed merely as an extension of traditional risk management approaches limited to threat mitigation. Instead, ERM is positioned as an integrated risk management system that is holistic with corporate strategy formulation and all operational decision-making processes (Al Ra'zie et al., 2025). Effective ERM implementation requires prerequisites in the form of establishing a strong risk culture and full support from top management (Mukhlis et al., 2024).

Kaplan and Mikes classify risks in ERM into three main categories: preventable risks, strategic risks, and external risks. Preventable risks originate from within the organization and can be minimized through rules and internal controls. Strategic risks are inherent in the organization's strategy choices and must be actively managed because they have potential for both gain and loss. External risks originate from the macro environment such as economic, political, or technological changes and require adaptive approaches and contingency planning (Mukhlis et al., 2024). Understanding this risk categorization enables organizations to design more effective risk management strategies. Top management holds a strategic role in supporting ERM effectiveness through good governance and active involvement in policy oversight. Organizations that adopt ERM are proven to tend to record superior financial performance compared to entities that have not implemented it (Al Ra'zie et al., 2025). In this study, ERM is relevant because it offers a holistic framework for identifying, assessing, and managing financial risks that directly impact hospital operational efficiency. Top management support and a strong risk culture are key in driving risk-based decision-making, such as pharmaceutical cost control, asset management, and investment evaluation.

Risk-Based Cost Management

Risk-based cost management is a proactive approach to cost management by considering potential project risks and uncertainties and developing strategies to mitigate their impacts (De Marco, 2025). This approach recognizes that all projects are subject to a certain level of risk, so early identification and mitigation can reduce the likelihood of cost overruns and improve project outcomes. Techniques used include risk assessment, probability and impact analysis, risk mitigation, and risk monitoring (Obicci, 2017). The main benefits of this approach are reducing cost overruns, improving project outcomes, strengthening stakeholder confidence, and supporting better decision-making (De Marco, 2025). In the hospital context, the application of risk-based cost management is highly relevant because hospitals are complex and risk-prone entities. With techniques of assessment, analysis, mitigation, and monitoring, hospital management can anticipate drug price fluctuations, resource use inefficiencies, and operational disruptions. This supports the research objective of creating cost efficiency through systematic financial risk management.

Financial Risk Management

Financial risk is defined as the potential for loss originating from variables that affect the entity's financial structure, such as interest rates, exchange rates, market prices, and credit risk (Judijanto et al., 2025). Financial risk has a multidimensional nature and has the potential to have a direct impact on business continuity if not managed systematically. In modern theoretical frameworks, financial risk is viewed as an integral component of corporate strategic management, thus requiring measurement, monitoring, and continuous control (Hapsari, 2025). Financial risk is also related to globalization dynamics, monetary policy, and international geopolitics (Chen et al., 2024). Therefore, financial risk management must be adaptive to global changes. Types of financial risk include market risk (Sampe et al., 2023), liquidity risk (Lubis, 2024), operational risk (Siregar, 2024), legal and regulatory risk (Hapsari, 2025), and systemic risk (Juhro, 2023). Each type of risk requires specific mitigation strategies, ranging from

diversification, hedging, to governance strengthening. The basic principles of financial risk management emphasize risk integration across the organizational structure, governance and accountability, systematic identification, hierarchical control, continuous communication, monitoring, and risk information-based decision-making (Guritno and Tanuputri, 2024; Mose, 2024; Tabun et al., 2023).

Risk Management Based on SNI ISO 31000

ISO 31000 was first published in 2009 and adopted by more than 50 countries, including Indonesia through SNI ISO 31000:2011 (Vorst et al., 2018). This standard defines risk management as the systematic application of policies, procedures, and practices to communication and consultation activities, context establishment, identification, analysis, evaluation, treatment, monitoring, and risk review (Handoko, 2021). The principles of ISO 31000 risk management emphasize value creation, integration in all organizational processes, uncertainty-based decision-making, systematic, transparent, inclusive, dynamic, and continuous improvement-oriented approaches (Hertina et al., 2023). The stages of the risk management process include communication and consultation, context establishment, risk assessment, risk treatment, as well as monitoring and review (De Oliveira et al., 2017; Nainggolan et al., 2023; Karini et al., 2025; Hapsari, 2025; Krahara et al., 2025; Abdullah and Nasser, 2024; Mawarni et al., 2024; Guritno and Tanuputri, 2024). The ISO 31000 framework is relevant for this research because it provides a systematic approach that can be applied in hospitals to identify, analyze, and control financial risks on an ongoing basis.

Hospital Operational Cost Efficiency

Efficiency is defined as the ratio between output and input or the level of cost control and economic resource sacrifice to achieve certain goals (Guritno & Tanuputri, 2024). In the hospital context, operational cost efficiency becomes an important indicator of healthcare service sustainability because it reflects the institution's ability to manage resources optimally (Mose, 2024). Operational cost efficiency can be measured through cost-to-income ratios, facility utilization rates, and labor productivity (Tabun et al., 2023). Efficient hospitals are able to reduce waste, reduce unnecessary costs, and ensure that every expenditure makes a real contribution to improving service quality (Hapsari, 2025). Conversely, operational cost inefficiency can create significant financial burdens, reduce competitiveness, and even threaten the sustainability of healthcare institutions (Lubis, 2024).

In health management literature, operational cost efficiency is often associated with the application of risk management principles. Poorly managed financial risks can trigger cost overruns, cash flow imbalances, and ongoing equity deficits (Judijanto et al., 2025). Therefore, the implementation of international standard-based financial risk management such as SNI ISO 31000 becomes relevant to support hospital operational cost efficiency (Vorst et al., 2018; Handoko, 2021). Operational cost efficiency is also closely related to internal control strategies, asset management, and investment policies (Chen et al., 2024). Hospitals that are able to integrate cost control systems with financial risk analysis will be more resilient in facing uncertainties originating from both internal and external factors (Siregar, 2024). Thus, operational cost efficiency is not only a measure of financial performance but also reflects the hospital's managerial capacity in maintaining healthcare service sustainability (Sampe et al., 2023).

In this research, operational cost efficiency is positioned as the main variable expected to be improved through the implementation of SNI ISO 31000-based financial risk management. This approach enables hospitals to identify potential risks affecting costs, conduct probability and impact analysis, and establish appropriate mitigation strategies (Nainggolan et al., 2023; Karini et al., 2025). With systematic implementation, operational cost efficiency can be achieved without compromising healthcare service quality, so that hospitals can survive and thrive in an increasingly competitive healthcare industry environment (De Oliveira et al., 2017; Mawarni et al., 2024).

RESEARCH METHOD

This research was conducted at Paramedika Bekasi Hospital during the period from January to July 2025. The research location was chosen because the hospital's financial condition was experiencing a crisis with an income-to-expense ratio reaching 1:18, negative equity, as well as dependence on loans, making it an informative critical case for examining the implementation of SNI ISO 31000:2018-based financial risk management (Marwati et al., 2022). The research design used was a descriptive qualitative case study. This approach was chosen because it allows researchers to conduct an in-depth exploration of the phenomenon of financial risk management implementation in the real context of private hospitals, where the boundary between the phenomenon and its context cannot be clearly separated (Miles et al., 2018). Descriptive qualitative research aims to understand the phenomena experienced by research subjects holistically and describe them in the form of narratives rich in meaning (Soeharso & Y, 2023).

Research participants were determined using purposive sampling technique, which is the selection of informants based on criteria relevant to the research focus (Agustianti et al., 2022). Informants consisted of the operations director, finance director, risk manager, and purchasing staff, who have in-depth knowledge and direct involvement in financial management and strategic decision-making at the hospital.

The main research instrument was in-depth semi-structured interviews arranged based on the SNI ISO 31000:2018 process stages, including communication and consultation, context establishment, risk assessment, risk treatment, as well as monitoring and review (Vorst et al., 2018; Handoko, 2021). The research measurement tool used risk management dimensions codified in the literature, namely stakeholder involvement in risk communication (Nainggolan et al., 2023), evaluation of internal and external factors in context establishment (Karini et al., 2025), identification and analysis of probability and impact of risks through likelihood-impact matrix (Krahara et al., 2025), risk treatment strategies in the form of avoidance, mitigation, transfer, and acceptance (Guritno & Tanuputri, 2024), as well as continuous monitoring mechanisms to assess the effectiveness of risk control (Tabun et al., 2023). Additionally, operational cost efficiency was measured through cost-to-income ratios, labor productivity, and facility utilization rates (Hapsari, 2025; Lubis, 2024). Data collection was carried out through in-depth interviews with key informants, document studies in the form of financial reports, internal policies, and meeting minutes, as well as non-participant observation of hospital operational activities. Data analysis used the interactive model of Miles, Huberman, and Saldana which includes collection, reduction, presentation, and conclusion drawing (Miles et al., 2018). Data validity was strengthened by source and method triangulation to ensure the consistency of findings.

RESULTS AND DISCUSSION

Based on the empirical findings described earlier, the implementation of financial risk management at Paramedika Bekasi Hospital shows significant gaps with the ideal principles as mandated in the theoretical framework. This discussion will integrate field data analysis with Enterprise Risk Management (ERM) theory, Financial Risk Management, and the SNI ISO 31000:2018 operational framework, as well as position the findings in the context of previous studies to provide comprehensive and academically valuable interpretations.

Systemic Decomposition of SNI ISO 31000:2018 Implementation Failure

Analysis of the five stages of the SNI ISO 31000:2018 process reveals systemic failures that are cumulative and mutually reinforcing, thus explaining the root of the severe operational cost inefficiency. In the communication and consultation stage, the research findings show a communication pattern that is top-down, incidental, and fragmented across sectors. This practice is diametrically opposed to the fundamental principle of SNI ISO 31000 which emphasizes the transparent, inclusive, and integrated nature of risk management in all organizational processes (Hertina et al., 2023; Nainggolan et al., 2023). The dominance of owners in strategic decision-making, such as in the case of selecting the 2023 ICU renovation contractor based on personal closeness, ignores the principle of consultation with experts and the risk management function. This resulted in budget waste of up to 40%, a form of agency problem where the owner's interests (principal) are not aligned with the principles of good governance to achieve organizational goals. This finding is consistent with the research of Abdullah and Nasser (2024) which confirms that structured communication and consultation are the foundation for the effectiveness of risk management. However, this research provides deeper nuance by revealing that in the context of highly concentrated private ownership such as at RS Paramedika, the ISO 31000 principle of inclusiveness is often defeated by owner authority, thus creating a critical governance gap.

The context establishment stage at RS Paramedika is in a state of vacuum. The absence of formal documents such as risk appetite, risk tolerance, and risk maps causes the organization to operate without a clear strategic direction in managing uncertainty. This condition violates the principle that risk management must be explicitly directed at uncertainty and tailored to the organizational context (De Oliveira et al., 2017). As a result, each unit works with its own subjective interpretation, triggering a lack of synergy and inefficiency. The surge in electricity-water costs of 1,541% and salary costs of 1,107% in one year is a tangible indicator of the absence of a framework for identifying and managing preventable risks (Mukhlis et al., 2024). In the ERM classification, these operational risks should have been controllable through strict procedures and internal supervision. Research by Smith et al. (2025) also found that private hospitals that fail to establish risk context tend to experience budget allocation imbalances. The findings at RS Paramedika strengthen this argument and show that the absence of context not only causes imbalance but also explosive and sustainability-threatening waste. The risk assessment process, which includes identification, analysis, and evaluation, is carried out in a highly reactive and undocumented manner. Risk identification is only done post-mortem, after losses have occurred, as in the case of the ICU construction failure.

The absence of a well-managed risk register is a deviation from the systematic and structured principle (De Oliveira et al., 2017). Risk analysis is still primitive qualitative without quantification of financial impact, thus hindering management's ability to prioritize mitigation based on value at risk. Risk evaluation also lacks a weighting mechanism, causing all risks to be treated equally. This approach contradicts risk-based cost management techniques that emphasize the importance of probability and impact analysis to allocate mitigation resources efficiently (De Marco, 2025). Research by Türk and Eroğlu (2021) and Achyar et al. (2024) has demonstrated the usefulness of risk matrices and quantitative analysis in assessing procurement and operational risks. The failure of RS Paramedika to adopt a similar approach explains why waste such as asset depreciation of Rp1.71 billion due to premature equipment purchases could not be anticipated. The risk treatment stage is dominated by short-term and reactive strategies, namely dependence on loans from owner affiliates. The increase in related party debt from Rp4.6 billion to Rp39.07 billion reflects an unhealthy financial cycle, where operational deficits are covered by new debt, without fundamental efforts to break the causal chain. This strategy ignores other risk treatment options in SNI ISO 31000, such as risk avoidance, reduction, or transfer (Guritno & Tanuputri, 2024).

The absence of warranty clauses in project contracts or the use of insurance is a concrete example of failure in risk transfer. This finding aligns with the research of Chililov (2024) which highlights the importance of financial instruments and contracts to manage risks in health systems. However, this research reveals unique dynamics in the context of family business or conglomerates in Indonesia, where affiliated loans are often viewed as an easier and faster solution than building a formal mitigation system, despite the adverse impact on long-term financial structure. Monitoring is limited to budget comparisons without root cause analysis of deviations. The absence of independent risk audits and cross-departmental review forums causes a lack of organizational learning. The case of the ICU project requiring additional repair costs of Rp352 million the following year is tangible evidence of the failure of the continuous improvement cycle mandated by ISO 31000 (Nainggolan et al., 2023). The principle that risk management is dynamic, iterative, and responsive to change is not realized at all. Research by Nasution et al. (2025) and Guritno & Tanuputri (2024) emphasizes the importance of periodic monitoring to ensure the effectiveness of mitigation. The failure at this stage at RS Paramedika traps the organization in a pattern of repeated errors, making inefficiency chronic and systemic.

Convergence of ERM Theory and Empirical Data in Analyzing Impact on Cost Efficiency

The causal relationship between the weak implementation of financial risk management and the low operational cost efficiency at RS Paramedika can be explained through the convergence of ERM theory and financial data findings. First, ERM theory classifies operational risks such as stock waste, energy inefficiency, and project errors as preventable risks (Mukhlis et al., 2024). The financial data of RS Paramedika shows that these risks have materialized into massive financial losses: depreciation expense of Rp1.71 billion, utility cost surges, and project cost overruns. In an effective ERM framework, these risks should have been managed through internal controls, procedures, and strict supervision. Their absence causes preventable risks to turn into realized losses that directly erode efficiency.

Second, dependence on affiliated loans to cover deficits reflects the failure to manage liquidity risk, which is an integral part of financial risk management (Lubis, 2024; Judijanto et al., 2025). This strategy is a passive and unplanned form of risk acceptance, not the result of a careful evaluation that mitigation costs outweigh benefits. The loans actually create new risks in the form of financial burden and dependency, worsen the capital structure, and ultimately reduce financial flexibility to invest in genuine efficiency improvement efforts. Third, strategic decisions such as major renovations and medical equipment purchases without risk assessment reflect the failure to integrate strategic risk analysis into decision-making, as recommended in ERM (Al-Ra'zie et al., 2025). These decisions contain upside potential (improved services and revenue) but also very large downside potential (capital waste). Without adequate analysis, the downside that occurs is far more dominant, as indicated by the expense-to-income ratio reaching 1:18. This shows that the organization takes strategic risks without the capacity to manage them, so that instead of creating value, it actually destroys it.

Fourth, the Risk-Based Cost Management approach emphasizes that early identification and mitigation of risks can prevent cost overruns (De Marco, 2025). Every finding of waste at RS Paramedika, from failed projects to ineffective promotional cost increases, is essentially a preventable cost overrun through a proactive risk assessment process. Thus, operational cost inefficiency is not an inevitability but rather a direct consequence of the absence of a risk-based cost management system.

Positioning of Findings in Literature and Original Contribution

The findings of this research both confirm and enrich the existing academic discourse. This research confirms the findings of previous studies on the importance of systematic ISO 31000 implementation (Abdullah and Nasser, 2024; Nasution et al., 2025) and the relationship between risk management and hospital financial stability (Smith et al., 2025; Chililov, 2024). However, this research provides original contributions through several aspects.

First, this research provides empirical evidence about the mechanism of failure when an international standard is adopted cosmetically without being accompanied by fundamental cultural and governance changes. This study shows that ISO 31000 implementation is not merely a matter of drafting procedures and documents, but rather a transformation of mindset from owner-centric to organization-centric, and from reactive to proactive. Second, this research identifies a unique configuration of factors that exacerbate inefficiency in Indonesian private hospitals, namely: (1) high concentration of ownership and authority, (2) business culture that relies on affiliate financing as a quick fix, and (3) regulatory environment (such as BPJS) that adds to cash flow complexity. This configuration creates a context where the universal principles of ISO 31000 face specific implementation challenges.

Third, this research explicitly links the points of failure in the risk management process with specific waste items in the financial statements. For example, communication and consultation failure (Stage 1) is directly related to ICU project waste; context establishment failure (Stage 2) is related to electricity and salary cost surges; and monitoring failure (Stage 5) is related to repeated errors and additional costs. This detailed causal relationship provides a clear roadmap for improvement, which is less visible in previous studies that are more general.

Theoretical Implications and Directions for Further Research

Theoretically, this research strengthens the proposition that the effectiveness of risk management, particularly in the context of capital-intensive and complex organizations such as hospitals, is highly dependent on the alignment between three levels: paradigm (ERM), substantive focus (Financial Risk Management), and operational model (SNI ISO 31000). Failure at any level will damage the integrity of the entire system. This research also highlights the need for the development of ERM and ISO 31000 models that are more adaptive to the context of organizations with concentrated ownership structures and emerging economy market dynamics such as Indonesia.

For further research, two main directions can be considered. First, action research that tests the effectiveness of a financial risk management improvement model specifically designed considering the contextual findings of this research. Second, comparative research comparing risk management implementation between private hospitals with family governance and those managed by professional corporations, to further isolate the influence of ownership factors on the effectiveness of risk management systems. In conclusion, the critical financial condition of RS Paramedika Bekasi is not an unavoidable misfortune, but rather a product of systemic failure in managing uncertainty. The analysis connecting the ERM and ISO 31000 theoretical frameworks with empirical financial and operational data has succeeded in uncovering the causal chain that explains the inefficiency. These findings not only answer the research questions but also provide a rich foundation for the development of more resilient risk governance for private hospitals in Indonesia.

CONCLUSION

Based on the discussion that has been presented, this research concludes that the overall implementation of financial risk management at Paramedika Bekasi Hospital is not yet aligned with the principles and process stages of SNI ISO 31000:2018. Analysis of the five stages of communication and consultation, context establishment, risk assessment, risk treatment, as well as monitoring and review reveals patterns that are reactive, fragmented, and dominated by owner authority. Systemic failure in building participatory communication and transparent risk governance has become the root of the problem. The absence of context establishment documents such as risk appetite and risk maps causes a lack of strategic direction, while the undocumented and post-mortem risk assessment process eliminates the organization's predictive capacity. Risk treatment strategies that rely on affiliated loans as a quick fix actually worsen the financial structure and ignore more sustainable mitigation options. The weak monitoring mechanism and organizational learning traps the hospital in a cycle of repeated errors.

The convergence between the Enterprise Risk Management theoretical framework and empirical financial data clearly shows that severe operational cost inefficiency, reflected in the expense-to-income ratio of 1:18 and equity deficit, is a direct consequence of the inability to manage various risk categories. Risks that should have been preventable turned into realized financial losses, while strategic risks were taken without adequate analysis, resulting in massive capital waste. Thus, the effectiveness of financial risk management implementation has a close causal relationship with the achievement of operational cost efficiency. Without a systematic, proactive, and integrated

approach as mandated by SNI ISO 31000 and ERM philosophy, efforts to improve efficiency will only be patchwork and unsustainable. This research provides empirical contributions regarding the unique dynamics of applying international risk management standards in the context of Indonesian private hospitals with concentrated ownership structures. As a continuation of these findings, it is recommended to conduct further research in the form of intervention studies or action research that test the effectiveness of a financial risk governance improvement model specifically designed considering the configuration of ownership factors, business culture, and local regulations. Additionally, comparative research between private hospitals with family governance models and professional corporations can be conducted to further isolate and analyze the influence of ownership factors on the depth and success of international standard-based risk management system implementation.

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