

Transformation of the Risk Management Role from Second Line to One Point Five Line of Defense in Supporting Corporate Governance, Value Protection, and Value Creation: A Case Study of Implementation in an Indonesian Oil and Gas Company

Evalina Sitepu*, Edo Prehandhika

Universitas Gadjah Mada, Indonesia

Email: evalinaprasetyo@gmail.com*, handhika9@yahoo.com

ABSTRACT

Oil and Gas corporation operates within a highly complex energy value chain, exposing the company to strategic, operational, financial, and market risks. These dynamics underscore the need for a risk management function that not only protects value but also supports value creation in line with ISO 31000:2018 principles. This study examines the transformation of the risk management function from a traditional Second Line into a One Point Five Line model, introduced to address governance gaps and comply with UU No. 40 Tahun 2007. Using a qualitative case study approach, data were collected through in-depth interviews with key informants and document analysis focusing on the application of the Four Eyes Principle in investment, hedging, and credit processes. The results reveal that the transformation significantly enhances the integration of risk considerations into strategic decision-making. The involvement of the risk management function in investment, hedging, and credit committees strengthens oversight, improves alignment with corporate risk appetite, and increases accountability across organizational lines. The model also fosters more transparent documentation and higher-quality risk analysis, contributing to a more disciplined and data-driven decision-making process. Overall, the One Point Five Line model proves effective in improving internal controls while ensuring a balanced approach between value protection and value creation. These findings offer practical insights for state-owned enterprises and energy companies seeking to strengthen risk governance in increasingly complex business environments.

Keywords: Risk management; Three lines model; Four Eyes Principle; Value Protection; Value Creation; internal Control

This article is licensed under [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) 

INTRODUCTION

The company carries out strategic functions in the national energy value chain, ranging from procurement, storage, distribution, to the sale of fuel and non-fuel products. This operational complexity exposes the company to a variety of strategic, operational, financial, market, as well as compliance and HSSE risks. Literature studies show that energy companies inherently face the risk of commodity market volatility, geopolitical uncertainty, regulatory pressures, as well as high-consequence operational risks (Ben-Amar & Boujenoui, 2017; Andersen, 2020). In this context, organizations cannot only focus on maintaining value but must also carry out value protection and value creation as part of a sustainability strategy.

In the PT Law No. 40 of 2007 in Article 97 paragraph 5, it is directly stated that the management of the company—in this case, the Board of Directors—must carry out the management of the company in good faith and prudence for the interests and in accordance with the company's intentions and objectives. Here, the role of risk management is one of the foundations in the implementation of Good Corporate Governance (GCG) in accordance with the Law. The principles of good corporate governance include transparency, accountability, independence, and fairness (Fraser & Simkins, 2016).

ISO 31000:2018 affirms that the main objective of risk management is to "create and protect value" by improving performance and supporting the achievement of organizational objectives (ISO 31000:2018). This principle aligns with academic findings that the effectiveness of risk management has a significant effect on company performance, especially in the energy industry, which is highly sensitive to market fluctuations (Hoyt & Liebenberg, 2011; Bromiley, McShane, Nair, & Rustambekov, 2015). ISO also states that risk management must be integrated into the governance, strategy, and operations of the organization, so that the risk function cannot stand as an administrative entity separate from the strategic decision-making process (Adio et al., 2025; Mammadova & Agayev, 2025).

The Corporate Risk Management Guidelines adopt these principles by stating that the purpose of implementing risk management is to "protect and create value," increase the certainty of achieving targets, and support the efficiency of the decision-making process. The guidelines also affirm the implementation of the three-line model; however, a number of studies have shown that the traditional three-line model often creates a "disconnect" between the first line and the second line, thus reducing the effectiveness of risk oversight in strategic decisions (Arena, Arnaboldi, & Azzone, 2010; Paape & Speklé, 2012).

According to Mikes (2009), the risk function that is positioned too far from the business process is often trapped in the role of "compliance expert," which is ineffective in influencing strategic decisions. Power (2019) calls this phenomenon governance decoupling, which is when a formal structure of risk governance exists but is not internalized in decision-making practices. On the other hand, Kaplan and Mikes's (2016) research introduced the concept of risk partnering, which is a risk management role that remains independent but works closely with the business line to provide constructive challenges to assumptions, projections, and strategic decisions. This role is what in many organizations translates as the One Point Five (1.5) Line.

In the context of governance challenges, these are real. Before the 2024 restructuring, the first line carried out high-risk activities—such as investments, customer credit, and hedging strategies—without a strong check-and-balance mechanism because the Risk Management Division was positioned as a second line that only provided risk assessments without having formal authority at the decision gate. This condition has the potential to lead to under-challenged decisions, as mentioned by Woods (2009), which is a condition when strategic decisions are not adequately tested through a risk perspective, thereby increasing the likelihood of errors in risk assessment or underestimation of their potential impacts.

As an energy company, it is subject to governance regulations in accordance with the PT Law No. 40 of 2007, which aims to increase accountability, transparency, and risk control. Therefore, it must ensure that the strategic decision-making process is carried out through a strong risk monitoring mechanism. The OECD Guidelines (2014) on the governance of state-owned enterprises also state that risk oversight should be an integral part of decision-making mechanisms to ensure corporate sustainability and avoid systemic risks.

In addition to operational and market risks, the company faces significant project and investment risks (Lai, 2025; Paquin et al., 2016). The Investment Management Guidelines state that investment projects have different objectives, namely Business Development (BD) as a value creation tool and Non-BD as a value protection tool through HSSE fulfillment, asset reliability, and risk control. Various studies confirm the high rate of project failure in the energy

industry due to weak integration of risk management in the investment process (Flyvbjerg, 2014; Mellow, 2011). This suggests that project risk governance should be a strong element in a company's investment cycle.

In the internal evaluation, it was found that the position of the Risk Management Division purely as a second line was not enough to provide the necessary oversight. Therefore, since 2024, the role transformation to a one point five line—a hybrid position between independence (second line) and involvement (first line)—allows the Risk Management Division to: 1) sit formally in strategic committees (investment committees, hedging committees, credit committees) as part of decision-making; 2) conduct early-stage risk challenges to proposals and key assumptions before decisions are taken; 3) implement the four-eyes principle mechanism through joint signing or other forms of agreement agreed in the charter; and 4) play an active role in harmonizing business decisions with the company's risk appetite through documented risk opinions.

This model aligns with the findings of Bromiley et al. (2015) and Desender (2011), who stated that effective Enterprise Risk Management (ERM) must improve the quality of strategic decisions through strengthened controls, analytical challenges, and increased objectivity.

Thus, the transformation of the Risk Management Division into a one-point five line is not only a response to regulations but also a strategic step to ensure that the company's objectives in protecting and creating value can be achieved in a sustainable manner through strong, balanced, and accountable risk governance.

This research is considered necessary because the company is currently implementing a three-line model, but the business dynamics and complexity of the company's activities demand an increase in the effectiveness of internal control. The Risk Management Division, which was previously in the position of the second line, is trying to advance half a step to the 1.5 line, which acts as the four-eyes principle in the company's strategic decisions. This transformation is important to ensure that the company is not only able to maintain value (value protection) but also create new value (value creation) in every business activity. On the other hand, there is a dilemma in the form of the absence of a check-and-balance mechanism on the first line in critical processes such as investments, hedging, and credit approval, which can increase the risk of wrong decision-making.

Therefore, this study aims to examine the meaning and implications of changing the role of risk management and identify how work units can contribute optimally in supporting its implementation. The results of the research are expected to provide insights into strengthening risk governance, increasing the effectiveness of internal controls, and more sustainable value creation strategies within Pertamina.

METHOD

The research used in this study employed a qualitative approach with a case study method in a company. Data were obtained through in-depth interviews with key informants involved in the risk management process, as well as document analysis of ERM policies, IIA three-lines model guidelines, FID documents, hedging proposals, and credit approvals. The focus of the research centered on the transformation of the Risk Management Division's role from the

second line to the 1.5 line and the application of the Four Eyes Principle in investment, hedging, and credit committee activities.

The main instrument used was the researcher, supported by interview guidelines and document analysis formats. Data were analyzed through the processes of reduction, presentation, and conclusion drawing using thematic analysis. Data validity was maintained through source triangulation and verification of interview results with relevant documents.

RESULTS AND DISCUSSION

The results of the study illustrate a fundamental change in corporate risk governance in response to business needs and regulatory demands. In particular, this study found that the shift in the role of the Risk Management Division from the second line to the 1.5 line had a significant impact on the quality of the strategic decision-making process, especially in the aspects of investment, hedging, and credit approval. The results of the study are presented in four main groups of findings: (1) governance conditions before transformation, (2) governance gap identification, (3) structural and regulatory interventions, and (4) the implementation of the 1.5 line role in the company's three strategic committees.

Risk Governance Conditions Before Transformation

Data from interviews, internal document reviews, and analysis of company guidelines show that before 2024, the risk management function will perform the role of a conventional second line. This function focuses on policy formulation, risk monitoring, and periodic reporting according to the ISO 31000:2018 framework which states that risk management should include risk identification, analysis, and evaluation. However, the second line position has not provided direct access to the Risk Management Division to be involved in the company's strategic decision-making process.

The findings show some key characteristics before the transformation, namely: 1) The risk assessment is non-binding, so the implementation of risk mitigation is highly dependent on the first line. 2) There is no check and balance mechanism in strategic decisions such as investments, hedging, and customer credit. 3) There is no decision-making forum that includes the risk function in the early or late stages. 4) The first line runs its own risk assessment process, with no active involvement of risk management except in the final stages.

These findings are consistent with the academic literature that shows that the risk function that is only placed as a policy custodian is often ineffective in influencing business decisions (Power, 2019), so its influence on the strategic agenda will be very limited.

Identification of Governance Gaps

The results of internal document analysis and empirical observations show that there is a substantial governance gap. This gap arises when the responsibility to create and protect company value lies with the first line, but it is not equipped with an adequate risk control mechanism from the second line.

This gap is shown through the findings: 1) There is no assumption testing mechanism for the project's economic projection. 2) High-risk decisions are made without independent verification, contrary to the four eyes principle recommended in governance and banking (Basel Committee, 2011). 3) The disintegration between the company's risk appetite and

business decisions, as also warned by Bromiley et al. (2015) regarding the importance of alignment in the implementation of ERM.

The company's Risk Management Guidelines state that one of the risk goals is to ensure better quality decision-making and increase accountability. But before the transformation, the goal had not been effectively achieved.

Regulation and Changes in Organizational Structure

The Company, through its Work Plan to its shareholders (in the GMS) conveys that it is obliged to strengthen the risk management function by separating the directorate structure and ensuring that its supervision is at a strategic level. This provision includes the obligation to strengthen the risk directorate structure, integrate the risk function into the governance committee, and strengthen the decision-making process through a well-documented supervisory mechanism.

The company's response to these regulations is not only directed at meeting compliance minimums, but also at adopting risk governance practices that are in line with similar company benchmarks that have integrated risk functions at a strategic level. The results of the study show that this policy is the main driver of corporate risk governance restructuring.

Some of the structural changes identified are: 1) Establishment of a Director of Risk Management (to be held in Q2 2024). 2) Increase the role of the Risk Management Division to the position of 1.5 lines in accordance with the direction of the three lines model IIA (IIA, 2020). 3) Renewal of the charter of the investment, credit, and hedging committee, which requires the presence of a risk function in the joint approval process. 4) Integration of risk review obligations into all stages of the investment process, in accordance with the Company's Investment Management Guidelines.

This change is in line with the OECD's (2014) recommendation that state-owned companies should adopt risk governance commensurate with modern public companies.

Implementation of the 1.5 Line Role in the Strategic Committee

The results show that the biggest change occurred through the implementation of the 1.5 line in three strategic committees, namely the investment committee, the hedging committee, and the credit committee. The risk function now does not only monitor, but also takes a formal position in the decision-making process.

Investment Committee

The findings show that the risk function: 1) involved in the review of investment proposals, 2) testing the sensitivity of market, operational, and economic risks, 3) provide risk recommendations that are the go/no-go requirements, 4) also signed the decision through a joint-signing mechanism. This model reflects the risk partnering practice put forward by Kaplan & Mikes (2016), where the risk function becomes the first line strategic partner.

Komite Hedging

In commodity and foreign exchange hedging decisions, the risk function: 1) Convey quantitative risk analysis using scenario analysis and value-at-risk methods, 2) testing compliance with the company's risk appetite, 3) ensuring the application of the Four Eyes Principle, 4) Provide recommendations in committee meetings before decisions are

implemented. These findings are in line with COSO ERM's (2017) recommendation that market risk activities should go through independent verification.

Credit Committee

For industrial and retail customers with high credit exposure, the Risk Management Division: 1) assess the client's risk profile, 2) propose a credit limit based on risk, 3) ensuring mitigation in the form of guarantees, payment terms, or collateral, 4) Agreeing along with business functions. This corrected the previous governance weakness, where the first line decided on credit without the second line's supervision.

The Impact of Transformation on Risk Governance

The findings of the study show that the transformation to 1.5 lines produces real impacts, including: 1) Increased risk integration in strategic decision-making, in line with the principles of ISO 31000:2018 regarding risk integration. 2) Strengthening the check and balance mechanism between the first line and the risk function. 3) Improved alignment between business decisions and risk appetite. 4) Increased transparency of decision documentation, especially in investment and credit. 5) Improvement in the quality of project risk analysis, in line with the findings of Flyvbjerg (2014) regarding the importance of risk integration in the early phase of the project.

As a reinforcement, these impacts can be measured through indicators such as increasing the proportion of investment decisions that have gone through formal risk reviews, decreasing the incidence of deviation to risk appetite, and improving the quality of trail audits on credit and hedging decisions.

Organizational Implications and Changing Risk Culture

The transformation of the role of the Risk Management Division to 1.5 line has significant organizational implications, especially in the context of the company's risk culture. With the inclusion of the risk function in the strategic decision-making structure through investment, hedging, and credit committees, this change not only creates new control mechanisms, but also influences mindsets, behaviors, and cross-functional coordination across organizations.

The involvement of the risk function in joint approval encourages the first line to integrate risk review from the initial stage (planning) and no longer position the risk assessment as the final formality. Risk assessment that becomes more collaborative. The formation of more careful, data-based, and aligned decision-making with the company's risk appetite. Increased shared accountability for risks across all lines.

The existence of the Director of Risk Management and the renewal of the committee's charter signal that risk oversight is a core part of governance. Increased transparency and documentation of decisions strengthen a culture of accountability. The obligation of risk review at each stage increases discipline in the justification and management of residual risks. Organizations are increasingly consistent in balancing business targets with risk tolerance limits. The transformation of 1.5 line is a catalyst for the formation of an integrated and sustainable risk culture.

CONCLUSION

The transformation of the Risk Management Division in oil and gas companies from the conventional second-line model to a 1.5-line structure marks a strategic governance reform that complies with Law No. 40/2007, aligns with ISO 31000:2018, COSO ERM (2017), and the IIA Three Lines Model (2020), while addressing governance gaps and operational complexities in volatile energy markets. This shift institutionalizes an independent risk function through the Four Eyes Principle, enhanced committee structures, and stronger checks and balances, overcoming prior weaknesses where the second line inadequately challenged investments, hedging, and credit decisions—resulting in better alignment of risk appetite with business strategies, increased transparency, analytical rigor, and an integrated risk culture. Ultimately, it bolsters accountability, shared responsibility, value protection, and creation for enhanced resilience, competitiveness, and sustainability. For future research, a comparative longitudinal study across multiple Indonesian state-owned enterprises could quantify the long-term impacts of the 1.5-line model on financial performance metrics and risk-adjusted returns.

REFERENCES

- Adio, S. A., Ajirotutu, R. O., Olayiwola, R. K., Erinjogunola, F. L., & Sikhakhane-Nwokediegwu, Z. (2025). *From Compliance to Competitive Advantage: The Strategic Role of HSE in Business Sustainability*.
- Andersen, T.J. (2020). *Strategic Risk Management Theory and Practice*. Routledge. <https://www.routledge.com/Strategic-Risk-Management/Andersen/p/book/9780367417345>
- Arena, Marika., Arnaboldi, Michela., & Azzone, Giovanni. (2010). The organizational dynamics of Enterprise Risk Management. *Accounting, Organizations and Society*. <https://www.sciencedirect.com/science/article/pii/S036136820900094X>
- Ben-Amar, W., & Boujenoui, A. (2017). Firm Risk and Performance in the Energy Industry. *Energy Economics*. <https://www.sciencedirect.com/science/article/pii/S0140988317302909>
- Bromiley, Philip., McShane, Michael., Nair, Anil., Rustambekov, Elzotbek. (2015). Enterprise Risk Management: Review, Critique, and Research Directions. *Long Range Planning*. <https://www.sciencedirect.com/science/article/pii/S002463011400075X>
- COSO. (2017). *Enterprise Risk Management: Integrating with Strategy and Performance*. Committee of Sponsoring Organizations of the Treadway Commission.
- Flyvbjerg, B. (2014). What you should know about megaprojects and why: An overview. *Project Management Journal*, 45(2), 6–19. <https://doi.org/10.1002/pmj.21409>
- Fraser, J., & Simkins, B. (2016). *Enterprise Risk Management: Today's Leading Research and Best Practices*. Wiley. <https://www.wiley.com/en-us/Enterprise+Risk+Management%3A+Today%27s+Leading+Research+and+Best+Practices-p-9781118746182>
- Hoyt, R., & Liebenberg, A. (2011). The value of Enterprise Risk Management. *Journal of Risk and Insurance*. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1539-6975.2010.01391.x>

- Kaplan, Robert S., & Mikes, Anette (2016). Risk Management — The Revealing Hand. *Journal of Applied Corporate Finance*. <https://onlinelibrary.wiley.com/doi/10.1111/jacf.12167>
- Lai, L. (2025). Risk Control and Financial Analysis in Energy Industry Project Investment. *International Journal of Engineering Advances*, 2(3), 21–28.
- Mammadova, K. M., & Agayev, I. (2025). *Analysis of risks in investment projects*.
- Merrow, Edward (2011). *Industrial Megaprojects: Concepts, Strategies, and Practices for Success*. Wiley. <https://www.wiley.com/en-us/Industrial+Megaprojects%3A+Concepts%2C+Strategies%2C+and+Practices+for+Success-p-9780470938829>
- OECD. (2014). *Risk Management and Corporate Governance*. Organisation for Economic Co-operation and Development. <https://www.oecd.org/publications/risk-management-and-corporate-governance-9789264208636-en.htm>
- Paape, L., & Speklé, R. F. (2012). The adoption and design of enterprise risk management practices: An empirical study. *European Accounting Review*, 21(3), 533–564. <https://doi.org/10.1080/09638180.2012.661937>
- Paquin, J.-P., Gauthier, C., & Morin, P.-P. (2016). The downside risk of project portfolios: The impact of capital investment projects and the value of project efficiency and project risk management programmes. *International Journal of Project Management*, 34(8), 1460–1470.
- Power, M. (2019). *Riskwork: Essays on the organizational life of risk management*. Oxford University Press.