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Strategic Oversight Effectiveness of the Board of Commissioners: Prioritizing Critical Business Challenges and Designing a Monitoring System at PT Pertamina Hulu Energi

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Abstract: PT Pertamina Hulu Energi (PHE), Pertamina's Upstream Subholding, is facing strategic challenges owing to operations, commodity price volatility, and financial concerns. These circumstances compel that the Board of Commissioners concentrates its oversight on the most important business concerns affecting the company's profitability. This research analyzes and prioritizes PHE's important business concerns, as well as designing a targeted supervision framework. A sequential exploratory mixed-methods approach was employed, incorporating corporate document inspection, fourteen semi-structured interviews, thematic coding, and Best-Worst Method prioritizing with twelve respondents. The research discovered fifteen business issues and seven faults in the present oversight method. Impact appears to be the major factor, followed by urgency and probability. Four challenges were classified as Tier 1 priorities: mature field natural decline, asset integrity and unplanned shutdowns, post-investment review gap, and governance and Business Judgment Rule risk. The findings were translated into a Tiered BoC Oversight System consisting of a tiered work plan, monitoring toolkit, escalation and contingency protocol, enabling conditions, and integration with PHE's existing BoC Oversight system namely SRAM, PRAM, and GOC architecture. The system sharpens, rather than replaces, the existing oversight architecture.

Keyword: Board of Commissioners, Best-Worst Method, Corporate Governance, Oversight Effectiveness, Upstream Oil and Gas.

INTRODUCTION

PT Pertamina Hulu Energi (PHE) is the Upstream Subholding of PT Pertamina (Persero) and carries a strategic role in Indonesia's oil and gas sector. Since being designated as Upstream Subholding, PHE has managed a broad portfolio of domestic and international upstream assets and has become a major contributor to national oil and gas output and Pertamina Group performance. This strategic role places PHE under strong pressure to maintain its performance to realise the Corporate Work Plan and Budget (RKAP), and support national energy security.

The upstream oil and gas sector is characterised by long-cycle capital investment, operational complexity, mature-field decline, asset-integrity exposure, commodity-price volatility, and high stakeholder involvement. PHE's problems are compounded by its link with a state-owned business company, where commercial performance, public policy aims, regulatory duties and shareholder interests collide. The success of a corporation is dependent not only on the execution of management but also on the amount of strategic oversight from the Board of Commissioners.

The corporate governance in Indonesia follows a two-board system which divides the executive management and supervision and advisory functions. The BoC is responsible for overseeing management policies, advising the Board of Directors and ensuring effective implementation of governance and risk management. But the existence of a formal comprehensive supervisory system does not ensure successful oversight. A board might have a full agenda, many meetings and detailed minutes and still miss some of the major issues that most influence a company's performance.

This paper is an exploration of how PHE's Board of Commissioners might enhance its oversight role without just increasing its scope of work. The research is grounded in a number of complementary theoretical frameworks. Agency Theory emphasizes the need to reduce knowledge asymmetry between management and the supervisory board particularly in state-owned firms with many principals (Jensen & Meckling, 1976; Faizabad et al., 2021). Stewardship Theory advocates the use of board monitoring not just as a control mechanism but also to improve performance management (Davis et al., 1997). Resource dependence theory says the board supplies the organization with critical information, legitimacy, networks and external access. According to the attention-based view, the focus of decision-makers guides the operations of an organization, and the attention of boards is a critical resource (Ocasio, 1997). The Swiss-Cheese Model explains the emergence of organizational failures when the holes in several levels of protection align, enabling risks to be undetected (Reason, 1990, 1997).

The research has three goals. It first identifies the main business problems that impact the performance of the organization. Second, it ranks concerns according to governance criteria. Third, it creates a BoC supervision work plan and monitoring toolbox based on the most pressing issues. The key thesis is that, rather than increasing the number of oversight work, oversight effectiveness may be increased by sharpening focus, improving predictive visibility, and requiring follow-through.

METHOD

This study used a sequential exploratory mixed-methods approach (Creswell & Plano Clark, 2018; Fetter et al., 2013). The qualitative phase investigated business difficulties and weaknesses in the current oversight process, while the quantitative step prioritized the identified challenges using the Best-Worst Method (BWM). In the last step, the findings were turned into a workable supervision framework for the BoC.

The qualitative step involved reviewing business documents and conducting semi-structured interviews. The document assessments included PHE's governance instruments, BoC yearly work plans, management reports, risk-related papers, committee materials, meeting minutes, and other publicly available corporate records for the 2024-2025 period. Fourteen interviews were performed with four types of respondents: BoC and committee representatives, executive and management representatives, subject-matter experts, and expert validators. The interviews were thematically coded, yielding fifty-five codes divided into six parent groups.

The quantitative phase employed BWM because it is effective for expert-based prioritization and requires fewer pairwise comparisons than complete comparison approaches (Rezaei, 2015; Liang et al., 2020). Twelve respondents took part in the BWM calculation: three from the BoC group, seven from the executive and management group, and two from the

subject-matter expert group. Two senior expert validators were utilized to confirm the issue diagnosis and provide context for BoC supervision, but they were not given numerical weighting. The five prioritization criteria were: impact, urgency, probability, detectability, and controllability. Individual weights were evaluated for consistency before being aggregated using a two-stage geometric mean from individual to group level and finally to overall result.

Table 1. Research Design and Data Sources

Stage	Purpose	Main Input	Output
Document review	Assess current oversight architecture	Work plans, reports, minutes, governance documents	Existing strengths and weak points
Semi-structured interviews	Identify business challenges and oversight issues	14 respondents across BoC, executives, SMEs, and validators	15 business challenges and 7 weak points
BWM prioritisation	Prioritise challenges using governance criteria	12 respondents; 5 criteria; 15 alternatives	Criterion weights and challenge ranking
Artifact design	Translate findings into a solution	Qualitative diagnosis and BWM tiers	Tiered BoC Oversight System

Source: Author analysis

RESULT AND DISCUSSION

The research indicates that PHE's BoC supervisory framework is already well-established. Formal regulations, a committee framework, regular monthly and quarterly forums, reporting protocols, and follow-up documentation all enhance its efficacy. The issue lies not in insufficient architectural oversight, but in the necessity to enhance the architecture's capacity to allocate attention, recognize early indicators, escalate significant challenges, and finalize recommendations.

The qualitative phase identified fifteen primary business issues adversely affecting the company's performance, ranging from BC1 to BC15. Based on the frequency and intensity of respondent emphasis, the most critical challenges were the natural decline of mature fields and asset integrity, which encompassed the risk of unscheduled shutdowns. These challenges are directly linked to production sustainability, operational reliability, and financial viability. Additional challenges include commodity price volatility, rising operating costs, marginal project economics, misalignment of stakeholder objectives, gaps in frontier exploration, deficiencies in post-investment reviews, delays in permitting and land acquisition, project execution performance issues, liabilities related to abandonment and site restoration, risks associated with governance and the Business Judgment Rule, credibility gaps in RKAP targets, immaturity of key risk indicators, and risks to financial reporting integrity.

The same enquiry also surfaced seven weak points in the oversight process. These weak points include limited control over BoC composition and competency fit, an organisational emphasis that is still relatively heavy on governance and administration, an activity-based work plan, broad coverage without explicit materiality logic, reactive emergence of material topics, dominance of lagging indicators, and limited visibility of post-investment quality at corporate level. These weaknesses became the diagnostic basis for the business solution. Read through the theoretical lenses, these weaknesses reflect precisely the problems the literature anticipates: information asymmetry between board and management (Jensen & Meckling, 1976), the dilution of scarce board attention across an over-broad agenda (Ocasio, 1997; Forbes & Milliken, 1999), and an over-reliance on confirmatory rather than anticipatory information (Kaplan & Norton, 1996).

Table 2. Main Diagnostic Findings from the Qualitative Phase

Category	Finding	Oversight Implication
Business challenge	15 challenges were identified across operational, financial, strategic, and governance areas.	BoC attention needs prioritisation rather than equal treatment of all issues.
Most salient operational issues	Mature field decline and asset integrity/unplanned shutdowns were mentioned by all respondent groups.	Because NPAT and RKAP have a direct influence on production and dependability, vigilant control is required.
Process weak points	Seven deficiencies were discovered in composition, work plan, reporting, escalation, and investment evaluation.	Oversight effectiveness necessitates process improvement, not simply more meetings.
Information visibility	Reports that reach the BoC are often filtered, collated, and lagging-oriented.	BoC needs leading indicators and exception-based reporting.

Source: Author analysis

Table 1 presents the criterion weights obtained using the best-worst method. Impact is the most important attribute with a weight of more than one third, followed by urgency and probability, while the least important is controllability. The pattern is obvious: respondents judge challenges by their size and urgency, not by the ease of treatment by the organization.

The pattern has two senses. First, respondents judged the scale of an issue mostly in terms of its potential influence on business materiality, rather than in terms of manageability. Second, the relatively low significance of controllability is appropriate for the upstream oil and gas context, where risk is impacted by commodity pricing, regulation, reservoir dynamics, stakeholder activities, and external constraints. If management can't address an issue completely, the board may need to step in.

Response groups analysis points to a principal-agent setting. As part of operational execution rationale the executive group emphasized Probability and Controllability. In contrast, the BoC and expert groups underlined detectability and urgency, highlighting the supervisory requirement to identify early warning signs and if a situation calls for intervention. This paper highlights the relevance of Agency Theory and information asymmetry in the development of monitoring systems.

Table 3. Best-Worst Method evaluation criteria and final weights

Criterion	Definition	Weight	Rank
Impact	Magnitude of effect on net profit and target realisation	31.1%	1
Urgency	How soon the challenge requires board attention	25.0%	2
Probability	Likelihood of the challenge materialising	21.5%	3
Detectability	Ease of detecting the challenge before it crystallises	13.7%	4
Controllability	Degree to which the company can control the challenge	8.7%	5

Source: Author analysis

Table 4 displays the ranking and tiering of the fifteen tasks based on their weights. Natural splits in the score distribution, validated by the sensitivity analysis, resulted in three priority categories of four, seven, and four challenges, respectively. The four highest-ranked problems — mature field decline, asset integrity, the post-investment review gap, and governance and business-judgment-rule risk — were stable across all weight-perturbation

scenarios, providing a solid foundation for prioritization. One result merit particular note: commodity-price volatility carries the highest impact of any challenge yet the lowest controllability, and is therefore best managed not through intensive monitoring but through a pre-agreed contingency protocol

The weighted scoring produced three oversight tiers. Tier 1 consists of the four highest-priority challenges: mature field natural decline, asset integrity and unplanned shutdowns, post-investment review gap, and governance and Business Judgment Rule risk. These issues require active oversight because they have the highest materiality to corporate performance and require structured, recurring attention. Tier 2 consists of seven challenges requiring regular monitoring, while Tier 3 consists of four challenges requiring periodic monitoring unless escalation signals emerge.

Sensitivity analysis confirmed the robustness of the Tier 1 classification. Across all criterion-weight perturbation scenarios, the four Tier 1 challenges remained in the top four positions. This result provides a defensible basis for translating the prioritisation into a differentiated BoC work plan. The tier is not a corporate risk classification; it is an allocation of oversight intensity.

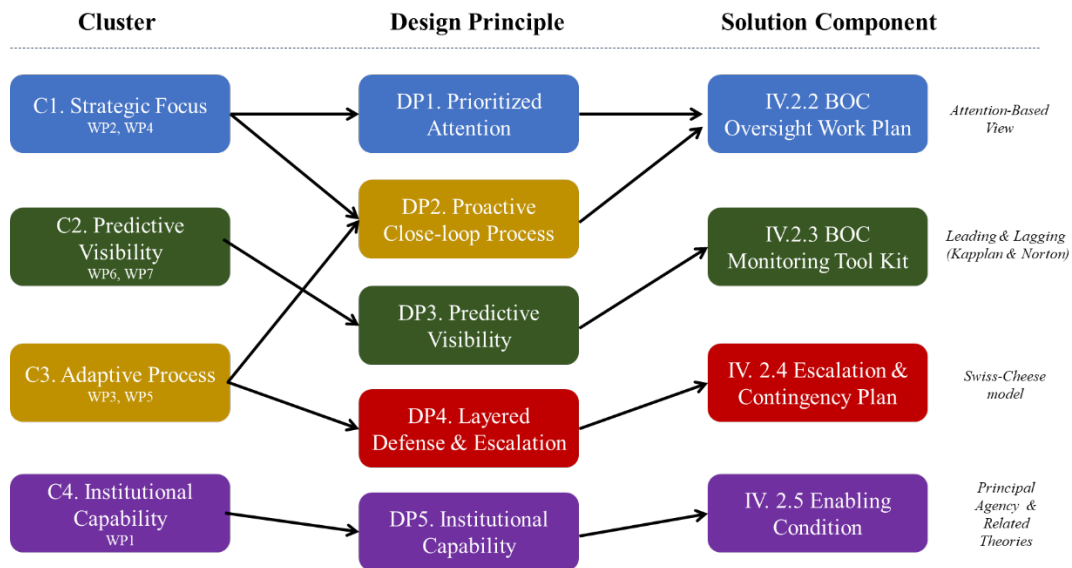
Table 4. Prioritisation of the fifteen business challenges and resulting tiers

Rank	Code	Business Challenge	Score	Tier – Cadence
1	BC-01	Mature Field Natural Decline	8.08	Tier 1 – Active
2	BC-02	Asset Integrity & Unplanned Shutdowns	7.87	Tier 1 – Active
3	BC-08	Post-Investment Review Gap	7.58	Tier 1 – Active
4	BC-12	Governance & BJR Risk	7.19	Tier 1 – Active
5	BC-07	Frontier Exploration Gap	6.86	Tier 2 – Regular
6	BC-10	Permitting & Land Acquisition Delays	6.81	Tier 2 – Regular
7	BC-04	OPEX Escalation	6.79	Tier 2 – Regular
8	BC-13	RKAP Target Credibility Gap	6.68	Tier 2 – Regular
9	BC-03	ICP / Commodity Price Volatility	6.54	Tier 2 – Regular
10	BC-05	Marginal Project Economics	6.44	Tier 2 – Regular
11	BC-14	KRI / EWS Immaturity	6.39	Tier 2 – Regular
12	BC-06	Stakeholder Target Misalignment	6.07	Tier 3 – Periodic
13	BC-09	Project Execution Performance	6.05	Tier 3 – Periodic
14	BC-15	Financial Reporting Integrity Risk	5.99	Tier 3 – Periodic
15	BC-11	ASR Liability	5.24	Tier 3 – Periodic

Source: Author analysis

As seen in Figure 1. The system is founded on five design concepts. First, in accordance with the Attention-Based View, board attention should be directed toward NPAT and RKAP based on materiality. Second, the work plan should become proactive and closed-loop, as opposed to activity-based and reactive. Third, reporting should combine leading critical risk indicators and trailing performance indicators to provide the BoC with earlier visibility. Fourth, escalation should be implemented as a tiered defensive in accordance with the Swiss-Cheese Model. Fifth, the Board of Directors should maintain a “nose in, hands out” posture, meaning it should be engaged enough to raise the appropriate questions but not overly involved in management implementation.

The supervision work plan converts the BWM tiering into a timetable of attention. Tier 1 challenges undergo active assessment, with monthly monitoring and quarterly in-depth evaluations as necessary. Tier 2 challenges are routinely reviewed, typically on a quarterly basis, and escalate based on exceptions. The Tier 3 tasks are assessed regularly. This strategy ensures that the scarcest resource on the board, collective attention, is applied on the basis of materiality.

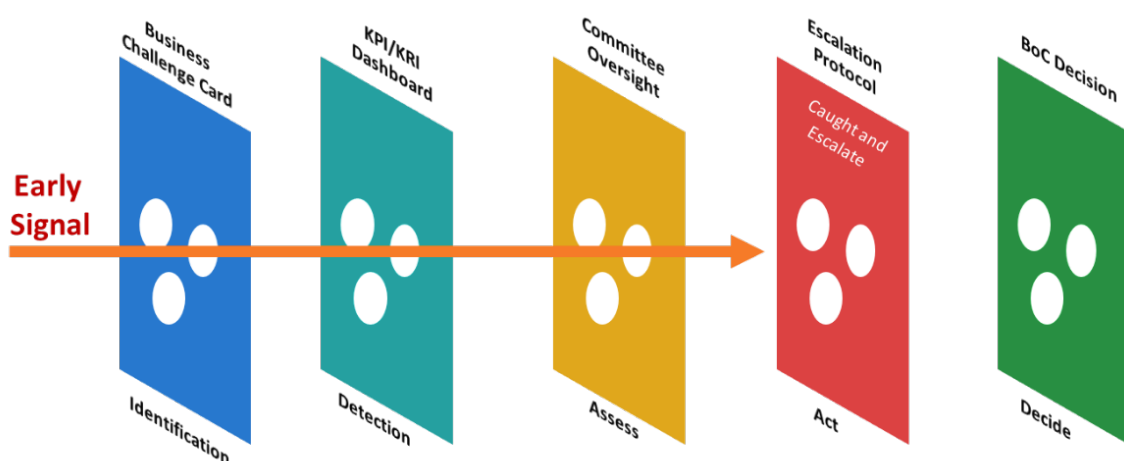


Source: Research Results

Figure 1 Solution – Traceability Map

The monitoring toolset evaluates the observations of the BoC and its respective answers. The system consists of 5 components namely, Business Challenge Cards, Tier Based Dashboard, KPI/KRI Library, Post-Investment Review Tracker and Recommendation Closure Register. Every instrument is designed to be efficient. The goal is not to increase reporting volume, but to choose a small collection of high-value indicators that show early warning signs, define accountability, and track follow-through.

As shown in Figure 2 The escalation and contingency protocol defines when an issue remains at committee level, when it moves to a joint BoC-BoD meeting, and when it requires a special deep-dive. This protocol generalises the HSSE escalation practice identified in the interviews as functioning well at PHE. In the adapted Swiss-Cheese logic, the Business Challenge Card identifies the risk, the KPI/KRI dashboard detects early signals, the committee assesses the issue, the protocol determines escalation, and the BoC decides. A signal that passes one layer can therefore be captured by the next.



Source: Research Results

Figure 2 The Adapted Swiss-Cheese Model

The system also requires enabling conditions. The most important is re-basing the BoC performance indicator from activity volume to oversight quality. A tiered plan that concentrates attention on four challenges is rational only if the BoC is assessed by the quality and effect of

its oversight, rather than by the number of meetings or reviews. Competency strengthening is also required. Because BoC appointments in a state-owned enterprise are largely shaped by shareholder authority, competency gaps should be mitigated through mapping, targeted learning, committee support, and use of subject-matter experts. From a Resource Dependence Theory perspective, government-linked commissioners may also provide institutional access and stakeholder-management capacity that can help unlock permitting, regulatory, and inter-agency issues, provided this role remains within proper governance boundaries and does not take over management execution.

Finally, the system is embedded into the existing SRAM, PRAM, and GOC classification. SRAM becomes the home for strategic and long-term Tier 1 and Tier 2 issues, PRAM becomes the mechanism for monthly RKAP-linked monitoring, and GOC ensures that governance, compliance, decision documentation, and recommendation closure remain controlled. This integration alleviates the implementation complexity by using existing forums and categories instead of establishing a parallel supervision system.

Table 5. Main Components of the Tiered BoC Oversight System

Component	Purpose	Main Output
Design principles	Translate weak points into coherent design logic	Materiality-based, proactive, leading-indicator, layered, and capability-based oversight
Tiered work plan	Allocate BoC attention according to challenge materiality	Active, regular, and periodic oversight modes
Monitoring toolkit	Improve predictive visibility and follow-through	Challenge cards, dashboard, KPI/KRI library, PIR tracker, closure register
Escalation and contingency protocol	Define response to warning signals	Committee, joint BoC-BoD, and special deep-dive escalation levels
Enabling conditions	Make the system implementable	Quality-based BoC KPI, competency strengthening, stakeholder access, H-3 materials
SRAM/PRAM/GOC integration	Embed the solution in current architecture	No parallel system; sharper use of existing classifications

Source: Author analysis

The implementation plan is segmented into twelve monthly phases. Phase 1 (3 months) - Lays the groundwork by amending the BoC performance assessment, introducing Business Challenge Cards for Tier 1 issues, initiating the Tier-Based Dashboard, and formalizing the program through a BoC decree or an equivalent governance structure. Phase 2 (months 3-6) - Deploys the complete monitoring toolkit and escalation protocol. Phase 3 (months 6-12) - Integrates the technology into standard BoC procedures, committee evaluations, and management reports.

The implementation is viable since it does not require significant organizational reorganization or considerable capital expenditure. It requires enhanced prioritizing, more disciplined utilization of existing data, improved timeliness of board documents, and more committee accountability. The primary implementation risks encompass the BoC KPI remaining activity-oriented, the dashboard devolving into a data repository, suggestions being considered but not finalized, committee capacity becoming overwhelmed, and asset data being tardy or deficient. These risks are mitigated by the design of quality-based KPIs, exception-

based reporting, the Recommendation Closure Register, a phased implementation, and the distribution of H-3 board materials.

CONCLUSION

This research examined how PHE's Board of Commissioners might enhance its monitoring of significant business challenges faced by big firms. This study identified fifteen existing business challenges and seven deficiencies in the current supervisory system. The primary commercial challenges were the natural decline of aging fields and asset integrity, together with the risk of unintentional shutdowns. The most significant oversight deficiencies included insufficient attention to specified materiality reasons, activity-based work planning, delayed reporting, tardy escalation, poor post-investment evaluation, and competency-gap risk.

The BWM analysis indicated that Impact was the foremost priority element, succeeded by Urgency and Probability. Tier 1 issues include natural decline in older fields, asset integrity concerns, unplanned shutdowns, a deficiency in post-investment reviews, and risks associated with governance and business judgment rules. The sensitivity study showed that these four concerns were consistent across scenarios of weight change. The proposed solution is a Tiered BoC Oversight System that operationalizes priorities through a tiered work plan, monitoring tools, an escalation procedure, enabling conditions and interaction with SRAM, PRAM and GOC.

This study contributes to corporate governance by showing that greater attention rather than more measurements may improve the efficacy of monitoring in a complicated state-owned upstream firm. This paper conceptually incorporates Agency Theory, Stewardship Theory, Resource Dependence Theory, the Attention-Based View, leading and lagging indicators, and the Swiss-Cheese Model into a pragmatic framework of board supervision. The study is limited by the single-case approach, the expert panel selected, the reliance on existing business papers, and the illustrative criteria for the essential calibration of historical data and PHE's risk tolerance.

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