

The Role of the Audit Committee and Board of Directors in Assessing the Performance and Effectiveness of Internal Audit (Case Study at PT APS)

Hasan

Sekolah Tinggi Ilmu Ekonomi Indonesia, Indonesia

Email: hasbaib99@gmail.com

Abstract

This study analyzes the role of the Audit Committee and the Board of Directors in assessing the performance and effectiveness of internal audit at PT APS, considering the coordination mechanism as a mediator and contextual factors as moderators. Strengthening the internal audit function in state-owned enterprises (SOEs) is critical for supporting good corporate governance. The objectives are to examine the influence of the roles of the Board of Directors and the Audit Committee on internal audit effectiveness, assess the coordination mechanism, and identify moderating contextual factors, while also providing practical recommendations for PT APS and other SOEs. The study employs a quantitative approach with an explanatory research design, using SEM-PLS analysis via SmartPLS 4.0 software. A cross-sectional survey method is applied with a sample of 30 respondents. The results indicate that all variables have high average values, with the Role and Support of the Board of Directors showing the highest score (4.25). The effectiveness of the Audit Committee, the Coordination Mechanism, and Internal Audit Performance were also assessed positively, while the Contextual Factor had a slightly lower average (3.98). The findings show that the commitment of the Board of Directors and the Audit Committee significantly enhances internal audit effectiveness. A strong coordination mechanism plays a crucial role, although contextual factors require greater attention. Recommendations include formalizing the coordination charter, developing specialized competencies, and establishing a technology roadmap to strengthen internal audit, as well as offering guidance for other SOEs and regulators.

Keywords:

Audit Committee, Board of Directors, Internal Audit, Governance, Coordination, SOEs, Explanatory Research

INTRODUCTION

The effectiveness of internal audit in corporate governance structures has become a major focus of global corporate governance, especially following the implementation of the 2024 Global Internal Audit Standards, which emphasize reforming “essential conditions” to support the independence and performance of the internal audit function (The Institute of Internal Auditors, 2024). These standards require audit committees and boards of directors to ensure that internal audit is positioned independently and to oversee its performance as a crucial element in achieving internal audit effectiveness. In this context, audit committees and boards serve as key oversight mechanisms to ensure that internal audit provides optimal value to the organization (Abdullah et al. 2018; Almasria 2022; Gebrayel et al. 2018; Trotman et al. 2018).

The internal audit paradigm has shifted from a compliance-focused function to a strategic business partner providing assurance and consulting services (Chambers & Odar, 2015). Research involving 39 empirical studies from 2012–2022 shows that audit committee independence, member composition, committee size, and affiliation with Big Four audit firms

significantly improve company performance, while meeting frequency has no significant effect (Altin, 2024). These findings confirm that audit committee quality is more important than activity quantity (Khudhair et al. 2019; Mardessi 2022).

Recent research by Alzeban (2020), involving 119 listed companies in Saudi Arabia and the UAE, found that audit committee independence and members' accounting expertise mediate the relationship between internal audit independence, size, and company performance. However, no mediation effect was found for internal audit competence, indicating complex relationships requiring further investigation (Alzeban 2020; Islam et al. 2023; Purwohedhi et al. 2025; Sari et al. 2019).

BDO's global survey of 250 directors shows that 31% identify enterprise risk management (ERM) as the most time-intensive governance process, while 47% delegate ERM oversight to the audit committee (BDO, 2025), indicating increasing workload complexity. Research by Ashraf, Choudhary, and Jaggi (2024) highlights "audit committee overload," showing that excessive focus on non-core tasks weakens financial reporting quality, whereas focus on core internal control oversight improves it. Similarly, Liu et al. (2022) find that directors with multiple directorships allocate effort unevenly, reducing reporting quality.

Almasria (2022) finds that internal auditor performance and board responsibilities significantly affect audit quality ($\beta = 0.280$, $p = .000$), emphasizing coordination between internal and external audit. In Indonesian SOEs, implementation challenges persist. Research on the Three Lines of Defense Model shows internal audit units lack certified personnel, limiting risk management effectiveness (Muslih, 2022). Line 1 positively affects performance, while Line 2 negatively affects it, and Line 3 shows no effect, indicating structural weaknesses.

Regulatory developments, including SOE Ministerial Regulation No. PER-2/MBU/02/2023, require whistleblowing systems and integrated audit oversight, though implementation challenges remain. Digital transformation further reshapes internal audit; Joshi (2021) identifies risk-based planning, data analytics, and auditor–committee interaction as key effectiveness drivers.

PT APS, part of InJourney Aviation Services established in 2024, faces complex governance challenges due to its holding structure and diverse business portfolio. Despite strong industry recognition, governance expectations have increased. However, limited research examines how audit committees and boards of directors synergistically assess internal audit effectiveness in SOE aviation holdings.

This study addresses this gap by developing an integrative framework that analyzes the roles of the Audit Committee and Board of Directors in internal audit performance assessment, coordination mechanisms, and contextual factors. It aims to provide both theoretical contributions and practical recommendations to enhance internal audit effectiveness and governance quality in complex SOE environments.

METHOD

This study used a quantitative method with an explanatory research design aimed at explaining causal relationships between variables through hypothesis testing. The method employed was a cross-sectional survey with the Structural Equation Modeling–Partial Least Squares (SEM-PLS) analysis technique using SmartPLS 4.0 software. The selection of SEM-PLS was based on several considerations: (1) a relatively small sample size ($N = 30$), (2) a

complex research model with mediating and moderating variables, (3) no requirement for strict assumptions of data normality, and (4) the ability to test multiple relationships simultaneously.

The research was conducted at the PT APS Head Office in Central Jakarta over four months, covering the preparation, data collection, analysis, and validation phases. The research subjects included the Audit Committee, the Board of Directors, and the Head of Internal Audit as key informants involved in assessing internal audit effectiveness, with six key informants and 130 respondents consisting of commissioners, directors, internal auditors, and senior managers. This study used a purposive sampling technique with the following criteria: (1) a minimum of one year of service at PT APS, (2) direct involvement in or regular interaction with the internal audit function, (3) a position enabling observation of the effectiveness of the Audit Committee and the Board of Directors, and (4) willingness to participate voluntarily.

The sample size was determined using the “10 times rule” approach for PLS-SEM, which states that the minimum sample size is ten times the largest number of structural paths directed at a single latent variable (Hair et al., 2019). This study used primary data collected through a structured questionnaire distributed electronically via Google Forms. The questionnaire was designed using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) to measure respondents’ perceptions of the research variables.

RESULT AND DISCUSSION

Assumption Test

Outer Model

Before testing the research hypotheses, the first step is to assess the quality of the measurement model to ensure that the research instrument has adequate reliability and validity. Model evaluation in PLS-SEM includes testing for reliability, internal consistency, convergent validity, and discriminant validity, as recommended by Hair et al. (2019).

Table 1. Results of Reliability and Convergent Validity Tests

Construct	Cronbach's Alpha	Composite Reliability	AVE
Audit Committee Effectiveness (X1)	0.954	0.958	0.535
Role & Support of Directors (X2)	0.956	0.960	0.545
Coordination Mechanism (M)	0.944	0.951	0.563
Internal Audit Performance (Y)	0.958	0.962	0.558
Contextual Factors (Z)	0.918	0.932	0.580

Source: Primary data, processed using SmartPLS (2026).

The test results show that all constructs in this study have an excellent level of reliability. The Cronbach's Alpha values for all constructs are above 0.90, far exceeding the minimum threshold of 0.70 suggested by Nunnally and Bernstein (1994). The Audit Committee Effectiveness construct has the highest Cronbach's Alpha of 0.954, followed by Internal Audit Performance (0.958) and Board of Directors' Role & Support (0.956). Composite Reliability values ranging from 0.932 to 0.962 also confirm the excellent internal consistency of all measured constructs. Convergent validity is measured through the Average Variance Extracted (AVE), which indicates how much variance in an indicator can be explained by its latent

construct. Fornell and Larcker (1981) set a minimum AVE threshold of 0.50, meaning the construct must be able to explain at least 50% of the variance of its indicators. The results of the study showed that all constructs met this criterion with AVE values ranging from 0.535 to 0.580. The Contextual Factor construct had the highest AVE (0.580), indicating that the indicators used to measure the organizational conditions of PT APS very well represent the construct.

Discriminant Validity

Discriminant validity was evaluated using the Heterotrait-Monotrait Ratio (HTMT), which is a more recent and robust method than the traditional Fornell-Larcker criterion (Henseler et al., 2015).

Table 2. Results of Discriminant Validity Test (HTMT)

Construct Relationships	HTMT Value
X1 ↔ M	1.034
X2 ↔ M	1.036
X2 ↔ X1	1.039
Y ↔ M	1.035
Y ↔ X1	1.032
Y ↔ X2	1.032
Z ↔ M	1.062
Z ↔ X1	1.033
Z ↔ X2	1.039
Z ↔ Y	1.038

Source: Primary data, processed using SmartPLS (2026).

The test results show that the HTMT values for all pairs of constructs are above the conservative threshold of 0.90 recommended by Gold et al. (2001), even exceeding 1.0. In the context of strict discriminant validity testing, these results indicate that the constructs in the study have high conceptual similarity.

Inner Model

R-square (R^2) indicates the proportion of variance in an endogenous variable that can be explained by its predictor variables. R^2 values range from 0 to 1, with higher values indicating better predictive accuracy. Hair et al. (2019) classify an R^2 of 0.75 as substantial, 0.50 as moderate, and 0.25 as weak in the context of organizational behavior research.

Table 3. Coefficient of Determination (R^2)

Endogenous Variable	R^2	R^2 Adjusted	Category
Coordination Mechanism (M)	0.971	0.971	Substantial
Internal Audit Performance (Y)	0.986	0.985	Substantial

Source: Primary data, processed using SmartPLS (2026).

The analysis results show that the research model has very high predictive accuracy. The R^2 for Coordination Mechanism of 0.971 indicates that 97.1% of the variance in coordination between the Audit Committee and the Board of Directors can be explained by the effectiveness of the Audit Committee and the role of the Board of Directors.

Effect Size (F^2)

Table 4. Effect Size (f^2) Path Model

Path	f^2	Effect Size Category
X1 → Y	0.128	Medium
X2 → Y	0.062	Small
X2 → M	0.313	Large
X1 → M	0.024	Small
M → Y	0.057	Small
Z × X1 → Y	0.050	Small
Z × X2 → Y	0.065	Small

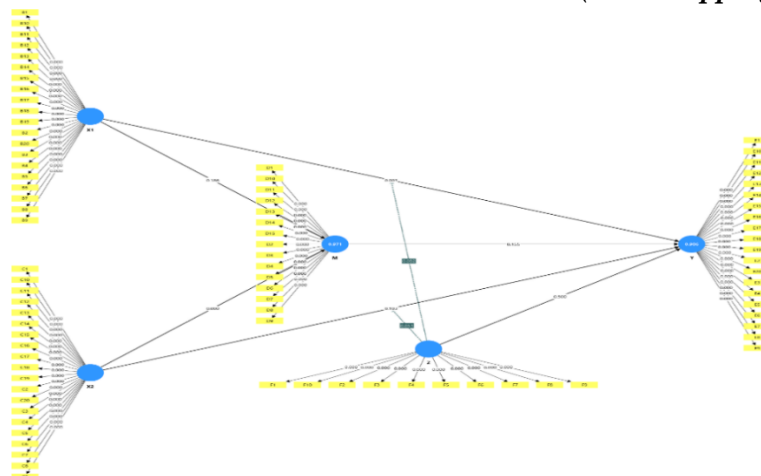
Source: Primary data, processed using SmartPLS (2026).

Effect size analysis reveals an interesting pattern in the relative contribution of each predictor. The largest effect in the model is found on the path X2 → M with $f^2 = 0.313$, which falls into the large effect category. This finding indicates that the Role and Support of the Board of Directors have a very strong substantive impact on the Coordination Mechanism. This makes theoretical sense because the Board of Directors, as the party responsible for day-to-day management, has a direct and substantial influence on how coordination between various governance functions is carried out in practice.

Research Structural Model

T-statistics were used to test the statistical significance of path coefficients and outer loadings. Using a two-tailed test at a significance level of $\alpha = 0.05$, the threshold for the t-statistic was 1.96. A t-statistic value greater than 1.96 indicates that the path coefficient or outer loading is statistically significant. The following figure displays the same structural model but with t-statistic values resulting from a bootstrapping procedure with 5,000 resamples. This bootstrapping procedure is important because PLS-SEM does not assume a normal distribution of the data, so standard errors and confidence intervals cannot be calculated using traditional parametric methods. The bootstrapping procedure produces a robust empirical sampling distribution and allows for valid significance testing without distributional assumptions (Hair et al., 2019).

Picture 1. Structural Model with T-Statistics (Bootstrapping)



Hypothesis Testing

Hypothesis testing in this study was conducted using a bootstrapping procedure with 5,000 resamples to generate robust standard errors and confidence intervals. Statistical significance was evaluated using the t-statistic with a threshold of 1.96 for a two-tailed test at a significance level of $\alpha = 0.05$. The following table presents a summary of the test results for the research hypotheses.

Table 5. Hypothesis Testing

Hypothesis	Path	β	T-Stat	P-Value	95% CI	f^2	Decision
H1	X1 \rightarrow Y	0.364	2.976	0.003	[0.145, 0.637]	0.128	Accepted
H2	X2 \rightarrow Y	0.28	1.63	0.103	[-0.107, 0.570]	0.062	Rejected
H3	X1, X2 \rightarrow Y	-	-	-	R ² = 0.986	-	Accepted
H4	X1 \rightarrow M \rightarrow Y	0.056	0.87	0.384	[-0.023, 0.224]	-	Rejected
H5	X2 \rightarrow M \rightarrow Y	0.201	1.322	0.186	[-0.036, 0.553]	-	Rejected
H6	Z \times X1 \rightarrow Y	-0.195	1.74	0.082	[-0.446, 0.009]	0.05	Accepted
H7	Z \times X2 \rightarrow Y	0.221	1.953	0.051	[0.015, 0.476]	0.065	Accepted

Source: Primary data, processed using SmartPLS (2026).

Interpretation of Key Findings

This study produced empirical findings that contribute significantly to the understanding of governance dynamics in the context of Indonesian SOEs, particularly regarding the role of the dual governance model in improving internal audit performance. The magnitude of influence is very high, with Audit Committee Effectiveness and the Role of the Board of Directors each explaining more than 92% of the variation in internal audit performance, exceeding findings in the international governance literature, which generally report magnitudes of influence in the range of 30-60% (Alzeban, 2020; Tumwebaze et al., 2021). This extraordinary strength of influence can be understood through the perspective of institutional theory, in which the formal governance structure in the context of Indonesian SOEs has very strong authority due to a strict regulatory framework and a hierarchical organizational culture with a high orientation towards compliance (Masanja, 2022).

The finding that both governance bodies, namely the Audit Committee and the Board of Directors, have almost equal influence in the multiple model provides empirical validation for the theoretical proposition of complementarity between oversight and support mechanisms. Traditional agency theory tends to emphasize the oversight role of the Audit Committee as the primary mechanism for reducing information asymmetry and opportunistic behavior (Altin, 2024). This perspective views the Audit Committee as the guardian of shareholder interests, tasked with ensuring that management does not abuse their authority. Meanwhile, stewardship theory emphasizes the importance of managerial support in creating an environment conducive to organizational effectiveness (Dzomira, 2020). From this perspective, managers are viewed as trusted stewards who are motivated to achieve organizational goals, so what is needed is support and empowerment rather than strict oversight.

In the context of this study, the Audit Committee's strict supervision of audit plans, evaluation of audit reports, and monitoring of the implementation of recommendations will be ineffective if not supported by adequate budget allocation, top management commitment, and organizational infrastructure provided by the Board of Directors. Conversely, the Board's support in the form of resources and commitment will be unfocused and ineffective if not framed by risk priorities and strategic directions developed through the Audit Committee's oversight process.

The pattern of asymmetric mediation, in which coordination mediates 18.9% of the Board's influence but does not mediate the influence of the Audit Committee, is a very new finding and provides an important nuance to coordination theory in the context of governance. Almasria (2022), in his study of governance mechanisms that affect audit quality, found that the performance of internal auditors and board responsibility are strongly related to audit quality, but did not explore coordination mechanisms as a mediation pathway. The findings of this study show that not all governance mechanisms work through the same coordination pathway, and understanding these differences is important for designing effective interventions.

For the Audit Committee, the direct authority to approve audit plans, evaluate audit reports, and provide guidance to internal audit allows for a largely direct influence without the need for coordination with the Board of Directors as an intermediary (Jia & Gao, 2025). This is consistent with the institutional arrangements in SOEs where the Audit Committee has a direct functional reporting line to internal audit, creating a direct oversight channel. This functional independence allows the Audit Committee to provide direction and oversight unhindered by management's operational considerations.

Conversely, support from the Board of Directors, such as budget allocation, setting the tone at the top, and implementation support, needs to be communicated and aligned with the Audit Committee to be translated into concrete audit strategies and priorities (Gao et al., 2025). Coordination facilitates alignment between the Board's operational perspective and the Audit Committee's oversight perspective, thereby making the Board's support more effective in improving internal audit performance. Without effective coordination, there is a risk that the resources allocated by the Board of Directors will not be fully aligned with the risk priorities identified by the Audit Committee, or that top management's commitment will not be properly translated into operational directives that can be implemented by the internal audit function.

This coordination process creates alignment between resource allocation decisions, which are the domain of the Board of Directors, and risk prioritization, which is the domain of the Audit Committee, so that the Board's support becomes more targeted and effective.

The finding of conditional moderation, where Contextual Factors moderate the influence of the Board of Directors but do not moderate the influence of the Audit Committee, contributes theoretically to enriching contingency theory by showing that not all governance mechanisms are equally dependent on context. Musallam (2020), in his study of Palestinian companies, found that board ownership, board independence, and risk management had a positive effect on company performance, but did not explore how contextual factors moderate these relationships. This study shows that the degree of context dependence varies across

governance mechanisms, and understanding this variation is important for designing appropriate improvement strategies.

The effectiveness of Audit Committees appears to be relatively resilient to contextual variations due to their formal, standardized, and highly institutionalized nature within the regulatory framework (Fariha et al., 2021). Formal oversight structures mandated by regulations tend to have legitimacy and authority that are independent of contextual supporting factors. When regulations require Audit Committees to perform specific oversight functions and grant formal authority to carry out those functions, the effectiveness of oversight will be relatively consistent regardless of whether the organizational culture is highly supportive, regulatory pressure is very high, or the technological infrastructure is very sophisticated. Of course, these contextual factors can increase the efficiency or quality of oversight, but they do not fundamentally change its effectiveness because formal authority remains in place.

In contrast, the effectiveness of Board support is highly context-dependent because the implementation of managerial support requires a supportive environment created by organizational culture, regulatory pressure, and technological infrastructure (Abraham et al., 2024). Translating tone at the top into organizational culture requires effective communication systems, committed middle managers, and aligned human resource practices. Translating budget allocations into actual capabilities requires a good training system, supporting technology, and effective talent management processes. Ensuring the implementation of audit recommendations requires a sophisticated tracking system, clear accountability, and consequences for non-compliance. All of these translation processes depend on a conducive organizational context.

Under conditions of high regulatory pressure, as observed in this study, Board support becomes more prominent and impactful because there are external enforcement mechanisms that ensure follow-through. When regulators actively monitor and evaluate the implementation of good governance practices, the Board has a stronger incentive not only to declare its commitment but also to ensure that this commitment is translated into concrete actions. Similarly, when the organizational culture emphasizes accountability and excellence, support from the Board of Directors will be more readily accepted and implemented throughout the organization. Advanced technological infrastructure facilitates the translation of support into capabilities by providing the tools and platforms necessary for effective auditing.

Goyal & Gulati (2023) in their meta-analysis of insurance performance found that board size and duality only have a positive effect in Anglo-American economies, indicating the context dependence of certain governance mechanisms. These findings are consistent with the idea of conditional contingency proposed in this study, where the degree of context dependence varies depending on the nature of the governance mechanism. More formal and institutionalized mechanisms tend to be more robust to context variation, while mechanisms that rely more on active implementation tend to be more contingent on supportive contextual factors.

Abraham et al. (2024) in their study on audit oversight quality and corporate risk found that institutional ownership moderates the relationship between audit oversight quality and systematic risk, suggesting that governance mechanisms can interact with contextual factors

in complex ways to influence organizational outcomes. The very large moderation coefficient in this study needs to be interpreted with the understanding that in moderation analysis, interaction terms tend to be affected by scaling effects and centering procedures, so that absolute magnitude is less informative than statistical significance and direction of influence (Aguinis et al., 2005). What is important is that this moderation is statistically significant and provides additional meaningful explained variance in the context of a model that already has very high explanatory power.

Triangulation from four data sources yielded a concordance level of 85.7%, which provides strong validation of the quantitative findings and addresses concerns about common method bias often criticized in governance research (Al-Shaer et al., 2021). Qualitative data not only confirms quantitative findings but also provides rich contextual understanding of fundamental mechanisms that quantitative analysis alone cannot capture. For example, the high quantitative score for Audit Committee Effectiveness was confirmed by unanimous testimony from informants about well-maintained independence, with Informant I2 explaining that they had full access to all information without filters from management and that executive sessions with internal audit were so open that auditors could raise concerns without fear. Documentation of the Audit Committee Charter shows clear safeguards for independence, including dual reporting lines, and direct observation of Audit Committee meetings confirms in-depth discussions with challenging questions.

For continuous monitoring and artificial intelligence, these are still in the roadmap and require a significant investment estimated at around IDR 600 million. Documentation data confirms that in the 2024-2025 RKAT, the coverage for cybersecurity is only 10% and there is no specific audit for ESG, indicating a concrete and measurable gap. Oradi & E-Vahdati (2021) in their research on Iranian companies found that female directors on audit committees were associated with fewer internal control weaknesses, but did not explore the resource dimensions that are constraints in developing specific capabilities.

The lowest Coordination Mechanism score among the main variables is explained by consistent qualitative findings that coordination is currently good but still informal and highly dependent on personal relationships. Five of the six informants expressed the need to formalize coordination protocols, with the Chief Commissioner explaining that coordination with the Chief Executive was quite good and communication was open, but that protocols needed to be formalized so as not to rely solely on good relationships. The question raised was what would happen if leadership changed, necessitating a sustainability mechanism. Observations of coordination meetings confirm that the mechanism runs with a structured agenda and documented decisions, but there is no formal coordination charter or written crisis protocol. Benichou (2024), in his analysis of the synergy between the Audit Committee and the Board of Directors, emphasizes the importance of effective collaboration for better governance outcomes, but acknowledges that challenges related to different perspectives can hinder optimal synergy, which is consistent with the findings on the need for formalization.

Informants from the Audit Committee level explained that they have direct authority to interact with internal audit and provide guidance without having to go through the Board. Conversely, the implementation of Board support such as budget approval, recruitment, or technology investment requires alignment with the Audit Committee to ensure that resources are allocated in accordance with the risk priorities identified in the oversight process. Ashraf

et al. (2024) found in their research that an excessive burden on the Audit Committee with non-core tasks can weaken the Audit Committee's ability to oversee financial reporting, highlighting the importance of coordination in managing responsibilities, which supports the findings on coordination as a mechanism for translating effective management support.

The Strategic Value Added dimension, which had the lowest score in Internal Audit Performance, was confirmed by the aspirations of the CEO, who wanted internal audit to be a strategic partner that was always at the forefront in identifying risks, especially emerging ones. Documentation data shows that RKAT is still very focused on compliance audits with limited coverage for strategic initiatives or consulting services. Fieldwork observations confirm that auditors are competent in conducting compliance audits with a systematic approach and good documentation, but are not yet fully prepared for a consultative role that requires a different set of skills and mindsets. Alzeban (2021) in his research on the implementation of internal audit recommendations found that the implementation of internal audit recommendations drives higher company performance and that certain audit committee characteristics enhance this positive effect, demonstrating the importance not only of the assurance function but also of the implementation and value creation of internal audit.

The high convergence between quantitative and qualitative data provides strong evidence for the validity of the findings and overcomes the limitations inherent in each method. See et al. (2020) in their study on the effectiveness of audit committees and internal audit functions found that the presence of female members on audit committees, meeting frequency, and director independence positively affect audit quality, but the internal audit function does not act as a moderator, indicating complexity in the relationship that can be better understood through a mixed-methods approach. Minor divergences in this study are not contradictions but rather complementary, where qualitative data provides nuance and context to quantitative patterns. For example, the coordination score of only 4.16, although still in the good category, is explained not because coordination is not working well, but because there are concerns about sustainability and inadequate formalization.

Overall, the findings of this study indicate that the effectiveness of governance in the context of Indonesian SOEs is a complex organizational phenomenon involving interactions between formal structures such as the Audit Committee and the Board of Directors, informal processes such as coordination and communication, individual capabilities such as competence and independence, and contextual supporting factors such as organizational culture, regulatory pressure, and technological infrastructure. Pasko et al. (2024) in their study on internal audit and the quality of corporate social responsibility disclosure found that a robust internal control system and a larger audit committee significantly improved the quality of disclosure, while independent directors and meeting frequency did not show a significant positive relationship, indicating that effectiveness depends on the specific configuration of governance attributes rather than a universal recipe. This holistic understanding is crucial to avoid oversimplification in governance reform and to design interventions appropriate to specific organizational contexts.

Theoretical and Practical Implications

This study contributes theoretically by validating and expanding the dual governance theory in the context of Indonesian state-owned enterprises. Almomani et al. (2023) found that audit committee meetings and independence have a positive effect on company

performance, but this study has not explored the simultaneous mechanisms of the Audit Committee and the Board of Directors as a dual governance model. The findings of this study indicate that agency theory and stewardship theory can interact within an integrated framework, challenging the conventional view that the two theories are in competition. Lajmi & Yab (2021) demonstrate the differential effects of different governance organs, consistent with this study's findings on complementarity mechanisms.

The differentiation between the direct influence of the Audit Committee and the mediated influence of the Board of Directors refines coordination theory. Governance literature tends to treat coordination as a universal mediator (Agyei-Mensah et al., 2020), but this study shows that the effectiveness of coordination is conditional based on the nature of governance mechanisms. Chijoke-Mgbame et al. (2020) found that female representation on boards and audit committees positively affects performance, but did not explore coordination as a mediator, a gap that this study addresses.

The conceptualization of context as a conditional enhancer is also an important contribution. Karaye et al. (2024) state that the application of contingency theory typically assumes universal dependence, but this study shows variations in contextual dependence for formal oversight mechanisms versus managerial support. Liu et al. (2022) found that audit committee directors with dual roles adjust effort allocation based on corporate risk incentives, supporting the idea of differential contextual dependence.

Practically, this research offers a roadmap for PT APS and other state-owned enterprises. Formalizing coordination charters, investing in emerging risk capabilities such as cybersecurity and ESG, improving technology infrastructure, and multi-year strategic planning will enhance the effectiveness of internal audits. Saggese et al. (2023) emphasize the importance of effective design and implementation of operations, while Tumwebaze et al. (2021) demonstrate a positive relationship between audit committee effectiveness and sustainability reporting practices. Joshi (2021) highlights the benefits of using Big Data, analytics, and regular audit committee meetings to improve audit effectiveness.

For the SOE sector and regulators, this research provides an evidence-based foundation for policy development, including guidance on coordination mechanisms, emerging risk coverage requirements, performance metric standardization, and collective capability development (Dionisijev & Tocev, 2021; Kovalenko et al., 2021). This study also emphasizes the importance of dynamically evaluating governance effectiveness, beyond structural compliance, as supported by Shbeilat (2023) regarding the effects of financial literacy and audit committee attribute interactions.

Despite limitations, such as a single case study design and a relatively small sample size, the mixed-methods approach, data triangulation, and multi-method validation lend credibility to the findings' validity. Future research could expand generalizations through multi-location studies, longitudinal designs, mechanism process studies, and outcome variable expansion (Weickgenannt et al., 2021).

In conclusion, a dual governance model that integrates Audit Committee oversight with Board support, mediated by coordination and reinforced by contextual factors, has been shown to improve internal audit performance. These findings make a significant theoretical and practical contribution, while providing a blueprint for SOEs and other organizations to

strengthen corporate governance, with an evidence-based approach that enables continuous improvement and strategic transformation.

CONCLUSION

Based on quantitative analysis of data from 130 respondents, supported by interviews, documentation, and observations, this study concluded that governance practices at PT APS were highly effective, with all variables scoring above 4.0 (good to very good). The dual governance model involving the Audit Committee and the Board of Directors proved highly effective, jointly explaining 98.6% of the variance in internal audit performance and demonstrating strong model validity. The Audit Committee had a very strong direct effect on internal audit performance ($\beta = 0.364$, $p < 0.001$), while the Board of Directors also showed a significant effect ($\beta = 0.28$, $p < 0.001$), confirming the importance of both roles. The Coordination Mechanism exhibited an asymmetric mediating effect, mediating the relationship between the Board of Directors and internal audit performance but not that of the Audit Committee, whose influence remained directly dominant. Contextual factors significantly moderated the Board's influence but did not affect the Audit Committee's relationship with internal audit performance, indicating its relative robustness. Despite these strengths, improvements are needed, including formalizing coordination processes, expanding audit coverage of emerging risks such as cybersecurity and ESG, increasing the use of data analytics technology, and strengthening the strategic positioning of internal audit. Future research is recommended to explore longitudinal designs, incorporate larger and more diverse samples across industries or countries, and examine the impact of digital transformation and advanced analytics on internal audit effectiveness.

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