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ASSET CAPABILITY, STRATEGIC ORIENTATION, AND INTERNAL CONTROL IN ASSET MANAGEMENT

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Abstract: This study aims to analyze the influence of asset management capability and strategic orientation on asset management effectiveness, with internal control effectiveness serving as a mediating variable at the Directorate General of State Assets (DJKN). A quantitative research approach was employed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) with a sample of 102 DJKN employees. The findings reveal that asset management capability has a positive effect on internal control effectiveness but does not exert a significant direct effect on asset management effectiveness, and internal control effectiveness does not mediate this relationship. In contrast, strategic orientation demonstrates a positive and significant effect on both internal control effectiveness and asset management effectiveness, and the relationship between strategic orientation and asset management effectiveness is significantly mediated by internal control effectiveness. These results highlight the critical role of strengthening strategic orientation and internal control mechanisms, while indicating that improvements in asset management capability must be complemented by strategic initiatives and effective controls to generate direct impacts on state asset management performance.

Keywords: asset management, strategic orientation, internal control effectiveness, asset capability

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1. Introduction

As one of the units within the Ministry of Finance, the Directorate General of State Assets (DJKN) plays a strategic role in formulating and implementing policies related to state-owned goods, separated state assets, other state property, valuation, state receivables, and auctions. In carrying out these responsibilities, DJKN is required to perform its functions prudently, transparently, accountably, effectively, and efficiently in accordance with the principles of good governance as mandated by Law Number 28 of 1999 concerning the Implementation of a Clean and Corruption-Free State Administration.

The management of state assets has become one of the key pillars in realizing good governance and optimizing public resources. In Indonesia, DJKN serves as the central authority responsible for managing State-Owned Goods (BMN) and other state assets. According to DJKN (2025), the total value of BMN under management reached more than IDR 11,000 trillion in 2024. Despite the substantial value, these assets require efficient and effective management.

However, challenges arise when these assets are not always managed optimally. Issues include idle assets, incomplete maintenance records, and potential weaknesses in internal control systems and asset administration (DJKN, 2024). Such conditions may result in higher operational and maintenance costs while reducing the contribution of assets to non-tax state revenue (PNBP) through efficient utilization.

To improve asset management performance, variables such as Asset Management Capability and Strategic Orientation are crucial. Asset management capability encompasses the organization's ability to plan, maintain, operate, and manage asset-related risks, ensuring optimal utilization throughout their life cycle (Cooper, Lee, & Jones, 2020).

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Meanwhile, strategic orientation which includes market orientation, technology orientation, entrepreneurial orientation, and learning orientation encourages organizations to be adaptive to environmental changes and take advantage of innovative opportunities (Al-Barakat et al., 2023).

Although both variables are important, Asset Management Effectiveness cannot be guaranteed if internal control systems are weak. Internal control in the public sector, which includes reporting, operational, and compliance aspects, functions as a safeguard to ensure that organizational processes are orderly, transparent, and aligned with regulations (Otoo, Kaur, & Rather, 2023). As a mediating variable, Internal Control Effectiveness can strengthen the relationship between asset management capability and strategic orientation with the outcomes of asset management.

Previous studies in various sectors indicate that effective internal control systems improve reporting quality, operational efficiency, and regulatory compliance, which ultimately lead to better asset management performance. For example, Otoo, Kaur, & Rather (2023) found a significant positive relationship between internal control strength and organizational effectiveness. Similarly, Al-Barakat et al. (2023) emphasized that strong strategic orientation fosters organizational ambidexterity balancing exploration and exploitation which is highly relevant in the context of asset management.

2. Literature Review

Asset Management Capability

Asset management capability refers to an organization's competence in planning, maintaining, operating, and managing risks associated with assets to ensure their optimal utilization throughout the life cycle. Cooper, Lee, and Jones (2020) argue that asset management capability is not only about operational efficiency but also about the integration of sustainability principles to maximize long-term benefits. In the context of public sector organizations, asset management capability determines how effectively government resources are allocated, maintained, and utilized to support strategic objectives.

Strategic Orientation

Strategic orientation reflects the organizational direction in responding to external dynamics through market orientation, technology orientation, entrepreneurial orientation, and learning orientation. Al-Barakat et al. (2023) highlight that organizations with strong strategic orientation are more adaptive to changes and capable of balancing exploration and exploitation, which ultimately drives organizational ambidexterity. Narver and Slater (1990) initially defined market orientation as a business philosophy focused on customer needs, competitors' strategies, and inter-functional coordination. Over time, this concept has been extended to include technological adaptation, entrepreneurial initiatives, and organizational learning as vital dimensions of strategic orientation.

Internal Control Effectiveness

Internal control is an essential mechanism to safeguard organizational assets, ensure compliance with regulations, and enhance reporting quality. The Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2017) outlines five dimensions of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. In the public sector, effective internal control provides assurance that asset management processes are transparent, accountable, and compliant with statutory requirements (Hoai & Nguyen, 2022). Studies by Otoo, Kaur, & Rather (2023) demonstrate that robust internal control systems are positively associated with organizational efficiency and decision-making effectiveness.

Asset Management Effectiveness
Asset management effectiveness is reflected in the ability to utilize assets optimally, minimize operational and maintenance costs, and contribute to organizational performance. According to Cooper et al. (2020), indicators of asset management effectiveness include comfort, running cost, adaptability, maintenance cost, and community benefit. Research by Yulianti, Hartono, & Fadhilah (2023) shows that long-term asset planning increases utilization efficiency and reduces idle assets. In the government sector, effectiveness in asset management plays a pivotal role in enhancing non-tax state revenue (PNBP) and ensuring sustainable development.

3. Method

Research Design
This study employed a quantitative research approach with an explanatory (causal-explanatory) research design. The quantitative approach was considered appropriate because it enables the measurement of relationships among variables in a structured and statistical manner, ensuring objectivity and generalizability of the findings (Sekaran & Bougie, 2020). An explanatory design was chosen because the primary objective of this research is to test causal relationships and evaluate the extent to which Asset Management Capability and Strategic Orientation (independent variables) influence Asset Management Effectiveness (dependent variable), with Internal Control Effectiveness serving as a mediating variable.
This design is also consistent with prior research in organizational and public sector studies that often use explanatory approaches to test the validity of theoretical models and evaluate mediating mechanisms (Hair et al., 2019). By applying this design, the study not only identifies direct effects but also examines indirect pathways, thereby offering deeper insights into how internal control systems mediate the relationship between operational capabilities, strategic orientation, and organizational performance.

Population and Sample
The population of this study consists of employees and asset management officers at the Directorate General of State Assets (DJKN) in the Aceh regional office. Respondents were selected based on their direct involvement in the planning, maintenance, operation, and control of state assets. A purposive sampling technique was applied to ensure representativeness across work units. The minimum sample size was determined using the formula by Hair et al. (2017), which recommends 5–10 times the number of indicators. Based on this criterion, the sample size was estimated at approximately 150–200 respondents.

Research Instrument and Questionnaire Validation
The research instrument was a structured questionnaire using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The indicators used are as follows:

1. Asset Management Capability: Asset Planning, Maintenance and Reliability, Operation and Usage, Asset Risk Management (Cooper et al., 2020).
2. Strategic Orientation: Market Orientation, Technology Orientation, Entrepreneurial Orientation, Learning Orientation (Al-Barakat et al., 2023).

3. Internal Control Effectiveness: Reporting, Operational, Compliance (Hoai & Nguyen, 2022).
4. Asset Management Effectiveness: Comfort, Running Cost, Adaptability, Maintenance Cost, Community (Cooper et al., 2020).

Data quality testing procedures included:

1. Validity Test: conducted through convergent validity (loading factor ≥0.70) and discriminant validity using Average Variance Extracted (AVE) and square root of AVE compared to inter-construct correlations.
2. Reliability Test: conducted using Cronbach's Alpha and Composite Reliability with a threshold of ≥0.70 (Hair et al., 2017).

Data Collection Procedures

Data were collected through both online and offline distribution of questionnaires to qualified respondents. Prior to completion, respondents were provided with an explanation of the study's objectives, confidentiality assurances, and an informed consent form. Collected data were then processed through data cleaning to address missing values and outliers.

Data Analysis

The data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS software. The analysis stages included:

1. Measurement Model (Outer Model): testing convergent validity, discriminant validity, and construct reliability.
2. Structural Model (Inner Model): testing direct and indirect effects of Asset Management Capability and Strategic Orientation on Asset Management Effectiveness through Internal Control Effectiveness, using path coefficients, R^2 values, and bootstrapping for significance testing.

4. Result and Discussion

Validity Test

The measurement model for validity and reliability testing, the coefficient of determination, and the path coefficient of the structural model are presented in Figure 1.

Table 1. Average Variance Extracted (AVE)

Variable	AVE
Asset Management Effectiveness	0.729
Internal Control Effectiveness	0.684
Asset Management Capability	0.745
Strategic Orientation	0.681

Source: SmartPLS 3.0 Output, 2025

Based on the results of the measurement model, all constructs showed factor loadings greater than 0.60 and AVE values above 0.50, indicating that all constructs fulfilled the requirements for convergent validity.

Reliability Test

The results of the composite reliability and Cronbach's alpha tests are shown below:

Table 2. Composite Reliability and Cronbach's Alpha

Variable	Cronbach's Alpha	Composite Reliability
Asset Management Effectiveness	0.906	0.931
Internal Control Effectiveness	0.769	0.868
Asset Management Capability	0.886	0.921
Strategic Orientation	0.881	0.914

Source: SmartPLS 3.0 Output, 2025

A construct is considered reliable if it has a composite reliability value above 0.70 and Cronbach's alpha greater than 0.60. The results indicate that all constructs met these criteria, confirming their reliability.

Coefficient of Determination
The structural model results are shown in Table 3.

Table 3. Coefficient of Determination (R^2)

Variable	R^2
Internal Control Effectiveness	0.499
Asset Management Effectiveness	0.509

Source: SmartPLS 3.0 Output, 2025

The results indicate that Asset Management Capability and Strategic Orientation together explained 49.9% of the variance in Internal Control Effectiveness. Meanwhile, Asset Management Capability, Strategic Orientation, and Internal Control Effectiveness collectively explained 50.9% of the variance in Asset Management Effectiveness

Direct Effect Testing
The significance of direct effects was evaluated using path coefficients, t-statistics, and p-values (see Table 4).

Table 4. Path Coefficients

Hypothesis	Original Sample	Std. Dev.	T-Stat.	P-Value
Asset Management Capability → Internal Control	0.343	0.105	3.261	0.001
Strategic Orientation → Internal Control	0.431	0.101	4.269	0.000
Asset Management Capability → Asset Management	0.228	0.117	1.984	0.052
Strategic Orientation → Asset Management	0.273	0.133	2.052	0.041
Internal Control Effectiveness → Asset Management	0.317	0.127	2.503	0.013

Source: SmartPLS 3.0 Output, 2025

The findings demonstrate that Asset Management Capability exerts a positive and significant effect on Internal Control Effectiveness. This confirms that organizations with stronger capacities in asset planning, procurement, maintenance, and monitoring are better able to implement effective control mechanisms. In line with the resource-based view, such capabilities provide the foundation for integrating operational processes with governance requirements, thereby strengthening accountability and compliance (Ardito et al., 2021). This implies that asset management is not only a technical function but also a strategic enabler of sound internal control systems.

Furthermore, Strategic Orientation was found to have a positive and significant impact on both Internal Control Effectiveness and Asset Management Effectiveness. This highlights the importance of clear strategic direction, long-term vision, and adaptive policies in enhancing organizational control and performance. A strong strategic orientation enables organizations to allocate resources more effectively, prioritize risk management, and ensure that internal control systems remain aligned with dynamic environmental changes. These results are consistent with prior research emphasizing that organizations with a well-developed strategic orientation achieve greater ambidexterity, balancing efficiency with innovation, which ultimately strengthens governance structures (Al-Barakat et al., 2023; Rahmawati & Putra, 2024).

Interestingly, the direct relationship between Asset Management Capability and Asset Management Effectiveness was found to be positive but only marginally significant ($p = 0.052$). This suggests that while asset management capability contributes to effectiveness, its impact is more indirect, operating primarily through improvements in operational processes such as asset utilization, maintenance scheduling, and cost optimization rather than through direct influence. In practice, this indicates that asset management efforts may not immediately translate into effectiveness unless supported by robust governance frameworks and monitoring mechanisms.

Moreover, the results confirm that Internal Control Effectiveness plays a pivotal role in driving Asset Management Effectiveness. Internal control systems ensure accurate and reliable reporting, prevent asset misuse, and foster operational efficiency. These mechanisms act as safeguards that transform asset management capability and strategic direction into tangible performance outcomes. This finding is aligned with COSO (2017) and recent studies (Chen et al., 2023; Otoo et al., 2023), which emphasize the critical role of internal control in enhancing transparency, reducing fraud risk, and improving the efficiency of asset utilization in public organizations.

Taken together, these findings provide important theoretical and practical implications. Theoretically, the study strengthens the argument that internal control serves as a mediating mechanism through which strategic and operational capabilities influence performance outcomes. Practically, the results suggest that government institutions should not only invest in developing technical asset management competencies but also ensure the integration of these capabilities with strategic orientation and robust internal control systems. Without this alignment, asset management capability alone may not be sufficient to produce significant improvements in effectiveness.

Indirect Effect Testing

The mediating role of Internal Control Effectiveness was examined using bootstrapping analysis (Table 5).

Table 5. Mediation Testing Results

Hypothesis	Original Sample	Std. Dev.	T-Stat.	P-Value
Asset Management Capability → Internal Control → Asset Management	0.109	0.065	1.663	0.097
Strategic Orientation → Internal Control → Asset Management	0.137	0.067	2.025	0.043

Source: SmartPLS 3.0 Output, 2025

The results indicate that Internal Control Effectiveness did not significantly mediate the relationship between Asset Management Capability and Asset Management Effectiveness ($p = 0.097$). This finding implies that improvements in technical asset management competencies—such as planning, procurement, maintenance, and monitoring—contribute more directly to performance outcomes rather than being channeled through internal control systems. In other words, asset management capability strengthens operational efficiency and asset utilization in ways that are not fully contingent upon the robustness of internal control mechanisms. This suggests that the effectiveness of asset management capability is realized primarily through operational improvements rather than governance structures (Setiawan & Nugroho, 2021).

Conversely, Internal Control Effectiveness significantly mediated the effect of Strategic Orientation on Asset Management Effectiveness ($p = 0.043$). This result underscores that the benefits of strategic orientation—such as clarity of vision, long-term policy direction, and adaptive strategies are most impactful when translated into formalized internal control systems. Strategic orientation strengthens internal controls by embedding risk-based decision-making, performance monitoring, and compliance mechanisms into daily operations. This aligns with prior research demonstrating that organizations with a strong strategic orientation are better able to institutionalize control systems that ensure accountability and transparency, thereby enhancing asset management effectiveness (Ardito et al., 2021; Rahmawati & Putra, 2024).

Taken together, these findings suggest a nuanced dynamic: while asset management capability improves effectiveness directly, its contribution does not rely heavily on internal control mechanisms. By contrast, strategic orientation requires the mediation of internal control systems to translate vision and policies into practical improvements in asset management. This highlights the critical role of internal control as a governance bridge that transforms strategic intent into operational outcomes.

From a managerial perspective, the results provide two important insights. First, public institutions should recognize that strengthening asset management capability alone—without aligning it to robust governance structures may not fully optimize effectiveness. Second, the successful implementation of strategic orientation depends heavily on the reinforcement of internal control systems, suggesting that leaders must ensure that strategic plans are supported by clear procedures, compliance mechanisms, and monitoring systems.

Discussion

The results confirm that both Asset Management Capability and Strategic Orientation significantly contribute to enhancing Internal Control Effectiveness and Asset Management Effectiveness, albeit through different pathways. While asset management capability provides the technical foundation such as asset planning, utilization, and maintenance strategic orientation operates at a higher organizational level by shaping long-term direction, resource allocation, and governance practices. Among the two, Strategic Orientation emerges as the more influential factor, indicating that vision clarity and adaptive strategy are indispensable in ensuring effective asset management in public institutions.

This finding aligns with the view that asset management capability strengthens operational aspects and ensures that resources are properly maintained and utilized. Studies by Bromiley & Rau (2016), Setiawan & Nugroho (2021), and Sari et al. (2023) confirm that robust asset management capability supports internal control effectiveness by reducing risks of asset misuse and ensuring compliance with procedures. However, without a strong strategic orientation, these capabilities may remain underutilized or fragmented.

On the other hand, Strategic Orientation plays a pivotal role in embedding governance into daily organizational practices. Ardito et al. (2019) demonstrate that strategic orientation enhances organizational ambidexterity, allowing institutions to balance efficiency with innovation. Similarly, Wijaya et al. (2022) and Rahmawati & Putra (2024) provide empirical evidence that strategic clarity fosters adherence to internal controls and optimizes asset utilization in government organizations. By ensuring that policies, risk management, and monitoring systems are aligned with strategic goals, internal control effectiveness becomes not merely a compliance requirement but an enabler of performance excellence.

Taken together, these results suggest that asset management capability and strategic orientation are complementary rather than substitutive. Asset management capability ensures that the technical and operational aspects of asset utilization are carried out effectively, while strategic orientation ensures that these efforts are guided, integrated, and monitored within a governance framework. For public organizations such as government hospitals or asset management agencies, this implies that building technical skills in asset management must go hand in hand with cultivating strategic foresight and governance discipline. Only then can internal control systems function optimally to enhance both accountability and performance outcomes.

5. Conclusions

The findings of this study indicate that Asset Management Capability has a positive effect on Internal Control Effectiveness but does not exert a significant direct effect on Asset Management Effectiveness, nor is the relationship mediated by Internal Control Effectiveness. In contrast, Strategic Orientation has a positive and significant effect on both Internal Control Effectiveness and Asset Management Effectiveness, and its effect on Asset Management Effectiveness is significantly mediated by Internal Control Effectiveness.

These results highlight that while strengthening asset management capability is essential for improving internal control, it is insufficient to enhance asset management effectiveness without the support of a clear strategic direction. Strategic orientation which includes market, technology, entrepreneurial, and learning orientations plays a critical role in creating adaptive, well-planned, and sustainable asset management.

Based on these findings, it is recommended that public asset management institutions, particularly DJKN, prioritize the strengthening of strategic orientation through the utilization of technology, the reinforcement of an organizational learning culture, and the development of innovative policies that respond to environmental changes. Improving asset management capability remains important, particularly in supporting internal control effectiveness, but it must be integrated with a coherent strategic direction to generate tangible impacts on asset management performance. These efforts should also be accompanied by the reinforcement of internal control mechanisms to ensure that asset management policies and processes are implemented transparently, effectively, and in accordance with good governance principles..

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