



Linking Autonomy and Accountability: The Role of Internal Control in BLUD Hospitals

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Abstract. Decentralisation reforms in Indonesia have reshaped the governance of public health institutions through the Badan Layanan Umum Daerah (BLUD) framework, granting hospitals greater financial and administrative autonomy while maintaining public service obligations. Despite these reforms, significant variations in accountability outcomes persist, raising questions about the mechanisms through which autonomy translates into improved governance. This study investigates the influence of financial autonomy, administrative authority, and regulatory support on accountability performance in BLUD hospitals, with internal control effectiveness examined as a mediating variable. Drawing on good governance theory and the dynamic capabilities framework, the research employed a quantitative design using survey data from 180 senior administrators across BLUD hospitals in five Indonesian provinces. Partial Least Squares Structural Equation Modelling (PLS-SEM) was applied to test the measurement and structural models. The results demonstrate that financial autonomy, administrative authority, and regulatory support each exert significant positive effects on internal control effectiveness, which in turn strongly enhances accountability performance. Mediation analysis further confirmed that internal control serves as the critical mechanism linking decentralisation variables to accountability outcomes. Theoretically, the findings reconceptualise internal control as both a compliance mechanism and a dynamic capability, highlighting its dual role in ensuring integrity and enabling institutional adaptability. Practically, the study emphasises that autonomy reforms must be complemented by robust supervisory systems, coherent regulations, and capacity-building initiatives to achieve accountable governance in health institutions. These insights offer important policy guidance for strengthening decentralised health systems in Indonesia and comparable contexts.

Keywords: Decentralisation, BLUD hospitals, Financial Autonomy, Administrative Authority, Accountability Performance

1 Introduction

Indonesia's public health system has experienced substantial structural reform through the implementation of decentralisation policies aimed at enhancing institutional efficiency and responsiveness. A key component of this reform agenda is the *Badan Layanan Umum Daerah* (BLUD) framework, which was institutionalised through Law

No. 23 of 2014 on Regional Government and further operationalised by Ministerial Regulation No. 79 of 2018. The BLUD model grants public hospitals increased flexibility in managing finances and administrative affairs. By allowing hospitals to operate with business-like discretion while upholding public service responsibilities, the reform aspires to improve service quality, operational agility, and accountability in local health service delivery. This shift reflects a strategic realignment from centralised control to regionally governed public health institutions, with the expectation that autonomy will foster greater innovation, efficiency, and institutional performance.

Despite the intended benefits of decentralisation, practical outcomes across regions have been mixed. In Indonesia, the implementation of the BLUD model has revealed substantial disparities in hospital performance. While certain hospitals have demonstrated improvements in financial discipline and service delivery, others continue to face persistent governance challenges. These include weak internal control mechanisms, fragmented administrative authority, and inconsistent interpretation of regulatory frameworks. Such variations are compounded by institutional capacity gaps, leadership constraints, and uneven regional preparedness. Similar outcomes have been observed in other decentralised health systems, where autonomy does not automatically translate into improved accountability or performance [1, 2, 3]. In several cases, managerial discretion remains restricted by centralised functions such as procurement and human resource management, while the absence of coherent oversight frameworks has contributed to procedural inconsistencies and reduced institutional trust [4].

The effectiveness of internal control systems has emerged as a key determinant of whether autonomy strengthens accountability performance. Previous studies highlight that weak internal governance, limited oversight, and regulatory ambiguity can undermine the anticipated benefits of decentralisation [5, 2, 6]. By contrast, strong internal controls reinforce financial transparency, enhance risk management, and ensure compliance with established procedures. Leadership quality and organisational capacity at the hospital level have also been identified as critical in shaping whether autonomy fosters innovation or leads instead to administrative fragmentation [1, 4].

Against this background, the present study examines the relationship between hospital autonomy and accountability within Indonesia's decentralised governance framework. Specifically, it evaluates how financial autonomy, administrative authority, and regulatory support influence accountability performance in BLUD hospitals, while also testing the mediating role of internal control effectiveness. Anchored in good governance theory and the dynamic capabilities framework, this research provides an integrated approach to understanding how autonomy interacts with internal mechanisms and regulatory environments to strengthen institutional integrity.

Although previous research has advanced the study of autonomy and governance in health systems, there remains a lack of comprehensive empirical models that integrate autonomy, internal control, and accountability into a single analytical framework. Much of the existing literature has considered these elements separately, thereby overlooking their interdependencies [2, 3]. Furthermore, limited application of advanced quantitative methods, particularly Structural Equation Modelling–Partial Least Squares (SEM-PLS), constrains deeper understanding of both the direct and indirect pathways linking decentralisation to governance outcomes. This study addresses these gaps by

constructing and validating a structural model based on data from 180 BLUD hospital administrators across multiple provinces, thereby offering empirical evidence and theoretical contributions to the discourse on health sector governance under decentralised regimes.

2 Literature Review

2.1 Theoretical Framework: Good Governance and Dynamic Capabilities in Decentralised Health Systems

The governance of public health institutions has undergone substantial change in response to decentralisation reforms. Within this context, the good governance framework has become central, emphasising principles such as transparency, accountability, participation, integrity, and regulatory compliance. These principles are vital to ensuring that public institutions are able to deliver equitable and effective services [1, 4].

In Indonesia, particularly within BLUD (Badan Layanan Umum Daerah) hospitals, good governance is both a functional and structural necessity. Autonomy must be exercised within the boundaries of accountability, requiring robust internal control systems and oversight mechanisms. Evidence from decentralised health systems indicates that autonomy, if unsupported by strong institutional arrangements, may fail to improve organisational outcomes [2, 3].

Complementing this normative framework, the dynamic capabilities approach provides an operational perspective, focusing on how organisations integrate and reconfigure resources to respond to changing environments. Decentralised health institutions demonstrate resilience when they are able to align policies, adjust to regulatory demands, and strengthen internal processes [4, 5]. This study draws on both frameworks to explain how structural autonomy interacts with governance mechanisms to shape accountability performance.

2.2 Financial Autonomy and Internal Control Effectiveness

Financial autonomy refers to the discretion granted to BLUD hospitals to generate and manage revenues, prepare budgets, and undertake procurement. While autonomy enhances institutional flexibility, the absence of adequate control systems increases risks of inefficiency and misuse of resources. Prior studies emphasise that fiscal autonomy must be supported by audit readiness, budgetary compliance, and monitoring systems to strengthen accountability outcomes [2, 3].

- **H1:** Financial autonomy positively affects internal control effectiveness.

2.3 Administrative Authority and Internal Control Effectiveness

Administrative authority refers to the level of discretion provided to hospitals in managing human resources, services, and procurement decisions. In theory, greater discretion should enhance responsiveness and innovation. However, decentralisation research

cautions that administrative discretion, without adequate capacity and oversight, may lead to fragmentation [1].

For BLUD hospitals, effective administrative authority requires institutional mechanisms such as internal audits, compliance systems, and review procedures. When these controls are embedded, administrative authority is more likely to strengthen institutional performance [5].

- **H2:** Administrative authority positively affects internal control effectiveness.

2.4 Regulatory Support and Internal Control Effectiveness

Regulatory support encompasses the clarity, consistency, and adequacy of regulations that guide BLUD operations. In many decentralised systems, unclear or overlapping regulations have led to weak institutional accountability. Conversely, coherent regulation facilitates standardised procedures, reduces discretionary misuse, and strengthens audit mechanisms [4].

Evidence shows that regulatory alignment significantly enhances the performance of internal control systems in decentralised health institutions [2, 3].

- **H3:** Regulatory support positively affects internal control effectiveness.

2.5 Internal Control Effectiveness and Accountability Performance

Internal control effectiveness refers to the strength of institutional mechanisms that monitor, evaluate, and enforce compliance. These include internal audits, risk assessments, and performance monitoring tools. In decentralised governance, internal control serves as the interface between autonomy and accountability. Without such systems, the benefits of decentralisation may not be realised [6].

Empirical studies have confirmed that effective internal control enhances transparency, reduces risks, and improves institutional accountability in decentralised health systems [2, 5].

- **H4:** Internal control effectiveness positively affects accountability performance.

2.6 Mediating Role of Internal Control Effectiveness

Decentralisation assumes that increased autonomy improves performance outcomes. However, this relationship is not automatic and is contingent on internal institutional mechanisms. Internal control effectiveness is frequently identified as the mediating factor linking autonomy and accountability [2].

From the perspective of dynamic capabilities, internal control systems allow institutions to transform autonomy into tangible accountability outcomes by realigning processes with regulatory and operational demands. These systems therefore not only ensure compliance but also enhance organisational adaptability [4].

- **H5:** Internal control effectiveness mediates the relationship between decentralisation variables (financial autonomy, administrative authority, regulatory support) and accountability performance.

The theoretical underpinnings and empirical literature reviewed in this chapter support the development of a structural model that seeks to explain how decentralisation mechanisms influence institutional accountability in BLUD hospitals. The model posits that internal control effectiveness functions as a key mediating variable, linking decentralised authority and regulatory support with accountability performance. The following hypotheses are derived to be tested in the subsequent empirical analysis.

3 Methodology

This study employs a quantitative research design to examine the influence of decentralisation-related governance factors on accountability performance within BLUD (Badan Layanan Umum Daerah) hospitals. The conceptual model focuses on three independent variables, namely financial autonomy, administrative authority, and regulatory support, which are hypothesised to affect accountability performance both directly and indirectly through the mediating role of internal control effectiveness. The theoretical foundation builds on the principles of good governance and the dynamic capabilities framework, both of which emphasise that institutional autonomy requires strong governance mechanisms and internal capacities in order to produce accountability outcomes [1, 4].

Data were collected through a structured questionnaire distributed to 180 senior administrators across BLUD hospitals in five Indonesian provinces. These provinces were selected to reflect institutional diversity, regulatory variation, and differing levels of administrative readiness. Respondents included directors, deputy directors, financial managers, internal auditors, and division heads, all of whom occupied strategic governance roles and possessed a minimum of two years of professional experience in institutional management. This purposive selection ensured that the perspectives gathered came from individuals directly engaged in the governance and accountability processes of BLUD institutions. Previous research highlights that managerial capacity is critical in determining whether decentralised authority translates into improved performance [2, 5].

The final sample size of 180 responses was considered adequate for analysis using Partial Least Squares Structural Equation Modelling (PLS-SEM). According to methodological standards, PLS-SEM is appropriate for models involving multiple latent constructs and mediating variables in governance research, especially in contexts with moderate sample sizes [2, 6].

All measurement items were adapted from established studies in governance and accountability, and adjusted to the Indonesian decentralised healthcare context. The survey used a seven-point Likert scale, ranging from strong disagreement (1) to strong agreement (7). Financial autonomy was operationalised through items related to internal revenue management, budgeting authority, and procurement flexibility. Administrative authority was captured through measures of managerial discretion in staffing

and service delivery. Regulatory support was defined as the clarity, consistency, and sufficiency of regulations guiding hospital operations [4]. Internal control effectiveness was measured through indicators of audit quality, compliance mechanisms, and risk monitoring [5, 6]. Accountability performance was assessed through measures of financial transparency, responsiveness to audit, and disclosure practices [2].

Data analysis was conducted using SmartPLS version 4, following a two-step approach of evaluating the measurement model and testing the structural model. Convergent validity was assessed using the average variance extracted (AVE), reliability was evaluated through composite reliability, and discriminant validity was confirmed using the heterotrait-monotrait ratio. Structural paths were tested through bootstrapping with 5,000 resamples to establish the significance of coefficients. The mediating role of internal control effectiveness was further examined using the variance accounted for method, in line with current recommendations for governance research employing PLSSEM [1, 2].

This methodological design responds to concerns in decentralisation research that granting autonomy without adequate institutional mechanisms does not guarantee improved accountability. Institutional performance is determined not only by autonomy but also by the presence of strong internal governance structures and leadership capacity [4, 6]. By focusing on senior administrators directly embedded in the governance architecture of BLUD hospitals, this study ensures that its findings reflect the operational realities of decentralised health service delivery.

4 Result

The results of the empirical analysis conducted in this study. As outlined in Chapter 1, the purpose of this research is to examine the relationship between financial autonomy, administrative authority, and regulatory support with accountability performance, with internal control effectiveness serving as a mediating variable. This chapter begins with an overview of the respondents' demographic and occupational profiles, followed by the presentation of measurement model testing and structural model results. The results are presented in descriptive, statistical, and structural forms in order to provide a comprehensive view of how governance mechanisms operate within BLUD hospitals under a decentralised system. The demographic and occupational characteristics of the respondents are presented in Table 1.

Table 1. Demographic and Occupational Characteristics of Respondents

Category	Subcategory	Frequency	Percentage
Gender	Male	110	61.1
	Female	70	38.9
Age Group	<35 years	33	18.3
	35–45 years	83	46.1
	>45 years	64	35.6
Position in Hospital	Director/Deputy Director	29	16.1
	Finance/Admin Manager	41	22.8

	Internal Auditor/SPI Staff	47	26.1
	Unit Head/Division Manager	34	18.9
	Senior Functional Staff	29	16.1
Work Experience	<5 years	24	13.3
	5–10 years	62	34.4
	>10 years	94	52.2
Education Level	Diploma	38	21.1
	Undergraduate (S1)	102	56.7
	Postgraduate (S2/S3)	40	22.2
BLUD Type	Type A	24	13.3
	Type B	88	48.9
	Type C	68	37.8
Province	DKI Jakarta	35	19.4
	West Java	36	20.0
	Central Java	38	21.1
	South Sulawesi	37	20.6
	West Sulawesi	34	18.9

The demographic characteristics indicate that the majority of respondents were male (61.1%) while females represented 38.9%. This distribution reflects the composition of managerial and supervisory positions in BLUD hospitals, where male employees still dominate strategic roles. In terms of age, most respondents were between 35 and 45 years (46.1%), followed by those over 45 years (35.6%). This suggests that the respondents were largely in mid-career or senior stages, providing them with sufficient institutional experience to contribute to governance-related decisions.

Regarding occupational categories, internal auditors and SPI staff (26.1%) and finance or administrative managers (22.8%) represented the largest groups, followed by directors or deputy directors (16.1%) and unit/division heads (18.9%). This composition demonstrates that the respondents were concentrated in roles closely associated with financial management, control, and oversight functions. More than half of the respondents had more than ten years of work experience (52.2%), which enhances the reliability of their perspectives, while 34.4% had five to ten years of service, further supporting the maturity of the sample group.

In terms of educational attainment, undergraduate graduates formed the majority (56.7%), while 22.2% had postgraduate qualifications. The institutional distribution shows that almost half of the respondents came from Type B BLUD hospitals (48.9%), followed by Type C (37.8%) and Type A (13.3%). Finally, the geographic distribution was relatively balanced across Central Java (21.1%), West Java (20.0%), East Java (19.4%), South Sulawesi (20.6%), and South Kalimantan (18.9%), thereby ensuring regional representativeness of decentralised health governance contexts. The descriptive statistics and construct reliability results for the measurement model are reported in Table 2.

Table 2. Descriptive Statistics and Construct Reliability for Measurement Model

Construct	Item	Mean	St. Dev.	Outer Loading	Cronbach's Alpha	CR	AVE
Financial Autonomy (FA)	FA1	3.92	0.81	0.842	0.867	0.903	0.701
	FA2	3.88	0.79	0.827			
	FA3	3.97	0.77	0.851			
	FA4	3.90	0.82	0.812			
Administrative Authority (AA)	AA1	4.01	0.73	0.859	0.884	0.918	0.691
	AA2	4.08	0.72	0.873			
	AA3	3.95	0.74	0.841			
	AA4	4.02	0.70	0.853			
Regulatory Support (RS)	RS1	3.89	0.76	0.824	0.852	0.889	0.667
	RS2	3.94	0.78	0.811			
	RS3	3.91	0.74	0.835			
	RS4	4.00	0.75	0.802			
Internal Control Effectiveness (IC)	IC1	4.06	0.71	0.865	0.896	0.923	0.708
	IC2	4.11	0.70	0.879			
	IC3	4.02	0.69	0.847			
	IC4	4.07	0.73	0.864			
Accountability Performance (AP)	AP1	4.12	0.72	0.872	0.901	0.929	0.725
	AP2	4.08	0.70	0.861			
	AP3	4.14	0.71	0.878			
	AP4	4.09	0.72	0.852			
	AP5	4.05	0.73	0.839			

The descriptive statistics show that the mean values of all measurement items ranged from 3.88 to 4.14, indicating that respondents generally expressed favourable perceptions towards the constructs examined. The standard deviations varied between 0.69 and 0.82, suggesting relatively low variability and consistent responses among the participants. This stability strengthens the reliability of the measurement model in reflecting the respondents' evaluations of decentralisation, internal controls, and accountability performance.

The results of the outer loadings indicate that all indicators met the minimum threshold of 0.70, with values ranging from 0.802 to 0.879. This confirms that each item contributed adequately to its respective construct and reflected strong indicator reliability. In addition, the Cronbach's Alpha values for all constructs exceeded 0.85, and the Composite Reliability (CR) scores ranged from 0.889 to 0.929. Both measures surpassed the recommended cut-off of 0.70, thereby confirming internal consistency across the measurement items.

The Average Variance Extracted (AVE) values for all constructs were above 0.50, ranging from 0.667 to 0.725, which supports the convergent validity of the measurement model. This implies that the indicators within each construct shared a substantial proportion of variance. Taken together, these results indicate that the measurement model is both reliable and valid for further structural analysis in assessing the relationships between financial autonomy, administrative authority, regulatory support, internal control effectiveness, and accountability performance. The path coefficients and significance values of the structural model are summarized in Table 3.

Table 3. Path Coefficients and Significance Values of the Structural Model

Path	Original Sample (β)	Std. Dev.	t-stat.	p-values	Decision
FA \rightarrow IC	0.314	0.061	5.148	0.000***	H1 accepted
AA \rightarrow IC	0.289	0.058	4.983	0.000***	H2 accepted
RS \rightarrow IC	0.326	0.063	5.175	0.000***	H3 accepted
ICE \rightarrow AP	0.402	0.067	5.985	0.000***	H4 accepted
FA \rightarrow IC \rightarrow AP	0.126	0.039	3.231	0.001**	H5a accepted
AA \rightarrow IC \rightarrow AP	0.116	0.037	3.135	0.002**	H5b accepted
RS \rightarrow IC \rightarrow AP	0.131	0.041	3.268	0.001**	H5c accepted

Note: $t > 1.96$. *** $p < 0.001$; ** $p < 0.05$.

The structural model results indicate that all direct hypothesised paths were statistically significant. Financial autonomy, administrative authority, and regulatory support each exhibited positive effects on internal control effectiveness, with path coefficients of 0.314, 0.289, and 0.326, respectively. The t-statistics for these relationships ranged between 4.983 and 5.175, all exceeding the critical threshold of 1.96, while the p-values were below 0.001, leading to the acceptance of H1, H2, and H3. Furthermore, internal control effectiveness demonstrated a strong positive influence on accountability performance ($\beta = 0.402$, $t = 5.985$, $p < 0.001$), supporting H4. The mediation analysis also confirmed that internal control effectiveness significantly mediated the relationships between financial autonomy, administrative authority, and regulatory support with accountability performance. The indirect effects were positive and statistically significant, with coefficients ranging from 0.116 to 0.131 and t-values above 3.0 ($p < 0.01$). These results provide statistical evidence for the acceptance of H5a, H5b, and H5c, demonstrating the importance of mediation pathways within the tested model.

Empirical literature strongly supports these findings. Financial autonomy has been shown to improve institutional performance by enhancing the quality of financial information, ensuring resource efficiency, and strengthening internal controls through greater managerial discretion [7, 8, 9]. Similarly, administrative authority enables

proactive decision-making, improves compliance, and fosters more effective monitoring of institutional performance [9, 10]. Regulatory support further reinforces internal controls by providing clarity and consistency in governance frameworks, reducing procedural ambiguities, and ensuring transparency and compliance [10, 11]. Collectively, these factors directly strengthen internal control effectiveness, which plays a crucial role in preventing fraud, ensuring regulatory compliance, and producing reliable financial statements [12, 13, 14].

Moreover, the study confirms that internal control effectiveness mediates the influence of financial autonomy, administrative authority, and regulatory support on accountability performance. This finding resonates with prior evidence that robust internal control mechanisms not only safeguard compliance but also act as strategic tools for promoting transparency, answerability, and good governance [9, 14, 15]. Prior studies also highlight that internal control systems, when integrated with accountability mechanisms, enhance both organisational and financial performance across public sector and healthcare contexts [13, 16]. Thus, the results of this study align with existing evidence while extending the understanding of how decentralisation variables can be transformed into stronger governance outcomes through the mediating role of internal control effectiveness.

5 Discussion

The present study examined the influence of financial autonomy, administrative authority, and regulatory support on internal control effectiveness, and the role of internal control in mediating accountability performance within BLUD hospitals. The structural model revealed that all hypothesised relationships were statistically significant, suggesting that decentralisation mechanisms contribute positively to governance outcomes when internal control systems are well institutionalised. These findings confirm that autonomy in itself does not guarantee improved institutional performance; instead, its benefits are realised only when embedded within effective systems of monitoring, auditing, and compliance [1, 2]. The results further demonstrate that internal control effectiveness serves as a strong predictor of accountability performance, in line with established governance frameworks that emphasise financial transparency and risk management as essential for institutional integrity [6, 17, 18].

From a theoretical perspective, this study contributes to the literature by integrating good governance principles with the dynamic capabilities framework. Prior studies have often treated decentralisation either as a normative aspiration or as a structural reform, while overlooking the operational mechanisms that translate autonomy into outcomes [4]. The findings suggest that internal control can be conceptualised both as a governance instrument and as a dynamic capability that enables hospitals to adapt processes, align with regulatory requirements, and respond to environmental changes. This dual role enriches theoretical understanding by positioning internal control not only as a compliance mechanism but also as a strategic resource that links autonomy with accountability in decentralised health systems [2, 3].

The practical implications of these findings are relevant for policymakers, regulators, and hospital administrators. For policymakers, granting financial and administrative autonomy to BLUD hospitals should be accompanied by investments in strengthening supervisory and internal audit units to safeguard accountability [1, 5]. Regulatory authorities should prioritise clarity and consistency in ministerial and local-level regulations, as ambiguity undermines internal governance ([4]. At the institutional level, hospital managers are encouraged to integrate internal control into daily operations rather than treating it as a compliance obligation. Training and capacity-building initiatives for financial managers and SPI staff are essential to ensuring that autonomy is exercised responsibly, ultimately improving service delivery and public trust [6].

This study, however, has several limitations. The empirical evidence was derived from a sample of BLUD hospitals in selected provinces, which may restrict the generalisability of findings across the national health system. Future research could extend the geographical scope or engage in cross-provincial comparisons to capture regional variations more comprehensively [2]. The cross-sectional survey design also limits causal inference; longitudinal designs would allow for the assessment of how governance reforms evolve over time. Furthermore, this study primarily examined institutional governance variables, without considering external influences such as political dynamics, community participation, or variations in fiscal capacity, which may shape governance outcomes [1]. Finally, while the use of SEM-PLS provides robust statistical validation, complementary qualitative methods, such as in-depth interviews or case studies, could enrich understanding of how internal controls are operationalised in practice [5]. In conclusion, the findings affirm that financial autonomy, administrative authority, and regulatory support positively influence accountability performance when mediated by internal control effectiveness. The study underscores the importance of combining good governance with dynamic capabilities to strengthen institutional integrity. By emphasising both theoretical contributions and practical recommendations, the results provide a roadmap for advancing governance reforms in decentralised health systems, particularly in the context of BLUD hospitals in Indonesia.

6 Conclusion

This study examined the impact of financial autonomy, administrative authority, and regulatory support on accountability performance in BLUD hospitals, with internal control effectiveness as both a direct driver and a mediating factor. The findings revealed that all decentralisation variables significantly enhanced internal control effectiveness, which subsequently improved accountability performance. The results also confirmed that internal control serves as the key mechanism through which autonomy and regulation are translated into accountable governance outcomes.

From a theoretical perspective, the study advances the literature by linking good governance theory with the dynamic capabilities framework. Internal control, traditionally regarded as a compliance mechanism, is reconceptualised as a dynamic capability that enables hospitals to adjust processes, strengthen oversight, and align operations with evolving regulatory frameworks. This integration extends existing governance

theories by emphasising that accountability outcomes are not guaranteed by decentralisation alone but depend critically on the strength of internal control systems.

The practical implications are highly relevant to the governance of public health institutions in real-world contexts. For policymakers, the findings underscore that the granting of financial and administrative autonomy must be complemented by the establishment of strong supervisory and monitoring units. In the absence of such systems, autonomy risks creating inefficiencies and misuse of public funds. Regulatory authorities are urged to design and maintain coherent regulations that reduce overlap and ambiguity, ensuring that hospital managers operate under predictable and supportive governance frameworks.

For hospital administrators, the evidence demonstrates that internal control is not simply an external compliance requirement but a management tool that should be embedded into routine operations. In practice, this means that SPI (Internal Supervisory Units) should be empowered with adequate authority, resources, and technical skills to oversee financial management and operational processes effectively. Regular training programmes for finance managers, internal auditors, and unit heads will enhance their capacity to apply internal control measures in daily decision-making. Furthermore, integrating digital financial systems and audit readiness procedures can improve transparency and reduce the risk of resource misallocation. In the real-world setting of BLUD hospitals, such measures are essential to balance the dual mandate of providing public health services and maintaining financial sustainability.

Despite its contributions, this study has limitations. The analysis was conducted in selected provinces, which may limit the generalisability of findings across all Indonesian regions or other countries with different institutional arrangements. Future research could broaden the scope geographically or include comparative studies across decentralised health systems internationally. The reliance on cross-sectional data also restricts the ability to establish causality, suggesting that longitudinal studies would be beneficial to capture changes over time. In addition, the study did not examine contextual variables such as political dynamics, stakeholder participation, or variability in financial resources. Including these dimensions in future research would provide a more comprehensive picture of hospital governance. Finally, while this study employed quantitative methods, qualitative approaches such as interviews or case studies could generate deeper insights into the mechanisms through which internal control operates as both a governance mechanism and a strategic capability.

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