

Implementing Public Asset Management through Islamic Government: The Roles of Good Governance, Internal Control, and Regulation in Aceh

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Abstract

Regional asset management remains a persistent governance challenge in Indonesia, particularly in Aceh Province, where public administration operates within an institutional environment influenced by Islamic values. Previous studies have generally examined good governance, internal control systems, and regulation separately, while limited empirical research has examined their integrated role in public asset management, particularly by considering regulation as a moderating mechanism. This study therefore examines the effects of good governance and internal control systems on public asset management and investigates whether regulation moderates these relationships within the context of Islamic government in Aceh. The study employed a quantitative approach using survey data from 57 officials directly involved in regional asset management within the Aceh Provincial Government. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with bootstrapping procedures. The findings indicate that good governance has a positive and significant effect on public asset management ($\beta = 0.327$, $p = 0.048$), while the internal control system also has a positive and significant effect ($\beta = 0.355$, $p = 0.027$). Regulation does not significantly moderate the relationship between good governance and asset management ($p = 0.487$), but significantly strengthens the relationship between internal control systems and asset management ($p = 0.008$). The study contributes to public-sector asset management research by integrating governance, internal control, and regulatory mechanisms into a single empirical model and interpreting the findings through the normative principles of Islamic governance, particularly amanah, justice, and maqasid al-shariah, in the institutional context of Aceh.

KEYWORDS

good governance; internal control system; regulation; public asset management; islamic governance.

Introduction

Public asset management remains a persistent governance challenge in Aceh Province. Audit findings frequently reveal issues related to asset administration, inventory accuracy, utilization, and accountability. From the perspective of agency theory, public officials act as agents responsible for managing government assets on behalf of society as the principal. Information asymmetry and weak monitoring mechanisms may create opportunities for inefficient asset utilization, misreporting, or misuse of public resources. Therefore, governance mechanisms such as good governance practices, internal control systems, and regulatory frameworks are required to reduce agency problems and improve public asset accountability. In public sector, agency relationships arise between citizen as the ultimate principals, represented institutionally by legislatures and central government authorities, and public officials who act as agents may prioritize personal interests over the interests of the principal (Khan et al., 2024). Assets, as state or regional property, are inextricably related to state finances, hence

accountability for asset management is included in the notion of state financial accountability (Azhar et al., 2026). Local governments require good asset management to monitor, calculate, and comprehend the status of their assets or property so that they can be used to their full potential. Asset management is an important part of public finances. Article 1 of Law Number 17 of 2003 defines State Finances as all state rights and duties that may be valued in monetary terms, as well as any monetary assets or products that the state may own in connection with the implementation of these rights and obligations. Some regions struggle to identify regional assets, preventing them from increasing revenues. (Ratmono & Rochmawati, 2018) identify two decisive criteria for optimizing these assets: needs planning and inventory. Asset optimization can be improved through proper planning and inventory management.

Despite the fact that regional administrations in Indonesia have been granted autonomy, regional asset management may be unsatisfactory. According to (Prayogi et al., 2021), various factors contribute to asset management challenges at the Government Agency, including a lack of understanding of work-related legislation, poor information systems, and human resource competency. This implies that the higher the competency of human resources, the better and more organized asset management within a work unit. Many elements influence asset management success in the government. Asset management necessitates task-specific abilities, such as relevant knowledge, skills, experience, behaviour, attitudes, and qualities. According to (Kaewunruen et al., 2025), asset maintenance and end of life management activities must be tracked throughout the asset's life cycle in order to provide adequate asset optimization with full data. Asset management involves two major challenges: internal concerns such as poor data collection, financial limits, and limited human resources, and external issues such as complex legislation and the potential of asset misuse. Second, the prospects are immense, especially in asset optimization and government policy assistance. If difficulties can be solved with the right strategy, there is a huge possibility to make assets a significant driver of regional development and sustainability. Good asset management not only improves efficiency but also creates additional economic, social, and environmental value for the society, (Atolagbe & McNeil, 2023).

Organizations with skilled and capable people resources in specialized areas will also achieve high-quality results. Regulation is one of the issues that affect asset management. According to (Mainar et al., 2017), regulation is a crucial assurance for the correct implementation of regional asset management, implicitly ensuring that there will be no potential deviations or fraud throughout the regional asset management phase. Internal controls also have an impact on asset management. Management control systems are critical for improving efficiency and ensuring policy compliance (Tauda et al., 2025). (Jamal & Motani, 2024) found that internal control has a good impact on regional asset management. To improve fixed asset management effectiveness, all components of the internal control system must be effectively created, including the control environment, risk assessment, control activities, information and communication, and monitoring. (Rafly et al., 2022) find that good governance has a considerable impact on public asset management. Good governance allows for the successful exercise of political, economic, and administrative authority in this 21st century that One of the global trends which pursue excellent governance serves as a model for emerging countries dealing with widespread corruption in their government systems. Regulation is a term used to describe the conscious process of establishing rules governing relationships between individuals in society. In

government management, guidelines and regulations are mandatory tasks, alongside the tools and instructions used to govern the community. Several previous studies have shown that regulation significantly impacts asset management (Rahmadani et al., 2024). Regulation is a necessary guarantee for proper asset management within the government, which indirectly prevents potential irregularities or fraud from occurring during the regional asset management process. In agency theory, regulation serves as an external control mechanism, acting as a tool to limit agent behaviour and as a tool to suppress moral hazard. Regulation can shape organizational behaviour that limits opportunistic behaviour. Regulation strengthens the oversight system and clarifies sanctions for violations.

Studies suggest that strong governance can have a major impact on asset management techniques, resulting in better financial outcomes (Jabbouri & Almustafa, 2021). Good governance prioritizes justice, dignity, equality, self respect, and equitable distribution of development benefits to the community. Good governance principles, reinforced by rules, have a considerable positive impact on asset management, with the notions of participation, transparency, responsibility, independence, fairness, and accountability serving as its cornerstones. These principles will enable asset management that is compliant with government legislation and institutional objectives (Rafly et al., 2022). Good governance allows for the successful exercise of political, economic, and administrative authority.

The internal control system in agency theory is a monitoring mechanism to reduce opportunistic agent behavior, reduce agency costs, and ensure compliance with policies. Weak internal controls often cause the loss or misappropriation of assets, so an internal control system is needed to control the asset management process. An internal control system is a series of operations carried out by people in every organization, including the leadership body, executives, and other employees (Harnando, 2024). According to (Giannopoulos et al., 2025), An internal control system is a process that involves the actions and activities of management and employees to provide reasonable assurance and certainty in achieving organizational goals through efficient and effective operations, reliable financial reporting, safeguarding assets, and compliance with laws and regulations.

Asset management is a form of agent accountability to the principal. In agency theory, the principal is expected to manage assets efficiently, as asset inefficiency will increase agency costs (Azhar et al., 2026). Good asset management demonstrates the success of the oversight mechanism in the agency system. Regional asset management is crucial for fair financial reporting. Errors in analyzing regional assets/property can result in material errors due to their relatively high investment value, as well as disrupt the course of government activities. According to regulation Number 7 of 2024 by the Minister of Home Affairs, regional assets management encompasses all activities such as planing and budgeting, purchasing, use and utilization, security and maintenance, assessment, transfer, destruction, disposal, administration and guidance, supervision, and control. Regional Asset Management implements Regional Asset/Property management based on the basic principles of asset management for assets by adhering to policies regulated by Laws, Government Regulations, Presidential Decrees, Ministerial Decrees, and other Decrees relating to the regulation/management of regional assets. In Islam, public assets (al-amwāl al-āmmah) are considered a trust from Allah SWT and should be administered by the government (ulil amri) for the benefit of the people. As a result, Islamic asset management emphasizes not only technical and economic factors, but also moral, spiritual, and social justice principles (Rusydi, 2023).

The novelty of this study lies in three aspects that contribution to public sector asset management. First, previous studies generally examined the influence of good governance (Rafly et al., 2022), internal control systems (Giannopoulos et al., 2025) or regulation (Azhar et al., 2020) independently. In contrast, this study integrates these governance mechanisms into a unified explanatory framework to explain public asset management performance. Second, unlike previous studies that treated regulation solely as an independent variable, this research models regulation as a moderating construct that may strengthen or weaken the influence of governance mechanisms on asset management. Third, while prior studies mainly discussed Islamic governance as a normative concept, this research interprets governance mechanisms through the principles of amanah, al-'adalah, and maqasid al-shariah. Within the proposed model, amanah is reflected in accountability and transparency practices, al-'adalah is represented through fairness and equitable decision-making, and maqasid al-shariah provides the normative objective of ensuring that public assets are managed to maximize public welfare (Gunawan et al., 2025).

Previous public sector asset management studies have examined several governance-related determinants, but their analytical emphases differ from the model proposed in this study. (Jamal & Motani, 2024) for example, examined the role of internal control in regional asset management, emphasizing the importance of control mechanisms in improving asset management effectiveness. (Rafly et al., 2022) examined the influence of good governance on public asset management and demonstrated the importance of governance principles such as transparency, accountability, and participation (Azhar et al., 2022) examined determinants of asset management in a local government context, highlighting the importance of organizational and managerial factors. More recently, (Dewabrata & Firmansyah, 2024) examined determinants of state property management and emphasized the role of internal control in strengthening asset management effectiveness. These studies provide important evidence regarding individual governance mechanisms, but they do not simultaneously examine good governance and internal control within a single public asset management model while positioning regulation as a moderator of these relationships.

The present study differs from these studies in two main respects. First, the empirical model simultaneously examines good governance and internal control systems as predictors of public asset management and regulation as a moderating construct. This allows the study to assess not only whether governance mechanisms influence asset management, but also whether the regulatory environment changes the strength of these relationships. Second, the study is situated in Aceh Province, where public administration operates within an institutional environment influenced by Islamic values. Accordingly, Islamic governance is not treated as an additional quantitative variable or as a causal construct in the empirical model. Instead, the principles of amanah, justice (al-'adalah), and maqasid al-shariah are used as a normative interpretive framework for understanding the implications of the empirical findings. This distinction separates the empirical contribution of the study from its Islamic governance interpretation.

This study contributes to public-sector accounting literature by extending agency theory into the context of public asset management under Islamic governance. The findings demonstrate how governance mechanisms and regulatory frameworks can reduce information asymmetry and strengthen accountability in managing public assets. Furthermore, the study provides empirical evidence from Aceh Province, an institutional setting characterized by the

implementation of Islamic values in public administration.

Methods

The questionnaire was developed from validated instruments used in previous studies. All indicators were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Data collection was conducted between January and March 2025. Respondents consisted of officials responsible for regional asset administration, including asset managers, financial administration officers, heads of asset divisions, and supporting staff within the Regional Financial Management Agency (BPKD) of Aceh Province. A total of 57 questionnaires were distributed and returned, resulting in a response rate of 100 percent. The sample size satisfies the minimum requirement for PLS-SEM analysis based on the ten-times rule because the model contains only two direct paths and two interaction paths. Sample adequacy was further evaluated using statistical power analysis. Following (Cohen, 1992) assuming a medium effect size ($f^2 = 0.15$), a significance level of 5%, statistical power of 80%, and a maximum of four predictors affecting the endogenous construct, the minimum required sample was 55 respondents. Therefore, the final sample of 57 respondents satisfies both the statistical power requirement and current recommendations for PLS-SEM analysis.

Table 1 shows that the independent variables (X) were good governance (X₁), and internal control systems (X₂), Regulation (M) as a moderating variable that strengthens or weakens the influence of governance mechanisms on public asset management performance, and the dependent variable (Y) was asset management in Islamic government.

The structural model estimated in PLS-SEM is specified as:

$$\text{Asset Management} = \beta_1 (\text{Good Governance}) + \beta_2 (\text{Internal Control System}) + \beta_3 (\text{Regulation}) + \beta_4 (\text{Good Governance} \times \text{Regulation}) + \beta_5 (\text{Internal Control System} \times \text{Regulation}) + \varepsilon$$

Table 1. Research Operations

Variable	Sources	Indicator
Regulation (M)	(Azhar et al., 2020)	1. Legal Certainty
		2. Regulatory clarity
		3. Regulatory consistency
		4. Regulatory enforcement
		5. Regulatory
Good Governance (X ₁)	(Rafly et al., 2022)	1. Participation
		2. Transparation
		3. Responcibility
		4. Independency
		5. Fairness
		6. Accountability
Internal control systems (X ₂)	(Eprilsa Budiwijaksono, 2022)	1. Environment Control
		2. Risk Assesment
		3. Activity Control
		4. Information and comunication
		5. Monitoring
Management Assets on Islamic Governmen (Y)	(Azhar et al., 2022)	1. Asset Inventory
		2. Legal Audit

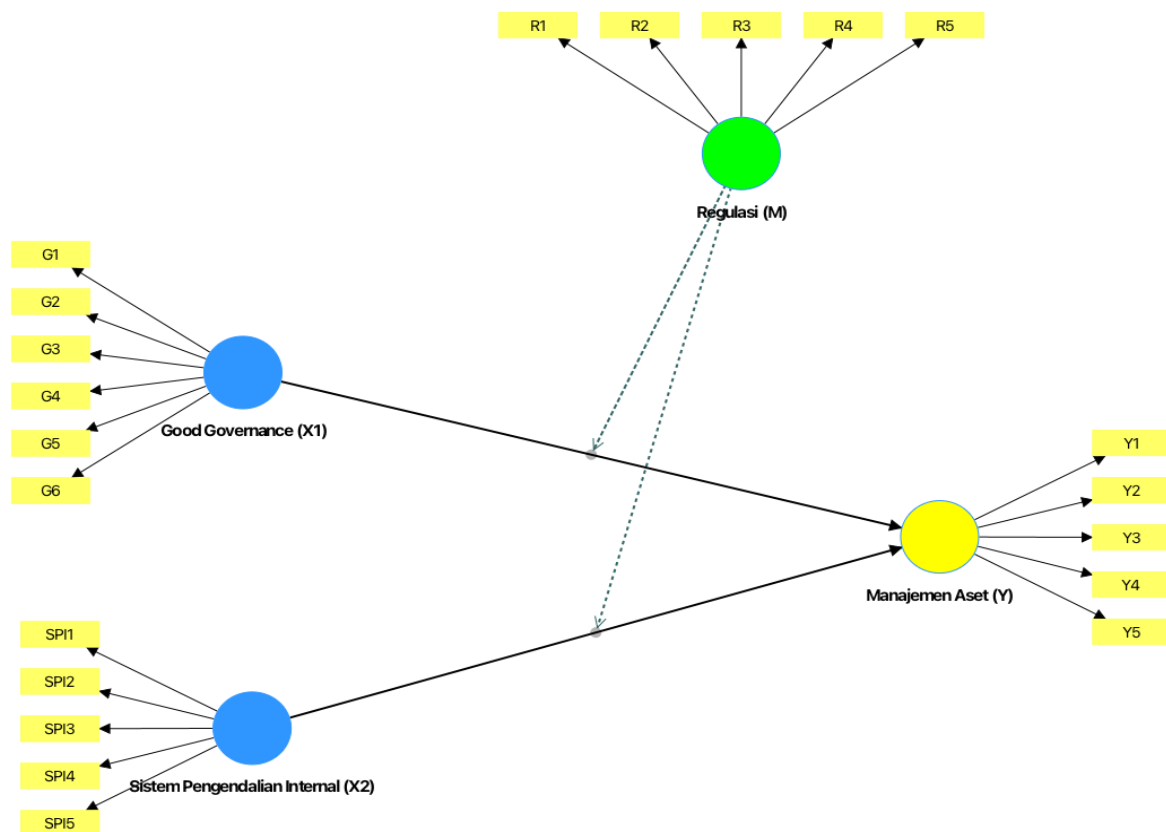


Figure 1. Conceptual Diagram

Moderation effects were estimated using the product-indicator approach implemented in SmartPLS 4. Bootstrapping with 5,000 resamples was employed to estimate path coefficients, standard errors, confidence intervals, t-values, and P-values.

The following is the conceptual framework in this study (Figure 1).

Result and Discussion

Outer model test

(Hair Jr. et al., 2021) noted that a structural model should only be evaluated if the measurement model passes validity and reliability criteria. To determine whether the indicators accurately reflect the construct, the following convergent validity test is used (see Table 2).

Based on the test results, all indicators in the variables of Good Governance, Internal Control Systems, Regulation, and Asset Management had outer loading values above 0.70 or close to 0.70. This indicates that all indicators adequately reflect the constructs being measured. According to (Hair Jr. et al., 2021), an outer loading value of ≥ 0.70 indicates that the indicator is able to explain more than 50% of the variance in its construct. Therefore, all indicators were declared convergently valid, and no indicators were eliminated.

Discriminant Validity Test

Discriminant validity is a metric that reflects the extent to which various constructs in a measuring model can be discriminated from one another, that is, the extent to which constructs that should be different do not overlap or have a high correlation. The discriminant validity test is used to ensure that each construct differs experimentally from the others. According to (Hair Jr. et al., 2021) discriminant validity is achieved when an indicator is more effective in explaining its concept than other constructs. This strategy assures that

the reflective latent variables are actually distinct from one another; the square root of each latent variable's AVE must be larger than the correlation between latent variables. The following is the discriminant validity test (Table 3). The discriminant validity test is used to ensure that each construct differs experimentally from the others.

The cross-loading results indicate that each indicator has a higher loading on its intended construct than on the other constructs. This finding provides evidence that the indicators demonstrate adequate discriminant validity based on the cross-loading criterion. The results show that the indicators are more strongly associated with their respective constructs than with the other constructs in the measurement model. Therefore, based on the cross-loading assessment, the measurement model demonstrates adequate discriminant validity (Arsyad et al., 2025).

Composite reliability test

The composite reliability test and Cronbach's alpha are used to determine the internal consistency of indicators inside a construct. According to (Hair Jr. et al., 2021), composite reliability measures how well indicators within a construct explain latent variables. Unlike Cronbach's alpha, composite reliability does not imply that all indications contribute equally to the construct. As a result, composite reliability is deemed more accurate in PLS-SEM analysis. Here are the composite reliability test results with Cronbach's alpha.

Table 4 demonstrates that all variables have Cronbach's Alpha and Composite Reliability values over 0.70. This demonstrates that the construct has high internal consistency. (Hair Jr. et al., 2021) said that a Composite Reliability rating greater than 0.70 implies outstanding reliability. Thus, all variables in this study are deemed reliable. The high composite reliability score in this study implies that the research instrument is consistent, the indicators can stably measure the research constructs, and the outcomes of the relationship analysis in the construct model are dependable. As a result, the

measurement model in this study met the reliability criteria, allowing for additional examination of the inner model.

Inner Model Test

Coefficient Determination Test

After the measurement model has been examined and accepted, the next stage is to evaluate the structural model, specifically the relationships between the model's latent variables. The coefficient of determination (R^2) test determines how well the structural model explains variation in the dependent variable. A higher R^2 value suggests a better model fit (Hair Jr. et al., 2021).

The coefficient of determination (R^2) indicates the proportion of variance in the endogenous construct that is explained by the predictors included in the structural model. As shown in Table 5, the R^2 value for Asset Management is 0.635, while the adjusted R^2 is 0.600. Thus, the complete set of predictors included in the structural equation Good Governance, Internal Control System, Regulation, the Good Governance $\times$ Regulation interaction, and the Internal Control System $\times$ Regulation interaction, collectively explains 63.5% of the variance in Asset Management. The remaining 36.5% represents variance attributable to factors not included in the estimated model. Based on the commonly used PLS-SEM interpretation, the explanatory power of the model can be considered moderate to substantial. However, R^2 should be interpreted as an indicator of the model's explanatory power for the endogenous construct and should not be interpreted as a measure of overall model fit. Chin (1998) defines R^2 values as strong (0.67), moderate (0.33), and weak (0.19). Thus, this study model is classified as moderate to strong.

Direct Effect

The goal of hypothesis testing in the SEM-PLS approach is to establish whether the link between the research model's latent variables is significant. The test employs bootstrapping, a resampling procedure that yields standard error estimates and test statistic values, thereby assessing the significance of the association between variables. Bootstrapping in PLS is used to test the relevance of structural model parameters by generating t-statistics and p-values, which are then used to accept or reject the hypothesis (Hair Jr. et al., 2021). The direct effect test yielded the following results (see Table 6).

The test findings indicate that Good Governance has a positive and statistically significant effect on Asset Management ($\beta = 0.327$, $t = 1.978$, $P_{\text{value}} = 0.048$). The effect size of Good Governance is medium ($f^2 = 0.187$), indicating a meaningful contribution to the explained variance of Asset Management. Internal Control System also has a positive and statistically significant effect on Asset Management ($\beta = 0.355$, $t = 2.217$, $P_{\text{value}} = 0.027$), although its effect size is small ($f^2 = 0.076$). These findings indicate that both governance mechanisms contribute significantly to public asset management, while their practical effect sizes differ.

This is consistent with (Emara & El Said, 2021) statement that good governance requires the rule of law and oversight, which may be achieved through the principles of transparency and accountability. Good governance and public administration can boost revenue while decreasing poverty (C. V. Nguyen et al., 2021) (C. Nguyen et al., 2019) (Ju et al., 2023). This is consistent with the definition of an internal control system in Government Regulation Number 60 of 2008, which defines the Government Internal Control System as an integral process of actions and activities carried out continuously by leaders and all employees to provide assurance that is capable of achieving organizational goals through effective and efficient activities, reliable financial reporting, safeguarding state assets, and commitment to laws. (Detotto et al., 2021) found that excellent governance improves performance. Asset management is more than just

operational efficiency and physical asset management; it also includes satisfying the demands of the community or surrounding environment. Asset management decisions are critical to safeguarding the value and sustainability of government assets. According to the study (Song & Zhao, 2024), increasing integration can help local governments enhance operational efficiency, lower risks, and create more revenue and relevant outcomes. Local governments conduct comprehensive and integrated asset management as a result of strong governance. Assets are not only documented or possessed; they are also strategically managed to offer the greatest long-term benefits. Good and effective administration from an Islamic perspective based on Sharia is Islam's governance and political strategies for promoting welfare and preventing damage. (Pahlevi, 2023) underlined that Islamic

Table 2. Convergent Validity Test

	Good Governance (X1)	Asset management (Y)	Regulation (M)	Internal Control System (X2)
G1	0,748			
G2	0,716			
G3	0,743			
G4	0,747			
G5	0,787			
G6	0,788			
R1			0,825	
R2			0,798	
R3			0,881	
R4			0,800	
R5			0,889	
SP11				0,728
SP12				0,813
SP13				0,746
SP14				0,914
SP15				0,732
Y1		0,774		
Y2		0,813		
Y3		0,805		
Y4		0,713		
Y5		0,743		

Table 3. Discriminant Validity Test

	Good Governance (X1)	Asset Management (Y)	Regulation (M)	Internal Control System (X2)
G1	0,748	0,196	0,172	-0,033
G2	0,716	0,138	0,063	-0,053
G3	0,743	0,135	0,033	-0,165
G4	0,747	0,283	-0,095	-0,079
G5	0,787	0,353	-0,129	-0,006
G6	0,788	0,353	-0,103	0,003
R1	-0,120	-0,294	0,825	-0,188
R2	-0,078	-0,361	0,798	-0,084
R3	-0,078	-0,319	0,881	-0,279
R4	0,052	-0,304	0,800	-0,334
R5	-0,017	-0,425	0,889	-0,311
SP11	-0,116	0,458	-0,360	0,728
SP12	0,139	0,500	-0,015	0,813
SP13	-0,139	0,435	-0,298	0,746
SP14	0,008	0,589	-0,171	0,914
SP15	-0,133	0,492	-0,319	0,732
Y1	0,403	0,774	-0,297	0,687
Y2	0,255	0,813	-0,320	0,557
Y3	0,389	0,805	-0,337	0,319
Y4	-0,066	0,713	-0,307	0,395
Y5	0,257	0,743	-0,353	0,325

culture has implanted good governance since the commencement of Islamization.

Internal Control System has a favorable and significant impact on Asset Management with P-value < 0.05 and t-statistic = 2,217, it is supporting H₂. Strong internal controls improve asset safeguarding, monitoring, and compliance with government regulations. This shows that the control environment, control activities, risk assessment, information and communication, and effective monitoring may all help to improve asset management efficiency and effectiveness. According to (Commission & Examiners, 2023) internal controls protect an institution's assets from misuse, theft, or unauthorized usage. Effective internal control allows an organization to establish suitable strategic goals, clarify individual job responsibilities, promote efficiency, and reduce conflicts of interest. The organization can increase its human, material, and financial resources for innovation (Shen et al., 2020) (Hoai et al., 2022). According to (Santoso, 2025), an internal control system is critical in protecting an institution/organization from hazards that could impede the attainment of its goals. An internal control system is a management-driven process that aims to give reasonable assurance of effectiveness, efficiency, and compliance with relevant laws and regulations.

Moderation Test

Moderation testing is used to see if a variable affects the strength or direction of the link between the independent and dependent variables. This variable is known as the moderating variable. (Hair Jr. et al., 2021) define moderation in PLS-SEM as a change in the association between two latent constructs based on the value of a third construct. The goal of moderation testing in this study is to determine whether the moderator variable strengthens or weakens the relationship between variables, to identify specific conditions that influence causal relationships in the research model, and to provide a more comprehensive understanding of the mechanisms underlying the theoretical model's relationships. According to (Hair Jr. et al., 2022), using moderation in the SEM-PLS model helps researchers understand how the relationship between variables changes under different conditions, boosting the model's ability to explain the studied phenomenon.

The moderation analysis was conducted to examine whether regulation changes the strength of the relationships between good governance and asset management and between internal control systems and asset management. As presented in Table 7, the interaction between regulation and good governance has a positive path coefficient ($\beta = 0.133$), with a standard deviation of 0.191, a t-statistic of 0.695, and a p-value of 0.487. Since the p-value is greater than 0.05, the interaction effect is not statistically significant. The effect size is also negligible ($f^2 = 0.018$), indicating that the interaction between regulation and good governance provides very little additional contribution to explaining variations in asset management. The reported 95% confidence interval ranges from -0.099 to 0.607. Therefore, regulation does not significantly moderate the relationship between good governance and public asset management, and the corresponding hypothesis is not supported.

In contrast, the interaction between regulation and internal control systems shows a positive path coefficient ($\beta =$

0.527), with a standard deviation of 0.197, a t-statistic of 2.668, and a P-value of 0.008. The P-value below 0.05 indicates that the interaction effect is statistically significant. The effect size is small ($f^2 = 0.042$), indicating that although the moderating effect is statistically significant, its practical contribution to explaining variations in asset management is relatively limited. The reported 95% confidence interval ranges from 0.050 to 0.901. Thus, regulation significantly moderates the relationship between internal control systems and public asset management, and the corresponding hypothesis is supported.

The non significant interaction between regulation and good governance should not be interpreted as evidence that good governance practices are already sufficiently institutionalized or that regulatory reinforcement is unnecessary. Rather, the finding indicates that the study does not provide sufficient empirical evidence that regulation changes the strength of the relationship between good governance and public asset management. The negligible effect size further suggests that the interaction provides limited additional explanatory contribution. One possible explanation is that good governance practices may operate relatively independently of perceived regulatory conditions; however, this interpretation remains tentative and requires further

Table 4. Composite reliability testing

	Cronbach's alpha	Composite reliability	AVE
Good Governance (X1)	0.855	0.888	0.570
Asset Management (Y)	0.837	0.879	0.594
Regulation (M)	0.895	0.922	0.705
Internal Control System (X2)	0.847	0.892	0.624

Table 5. R Square Test

	R Square	R-square Adjusted
Asset Management (Y)	0.635	0.600

Table 6. Direct Effect Test

	β	t-statistic	P-value	F ²
Good Governance (X1)-Asset Management (Y)	0.327	1.978	0,048	0.187
Internal Control System (X2)-Asset Management (Y)	0.355	2.217	0,027	0.076

Table 7. Moderation Effect Test

	β	STDEV	t	P-value	F2	2.5 - 97.5% CI
Regulation (M) x Good Governance (X1)-Asset Management (Y)	0.133	0.191	0.695	0.487	0.018	0.099 - 0.607
Management (Y) x Internal Control System (X2)-Asset Management (Y)	0.527	0.197	2.668	0.008	0.042	0.050 - 0.901

investigation.

The significant interaction between regulation and internal control systems suggests that regulatory conditions play a conditioning role in the relationship between internal control systems and public asset management. The positive interaction coefficient indicates that stronger regulatory conditions are associated with a stronger relationship between

internal control systems and asset management. In the context of the Aceh Provincial Government, formal regulatory requirements may provide clearer procedures, responsibilities, compliance requirements, and accountability mechanisms that support the implementation of internal controls in public asset management. Nevertheless, the small f^2 value indicates that the magnitude of this moderating effect is limited. Therefore, the finding should be interpreted as evidence of a statistically significant but relatively small moderating contribution of regulation. This is consistent with (Emara & El Said, 2021) statement that oversight and regulation are required to strengthen a region's economy, which can be accomplished through asset management in that region. The internal control system serves not only as a supervisory tool, but also as a system for ensuring operational effectiveness, the accuracy of financial reports, and regulatory compliance. As a result, the internal control system is frequently regarded as an integral system within an organization since it includes a variety of interconnected policies, procedures, and control activities (Sianturi et al., 2026). According to (Eprilsa & Budiwitjaksono, 2022), an internal control system is an integrated process that includes the actions and activities of management and staff to provide reasonable assurance and certainty in achieving organizational goals through efficient and effective operations, reliable financial reporting, asset protection, and compliance with laws and regulations.

Islam values honesty and trustworthiness among its adherents. Trust is the foundation of ethics and morality in government. With this belief, honest, trustworthy, transparent, and fair social conditions will be produced in all activities and work, fostering mutual trust, rewarding the parties involved, and benefiting humanity as a whole. According (Syamsuar et al., 2024), good governance is defined as a government that is responsive in its efforts to tackle numerous challenges that its citizens confront. The government must act as a problem solver, constantly implementing prevention measures to forestall the creation of truly avoidable asset misuse issues. A clean administration is one in which officials do not engage in corruption, collusion, or nepotism. According to (Mohamed et al., 2021) the government must be handled wisely in order to sustain public trust by avoiding infractions and continuously delivering its commitments.

According to agency theory, the relationship between the government as agent and the public as principal results in possible conflicts of interest and information asymmetry in the administration of public resources. As a result, effective governance principles such as openness, accountability, and responsibility are critical for mitigating agency difficulties. Good governance requires agents to work in the interests of their principals while managing public assets in an efficient and responsible manner. Previous research indicates that implementing good governance can improve the quality of resource and asset management in public sector organizations by increasing supervision and accountability systems (Alodat et al., 2022). (Nindito et al., 2024) discovered empirical data supporting the importance of related-party transactions and institutional governance in shaping financial performance in developing countries. This underlines the importance of effective governance in asset management in preventing mismanagement by state officials, who serve as

agents under agency theory. In today's society, the dynamic nature of government functions and good governance procedures is a major problem (Beshi & Kaur, 2020). As a result, excellent governance practices, particularly those that promote responsiveness, accountability, and openness, are critical for citizen happiness. Citizens regularly demand their governments to be held accountable for all actions taken to ensure that public interests are prioritized (Mansoor, 2021). The success of a democratic system is dependent on public faith in the government.

According to agency theory, the principal-agent relationship can lead to conflicts of interest and information asymmetry. In certain circumstances, agents may operate in ways that do not fully align with the principal's objectives, such as asset misuse, inefficient management, or a lack of transparency in asset administration. To mitigate these conflicts, a supervisory mechanism such as an internal control system is required, which ensures that regional or national resources, including government assets, are managed effectively, efficiently, and in accordance with applicable regulations. According to research findings, internal control systems play an important role in strengthening accountability and reducing the risk of errors or misuse of government funds and assets. However, in certain circumstances, agents may operate in ways that do not fully align with the principal's objectives, such as asset misuse, inefficient management, or a lack of transparency in asset administration. In this situation, rules serve as an institutional instrument that strengthens the application of internal controls. Regulations establish legal instructions for asset management methods, accountability standards, and supervision systems that must be followed by agents (the government). Strong regulations give government personnel defined boundaries and obligations when managing regional/state assets, reducing the chance for opportunistic behavior (Putri, 2025). This is consistent with the research findings of (Dewabrata & Firmansyah, 2024), who found that an internal control system can improve the effectiveness of asset management and increase the responsibility of governmental organizations. (Ali et al., 2026) also emphasize the need of internal control systems in good governance for reducing environmental impact, which has implications for those developing policies to improve environmental quality. (Aikins et al., 2022) further state that the presence of internal supervision with integrated work hours is a necessary condition for employees to carry out their duties effectively and efficiently. Internal control systems have a significant impact on asset management; this information can assist policy makers in developing better systems that will reduce the impact of mediating the importance of policy on the relationship between internal control systems and financial management in local governments (Gbambegu Umar et al., 2025).

Limitations and Cautions

This study has several limitations. First, the sample consists of only 57 respondents from a single provincial government, limiting generalizability. Second, the use of self reported questionnaire data may introduce common method bias and social desirability bias. Third, the study focuses exclusively on Aceh Province, whose governance environment is influenced by Islamic values and therefore may differ from other Indonesian regions. Fourth, although Islamic governance concepts are incorporated theoretically, the study does not yet employ quantitative sharia-based indicators capable of directly measuring *maqasid al-shariah* implementation in public asset management.

Recommendations for Future Research

Further research is intended to create a more comprehensive model that includes additional significant characteristics such as transformational leadership,

organizational culture, and the use of information technology in regional asset management. To align asset management with the values of trust, justice, and welfare, it's important to construct indicators based on maqashid sharia, in addition to efficiency. Future research should also broaden the breadth of research objects, both within and between areas, in order to improve the generalizability of the findings. From a methodological standpoint, using a mixed methods approach or longitudinal research can provide a more in-depth understanding of asset management dynamics over time.

Conclusion

This study found that good governance and internal control systems are positively associated with public asset management in the Aceh Provincial Government. Regulation was found to strengthen only the relationship between internal control systems and public asset management, whereas its interaction with good governance was not statistically significant. These findings suggest that governance mechanisms and regulatory frameworks jointly support accountability in public asset management. The study interprets these findings through the principles of amanah, justice, and maqasid al-shariah; however, these Islamic governance principles were incorporated as a theoretical perspective rather than measured as independent quantitative constructs. Practically, the findings highlight the importance of strengthening governance quality, internal control systems, and regulatory implementation to support accountable management of regional public assets.

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Author contributions

The primary authors helped to conceptualize the study hypothesis, formulate the framework, compile and process the data, and prepare the first draft of the publication. The second authors helped to refine the methodological design, validate and interpret the analysis results, and critically revise the manuscript's academic content. The final text was reviewed and approved by both authors before submission.

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