INTERNAL CONTROL MECHANISMS AND FINANCIAL SUSTAINABILITY IN INDONESIAN LOCAL GOVERNMENTS

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Abstract

This study examines the differentiated impacts of the Government Internal Control System (SPIP) and the Regional Government Internal Supervisory Apparatus (APIP) on local government financial sustainability in Indonesia. Using secondary data from 2,690 observations of provincial, city, and regency governments during 2018–2022, this study employs multiple regression analysis. The findings show that APIP has a significant positive effect on efficiency and effectiveness, but a significant negative effect on equity in financial management. In contrast, SPIP is found to significantly influence only the efficiency dimension. This study contributes novel empirical evidence that internal control mechanisms do not affect financial sustainability uniformly, but instead play differentiated roles across efficiency, effectiveness, and equity dimensions. By integrating Agency Theory and Legitimacy Theory, this study provides a clearer theoretical explanation of how APIP and SPIP address agency problems and legitimacy pressures in local government financial management. The results suggest that while APIP enhances resource optimization, it faces challenges in ensuring equitable fund distribution. Therefore, local government financial sustainability can be strengthened through targeted optimization of SPIP and reinforcement of APIP's supervisory role, particularly in promoting distributive justice.

INTRODUCTION

Local government financial sustainability constitutes a critical foundation for sustainable development and the continuous provision of high-quality public services (Maharani Mada, 2023). In principle, financially sustainable local governments are expected to maintain long-term fiscal capacity while simultaneously ensuring efficient, effective, and equitable public spending. However, empirical evidence from Indonesia indicates that achieving such sustainability remains a persistent challenge. Many local governments continue to experience inefficient budget absorption, high dependence on central government transfers, and recurring audit findings reported by the Audit Board of Indonesia (BPK), which frequently highlight weaknesses in internal control and financial governance (Malelea, et al., 2024). This condition reflects a structural gap between planned fiscal stability and realized financial

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performance, particularly in balancing long-term fiscal resilience with equitable social expenditure amid economic uncertainty.

Internal control mechanisms emerge as a central institutional response to the problem of government financial sustainability, rather than merely as administrative compliance tools. One key institutional actor is the Government Internal Supervisory Apparatus (APIP), whose role has evolved beyond traditional compliance auditing. APIP is increasingly positioned as a strategic governance instrument that provides assurance, early warning signals, and consultative support to mitigate fiscal risks and prevent inefficiencies and resource leakage (Firdauzi et al., 2024). Strengthening APIP capability is therefore widely recognized as a crucial driver of accountable budgeting and sustainable development, as it ensures that public resources are allocated in line with strategic priorities and performance objectives (Sakinah et al., 2024). This perspective aligns with Indonesia's broader agenda to build a sustainable finance ecosystem that integrates economic performance with social accountability (Budiantoro, 2024).

Complementing APIP's supervisory function, the Government Internal Control System (SPIP) represents a formal and integrated control framework mandated by Peraturan Pemerintah (PP) Nomor 60 Tahun 2008 tentang Sistem Pengendalian Intern Pemerintah. SPIP maturity is conceptualized in this study not only as procedural compliance, but as an institutional mechanism that strengthens organizational resilience and fiscal discipline (Malelea et al., 2024); (Wafa et al., 2020). Prior studies emphasize that well-functioning SPIP improves financial management efficiency by ensuring that operational activities are aligned with predetermined standards and performance benchmarks Indika & Ramadhani, (2020). The interaction between SPIP as an internal assurance system and APIP as an oversight mechanism forms a critical governance infrastructure that potentially supports government financial sustainability (Kahar et al., 2023).

Despite the growing recognition of internal control in public governance, empirical evidence on its role in shaping government financial sustainability, particularly in developing countries, remains limited and fragmented. This study explicitly positions internal control, operationalized through APIP capability and SPIP maturity, as the primary determinants of local government financial sustainability. Drawing on Public Choice Theory, this framework explains how weak internal control may allow government actors to prioritize short term political incentives over long term fiscal resilience (Alhabow, et al., 2023). Accordingly, this study moves beyond descriptive assessments of control practices to examine their differentiated impacts on the core dimensions of financial sustainability, namely efficiency, effectiveness, and fiscal equity.

To strengthen the analytical framework, this study also integrates several control variables, including municipality status (MUN), government age (AGES), and geographic location (ISLAND), into the main model. These variables are grounded in Political Economy Theory, which posits that government status and size influence fiscal complexity and public accountability demands (Hamed, 2023). Government age serves as a proxy for institutional maturity, reflecting the extent to which administrative routines and financial systems have stabilized over time (Ramandei, et.al., 2020). Geographic location is included to account for Indonesia's pronounced regional disparities, as differences in infrastructure development and logistical costs between Java and non-Java regions inherently affect fiscal efficiency and equity outcomes (Budiantoro, 2024).

This study addresses a critical gap in the literature on public sector financial sustainability. While prior studies such as Navarro Galera et al. (2016), Rafindadi & Olanrewaju, (2019), Atieno & Kiganda, (2015), and Hamed, (2023) have established key determinants of financial sustainability, their analyses largely emphasize socio demographic and macroeconomic factors within developed country contexts, with limited attention to internal control mechanisms in decentralized governments. By contrast, this study contributes

novel empirical evidence by integrating APIP and SPIP as institutional determinants within the specific fiscal and governance context of Indonesia. Using a comprehensive dataset of 2,690 local government observations from 2018 to 2022, this study extends current understanding of how internal control mechanisms shape financial sustainability outcomes in decentralized public sector systems.

Accordingly, the objective of this study is to examine the differentiated roles of APIP and SPIP in influencing local government financial sustainability across efficiency, effectiveness, and equity dimensions. The findings are expected to provide both theoretical insights and policy relevant evidence for strengthening internal control systems in support of sustainable public financial management. The remainder of this article is structured as follows. The next section reviews relevant literature and develops hypotheses, followed by the research methodology, empirical results and discussion, and concluding remarks outlining implications and limitations.

HYPOTHESIS DEVELOPMENT
Agency Theory
Agency Theory explains the relationship between citizens as principals and government officials as agents who are entrusted with managing public resources (Michael C. Jensen & William H. Meckling, 1976). In the public sector context, agency problems arise when governments possess superior information regarding budget allocation and fiscal management, creating information asymmetry that limits public oversight (Rahmasari & Setiawan, 2022). Such conditions may encourage opportunistic behavior, inefficiency, or short-term political decision-making that undermines long-term financial sustainability.

Internal control mechanisms play a critical role in reducing agency problems by strengthening monitoring, accountability, and incentive alignment. In this study, APIP and SPIP are conceptualized as institutional monitoring tools that discipline government behavior and ensure that fiscal decisions are aligned with the public interest, particularly in sustaining long-term financial capacity and preventing rent-seeking behavior. From an agency perspective, stronger internal control is expected to reduce fiscal risk and enhance government financial sustainability.

Legitimacy Theory
Legitimacy Theory posits that organizations continuously seek societal approval by ensuring that their actions conform to prevailing norms, values, and expectations (Suchman, 1995). In the public sector, financial sustainability represents an important legitimacy outcome, as it signals the government's ability to responsibly manage public funds while meeting social demands.

Effective implementation of APIP and SPIP signals a government's commitment to transparency, accountability, and prudent financial management. Such signals are essential for maintaining public trust, which in turn supports fiscal stability and long-term development. Prior studies suggest that legitimacy derived from sound financial governance strengthens institutional credibility and reduces political and fiscal pressure on local governments Kahar et al., (2023) and (Furqan & Din, 2019). Accordingly, internal control mechanisms serve not only technical functions but also symbolic roles in sustaining government legitimacy.

The Influence of APIP on Local Government Financial Sustainability
The Government Internal Supervisory Apparatus (APIP) represents a core internal oversight mechanism in ensuring that regional financial resources are managed in a sustainable manner. Consistent with Agency Theory, APIP functions as a monitoring and assurance mechanism that constrains opportunistic behavior and aligns government actions with long-

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term fiscal objectives. Contemporary perspectives emphasize that APIP's role has evolved from traditional compliance auditing toward value-adding activities, including risk-based supervision, consulting, and early warning systems (Lubis, et al., 2024). These functions are particularly relevant in mitigating fiscal risks and preventing resource leakage.

Empirical evidence supports this argument. Batubara & Risna, (2020) find that increased supervision improves budget performance based on the value-for-money principle. Similarly, Karikari Appiah et al., (2022) and Sakti, et al., (2024) demonstrate that effective internal auditing promotes sustainable procurement practices and efficient resource utilization. Putri et al., (2023) and Firdaus, et al., (2020) further show that functional supervision enhances the effectiveness of local government financial management. Collectively, these studies suggest that stronger APIP capability contributes to financial sustainability by improving efficiency, effectiveness, and fiscal discipline.

However, the effectiveness of APIP is shaped by institutional and environmental characteristics. Municipality status (MUN) and geographic location (ISLAND) influence fiscal complexity and risk exposure, while government age (AGES) reflects institutional maturity and accumulated supervisory experience (Hamed, 2023). By accounting for these factors, the role of APIP as a determinant of financial sustainability can be more accurately assessed. Therefore, the following hypothesis is proposed:

H$_1$: APIP has a positive effect on local government financial sustainability.

The Influence of SPIP on Local Government Financial Sustainability

The Government Internal Control System (SPIP) constitutes a comprehensive framework designed to ensure transparency, accountability, and reliability in government financial management. From a Legitimacy Theory perspective, effective SPIP implementation enables governments to demonstrate conformity with societal expectations regarding prudent and responsible fiscal governance. A mature SPIP signals that financial processes are protected from mismanagement and that public resources are safeguarded (Adityaningsih & Tri Dharma Nusantara, 2024) and (Rafindadi & Olanrewaju, 2019).

Empirical studies indicate that SPIP maturity strengthens governance quality and supports strategic goal achievement. Erliyanti et al. (2022) show that SPIP enhances alignment between regional work units and government programs. (Ramandei et al., 2020) emphasize that mature internal control systems prevent budget inefficiencies that could threaten long-term solvency. Similarly, Hindriani et al., (2012) argue that effective internal control allows governments to balance public spending demands with sustainable fiscal capacity. These findings imply that SPIP contributes to financial sustainability primarily by strengthening internal processes and fiscal discipline.

The legitimacy effects of SPIP are also influenced by contextual factors. Government age (AGES) reflects the time required to institutionalize control culture, while municipality status (MUN) and geographic location (ISLAND) shape the operational risks that SPIP must manage to maintain public trust. Controlling for these variables clarifies the relationship between SPIP maturity and financial sustainability outcomes. Accordingly, the following hypothesis is formulated:

H$_2$: SPIP has a positive effect on local government financial sustainability.
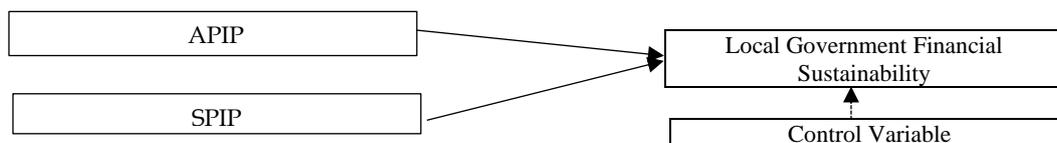
Picture 1.
Research Model

RESEARCH METHOD

Research Design and Data

This study employs a quantitative research design with an explanatory approach to examine the causal relationship between internal control mechanisms and local government financial sustainability. A quantitative design is appropriate because the study aims to estimate the average causal effect of APIP capability and SPIP maturity on financial sustainability across Indonesian local governments using a large-scale panel dataset.

The dataset covers the period 2018–2022 and consists of all Indonesian local governments at the provincial, city, and regency levels. From a total population of 548 local governments, six administrative cities within the Special Capital Region of Jakarta were excluded because they are part of a consolidated reporting entity. Additionally, four districts were excluded due to incomplete equity data. As a result, the final balanced sample comprises 538 local governments observed over five years, yielding 2,690 observations.

All data were obtained from official government sources to ensure reliability and consistency. Data on APIP capability and SPIP maturity were sourced from the State Development Audit Agency (BPKP), while financial sustainability indicators were obtained from the Indonesian Audit Board (BPK) and the Ministry of Finance.

Justification of Financial Sustainability Dimensions

Local government financial sustainability is conceptualized in this study as a multidimensional construct, reflecting not only fiscal solvency but also the quality and fairness of public resource allocation. Consistent with international public sector literature, financial sustainability is understood as a government's capacity to maintain service delivery, meet financial obligations, and ensure intergenerational equity without compromising future fiscal capacity.

Accordingly, this study adopts efficiency, effectiveness, and equity as core dimensions of financial sustainability. Efficiency captures the government's ability to minimize administrative costs relative to public outputs, reflecting prudent resource utilization (Oh et al., 2019). Effectiveness represents fiscal resilience and long-term solvency, measured through the relationship between assets and liabilities, which is widely used in public finance sustainability assessments. Equity reflects distributive justice in budgeting, emphasizing the fair allocation of public expenditure toward social welfare functions, a key pillar of sustainable public finance in the public sector.

This multidimensional operationalization aligns with contemporary public sector sustainability frameworks that emphasize not only fiscal balance but also governance quality and social fairness, thereby strengthening the conceptual validity of the dependent variable.

Measurement of Independent Variables

APIP capability ($APIP_{it}$) is measured using a five-level scale ranging from Initial (Level 1) to Optimized (Level 5), as reported by BPKP. Rather than viewing these levels as purely administrative classifications, this study interprets APIP capability substantively as an indicator of supervisory effectiveness, risk-based assurance, and the capacity to function as an early warning system. Higher APIP levels indicate stronger institutional capacity to prevent fiscal mismanagement, enhance accountability, and support long-term financial sustainability.

SPIP maturity ($SPIP_{it}$) is measured using a six-level scale from Not Existing (Level 0) to Optimum (Level 5). Substantively, higher SPIP maturity reflects the institutionalization of internal control practices that strengthen risk management, ensure reliable financial reporting, and protect public assets. Mature SPIP implementation signals that internal controls are not only documented but also integrated into daily operations, thereby supporting fiscal discipline and sustainability.

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To isolate the specific effect of internal control mechanisms, this study incorporates three control variables: municipality status (MUN_{it}), government age ($AGES_{it}$), and geographic location ($ISLAND_{it}$). These variables are theoretically grounded in political economy and institutional development perspectives.

Municipality status (MUN_{it}) captures differences in administrative complexity and fiscal responsibility across provinces, cities, and regencies. Higher-level governments typically manage larger budgets and face greater public scrutiny, which may independently affect financial sustainability. Government age ($AGES_{it}$) serves as a proxy for institutional maturity, as older governments are expected to possess more established administrative routines and internal control cultures. Geographic location ($ISLAND_{it}$) controls for structural disparities between Java and non-Java regions, particularly differences in infrastructure availability, logistics costs, and fiscal capacity.

The inclusion of these control variables strengthens the analytical framework by accounting for structural heterogeneity among local governments, ensuring that the estimated effects of APIP and SPIP are not confounded by institutional or regional characteristics.

Empirical Model and Estimation Technique

To examine the relationship between internal control and financial sustainability, this study employs the following regression model:

$$\text{Local Government Financial Sustainability}_{it} = \beta_0 + \beta_1 APIP_{it} + \beta_2 SPIP_{it} + \beta_3 MUN_{it} + \beta_4 AGES_{it} + \beta_5 ISLAND_{it} + \varepsilon_{it}$$

Ordinary Least Squares (OLS) multiple regression is employed as the primary estimation technique. This approach is suitable given the study's objective to estimate the average effect of internal control mechanisms across a large panel dataset and to maintain comparability with prior public sector studies using similar designs. OLS is applied with robust standard errors to mitigate potential heteroskedasticity and serial correlation. All estimations are conducted using STATA version 17. This study acknowledges potential methodological concerns inherent in panel data analysis, including endogeneity, unobserved heterogeneity, autocorrelation, and heteroskedasticity. To mitigate these risks, the model incorporates institutional and geographic control variables and applies robust standard errors. While the use of secondary data limits the ability to fully address endogeneity through instrumental variables, this limitation is explicitly acknowledged and discussed in the conclusion as an avenue for future research.

Table 1.
Operationalization of Variables and Data Sources

Name	Variable Operationalization	Data Source
Primary Variable		
Local Government Financial Sustainability (Oh, Jeong, & Shin, 2019)	1. Efficiency : Administrative cost percentage of operational expenditure budget realization to total expenditure budget	Indonesian Audit Board (BPK) and Ministry of Finance
	2. Effectiveness: Fiscal sustainability percentage of liabilities to total assets	
	3. Equity: Social welfare spending percentage of realization of the social function budget	
SPIP (Malelea et al., 2024)	The maturity of SPIP is measured by 6 categories of maturity levels of SPIP implementation, namely "5" Optimum, "4" Managed and Measurable. "3" Defined, "2" Developing, "1" Pioneer, and "0" Not Existing	State Development Audit Agency (BPKP)

Name	Variable Operationalization	Data Source
APIP (Sakinah et al., 2024)	APIP capabilities are measured by 5 categories of APIP capabilities, namely "5" Optimized, "4" Institutionalized, "3" Delivered, "2" Structured, "1" Initial.	State Development Audit Agency (BPKP)
Control Variable		
MUN	Regional government status, measured by a dummy of Regional government status, namely "2" Provincial Government, "1" City Government and "0" Others.	Ministry of Internal Affairs.
AGES	Age of Regional government in 2018-2022, measured by the number of years since the formation of regional government until 2018-2022.	Ministry of Internal Affairs.
ISLAND	The geographical location of the Regional government, measured by dummy islands, namely "1" is Java Island and "0" is the other.	Ministry of Internal Affairs.

RESEARCH RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 below provides a comprehensive summary of the descriptive statistics for the variables in this investigation:

Table 2.

Statistical Descriptive of Variables

Name	Mean	Std. Dev	Min	Max
Effeciency	75.59	31.05	23.72	193.68
Effectiveness	2.13	2.85	0.00	26.42
Equity	1.34	0.76	0.12	7.83
APIP	2.23	0.61	1.00	3.00
SPIP	2.43	0.72	0.00	3.00
MUN	0.30	0.58	0.00	2.00
AGES	43.10	24.02	4.00	72.00
ISLAND	0.22	0.41	0.00	1.00

Number of Observations = 2.690

Explanation of Variable Operationalization in Table 1

Source: Data processed by STATA, 2024

Based on the descriptive analysis, the Efficiency variable has a mean of 75.59. According to the performance criteria established by the Ministry of Home Affairs (Kemendagri) Regulation, a ratio between 60%–80% is classified as "Efficient". This indicates that, on average, Indonesian local governments successfully manage their operational expenditures within their budget realization. The relatively high standard deviation (31.05) further suggests substantial heterogeneity in efficiency levels across local governments, reflecting differences in fiscal capacity, administrative quality, and expenditure structure. However, high efficiency in operational spending should be carefully balanced to ensure it does not suppress essential capital investments for long-term growth (Maharani Mada, 2023).

The Effectiveness mean is 2.13, and Equity is 1.34. Based on the fiscal sustainability benchmarks, an effectiveness ratio above 1.0 indicates that local governments are capable of covering their liabilities with their assets. However, a mean of 2.13, while technically effective, suggests there is still significant room for improvement in asset optimization and long-term debt management. The wide dispersion of effectiveness values, as indicated by a standard deviation of 2.85, implies uneven asset management performance among local governments, which may pose risks to long-term financial sustainability. Meanwhile, an Equity value of 1.34 suggests that social welfare distribution remains focused on basic fulfillment, indicating that

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equitable resource allocation continues to be a persistent challenge. This finding highlights that improvements in financial capacity do not automatically translate into proportional gains in distributive justice.

Additionally, the mean values for the control variables Municipality Status (MUN_it), Government Age (AGES_it), and Geographic Location (ISLAND_it) are 0.29, 43.10, and 0.21, respectively. The mean of 0.29 for MUN indicates that the majority of observations in the sample are regency governments (kabupaten), rather than city or provincial administrations. The mean age of 43.10 years suggests that most local governments have a relatively long institutional history, which may influence administrative routines and fiscal management practices. Finally, the mean of 0.21 for the ISLAND_it variable confirms that approximately 79% of the sampled local governments are located outside Java Island, supporting the representativeness of the dataset in capturing Indonesia's regional diversity and structural fiscal disparities.

The results of the correlation analysis between each variable are presented in Table 3 below.

Table 3.

Variable Correlation Analysis

Variabel	Efficiency	Effectiveness	Equity	APIP	SPIP	MUN	AGES	ISLAND
Efficiency	1.000							
Effectiveness	0.034 (0.071)	1.000						
Equity	-0.103*** (0.000)	-0.093*** (0.000)	1.000					
APIP	0.289*** (0.000)	0.089*** (0.000)	-0.129*** (0.000)	1.000				
SPIP	0.181*** (0.000)	0.013 (0.486)	-0.082*** (0.000)	0.348*** (0.000)	1.000			
MUN	-0.002 (0.918)	0.173*** (0.000)	0.090*** (0.000)	0.182*** (0.000)	0.074*** (0.000)	1.000		
AGES	0.120*** (0.000)	-0.020 (0.290)	-0.212*** (0.000)	0.216*** (0.000)	0.259*** (0.000)	0.089*** (0.000)	1.000	
ISLAND	0.079*** (0.000)	-0.148*** (0.000)	-0.114*** (0.000)	0.082*** (0.000)	0.246*** (0.000)	0.044** (0.022)	0.456*** (0.000)	1.000

Number of Observations = 2.690

Explanation of variable operationalization in Table 1.

***, ** = P-value significant 1%, 5%.

Source: Data processed by STATA, 2024

Table 3 presents the pairwise correlation coefficients among the main variables, namely APIP, SPIP, and the dimensions of local government financial sustainability (Efficiency, Effectiveness, and Equity), as well as the control variables. Overall, the correlation coefficients are relatively moderate, indicating that multicollinearity is unlikely to pose a serious concern in the subsequent regression analysis. This preliminary evidence supports the suitability of the variables for inclusion in the same empirical model.

The results show that APIP and SPIP are correlated with several dimensions of financial sustainability, although the strength and direction of these relationships vary across indicators. Importantly, SPIP does not exhibit a significant correlation with Effectiveness, while government status (MUN) shows no significant correlation with Efficiency, and government age (AGES) is not significantly correlated with Effectiveness. These findings suggest that different dimensions of financial sustainability respond differently to internal control mechanisms and regional characteristics, justifying the use of a multidimensional sustainability measure.

Unlike regression analysis, correlation analysis does not estimate explanatory power or causality; therefore, it serves as an initial diagnostic tool rather than a basis for hypothesis

testing. A significance level of 1% ($\alpha = 0.01$) is applied to maintain statistical stringency and to reduce the likelihood of Type I errors, particularly given the large sample size of 2,690 observations, which increases statistical power.

Table 3 shows that APIP has a positive and significant correlation with Efficiency (0.289) and Effectiveness (0.089). This finding is consistent with Agency Theory, where APIP functions as a monitoring mechanism to reduce information asymmetry between principals and agents. Effective internal audit capability enhances compliance, improves budget execution, and strengthens asset oversight. The stronger correlation with Efficiency indicates that APIP's role is more pronounced in controlling operational spending than in influencing long-term asset-liability structures. These results align with Firdauzi et al., (2024) and Putri et al., (2023), who emphasize that effective internal oversight promotes value-for-money principles and fiscal discipline. The significance at the 1% level underscores the relevance of APIP capability as a foundational element of sustainable public financial management in Indonesia.

The correlation results further indicate that SPIP is significantly correlated with Efficiency (0.181) and Equity (−0.082), but not significantly correlated with Effectiveness (0.013). This pattern suggests that SPIP maturity contributes to budget discipline and the allocation of social welfare expenditures, while its influence on asset-to-liability optimization remains limited. From a Legitimacy Theory perspective, SPIP maturity functions as an institutional signal of accountability and procedural compliance. The absence of a significant correlation with Effectiveness implies that, in many local governments, SPIP implementation is still oriented toward administrative compliance rather than strategic financial management and asset optimization (Batubara & Risna, 2020). Nevertheless, the significant association with Efficiency confirms that a mature internal control system plays a crucial role in maintaining short-term fiscal balance, which constitutes an essential foundation for long-term financial sustainability (Firdauzi et al., 2024).

Hypothesis Testing

The findings and outcomes of the hypothesis testing are presented in Table 4. This study employs a multiple regression approach to examine the influence of APIP and SPIP on local government financial sustainability, while controlling for institutional and regional characteristics. The use of multiple regression allows the study to isolate the partial effect of each independent variable on the dependent variables, thereby strengthening causal inference beyond the preliminary correlation analysis.

Table 4.
Hypothesis Testing Results

Variabel	Excpected Sign	Effeciency	Effectiveness	Equity
1	2	3	4	5
Cons		36.018***	1.208***	1.859***
		(0.000)	(0.000)	(0.000)
APIP$_{it}$	(+)	13.407***	0.289***	-0.137***
		(0.000)	(0.002)	(0.000)
SPIP$_{it}$	(+)	3.371***	0.063	0.002
		(0.000)	(0.480)	(0.934)
MUN$_{it}$	(+/-)	-3.222***	0.817***	0.168***
		(0.002)	(0.000)	(0.000)
AGES$_{it}$	(+/-)	0.048*	0.003	-0.006***
		(0.080)	(0.243)	(0.000)
ISLAND$_{it}$	(+/-)	1.800	-1.223***	-0.046
		(0.271)	(0.000)	(0.214)
Prob > F		0.000	0.000	0.000
Adj R-Squared		0.097	0.060	0.069
Mean VIF		1.22	1.22	1.22

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Variabel	Excpected Sign	Effeciency	Effectiveness	Equity
Number of Observations = 2690				
Explanation of Variable Operationalization in Table 1				
***,** = P-value significant 1%, 5%				

Source: Data processed by STATA, 2024

Prob > F values of 0.000 across all models indicate that the regression equations are jointly significant. The adjusted R-squared values range from 0.060 to 0.097, suggesting that APIP, SPIP, and the control variables explain a meaningful proportion of variation in each dimension of financial sustainability. Given the cross-sectional nature of the data and the institutional complexity of local governments, these explanatory power levels are considered acceptable and comparable to prior studies in public sector financial management. The mean VIF values of 1.22 across all models indicate no multicollinearity concerns.

The APIP variable has a positive and statistically significant effect on Efficiency, with a coefficient of 13.407 at the 1% significance level. Furthermore, APIP also exhibits a positive and significant effect on Effectiveness, with a coefficient of 0.289. However, APIP exerts a negative and significant effect on Equity, with a coefficient of −0.137. These results indicate that H1 is partially supported, confirming that APIP competence contributes positively to certain dimensions of local government financial sustainability, particularly efficiency and effectiveness.

These findings are consistent with (Firdauzi et al., 2024) and Putri et al., (2023), who argue that stronger internal audit capability enhances budget discipline and improves financial management outcomes. Similarly, Batubara & Risna, (2020) demonstrate that enhanced supervision strengthens value-for-money performance. Nevertheless, the negative association between APIP and Equity suggests a potential trade-off between strict financial control and equitable resource allocation. This result implies that intensified audit oversight may prioritize expenditure efficiency and compliance over distributive flexibility, warranting cautious interpretation of APIP's overall contribution to comprehensive financial sustainability.

With respect to SPIP, Table 4 demonstrates that SPIP maturity has a positive and significant impact on Efficiency, with a coefficient of 3.371 at the 1% level. In contrast, SPIP does not exhibit a statistically significant effect on Effectiveness or Equity. These results support H2 in a limited sense, indicating that SPIP contributes to financial sustainability primarily through improving operational efficiency rather than enhancing asset management or equity outcomes. This finding is consistent with Firdauzi et al., (2024), who report that internal control systems mainly affect budgeting efficiency, which subsequently influences development performance.

Within the research framework, the control variables provide additional insights into the structural and regional determinants of financial sustainability. For Efficiency, MUN exhibits a significant negative effect at the 1% level, with a coefficient of −3.222, while AGES and ISLAND are not statistically significant. This suggests that district governments tend to achieve higher efficiency levels compared to city or provincial governments, possibly due to simpler administrative structures and expenditure profiles.

For Effectiveness, MUN shows a positive and significant effect at the 1% level (coefficient = 0.817), while ISLAND has a significant negative effect (coefficient = −1.223). AGES does not significantly influence Effectiveness. These results indicate that higher government status is associated with better asset-to-liability management, whereas local governments located on Java Island tend to exhibit lower effectiveness levels, potentially due to higher fiscal pressures and more complex service demands.

Finally, in the Equity model, MUN has a positive and significant effect (coefficient = 0.168), while AGES exerts a significant negative effect (coefficient = −0.006). ISLAND does

not show a statistically significant influence on Equity. These findings suggest that higher government status facilitates more equitable resource allocation, while older local governments may face structural rigidities that constrain redistributive capacity. Overall, among all control variables, government status consistently emerges as the most influential factor across all dimensions of local government financial sustainability.

Discussion

This study provides empirical evidence on how internal control mechanisms, namely APIP capability and SPIP maturity, influence local government financial sustainability in Indonesia across three core dimensions, namely efficiency, effectiveness, and equity. The findings demonstrate that the role of internal control is multidimensional and does not produce uniform effects across all aspects of sustainability, thereby extending prior studies that conceptualize fiscal sustainability as a single aggregate outcome.

The results show that APIP significantly improves efficiency and effectiveness, confirming that competent internal auditors enhance resource optimization and asset management. This finding is consistent with Agency Theory, which posits that effective monitoring mechanisms reduce information asymmetry between principals and agents, thereby improving organizational performance (Michael C. Jensen & William H. Meckling, 1976). Empirically, this result aligns with Batubara and Risna, Firdauzi et al., and Putri et al., who document that stronger APIP capability strengthens value for money principles, improves budget discipline, and enhances the effectiveness of public financial management.

However, the study also finds that APIP has a negative and significant effect on equity. This result partially contradicts the normative assumption of Agency Theory that stronger oversight automatically aligns all organizational objectives. In the Indonesian context, this outcome can be explained by the dominant orientation of APIP toward compliance-based auditing, which aims to minimize administrative sanctions and audit findings issued by BPK (Lubis, et al., 2024). Karikari Appiah et al., (2022) and Sakti, et al., (2024) explain that excessive audit pressure may generate tunnel vision, where public officials prioritize procedural accuracy and budget realization over flexible allocation needed for social welfare spending. Hamed further argues that an excessive focus on cost efficiency may discourage discretionary expenditures that are essential for equity but are more complex to audit. These findings suggest that while APIP strengthens efficiency and effectiveness, it may unintentionally weaken equity when audit practices are not balanced with distributive objectives. Therefore, H1 is partially accepted.

Regarding SPIP, the findings indicate that SPIP maturity has a positive and significant effect on efficiency, but does not significantly influence effectiveness or equity. This result implies that H2 is also partially supported. From the perspective of Legitimacy Theory, SPIP functions as an institutional mechanism that signals accountability and compliance to stakeholders (Suchman, 1995)**.** A mature SPIP enhances transactional accuracy, safeguards public assets, and ensures adherence to formal rules, which primarily strengthens efficiency. This finding is consistent with Malelea et al. and Wafa et al., who argue that internal control systems in the public sector are fundamentally designed to secure assets and ensure procedural compliance.

The absence of a significant relationship between SPIP and effectiveness as well as equity suggests that SPIP implementation in many Indonesian local governments remains procedural rather than strategic. Adityaningsih and Tri Dharma Nusantara as well as Rafindadi and Olanrewaju demonstrate that internal control systems often provide reasonable assurance for financial reporting but have limited influence on outcome-oriented goals such as fiscal capacity and social equity. These dimensions depend more heavily on political commitment and long-term strategic planning than on internal control procedures alone. Accordingly, this

study refines Legitimacy Theory by showing that legitimacy driven controls are effective in stabilizing routine fiscal operations but insufficient to transform broader dimensions of financial sustainability.

The control variables further explain the heterogeneity of financial sustainability outcomes across regions. Municipality status consistently shows a significant relationship with effectiveness and equity, indicating that higher level governments possess greater administrative capacity and fiscal authority. Government age reflects institutional maturity, where older local governments exhibit more stable internal processes that strengthen efficiency, particularly through SPIP implementation (Ramandei et al., 2020). Meanwhile, geographic location reveals that local governments outside Java Island face greater challenges in achieving equity, despite having comparable internal control scores. This finding reflects structural disparities related to infrastructure availability, logistics costs, and service delivery constraints, as highlighted by Budiantoro.

Overall, this study contributes theoretically by demonstrating that internal control mechanisms operate through distinct governance logics. APIP functions as an active monitoring mechanism that enhances efficiency and effectiveness but may constrain equity under compliance dominant audit regimes. In contrast, SPIP operates as an institutional stabilizer that reinforces efficiency and legitimacy, yet lacks the capacity to directly influence long term fiscal capacity and distributive justice. By empirically distinguishing these roles, this research advances the public sector sustainability literature and emphasizes the need to recalibrate internal control systems toward balanced governance outcomes.

CONCLUSION

This study concludes that while APIP capability and SPIP maturity are fundamental to regional financial management, their impact is primarily concentrated on enhancing administrative efficiency. The empirical results demonstrate that APIP effectively optimizes resource utilization and effectiveness, yet it poses a significant challenge to equity, likely due to a rigid focus on procedural compliance that may marginalize social welfare distribution. Similarly, SPIP maturity is found to drive financial efficiency but has yet to reach a strategic level that influences broader effectiveness and equitable resource allocation. Consequently, these findings imply an urgent need for policy reform to transform internal oversight from a purely compliance-based mechanism into one that is more adaptive and responsive to the multi-dimensional goals of financial sustainability.

Furthermore, this study acknowledges several limitations, particularly its measurement of financial sustainability which is restricted to efficiency, effectiveness, and equity within the budgeting process using secondary data from 2018 to 2022. The practical implication of this research underscores the importance of optimizing internal control systems not just for formal accountability, but as a strategic tool for achieving long-term fiscal health. For future research, it is suggested to expand the scope of financial sustainability by incorporating broader indicators, such as environmental and social governance (ESG) pillars, and utilizing qualitative methods to explore the socio-political factors that influence internal control performance. By addressing these aspects, subsequent studies can provide a more holistic framework for achieving both fiscal stability and social justice in Indonesian local governments.

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