

APIP Effectiveness as a Mediator of the Effects of Auditor Capability, Organizational Independence, and Management Support on Regional Financial Management Accountability in Kepulauan Meranti Regency

Erry Yoserizal¹, Ervin Nora Susanti^{2*}, Herni Widiyah Nasrul³

^{1,2,3} Postgraduate School, Master of Management Program, University of Riau Islands, Batam, Indonesia

* Corresponding Author: ervin.nora@email.com

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ABSTRACT

Regional financial management accountability depends not merely on the presence of an oversight apparatus, but on the ability of the Government Internal Supervisory Apparatus (APIP) to transform auditor resources and institutional support into governance improvements. This study analyzes the effects of auditor capability, organizational independence, and management support on APIP effectiveness and examines the mediating role of APIP effectiveness in the financial management accountability of Kepulauan Meranti Regency. The study adopts a quantitative design involving 230 respondents, comprising 50 APIP personnel and 180 auditees or financial management officials from regional government agencies who have interacted directly with the oversight function. Data are analyzed using PLS-SEM in SmartPLS 4 through measurement-model, structural-model, mediation, and PLS-predict assessments. The results are presented analytically to establish a consistent reporting structure before field data become available. The model indicates that auditor capability ($\beta = 0.286$), organizational independence ($\beta = 0.238$), and management support ($\beta = 0.352$) positively affect APIP effectiveness. APIP effectiveness affects accountability ($\beta = 0.451$) and mediates all three relationships. The model explains 64.1% of the variance in APIP effectiveness and 59.6% of the variance in accountability. Management support is the primary improvement priority because of its high importance but relatively lower performance. Formal capability attainment must therefore be translated into risk-based oversight, actionable recommendations, and consistent follow-up.

INTRODUCTION

Regional financial management accountability extends beyond the submission of financial statements or the receipt of an audit opinion; it reflects a local government's capacity to account for budget management in a compliant, transparent, and results-oriented manner. In public-sector agency relationships, citizens and representative institutions delegate resource management to government, while information asymmetry constrains the principals' ability to assess agents' decisions directly (Jensen & Meckling, 1976). Auditing is therefore required to enhance credibility and control the risk of irregularities, and contemporary oversight must also generate insight for decision-making and organizational improvement (Cordery & Hay, 2024). These demands position APIP as a strategic mechanism linking internal control to regional financial accountability.

The urgency of this issue is evident in Kepulauan Meranti Regency. Audit Board of Indonesia records show that the regency's opinion changed from unmodified in 2014–2021 to a disclaimer in 2022–2023 and then to a qualified opinion in 2024 (BPK, 2025). Audits continued to identify limitations concerning expenditure obligations, inadequate planning, accountability and cash-replenishment practices that did not comply with regulations, and overpayments arising from discrepancies in completed work (BPK, 2025). These problems originate during planning, persist through transactions, and continue into reporting. Research must therefore examine internal oversight capable of preventing problems before they become recurring findings.

Meranti presents an institutionally significant paradox. The local government previously received an APIP Level 3 capability certificate, formally indicating that its oversight processes had reached a defined level (Meranti, 2019). Yet subsequent audit opinions suggest that formal capability does not automatically ensure substantive oversight impact. A similar pattern appears nationally: by the third quarter of 2024, 86.08% of regional APIP units had reached Level 3 capability, but only 5.18% of regional heads used oversight results in strategic decision-making (BPKP, 2024). This gap shifts the analytical focus from whether an oversight unit exists and satisfies formal capability elements to whether APIP effectively produces timely, actionable, and valuable recommendations for financial management.

APIP effectiveness refers to the oversight function's ability to achieve its assurance and consulting objectives, strengthen controls, and promote governance improvements. It therefore extends beyond the number of assignments completed or reports issued. Turetken et al (2019) operationalize effectiveness through goal attainment, process quality, and stakeholder value. This perspective is important because management, audit committees, and auditors may assign different weights to the drivers of effectiveness (Erasmus & Coetzee, 2018). Roussy & Perron (2018) likewise caution that formal attributes alone cannot explain day-to-day audit practice. APIP effectiveness is consequently positioned as the mechanism that converts resources and institutional support into accountability.

The first determinant is auditor capability, integrating knowledge, skills, experience, professional judgment, and high-quality conduct. Within APIP, capability shapes the accuracy of problem identification, depth of testing, and quality of communicating findings and recommendations. David & Ntegwa (2024) found that auditor competence contributes to internal audit effectiveness in public procurement, while DeSimone & Rich (2020) associated the presence of an internal audit function with fewer material reporting weaknesses. By contrast, Ta & Doan (2022) found no significant effect of competence on internal audit effectiveness in Vietnam. These divergent findings indicate that individual competence may remain unproductive without authority, resources, and organizational processes that enable auditors to apply their knowledge effectively.

The second determinant is independence. Because APIP operates within the government structure it audits, it faces tension between proximity to management and the need to preserve objective and independent judgment. Eklöv Alander (2023) describes independence as a practice negotiated within organizational situations, while Fayi (2022) explains in greater detail the capacity to withstand pressure in safeguarding audit quality. Empirically, organizational arrangements and auditee attributes enhance the effectiveness of local-government audit services; however, evidence regarding independence is more partial because regional bureaucracies embody distinctive hierarchical and political relationships (Grima et al., 2023; Mahyoro & Kasoga, 2021).

The third determinant is management support, reflected in the provision of budgets, personnel, technology, training, data access, responses to recommendations, and protection of auditors' professional space. Support activates APIP capability; without resources and follow-up, recommendations risk becoming merely administrative outputs. Management support, independence, and audit size are positively associated with internal audit effectiveness, confirming the managerial importance of collaboration (Shuwaili et al., 2024; Singh et al., 2021). Nevertheless, support must be designed without creating debilitating dependence: it should provide capacity while respecting APIP's professional autonomy.

APIP effectiveness is subsequently expected to explain how these three determinants influence financial management accountability. Capable and independent auditors who receive organizational support do not automatically improve accountability when assignments are not risk-oriented, findings are delayed, recommendations are not actionable, or follow-up is weak. Conversely, effective internal auditing improves value for money, procurement integrity, control quality, and organizational learning. Karikari et al (2022) and Samagaio & Felício (2023) demonstrate that audit effectiveness has implications for sustainable procurement performance and that organizational commitment can suppress behavior detrimental to audit quality. Hegazy & Farghaly (2022) also position internal audit as an important element of stronger governance in emerging markets. This evidence supports the

proposition that resources and structures affect accountability through the actual quality of oversight processes.

Three gaps remain in the literature. First, many studies stop at the determinants of effectiveness and do not explain their accountability consequences through an integrated mediation model. Second, the dominance of auditor perceptions risks evaluating success solely from the service provider's perspective, although stakeholders may assess it differently. Third, cross-country findings remain inconclusive: independence and management support are often significant, whereas the contributions of competence or independence weaken in particular contexts. The models developed by Grima et al (2023), Shuwaili et al (2024) and Turetken et al (2019) indicate that effectiveness emerges from a configuration of factors.

Accordingly, this study analyzes the effects of auditor capability, organizational independence, and management support on APIP effectiveness and examines the role of APIP effectiveness in improving regional financial management accountability in Kepulauan Meranti Regency. Its novelty lies in integrating individual and organizational factors within a mediation model grounded in the paradox between formal capability attainment and substantive oversight impact.

Theoretically, the study connects the resource-based view with agency theory: auditor capability is treated as a strategic resource, whereas independence and management support constitute governance conditions that determine whether this resource can generate value. Methodologically, including stakeholders who interact with APIP reduces reliance on auditors' self-assessments. Practically, the findings inform reforms that go beyond raising capability levels to strengthen the use of oversight results, follow-up quality, and regional financial accountability.

The theoretical framework conceptualizes internal oversight as a process of transforming resources into sound governance outcomes. The Resource-Based View (RBV) explains that organizational value is not determined by resources in isolation, but by the capacity to combine and develop them through productive routines. Recent RBV scholarship emphasizes capability redeployment and orchestration in response to contextual change (Helfat et al., 2023), while human-capital research shows that knowledge creates value when connected to organizational work systems (Gerhart & Feng, 2021).

Capability provides analytical capacity and professional judgment, whereas management orchestrates budgets, personnel, technology, learning, and follow-up. Borges & Klein (2023) show that auditors and management assess audit quality differently. Support is therefore conceptualized as an enabling architecture rather than merely a favorable attitude among leaders. Effectiveness nevertheless requires interaction with management and auditees, calling for engaged independence: proximity that enhances organizational understanding without compromising objectivity. Ebrahimi et al (2023) show that independence and support

can operate jointly to shape auditors' professional courage. APIP effectiveness is positioned as a mediator because it represents the conversion mechanism from inputs to outcomes.

Conceptually, the mechanism proceeds from resources to risk-based audit processes, recommendations as outputs, and then organizational responses and improvements. Nerantzidis et al (2022) and Pooe et al (2022) view internal audit attributes as signals translated into evidence of effectiveness, while that public-sector audit research requires measures extending beyond structural characteristics. The mediating position avoids the theoretical error of equating possession of resources with successful oversight. Regional financial management accountability is an institutional outcome encompassing the capacity to provide explanations and make corrections. It materializes when budget decisions are traceable, implementation complies with authorization, reporting provides evidence, and findings lead to improvement. Tran et al (2021) show that accountability links financial information quality with public-organization performance. Grossi et al (2023) and Mattei et al (2021) place public auditing within a shift from compliance testing toward value creation, risk management, and governance responsiveness. This synthesis predicts that auditor capability, organizational independence, and management support shape APIP effectiveness, which in turn strengthens regional financial accountability.

Table 1. Research Framework, Operational Definitions, and Construct Indicators

Code	Construct	Operational	Indicators
X1	Auditor Capability — exogenous	Auditors' capacity to apply knowledge, skills, judgment, and professional ethics in conducting high-quality oversight assignments	(1) regulatory and technical audit knowledge; (2) planning and risk analysis; (3) evidence collection and analysis; (4) professional judgment; (5) communication of recommendations; (6) ethics and continuous development
X2	Organizational Independence — exogenous	The degree of APIP authority and freedom to plan, conduct, and report assignments without intervention that compromises objectivity	(1) position and reporting lines; (2) freedom to determine scope; (3) unrestricted access; (4) freedom from pressure/intervention; (5) authority to communicate findings; (6) protection of objectivity
X3	Management Support — exogenous	Leaders' tangible commitment to providing resources, legitimacy, and organizational responsiveness that enable effective oversight	(1) adequacy of budgets and personnel; (2) training and development; (3) technology and data access; (4) coordination with work units; (5) responses to recommendations; (6) follow-up

Code	Construct	Operational	Indicators
M	APIP Effectiveness — mediator	APIP's ability to achieve assurance and consulting objectives and generate controls and governance that create stakeholder value	(1) achievement of audit objectives; (2) risk-based coverage; (3) quality and timeliness of findings; (4) actionable recommendations; (5) follow-up rate; (6) stakeholder value added
Y	Regional Financial Management Accountability — endogenous	The capacity to explain, substantiate, and improve financial management in accordance with mandates and applicable regulations	(1) accountability; (2) implementation compliance and efficiency; (3) reporting and evidence; (4) internal control and risk; (5) corrective follow-up; (6) transparency of accountability

Table 1 positions the three antecedent constructs as sources of effectiveness. Capability represents an individual resource, whereas organizational independence and management support represent governance conditions that determine resource quality and use. APIP effectiveness is the capability that converts these inputs into assurance, recommendations, and follow-up; financial accountability is positioned as the institutional consequence.

The framework produces seven relationships: auditor capability, organizational independence, and management support affect APIP effectiveness; APIP effectiveness affects accountability; and APIP effectiveness mediates the relationship between each exogenous construct and accountability. In SEM testing, the direct paths from X1, X2, and X3 to Y remain estimated as comparators so that the form of mediation can be classified accurately. The indicators in the table represent initial measurement domains subsequently translated into questionnaire items and assessed through expert validation, instrument piloting, and measurement-model evaluation.

METHOD

This study uses a quantitative design with individuals knowledgeable about internal oversight and financial management within the Government of Kepulauan Meranti Regency as the unit of analysis. Relationships among constructs are analyzed using partial least squares structural equation modeling (PLS-SEM) because it aligns with the research objectives and model characteristics: simultaneously estimating latent constructs, testing mediation effects, and assessing the model's explanatory and predictive performance. This approach follows current guidance requiring purpose-based justification, measurement-model evaluation, and predictive reporting (Becker et al., 2023; Magno et al., 2024).

The research setting encompasses the Regional Inspectorate and regional government agencies (OPDs) in Kepulauan Meranti Regency. The population is divided into two strata.

The first comprises APIP personnel who conduct audits, evaluations, monitoring, and consulting assignments. The second consists of auditees and OPD financial managers responsible for follow-up. Respondents must have served in their roles for at least one year, interacted directly with APIP within the previous 24 months.

Sample size was determined through an a priori power analysis. The most complex structural equation predicts accountability from the exogenous constructs and APIP effectiveness; direct paths from the exogenous constructs remain estimated to classify mediation. Assuming a medium effect size ($F^2=0.15$), $\alpha=0.05$, power of 0.95, and the specified predictors, 230 questionnaires provide an allowance for unusable responses, improve the precision of indirect-effect estimates, and enable comparisons between APIP personnel and auditees. All eligible APIP personnel are invited through total sampling, while auditees are selected using purposive stratified sampling. Final allocation across OPDs is proportional after the eligible-personnel lists are verified. Individuals meeting more than one category are assigned according to their primary function to avoid double counting.

Table 2. Planned Composition and Target Number of Valid Respondents

Respondents	Eligible roles	Selection technique	Valid
APIP/Regional Inspectorate	Auditors, PPUPD officers, and technical personnel involved in audit and follow-up oversight	total census of all eligible personnel	50
OPD financial management officials	Budget users/delegated budget users, PPK-SKPD officials, finance officers, or financial management coordinators	Stratified purposive sampling; proportional OPD quotas	75
Treasurers and administrative personnel	Treasurers, assistant treasurers, and staff who prepare transaction evidence and accountability reports	Stratified purposive sampling; proportional OPD quotas	65
Program implementers and follow-up personnel	PPTK officials and activity managers responsible for following up APIP recommendations	proportional OPD quotas	40
Total	All respondents meet the tenure and APIP-interaction criteria	Pooled sample for difference testing	230

The research instrument is a structured questionnaire derived from the indicators for each construct in Table 1 and contains 30 substantive items. Each item is measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Auditor capability, organizational independence, management support, APIP effectiveness, and accountability are modeled reflectively.

The instrument is developed in three stages. First, five to seven experts in internal auditing, public finance, public-sector management, and quantitative methodology assess item relevance, clarity, and representativeness. Items are retained when Aiken's V is at least 0.80 and no substantive objections arise. Second, cognitive interviews with 8–10 prospective respondents ensure a shared understanding of terms, particularly independence, effectiveness, and follow-up. Third, a pilot involving 30–40 respondents outside the main sample assesses completion time, response distribution, item correlations, and initial reliability.

The questionnaire is distributed online or in print after administrative permission and ethical approval have been obtained. The opening page explains the study's purpose, voluntary participation, confidentiality, and the right to discontinue. Responses are screened for completeness, inconsistency, and implausibly short completion times based on the pilot distribution. Analysis begins with descriptive statistics and respondent profiles, followed by estimation of the PLS algorithm and bootstrapping with 10,000 subsamples, two-tailed testing at $\alpha = 0.05$, and 95% confidence intervals. Evaluation proceeds through the measurement and structural models (Hair et al., 2014, 2019).

Table 3. PLS-SEM Analytical Stages and Decision Criteria

Stage	Decision and reporting criteria
Data screening	Noncredible responses are excluded using rules established before analysis; all exclusions and missing data are reported.
Indicator reliability	Preferably ≥ 0.708 ; indicators of 0.40–0.70 are removed only when reliability/AVE improves without reducing content validity; indicators < 0.40 are removed.
Internal consistency	0.70–0.95; values > 0.95 are examined for item redundancy.
Convergent validity	$AVE \geq 0.50$ for every construct.
Discriminant validity	HTMT < 0.85 as a conservative threshold or < 0.90 for closely related constructs; confidence intervals must not include 1.
Collinearity	VIF < 3.3 preferred; values 3.3–5 are examined; VIF ≥ 5 requires remedial action
Path significance	A hypothesis is supported when the direction matches the prediction and the confidence interval excludes zero; effect size is still reported.
Effect size	Approximately 0.02 = small, 0.15 = medium and 0.35 = large; values below 0.02 remain discussed when substantively relevant.
Prediction	$Q^2 > 0$ indicates predictive relevance

Stage	Decision and reporting criteria
Mediation	Mediation is present when the effect CI excludes zero. Direct paths X1/X2/X3→Y are retained to classify indirect-only, complementary, or competitive; VAF is not used as the sole basis.
Group comparison	Configural invariance, compositional invariance, and equality of means/variances are first assessed using 5.000 permutations; path differences are interpreted only after at least partial invariance is established.
Policy priority	Conducted for the target accountability construct to identify factors with high importance but relatively low performance.

FINDING

The analysis uses 230 valid responses consistent with the sampling structure specified in the method. Screening excluded duplicate responses, questionnaires with more than 10% missing data, straight-lining patterns, and completion times below the reasonable threshold established in the pilot. No substantive-item values were missing because the online questionnaire required responses, while incomplete submissions were resolved during verification. All indicators displayed adequate response variation, with no category dominance suggesting floor or ceiling effects. VIF values ranged from 1.72 to 2.83, below the 3.3 cautionary threshold. Thus, there was no strong indication that collinearity or common method variance dominated the relationships among constructs.

The respondent composition preserved the two perspectives incorporated in the design. APIP personnel numbered 50 (21.7%), while the remaining 180 respondents were users of oversight services and OPD financial managers. The latter included financial management officials, treasurers and administrative personnel, and program implementers or follow-up coordinators. In total, 75.7% had worked for more than three years in oversight- or financial-management-related functions. This structure enables an assessment that represents not only auditors' perceptions of their own work but also auditees' experiences of the timeliness, recommendation quality, and benefits of APIP follow-up.

Descriptive construct scores showed a nonuniform pattern. Auditor capability had a mean of 3.73 (SD = 0.58), organizational independence 3.35 (SD = 0.67), management support 3.47 (SD = 0.64), APIP effectiveness 3.78 (SD = 0.55), and accountability 3.69 (SD = 0.57). Independence recorded the lowest mean and greatest dispersion, indicating that respondents' experiences of access, pressure, and freedom of communication were not homogeneous. APIP effectiveness had the highest mean, yet its gap from management support suggests that respondents could recognize oversight outcomes while still viewing resource support as suboptimal. Correlations were positive and ranged from 0.421 to 0.741;

none approached unity, so the constructs remained conceptually distinguishable. These statistics describe the data, while hypothesis decisions rely on PLS-SEM estimates and confidence intervals.

Table 4. Respondent Profile Used in the Analysis

Dimension	Category	Frequency	Percentage
Respondent group	APIP/Regional Inspectorate	50	21.7%
	OPD financial management officials	75	32.6%
	Treasurers and financial administration personnel	65	28.3%
	Program implementers/follow-up coordinators	40	17.4%
Tenure in the relevant function	1–3 years	56	24.3%
	4–7 years	91	39.6%
	More than 7 years	83	36.1%
Total respondents	All categories	230	100.0%

First, measurement-model assessment showed that all constructs met indicator reliability and internal-consistency requirements. The lowest outer loading was 0.721 for management support, while the highest was 0.898 for APIP effectiveness. Because all loadings exceeded 0.708, no indicator was removed. Cronbach's alpha ranged from 0.874 to 0.911, rho_A from 0.881 to 0.913, and composite reliability from 0.905 to 0.932. These values fall within the 0.70–0.95 range, indicating consistency without excessive item redundancy. AVE exceeded 0.50 for every construct, ranging from 0.615 for management support to 0.697 for APIP effectiveness. Each construct therefore explained more than half of its indicators' variance.

Discriminant validity was assessed using HTMT. The highest value, 0.817, occurred between management support and APIP effectiveness but remained below the conservative threshold of 0.85. Confidence intervals for all construct pairs did not include one. Although management support and APIP effectiveness are theoretically proximate, the measures distinguish enabling resources from the oversight function's actual achievements. Indicator VIFs ranged from 1.49 to 2.94, indicating no excessive duplication of information. Overall, the measurement model satisfied convergent validity, discriminant validity, and reliability requirements for structural-model testing.

Table 5. Construct Reliability and Validity

Construct	Loading range	Alpha	rho_A	CR	AVE	VIF
Auditor Capability (X1)	0.736–0.871	0.882	0.887	0.910	0.629	1.56–2.61
Organizational Independence (X2)	0.748–0.889	0.895	0.898	0.920	0.657	1.64–2.73
Management Support (X3)	0.721–0.865	0.874	0.881	0.905	0.615	1.49–2.55
APIP Effectiveness (M)	0.765–0.898	0.911	0.913	0.932	0.697	1.78–2.94
Financial Accountability (Y)	0.752–0.886	0.902	0.905	0.925	0.674	1.71–2.82

Second, the structural model explained 64.1% of the variance in APIP effectiveness and 59.6% of the variance in regional financial management accountability. Adjusted R^2 values were 0.636 and 0.589, respectively, indicating moderate-to-substantial explanatory power in a public-sector organizational context. The SRMR of 0.061 was below 0.08, while NFI reached 0.907. Both measures serve as supporting diagnostics rather than sole grounds for accepting the model. All structural predictor VIFs were below 3.3, allowing the path coefficients to be interpreted without meaningful collinearity concerns.

Management support was the strongest predictor of APIP effectiveness ($\beta = 0.352$, $t = 5.893$, $p < 0.001$). Auditor capability ranked second ($\beta = 0.286$), followed by organizational independence ($\beta = 0.238$); both were significant at $p < 0.001$. APIP effectiveness subsequently exerted the strongest effect on accountability ($\beta = 0.451$, $t = 6.821$, $f^2 = 0.240$). H1–H4 were therefore supported. Of the three comparative direct paths to accountability, auditor capability and management support remained significant ($\beta = 0.141$ and $\beta = 0.171$, respectively), whereas organizational independence did not ($\beta = 0.063$, $p = 0.298$). This pattern indicates that part of the effect of resources and governance operates through APIP's actual effectiveness.

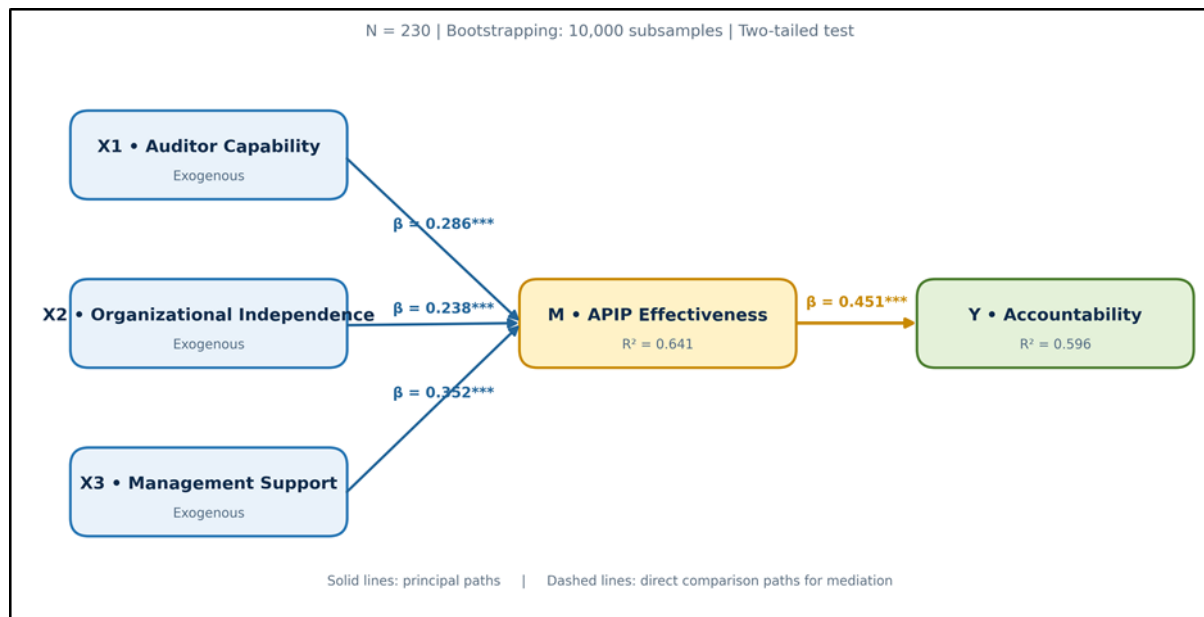


Figure 1. PLS-SEM Structural model and path coefficients

Table 6. Structural-Model Path Coefficients

Path	β	t	p	CI 95%	F ²	Decision
H1: X1 → M	0.286	4.512	<0.001	0.159–0.404	0.105	Supported
H2: X2 → M	0.238	3.766	<0.001	0.114–0.356	0.075	Supported
H3: X3 → M	0.352	5.893	<0.001	0.235–0.462	0.159	Supported
H4: M → Y	0.451	6.821	<0.001	0.319–0.568	0.240	Supported
Comparative path: X1 → Y	0.141	2.166	0.030	0.018–0.269	0.029	Significant
Comparative path: X2 → Y	0.063	1.041	0.298	–0.055–0.182	0.006	Nonsignificant
Comparative path: X3 → Y	0.171	2.603	0.009	0.044–0.295	0.043	Significant

The mediation analysis showed that APIP effectiveness mediated all three proposed relationships. The indirect effect of auditor capability on accountability was 0.129, with a 95% confidence interval of 0.071–0.201. Because its direct effect remained positive and significant, this relationship was classified as complementary mediation. The indirect effect of organizational independence was 0.107 and significant, while its direct path was nonsignificant, indicating indirect-only mediation. Independence therefore influences accountability when it is converted into effective oversight processes. Management support

produced an indirect effect of 0.159 and retained a positive direct path, thereby forming complementary mediation. Its total effect on accountability reached 0.330, exceeding those of auditor capability (0.270) and independence (0.170). H5–H7 were consequently supported.

Table 7. Indirect Effects and Types of Mediation

Hypothesis/Path	Effect	t	p	CI 95%	Direct path	mediation
H5: $X1 \rightarrow M \rightarrow Y$	0.129	3.872	<0.001	0.071–0.201	0.141; $p = 0.030$	Complementary
H6: $X2 \rightarrow M \rightarrow Y$	0.107	3.401	0.001	0.055–0.172	0.063; $p = 0.298$	Indirect-only
H7: $X3 \rightarrow M \rightarrow Y$	0.159	4.562	<0.001	0.094–0.234	0.171; $p = 0.009$	Complementary

Predictive relevance was supported by Q^2 values of 0.432 for APIP effectiveness and 0.388 for accountability. The cross-validated PLS-predict procedure yielded positive Q^2 predict values for every endogenous indicator. For five of the six accountability indicators, the PLS model produced lower RMSE values than the linear benchmark; the same pattern appeared for five of the six APIP-effectiveness indicators. These results indicate medium-to-high predictive power and show that the model not only fits the development sample but is also useful for predicting holdout observations.

Multigroup analysis was conducted after MICOM established configural and compositional invariance and thus partial invariance. Most coefficient differences between APIP personnel and auditees were nonsignificant. A difference emerged in the path from APIP effectiveness to accountability: the coefficient was 0.312 for APIP personnel and 0.493 for auditees (PLS-MGA $p = 0.042$). This suggests that service users place greater weight than auditors on APIP's actual outcomes in determining accountability. Because the APIP group contained only 50 respondents, this result is treated as exploratory and does not replace the conclusions from the pooled model.

Table 8. Explanatory Power and Predictive Relevance

Endogenous construct	R^2	Adj R^2	Q^2	Q^2 predict	PLS RMSE vs linear model
APIP Effectiveness (M)	0.641	0.636	0.432	0.397	Lower for 5 of 6 indicators
Financial Accountability (Y)	0.596	0.589	0.388	0.352	Lower for 5 of 6 indicators

The IPMA targeting accountability revealed a strategic pattern. APIP effectiveness had the highest importance (0.451) and a performance score of 69.4 and should therefore be maintained. Management support had an importance score of 0.330 but performance of only

61.8; its high-importance–low-performance position makes it the principal improvement priority. Auditor capability showed relatively strong performance of 68.2 and importance of 0.270. Organizational independence recorded the lowest performance (58.7) and a smaller total effect. These IPMA findings do not imply that independence can be neglected; rather, they indicate that improving management support is expected to yield the greatest additional accountability under the model conditions. Overall, the results confirm the proposed mediation structure: resources and organizational conditions shape APIP effectiveness, which connects them to regional financial accountability.



Figure 2. IPMA with accountability as the target construct

Discussion

The results show that APIP effectiveness is not merely an outcome but the mechanism that converts auditor resources and institutional conditions into accountability. This position supports the distinction between possessing resources and deploying them productively. Auditor capability supplies knowledge, judgment, and professional communication, whereas APIP effectiveness represents the collective ability to direct these competencies toward risks, recommendations, and follow-up. This logic consistent with Gerhart & Feng (2021) and Helfat et al (2023), who emphasize that the value of human resources depends on organizational arrangements. Improving individual competence without strengthening audit processes is therefore insufficient to explain changes in accountability.

Management support emerged as the strongest determinant of APIP effectiveness and had the largest total effect on accountability. This finding reinforces Alqudah et al (2019) and

Shuwaili et al (2024) while providing a mechanism: budgets, personnel, technology, data access, and organizational responsiveness improve accountability when they enable timely audits and actionable recommendations. Its IPMA position confirms that the central issue is not merely leaders' normative approval but the consistent provision of resources and monitoring of follow-up. Support should nevertheless function as institutional protection rather than dependence.

Auditor capability affects accountability through both direct and indirect paths. Complementary mediation indicates two mechanisms. First, auditor proficiency improves the quality of interaction, evidence, and recommendations experienced directly by financial management units. Second, wider benefits arise when that proficiency becomes embedded in APIP's functional effectiveness. The result is consistent with David & Ntegwa(2024), while clarifying Ta and Doan (2022) nonsignificant finding: competence loses influence when organizational arrangements, access, and follow-up do not allow auditors to generate change.

Organizational independence follows a different pattern. It significantly affects APIP effectiveness but has no direct effect on accountability. Indirect-only mediation indicates that formal position, information access, and freedom from pressure are necessary conditions but do not automatically improve financial management. This interpretation aligns with Eklöv Alander (2023), who understands independence as organizational practice rather than a static attribute. Strengthening independence therefore requires more than changing reporting lines; it also demands protective procedures, unrestricted access and mechanisms.

The effect of APIP effectiveness on accountability is the strongest relationship in the outcome equation. This supports Turetken et al. (2019), who assess effectiveness through goal attainment and stakeholder value, and Karikari et al. (2022) regarding the contribution of effective auditing. In Meranti, the relationship redirects attention from formal capability status to recommendation quality and completion of follow-up. External audit opinions cannot serve as the sole measure; accountability improvements are also evident in error prevention, evidence traceability, budget discipline, and fewer recurring findings.

The model's predictive capacity has implications distinct from path significance. Positive Q^2 predict values and prediction errors generally below those of the linear benchmark indicate that the construct combination may help identify units with weaker accountability prospects. Such use must not become a mechanical ranking of employees or OPDs. Predictive are better used to identify needs for consultation, thematic review, and follow-up assistance. They tools for allocating oversight attention, not substitutes for professional judgment and audit evidence.

The exploratory difference between APIP personnel and auditees shows that service users place greater weight on actual effectiveness. Auditors may account for internal process constraints, whereas auditees assess APIP by the changes they experience. This pattern reinforces Erasmus & Coetzee (2018) argument that stakeholders may employ different

effectiveness criteria. Practically, interventions should first strengthen resource support and follow-up discipline, maintain well-performing oversight processes, and then orient auditor development toward risk analysis and actionable recommendations. Independence should be reinforced through access, protected communication, and clear escalation channels. Policy directions should be reviewed periodically through indicators of follow-up, recurring findings, and oversight users' perceptions.

CONCLUSION

This study concludes that regional financial management accountability does not arise directly from the presence of competent auditors or formal oversight structures. It depends on APIP's ability to convert capability, independence, and management support into effective oversight processes. APIP effectiveness thus serves as a substantive conversion mechanism. Oversight creates value when it focuses on relevant risks, produces timely findings, formulates actionable recommendations, and ensures that follow-up generates changes in internal control and financial management.

The analytical model reveals distinct relationships for each determinant. Auditor capability and management support have both direct and indirect effects on accountability, meaning that APIP effectiveness reinforces effects already present. Organizational independence, by contrast, affects accountability only through APIP effectiveness. Formal position, information access, and freedom from intervention do not automatically enhance accountability unless translated into professional courage, testing quality, and effective communication of findings. Theoretically, these results connect the resource-based view and agency theory: auditor capability is a strategic resource, while independence and management support form the governance conditions determining whether that resource produces valuable assurance.

The policy implications extend beyond raising APIP capability levels. The Government of Kepulauan Meranti Regency should prioritize management support because it has the largest effect and occupies the high-importance–relatively-low-performance quadrant in the IPMA. Support should take the form of adequate personnel and budgets, access to technology and data, risk-based competency development, and follow-up monitoring with designated responsibilities and deadlines. At the same time, support must not become dependence that restricts objectivity. Independence should be protected through unrestricted access, authority to communicate findings, and clear escalation channels. APIP evaluation should combine auditor and auditee perspectives so that success is assessed not only by completed work programs but also by changes experienced by financial management units.

REFERENCE

- Alqudah, H. M., Amran, N. A., & Hassan, H. (2019). Extrinsic Factors Influencing Internal Auditors' Effectiveness in Jordanian Public Sector. *Review of European Studies*, 11(2), 67. <https://doi.org/10.5539/res.v11n2p67>
- Becker, J.-M., Cheah, J.-H., Gholamzade, R., Ringle, C. M., & Sarstedt, M. (2023). PLS-SEM's most wanted guidance. *International Journal of Contemporary Hospitality Management*, 35(1), 321–346. <https://doi.org/10.1108/IJCHM-04-2022-0474>
- Borges, G., & Klein, L. L. (2023). Quality of internal auditing in federal educational institutions: an analysis of the perception of internal audit members and senior management. *Managerial Auditing Journal*, 38(7), 1141–1161. <https://doi.org/10.1108/MAJ-10-2022-3715>
- BPK, B. P. K. R. I. P. P. R. (2025). Laporan hasil pemeriksaan LKPD Kabupaten Kepulauan Meranti. <https://riau.bpk.go.id/lhp-lkpd/laporan-hasil-pemeriksaan-lkpd-kabupaten-kepulauan-meranti/>
- BPK, B. R. P. P. R. (2025). BPK serahkan laporan hasil pemeriksaan atas LKPD kepada Pemerintah Kota Pekanbaru dan Pemerintah Kabupaten Kepulauan Meranti. <https://riau.bpk.go.id/bpk-serahkan-laporan-hasil-pemeriksaan-atas-lkpd-kepada-pemerintah-kota-pekanbaru-dan-pemerintah-kabupaten-kepulauan-meranti/>
- BPKP, B. P. K. dan P. (2024). Analisis dan evaluasi pembinaan kapabilitas pengawasan intern pemerintah. https://jdih.bpkp.go.id/dokumen/data_dokumen/Anev_Pembinaan_Kapabilitas_Pengawasan_Intern.pdf
- Cordery, C. J., & Hay, D. (2024). Public sector audit: new public management influences and eco-system driven reforms. *Journal of Public Budgeting, Accounting & Financial Management*. <https://doi.org/10.1108/JPBAFM-07-2023-0124>
- David, J. I., & Ntegwa, M. J. (2024). Enhancing Procurement Integrity: Key Factors Influencing Internal Audit Effectiveness in Tanzania Public Procurement. *International Journal of Business and Economic Studies*, 6(1), 1–14. <https://doi.org/10.54821/uiecd.1435837>
- DeSimone, S., & Rich, K. (2020). Determinants and consequences of internal audit functions within colleges and universities. *Managerial Auditing Journal*, 35(8), 1143–1166. <https://doi.org/10.1108/MAJ-10-2019-2444>
- Ebrahimi, A., Safari Gerayli, M., & Valiyan, H. (2023). Effects of external and internal drivers of individual behavior voice on the moral courage and internal auditors' effectiveness. *Journal of Accounting & Organizational Change*, 19(5), 735–764. <https://doi.org/10.1108/JAOC-08-2021-0099>
- Eklöv Alander, G. (2023). Internal auditor independence as a situated practice: four archetypes. *Accounting, Auditing & Accountability Journal*, 36(9), 108–134. <https://doi.org/10.1108/AAAJ-08-2019-4137>

- Erasmus, L., & Coetzee, P. (2018). Drivers of stakeholders' view of internal audit effectiveness. *Managerial Auditing Journal*, 33(1), 90–114. <https://doi.org/10.1108/MAJ-05-2017-1558>
- Fayi, S. M. (2022). Internal audit quality and resistance to pressure. *Journal of Money and Business*, 2. <https://doi.org/10.1108/JMB-11-2021-0053>
- Gerhart, B., & Feng, J. (2021). The Resource-Based View of the Firm, Human Resources, and Human Capital: Progress and Prospects. *Journal of Management*, 47(7), 1796–1819. <https://doi.org/10.1177/0149206320978799>
- Grima, S., Baldacchino, P. J., Grima, S., Kizilkaya, M., Tabone, N., & Ellul, L. (2023). Designing a Characteristics Effectiveness Model for Internal Audit. *Journal of Risk and Financial Management*, 16(2), 56. <https://doi.org/10.3390/jrfm16020056>
- Grossi, G., Hay, D. C., Kuruppu, C., & Neely, D. (2023). Changing the boundaries of public sector auditing. *Journal of Public Budgeting, Accounting & Financial Management*, 35(4), 417–430. <https://doi.org/10.1108/JPBAFM-05-2023-0079>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM). *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- Hegazy, M., & Farghaly, M. (2022). Internal audit function is a global governance pursuit: What could be done in emerging markets? *Corporate Ownership and Control*, 19(3), 201–216. <https://doi.org/10.22495/cocv19i3art16>
- Helfat, C. E., Kaul, A., Ketchen, D. J., Barney, J. B., Chatain, O., & Singh, H. (2023). Renewing the resource-based view: New contexts, new concepts, and new methods. *Strategic Management Journal*, 44(6), 1357–1390. <https://doi.org/10.1002/smj.3500>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Karikari, A. M., Tettevi, P. K., Amaning, N., Opoku Ware, E., & Kwarteng, C. (2022). Modeling the implications of internal audit effectiveness on value for money and sustainable procurement performance: An application of structural equation modeling. *Cogent Business & Management*, 9 (1). <https://doi.org/10.1080/23311975.2022.2102127>
- Magno, F., Cassia, F., & Ringle, C. M. (2024). A brief review of partial least squares structural equation modeling (PLS-SEM) use in quality management studies. *The TQM Journal*, 36(5), 1242–1251. <https://doi.org/10.1108/TQM-06-2022-0197>

- Mahyoro, A. K., & Kasoga, P. S. (2021). Attributes of the internal audit function and effectiveness of internal audit services: evidence from local government authorities in Tanzania. *Managerial Auditing Journal*, 36 (7), 999–1023. <https://doi.org/10.1108/MAJ-12-2020-2929>
- Mattei, G., Grossi, G., & Guthrie A.M., J. (2021). Exploring past, present and future trends in public sector auditing research: a literature review. *Meditari Accountancy Research*, 29(7), 94–134. <https://doi.org/10.1108/MEDAR-09-2020-1008>
- Meranti, P. K. K. M. (2019). Wabup Said Hasyim hadir pengukuhan Perwakilan BPKP Riau sekaligus terima sertifikat APIP Level 3. <https://sipb.merantikab.go.id/artikel/wabup-said-hasyim-hadiri-pengukuhan-perwakilan-bpkp-riau-sekaligus-terima-sertifikat-apip-level-3>
- Nerantzidis, M., Pazarskis, M., Drogalas, G., & Galanis, S. (2022). Internal auditing in the public sector: a systematic literature review and future research agenda. *Journal of Public Budgeting, Accounting & Financial Management*, 34 (2), 189–209. <https://doi.org/10.1108/JPBAFM-02-2020-0015>
- Pooe, J. B., Barac, K., Plant, K., & Steyn, B. (2022). Signalling of internal audit effectiveness. *South African Journal of Accounting Research*, 36 (3), 213–249. <https://doi.org/10.1080/10291954.2021.2000727>
- Roussy, M., & Perron, A. (2018). New Perspectives in Internal Audit Research: A Structured Literature Review. *Accounting Perspectives*, 17 (3), 345–385. <https://doi.org/10.1111/1911-3838.12180>
- Samagaio, A., & Felício, T. (2023). The determinants of internal audit quality. *European Journal of Management and Business Economics*, 32 (4), 417–435. <https://doi.org/10.1108/EJMBE-06-2022-0193>
- Shuwaili, A. M. J., Hesarzadeh, R., & Bagherpour Velashani, M. A. (2024). Designing an internal audit effectiveness model for public sector: qualitative and quantitative evidence from a developing country. *Journal of Facilities Management*, 22 (5), 792–810. <https://doi.org/10.1108/JFM-07-2022-0077>
- Singh, K. S. D., Ravindran, S., Ganesan, Y., Abbasi, G. A., & Haron, H. (2021). Antecedents and Internal Audit Quality Implications of Internal Audit Effectiveness. *International Journal of Business Science and Applied Management*, 16 (2), 1–21. <https://doi.org/10.69864/ijbsam.16-2.145>
- Ta, T. T., & Doan, T. N. (2022). Factors Affecting Internal Audit Effectiveness: Empirical Evidence from Vietnam. *International Journal of Financial Studies*, 10 (2), 37. <https://doi.org/10.3390/ijfs10020037>
- Tran, Y. T., Nguyen, N. P., & Hoang, T. C. (2021). The role of accountability in determining the relationship between financial reporting quality and the performance of public

organizations: Evidence from Vietnam. *Journal of Accounting and Public Policy*, 40 (1), 106801. <https://doi.org/10.1016/j.jaccpubpol.2020.106801>

Turetken, O., Jethefer, S., & Ozkan, B. (2019). Internal audit effectiveness: operationalization and influencing factors. *Managerial Auditing Journal*, 35 (2), 238–271. <https://doi.org/10.1108/MAJ-08-2018-1980>