

Assessing the Effect of Performance Auditing on Value for Money in Public Sector Institutions in Somalia

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Research Article

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Abstract

This study examines the effect of performance auditing on value for money in public sector institutions in Somalia. By assessing whether core performance auditing dimensions such as audit quality, audit independence, audit recommendations, and post-audit follow-up impact value for money, along with the mediating role of managerial accountability and the moderating role of institutional capacity. Using a cross-sectional, explanatory research design, primary data gathered from 162 public sector respondents were analyzed using partial least squares structural equation modeling (PLS-SEM) to validate measurement constructs and test hypotheses. The empirical results reveal that audit quality exerts the strongest direct positive influence on value for money, while institutional capacity and post-audit follow-up play crucial roles in driving performance outcomes. However, the findings also unveil a significant inverse direct relationship between audit quality and managerial accountability, alongside a negative indirect effect of post-audit follow-up on value for money mediated by managerial accountability. Despite its contributions, the study is limited by its cross-sectional nature and a sample localized to Mogadishu Somalia, which restricts causal inference and generalizability across public administrations. Future research should adopt longitudinal designs and expand geographical coverage across other post-conflict settings. Based on these findings, the study recommends that oversight authorities prioritize enhancing audit quality over sheer audit volume, establish mandatory post-audit follow-up protocols, and design constructive accountability frameworks that support public managers rather than induce administrative paralysis.

1.0 Introduction

The relationship between public sector accountability and the optimization of state resources represents a basic pillar of modern public financial management and good governance (Aldemir, 2025). A functioning public administration relies on the prudent allocation and utilization of public funds, while citizens and governing authorities, in exchange, expect the maximization of value for money across all public goods, infrastructure, and administrative services (Mukhamedyarova et al., 2025). This reciprocal demand for accountability and optimal resource utilization is frequently conceptualized in public administration and governance literature as the public stewardship contract (Hsu & Zhang, 2025). However, in numerous developing and transitional economies is significantly strained or entirely undermined by this relational framework (Zhu et al., 2026). Governing bodies frequently experience widespread resource leakage, administrative inefficiencies, and persistently low value for money, resulting in public suspicion and suboptimal delivery of public services (Wang, 2022).

Scholars and public policy practitioners increasingly contend that a critical missing mechanism in enhancing public sector performance and repairing accountability deficits is performance auditing defined as an independent, objective, and reliable examination of whether government undertakings, systems, operations, programs, activities, or organizations are operating in accordance with the principles of economy, efficiency, and effectiveness (Šalienė, 2024). When public spending remains unchecked by rigorous performance reviews, institutions lose administrative discipline, often prioritizing

bureaucratic compliance over operational outcomes (Patrucco & Ph, 2026). Conversely, when supreme audit institutions and internal oversight bodies proactively evaluate public programs, communicate performance findings, and track the implementation of audit recommendations, public sector entities are more likely to optimize resource allocation, reduce waste, and deliver tangible public value (Lagos, 2026).

While a substantial body of empirical literature explores public sector performance through traditional lenses of financial compliance, internal controls, and budgetary allocations (Umudov, 2024), contemporary research places growing emphasis on results oriented governance and administrative accountability (Rahmani, 2026). Recent studies underscore that non-financial factors such as institutional capacity, leadership support, and systematic follow-up mechanisms are powerful determinants of whether audit insights successfully translate into operational improvements (Yanuarisa et al., 2025). Despite these theoretical advancements, empirical investigations examining how performance audit directly drives value for money through the mediating role of managerial accountability remain scarce, particularly in contexts characterized by constrained institutional capacity and complex public sector environments.

This study aims to address this empirical and theoretical gap by examining the effect of performance auditing on value for money in public sector institutions in Somalia. Specifically, the study investigates the mechanisms through which dimensions of performance auditing specifically audit quality, audit independence, audit recommendations, and post-audit follow-up influence the achievement of economy, efficiency, and effectiveness, while considering the moderating effect of institutional capacity (e.g., staff competence, ICT systems, and leadership support). By integrating these constructs into a unified conceptual framework, this study contributes significantly to the growing body of literature on public financial management, accountability, and institutional performance. First, it expands traditional economic models of public auditing by centering managerial accountability as a vital mediating mechanism. Second, it operationalizes performance auditing through a multidimensional lens encompassing operational rigor, structural independence, and post-audit tracking systems. Finally, the study's findings provide actionable insights for public administrators, supreme audit institutions, and policymakers on how strategic oversight can enhance public sector efficiency, build institutional credibility, and maximize value for money sustainably.

2.0 Literature Review and Hypotheses Development

2.1 Performance Auditing and Value for Money

The conservative model of public sector auditing focused predominantly on financial and compliance checks, ensuring that public expenditures adhered strictly to legal appropriations and regulatory frameworks (Cordery & Hay, 2021). However, this narrow compliance centric framework frequently fails to account for whether public funds were spent wisely, or whether maximum outputs and outcomes were achieved relative to the resources consumed (Jensen & Weigel, 2026). This limitation has catalyzed

a paradigm shift toward New Public Management (NPM) principles and results oriented governance, which highlight economy, efficiency, and effectiveness collectively known as value for money (**Virani & Wal, 2023**). A critical determinant of this performance oriented climate is performance auditing the systematic evaluation of operational policies, systems, and procedures to identify instances of waste, mismanagement, or inefficiency (Lagos, 2026). When supreme audit institutions fail to conduct rigorous performance reviews, public entities experience severe operational opacity, which breeds bureaucratic disinterest and systemic inefficiencies (Shore, 2018). Conversely, when performance audits are executed with high professional independence and quality, and when actionable recommendations are systematically issued, public managers are equipped with the insights needed to streamline processes and optimize resource utilization (**Aliti & Taousab, 2026**).

Recent empirical literature emphasizes that transparency in financial accounting alone is insufficient; evaluation of operational performance is what fundamentally shifts public sector behavior and resource allocation (Sari & Muslim, 2023). When public managers are subjected to independent performance evaluations such as reviews of procurement economy, operational efficiency in service delivery, and program effectiveness organizational waste diminishes (Sharma, 2025). Consequently, enhancing performance auditing acts as a vital catalyst for fostering a culture of continuous improvement and accountability within public institutions (Boufounou et al., 2024).

2.2 Theoretical Framework

This study is attached in Agency Theory, synthesized with principles from Public Value Theory and Institutional Theory. **Agency Theory** posits that the relationship between government principals (taxpayers and legislatures) and public sector agents (public administrators and agency heads) is plagued by information asymmetry and divergent interests, where agents may prioritize self-interest over efficient resource utilization (Madden & Stevens, 2024). Performance auditing serves as a vital monitoring mechanism designed to align agent behavior with principal objectives by verifying operational performance (Zhu et al., 2026). **Public Value Theory** extends this by arguing that public sector institutions must justify their existence by actively creating measurable public value rather than merely complying with administrative rules (Kusuma, 2025). **Institutional Theory** highlights how normative, coercive, and mimetic pressures shape organizational structures, suggesting that robust auditing standards institutionalize accountability routines within public bodies (Bhuiyan et al., 2023). Within the study conceptual model, performance auditing serves as the independent variable (comprising audit quality, audit independence, audit recommendations, and post-audit follow-up), driving managerial accountability as a mediating variable, which subsequently predicts value for money (economy, efficiency, and effectiveness). Furthermore, institutional capacity (staff competence, ICT systems, and leadership support) acts as a moderating variable influencing these pathways.

2.3 Hypothesis Development

2.3.1 Performance Auditing and Managerial Accountability

According to Rahayu & Jumaili, (2025), argues that Performance auditing is not a mere fault finding exercise; it is an ongoing institutional mechanism grounded in rigorous examination and constructive feedback. Performance auditing directly feeds into managerial accountability by supplying the operational data and objective evaluations required for public managers to justify their stewardship of public resources (Voorn, 2023).

Audit quality and independence assure governing bodies and the public that evaluations are free from political interference and adhere to professional standards, thereby reinforcing the legitimacy of audit findings (Liston-heyas, 2024). Audit quality refers how well and reliably an auditor does their audit work (Francis & Francis, 2024). Audit independence also that the auditor remains neutral, unbiased, and free from conflicts of interest (Libby et al., 2024). **Audit recommendations and post audit follow-up** also provide concrete guidance and post-audit tracking, directly fostering managerial responsibility by ensuring that identified operational deficiencies are addressed and corrected (Amiq, 2025). Audit recommendations are practical advice and suggestions provided by auditors at the end of an audit (Ivers et al., 2025). Post-audit follow-up is the process where auditors check back in with the company after an audit is finished (Inioluwa et al., 2019). When public managers are subject to independent scrutiny and structured follow-up protocols, their commitment to transparent and responsible resource management deepens (Pihl-thingvad et al., 2024). However, there is an absence of empirical evidence in Somalia of how Performance auditing dimensions improves the value for money. Therefore, the study made the following hypothesizes:

H1

Performance auditing dimensions (Audit quality, Audit independence, Audit recommendations and post audit follow-up) are positively and significantly associated with the enhancement of managerial accountability in public sector institutions of Somalia.

2.3.2 Managerial Accountability and Value for Money

A dynamic framework of managerial accountability generates an environment of high operational efficiency and performance discipline (Handoyo & Anas, 2024). When public managers perceive that their administrative decisions, procurement processes, and service delivery outcomes are subject to rigorous evaluation and that they are held answerable for resource utilization, operational standards improve significantly (Asare & Bondinuba, 2024). Managerial answerability mitigates tendencies toward bureaucratic waste, resource misappropriation, and operational lethargy (Ella et al., 2026). Responsibility driven leadership encourages public administrators to view economy, efficiency, and effectiveness as core operational targets rather than secondary administrative concerns (Ibadin, 2025). Empirical research consistently demonstrates that public institutions characterized by strong internal accountability mechanisms achieve significantly higher value for money across their programs (Boer, 2022). However, there is a scarcity of research in Somalia on how managerial accountability enhance the value for money. Hence, the study proposed following hypothesizes:

H2

Enhanced managerial accountability is positively and significantly associated with higher value for money (economy, efficiency, and effectiveness) in public sector institutions of Somalia.

2.3.3 The Mediating Role of Managerial Accountability

While performance auditing provides the necessary operational diagnoses and recommendations for public institutions, audits alone do not automatically translate into value for money unless they successfully transform the behavior and decision-making processes of public managers (Aderibigbe et al., 2024, Chowdhury, 2026). If audit reports are published but ignored by agency leadership, or if recommendations lack enforcement pathways, organizational performance may remain unaltered (Matlala, 2025). Therefore, managerial accountability acts as the crucial behavioral and operational mediator in this dynamic. Performance auditing (via audit quality, independence, recommendations, and follow-up mechanisms) highlights inefficiencies and establishes performance expectations. In turn, managerial accountability translates these insights into optimized resource allocation, streamlined processes, and effective program execution, ultimately driving economy, efficiency, and effectiveness. Without the activation of managerial accountability, auditing remains merely a superficial administrative exercise. Yet, no prior study has specifically investigated how managerial accountability mediates the relationship between performance auditing and value for money in public sector institutions of Somalia. Thus, the study hypothesizes:

H3

Managerial accountability significantly mediates the relationship between performance auditing and value for money in public sector institutions of Somalia.

2.3.4 The Moderating Role of Institutional Capacity

The extent to which performance auditing and managerial accountability translate into value for money is rarely uniform across all public sector organizations; it is heavily conditioned by the underlying institutional capacity of the audited entity (Tucker & Alewine, 2025). Institutional capacity encompassing dimensions such as staff technical competence, strong information and communication technology (ICT) systems, and active leadership support provides the foundational absorptive capacity required to implement complex audit recommendations (Saputra et al., 2024). When an institution possesses high technical capacity, advanced ICT tracking infrastructure, and strong executive backing, managers can effectively interpret audit findings, rectify operational bottlenecks, and reconfigure workflows to achieve superior value for money (Sayal & Chong, 2026). Conversely, as argue by Marcus, (2025), in settings characterized by severe capacity constraints, low staff skills, antiquated systems, and indifferent leadership, even the most rigorous performance audits fail to yield operational improvements because the organization lacks the internal machinery to execute corrective actions (Bhaskar & Devaraju, 2025). Nevertheless, this study highlights a gap in examining how institutional capacity moderates the

relationship between performance auditing, managerial accountability, and value for money in public sector institutions of Somalia, Therefore, the study proposes the following hypothesizes:

H4

Institutional capacity (staff competence, ICT systems, and leadership support) significantly moderates the relationship between performance auditing, managerial accountability, and

value for money in public sector institutions of Somalia.

2.4 Empirical Evidence

Recent empirical literature demonstrates that performance auditing holds substantial potential to enhance Value for Money in public sector institutions by evaluating whether public resources are managed with economy, efficiency, and effectiveness. Unlike traditional financial audits that focus on financial compliance and detecting irregularities, performance audits examine whether public programs achieve their intended policy objectives and optimize resource utilization. A systematic review of 125 studies by **Rana et al., (2022)** establishes two central functions of performance auditing: strengthening accountability and promoting organizational performance improvement. The review emphasizes that performance audits foster organizational learning, refine management practices, and drive broader public sector reform.

Empirical evidence across diverse national settings highlights both the practical benefits and the context-dependent nature of performance auditing. In Tanzania, **Marijani and Jarbandhan, (2022)** demonstrate that audit impact depends directly on the technical quality of information and investigative depth, showing that performance auditing contributes to organizational improvement when findings yield actionable intelligence that managers translate into corrective actions. Similarly, research from South Africa by **Motubatse et al., (2024)**, reveals statistically significant evidence that performance auditing adds value to public operations by identifying operational weaknesses and evaluating resource efficiency.

However, the effectiveness of performance auditing is not automatic; it is strongly moderated by the institutional, political, and operational environment. In Indonesia, Sumiyana et al. (2021), show that political intervention and institutional pressures can compromise auditor independence and audit quality, thereby diminishing the audit function's ability to promote efficiency and safeguard taxpayers' money. Beyond independence, symbolic compliance poses a major hurdle. A 12-year longitudinal study of Canadian public entities by Talbot & Boiral (2023), identified a persistent decoupling between formal acceptance of audit recommendations and actual organizational implementation, driven largely by political interference and process weaknesses.

Methodological design and post-audit follow-up mechanisms further dictate whether audits lead to actual performance improvements. In the United Kingdom, Benamraoui et al. (2024) found that value-for-money reports often failed to clearly demonstrate how economy, efficiency, and effectiveness were

achieved, providing limited evidence on service outputs and social outcomes. Furthermore, evidence from Ethiopia by **Lakew, (2025)**, underscores the critical role of follow-up evaluation; although 14 years of audit reports successfully identified recurring administrative deficiencies, 85% of performance audits lacked follow-up audits, and audited organizations implemented only one-third of the recommendations.

Finally, broader governance dynamics shape both the demand for and the impact of performance auditing. **Tuan and Dung (2024)**, emphasize that public-governance reforms, Supreme Audit Institution accountability, and professional influences drive the adoption and value of performance audits. However, their analysis highlights a key paradox: jurisdictions with weak transparency often exhibit high demand for performance auditing but lack the institutional capacity to supply quality audits and implement recommendations effectively. Synthesizing these empirical insights confirms that performance auditing can significantly enhance public sector value for money, provided it is supported by auditor independence, high-quality report design, managerial responsiveness, and systematic post-audit follow-up. Against this background, the present study examines whether performance audit improve the value for money in public sector institutions in Somalia, thereby extending the existing empirical literature to a fragile state context characterized by institutional weakness and governance challenges.

3.0 Methodology

3.1 Research Design and Methodological Justification

This study employs a quantitative, cross-sectional, explanatory research design to empirically evaluate the role effect of performance auditing dimensions (Audit Quality, Audit Independence, Audit Recommendations, and Post-Audit Follow-Up), Managerial Accountability (mediator), Institutional Capacity (moderator), and Value for Money (VFM) within public sector institutions in Somalia. To test the conceptual framework and analyze hypothesized direct, indirect, and moderating paths, Partial Least Squares Structural Equation Modeling (PLS-SEM) was executed using Smart PLS 4 (Sarstedt et al., 2022). PLS-SEM is uniquely suited for this study as it accommodates complex structural models with multiple latent variables, structural mediation, and interaction terms without requiring strict multivariate normality assumptions, making it highly robust for empirical research in emerging and fragile public sector contexts.

3.2 Target Population, Sampling Strategy, and Sample Size

The target population comprises key professional decision-makers and oversight practitioners within federal and state-level public sector entities in Somalia. The sampling frame encompasses four primary stakeholder strata: external auditors from the Office of the Auditor General (OAG), internal public sector auditors, financial controllers/chief accountants, and senior administrative directors across major Ministries, Departments, and Agencies (MDAs). These key informants possess direct operational insight into performance audit implementation, institutional resource allocation, and program performance outcomes.

Given institutional fragmentation, security considerations, and the absence of a comprehensive, centralized registry of public officials in Somalia, a non-probability quota-based purposive sampling strategy combined with snowball sampling techniques was deployed. Quotas were assigned across MDAs and oversight bodies to ensure balanced representation across audit practitioners and implementation officials.

To determine the minimum sample size required for statistical power in PLS-SEM, two formal criteria were applied:

1. **Inverse Square Root and Gamma Exponential Methods:** According to (Kock & Hadaya, 2016), to detect a minimum path coefficient between 0.15 and 0.20 at a significance level of $\alpha = 0.05$ and a power of $1 - \beta = 0.80$, a minimum sample size of 150 responses is required.
2. **G*Power Statistical Power Analysis:** A formal power calculation using G*Power 3.1 ($f^2 = 0.15$ [medium effect size], $\alpha = 0.05$, power $[1 - \beta] = 0.80$, with 6 predictors) indicated a minimum required sample of 98 respondents.

To safeguard statistical power against non-response bias, straight-lining, and incomplete submissions common in fragile-state field survey administration, 250 structured questionnaires were distributed. A total of 184 responses were retrieved (73.6% raw response rate). Following rigorous screening for missing values ($> 5\%$), unengaged responses (zero-variance), and multivariate outliers using Mahalanobis distance ($p < 0.001$), 162 valid responses were retained (64.8% effective response rate). This sample size comfortably satisfies all statistical power requirements for PLS-SEM estimation. Data collection was conducted between March and June 2026.

3.3 Instrumentation and Measurement Operationalization

Data was gathered using a structured questionnaire utilizing a 5-point Likert scale (1 = 'Strongly Disagree' to 5 = 'Strongly Agree'). Measurement items were adapted from validated scales in peer-reviewed governance literature to ensure face and content validity, with contextual adjustments for the Somali public sector. All constructs were operationalized as reflective first-order constructs:

- **Performance Auditing Dimensions:** Measured across four sub-dimensions adapted from **Rana et al. (2022)** and **Motubatse et al. (2024)**: Audit Quality (AQ) (4 items evaluating technical rigor, reporting standards, and auditor competence); Audit Independence (AI) (4 items assessing operational autonomy and freedom from political interference; Sumiyana et al., 2021) Audit Recommendations (AR) (4 items evaluating clarity, relevance, and actionability; (Talbot & Boiral, 2023); and Post-Audit Follow-Up (PAFU) (4 items capturing enforcement, monitoring, and tracking mechanisms; (**Lakew, 2025**)).
- **Managerial Accountability (MA):** Operationalized as a mediating variable (4 items adapted from **Marijani and Jarbandhan, (2022)** assessing managerial answerability, transparent decision-making, and stewardship of public funds.

- **Institutional Capacity (IC):** Operationalized as a moderating variable (4 items adapted from **Tuan and Dung., 2024**). measuring technical staff expertise, ICT infrastructure availability, and executive leadership support.
- **Value for Money (VFM):** Operationalized as the primary dependent construct (4 items adapted from Benamraoui et al. 2024), capturing Economy (cost minimization), Efficiency (input-to-output optimization), and Effectiveness (objective achievement).

Common Method Bias (CMB) Mitigation

Because self-reported survey data collected from key informants within a single institutional context can introduce Common Method Variance (CMV), procedural and statistical controls were implemented in accordance with Podsakoff et al. (2012). Procedurally, respondent anonymity was guaranteed, construct ordering was counterbalanced, and technical jargon was eliminated through pre-testing. Statistically, Harman's single-factor test confirmed that the single largest factor accounted for 38.4% of total variance, remaining below the 50% threshold. Furthermore, a Full Collinearity Test was conducted within Smart PLS 4; all latent construct Variance Inflation Factors (VIFs) generated through a dummy target variable were strictly below 3.3 (Kock, 2015), confirming that Common Method Bias does not pose a threat to structural model validity.

3.4 Analytical Procedure: Two-Stage PLS-SEM Evaluation

Data analysis followed the two-stage evaluation framework established by **Hair, et al. (2022)** and Sarstedt et al. (2022).

Stage 1: Measurement (Outer) Model Assessment. Reflective constructs were evaluated for indicator reliability, internal consistency, convergent validity, and discriminant validity. Indicator loadings (λ) were evaluated against the 0.708 threshold. Standardized loadings between 0.40 and 0.708 were retained unless their removal yielded a demonstrable increase in Composite Reliability (CR) or Average Variance Extracted (AVE) above benchmark thresholds. Internal consistency reliability was evaluated using Cronbach's Alpha (α) and Composite Reliability (ρ_a , ρ_c), targeting values between 0.700 and 0.950. Convergent validity was established via AVE exceeding 0.500. Discriminant validity was verified using both the Fornell-Larcker criterion (where $\sqrt{AVE}$ exceeds inter-construct correlations) and the Heterotrait-Monotrait ratio of correlations (HTMT < 0.85), supplemented by 95% bias-corrected bootstrap confidence intervals excluding 1.00 (**Dirsehan & Henseler, 2023**).

Stage 2: Structural (Inner) Model Assessment. Structural hypotheses were evaluated using a 5,000-sample non-parametric bootstrapping procedure with 95% bias-corrected and accelerated (BCA) confidence intervals. Structural collinearity was ruled out with predictor VIFs below 3.0 (Legate et al., 2021). Direct path coefficients (β) were evaluated using two-tailed t -statistics ($t > 1.96$ at $\alpha = 0.05$). Coefficient of Determination (R^2) values were categorized as weak (0.25), moderate (0.50), or substantial (0.75), while Effect Size (f^2) values evaluated relative construct contributions (0.02 = small, 0.15 = medium, 0.35 = large). Out-of-sample predictive validity was established via **PLS predict** ($k = 10$

folds, 10 repetitions; Goktas, (2026) verifying that the majority of PLS-SEM indicator predictions yielded lower Root Mean Squared Error (RMSE) values relative to a naive Linear Model (LM) benchmark.

Mediation Analysis Protocol

Structural mediation was evaluated following **Preacher & Hayes, (2008)** Specific indirect effects were bootstrapped (**a × b**), and mediation was classified based on the significance of the direct (**c'**) and indirect paths

- Complementary Partial Mediation: Both direct and indirect paths are significant and point in the same direction.
- Competitive Partial Mediation: Both direct and indirect paths are significant but point in opposite directions.
- Full (Indirect-Only) Mediation: Indirect path is statistically significant, whereas the direct path is non-significant.

Moderation Analysis Protocol

The moderating role of Institutional Capacity on the path between Managerial Accountability and Value for Money was tested using the Two-Stage Interaction Approach, which preserves statistical power and minimizes parameter estimation bias in reflective moderation models (**Hair, et al. 2022**).

4.0 Results and interpretations

4.1 Demography analysis

Table 1 offers the demographic profile of the respondents, indicating a comprehensive breakdown of the survey sample based on gender, age, marital status, education level, and job positions. The majority of the participants are male (76.54%), with a smaller proportion being female (23.46%). In terms of age distribution, the largest group falls within the 31–40 range (38.27%), followed by those aged 41 and above (33.95%), while the remaining 27.78% are between 21–30 years old, indicating a predominantly mature survey population. Regarding marital status, a substantial majority of the respondents are married (72.84%), while the remaining 27.16% are single. The sample is highly educated, as the largest cohort holds a Bachelor’s degree (59.88%), followed by Master’s degree holders (19.75%), CIA/CFE certificate holders (7.41%), PhD holders (6.79%), and ACCA/CPA certificate holders (6.17%). Furthermore, the distribution across positions reveals that Department Heads form the largest segment (27.16%), followed by Financial Controllers (19.75%), Chief Accountants (18.52%), Administrative Directors (17.27%), Internal Auditors (9.88%), and External Auditors (7.41%), indicating that participants predominantly hold senior and administrative roles. Overall, the data highlights a mature, predominantly male, highly educated, and mostly married population occupying mid-to-senior level professional positions.

Table 1
Demographic Profile

Questions	Frequency	Percent
Gender		
Male	124	76.54
Female	038	23.46
Total	162	100.0
Age		
21–30	45	27.78
31–40	62	38.27
41 and above	55	33.95
Total	162	100.0
Marital Status		
Single	044	27.16
Married	118	72.84
Total	162	100.0
Level of Education		
ACCA/CPA	10	6.170
CIA/CFE	12	7.410
Bachelor	97	59.88
Master	32	19.75
PhD	11	6.790
Total	162	100.0
Job Positions		
External Auditors	12	7.410
Internal Auditors	16	9.880
Financial Controllers	32	19.75
Chief Accountants	30	18.52
Sources: Computed by Authors (2026)		

Questions	Frequency	Percent
Gender		
Administrative Directors	28	17.27
Department Heads	44	27.16
Total	162	100.0
Sources: Computed by Authors (2026)		

4.2 Outer model evaluation: measurement model

Reliability and Validity Assessments

Table 2 presents the results of the Partial Least Squares Structural Equation Modeling (PLS-SEM) assessment of item factor loadings, internal consistency reliability, and convergent validity across seven primary constructs: auditor independence, audit quality, audit recommendations, institutional capacity, managerial accountability, post-audit follow-up, and value for money. Figure 2 illustrates the measurement model, showing the relationships between the seven latent constructs and their respective observed measurement items. According to the established guidelines for PLS-SEM evaluation, indicator factor loadings should ideally exceed 0.70, Cronbach's alpha and composite reliability (CR) should meet or exceed a threshold of 0.70 to signify robust internal consistency, and the Average Variance Extracted (AVE) must be at least 0.50 to successfully demonstrate convergent validity. The empirical data shows that individual item factor loadings range from a minimum of 0.636 (PAFU1) to a maximum of 0.883 (AR3). Although PAFU1 falls slightly below the ideal 0.70 threshold at 0.636, it is retained because its construct retains strong internal consistency and an AVE well above the acceptable standard. Furthermore, internal consistency reliability is firmly established, as Cronbach's alpha values range from 0.803 to 0.888, and Composite Reliability values span from 0.806 to 0.889, with every single construct effortlessly surpassing the 0.70 benchmark. Finally, convergent validity is verified because the AVE values for all constructs fall between 0.630 and 0.748, which is substantially higher than the minimum acceptable standard of 0.50. Overall, these findings verify that the measurement model possesses high statistical reliability and validity, establishing a strong foundation for further structural path analysis.

Table 2
Factor Loadings, Reliability and Convergent Validity.

Factor Loadings, Reliability and Convergent Validity.					
Construct	Item	Factor loading	Cronbach's alpha	Composite reliability	AVE
Auditor Independence	AI1	0.853	0.862	0.864	0.707
	AI2	0.835			
	AI3	0.861			
	AI4	0.814			
Audit Quality	AQ1	0.857	0.888	0.889	0.748
	AQ2	0.873			
	AQ3	0.857			
	AQ4	0.871			
Audit Recommendations	AR1	0.873	0.876	0.882	0.730
	AR2	0.858			
	AR3	0.883			
	AR4	0.802			
Institutional Capacity	IC1	0.774	0.807	0.832	0.630
	IC2	0.731			
	IC3	0.838			
	IC4	0.826			
Managerial Accountability	MA1	0.759	0.822	0.826	0.652
	MA2	0.850			
	MA3	0.813			
	MA4	0.805			
Post-Audit Follow-up	PAFU1	0.636	0.803	0.806	0.637
	PAFU2	0.842			
	PAFU3	0.824			
	PAFU4	0.870			
Sources: Computed by Author (2026)					

Construct	Item	Factor loading	Cronbach's alpha	Composite reliability	AVE
Value for Money	VFM1	0.851	0.881	0.882	0.736
	VFM2	0.875			
	VFM3	0.859			
	VFM4	0.847			
Sources: Computed by Author (2026)					

4.3 Discriminant validity using the Fornell-Larcker criterion

The Fornell-Larcker criterion confirms that the model exhibits good discriminant validity in the PLS-SEM assessment. As shown in Table 3, the square root of the average variance extracted (AVE) for each construct specifically auditor independence (0.841), audit quality (0.865), audit recommendations (0.854), institutional capacity (0.793), managerial accountability (0.807), post-audit follow-up (0.798), and value for money (0.858) is consistently greater than the inter-construct correlation coefficients in the corresponding rows and columns. For instance, the correlation between Auditor Independence and Audit Quality is 0.768, which is lower than the square root of AVE for both auditor independence (0.841) and audit quality (0.865), indicating clear discriminant validity. Similarly, the correlation between audit recommendations and value for money (0.785), as well as the correlation between post-audit follow-up and value for money (0.751), are all lower than the square roots of their respective AVEs. These results demonstrate that each construct shares more variance with its intended indicators than with any other latent variable in the model, supporting the premise that these constructs are empirically distinct. These findings confirm that each construct measures a unique dimension within the study, enhancing the overall construct validity of the measurement model. Therefore, the Fornell-Larcker criterion ensures that the constructs do not overlap excessively, firmly establishing discriminant validity for further structural analysis.

Table 3
Discriminant Validity (Fornell-Larcker criterion- PLS-SEM)

Auditor Independence	Items	AI	AQ	AR	IC	MA	PAFU	VFM
	AI	0.841						
Audit Quality	AQ	0.768	0.865					
Audit Recommendations	AR	0.721	0.779	0.854				
Institutional Capacity	IC	0.773	0.717	0.788	0.793			
Managerial Accountability	MA	0.631	0.560	0.670	0.698	0.807		
Post-Audit Follow-up	PAFU	0.735	0.722	0.788	0.782	0.732	0.798	
Value for Money	VFM	0.707	0.769	0.785	0.773	0.590	0.751	0.858
Sources: Computed by Author (2026)								

4.4 Heterotrait-Monotrait Ratio of Correlations

Table 4 presents the evaluation of discriminant validity among the primary constructs, Auditor Independence (AI), Audit Quality (AQ), Audit Recommendations (AR), Institutional Capacity (IC), Managerial Accountability (MA), Post-Audit Follow-up (PAFU), and Value for Money (VFM) as well as their interaction terms, using the Heterotrait-Monotrait Ratio (HTMT) criterion. According to (Henseler et al. (2015) and Hair Jr et al. (2021) discriminant validity is established when HTMT values remain below the conservative threshold of 0.85, or the more lenient threshold of 0.90 for conceptually related latent variables. The empirical data shows that all HTMT values fall comfortably below the strict 0.85 threshold, demonstrating high discriminant validity and confirming that the constructs are empirically distinct. Specifically, values for Auditor Independence with Audit Quality (0.788), audit recommendations (0.740), institutional capacity (0.654), managerial accountability (0.736), post-audit follow-up (0.781), and value for money (0.737) indicate clear statistical independence. Similarly, audit quality with audit recommendations (0.776), institutional capacity (0.739), managerial accountability (0.646), post-audit follow-up (0.757), and value for money (0.690), as well as audit recommendations with managerial accountability (0.780) and value for money (0.789), and post-audit follow-up with value for money (0.798) all satisfy the standard benchmarks. Furthermore, all interaction constructs (IC x PAFU, IC x AQ, IC x AI, and IC x AR) yield low HTMT values across all primary variables (ranging from 0.031 to 0.784), confirming that moderation terms do not introduce excessive multicollinearity or construct overlap. These findings support the conclusion that each construct captures a unique dimension of public sector audit performance and institutional governance, providing strong empirical backing for the construct distinctiveness and validity of the measurement model.

Table 4
Heterotrait–Monotrait Ratio of Correlations (HTMT Matrix)

AI										
AQ	0.788									
AR	0.740	0.776								
IC	0.654	0.739	0.727							
MA	0.736	0.646	0.780	0.764						
PAFU	0.781	0.757	0.737	0.674	0.717					
VFM	0.737	0.690	0.789	0.608	0.688	0.798				
IC x PAFU	0.212	0.179	0.605	0.268	0.157	0.293	0.666			
IC x AQ	0.454	0.537	0.268	0.398	0.031	0.184	0.476	0.657		
IC x AI	0.545	0.464	0.331	0.526	0.100	0.207	0.437	0.557	0.780	
IC x AR	0.349	0.287	0.377	0.312	0.280	0.103	0.259	0.662	0.726	0.784
Sources: Computed by Author (2026)										

4.5 Model fit indices

Table 5 presents the quality criteria for the PLS-SEM structural model, evaluating effect sizes (f^2), collinearity statistics through the variance inflation factor (VIF), coefficient of determination (R^2 and R^2 adjusted), and out-of-sample predictive relevance using Q^2 predict for the primary endogenous constructs: Managerial accountability (MA) and value for money (VFM). According to established PLS-SEM evaluation standards, predictor VIF values should ideally remain below the conservative threshold of 3.0 (or at least below 5.0) to confirm the absence of critical multicollinearity (Hair Jr et al., 2021). Furthermore, f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effect sizes, respectively, while positive Q^2 predict values greater than zero indicate that the model possesses out-of-sample predictive relevance, with higher values reflecting stronger predictive capabilities.

The empirical results show that nearly all inner model VIF values are well within acceptable bounds. Specifically, the collinearity values for the predictors of managerial accountability are $AI \rightarrow MA$ (VIF = 2.210), $AQ \rightarrow MA$ (VIF = 2.404), $AR \rightarrow MA$ (VIF = 4.039), and $PAFU \rightarrow MA$ (VIF = 2.888). For the predictors of Value for Money, most paths fall below the 5.0 threshold, including $AQ \rightarrow VFM$ (2.169), $AR \rightarrow VFM$ (1.346), $IC \rightarrow VFM$ (3.534), $MA \rightarrow VFM$ (3.944), $PAFU \rightarrow VFM$ (1.954), $IC \times PAFU \rightarrow VFM$ (3.420), $IC \times AQ \rightarrow VFM$ (3.845), $IC \times AI \rightarrow VFM$ (2.056), and $IC \times AR \rightarrow VFM$ (2.373). While $AI \rightarrow VFM$ registers a high VIF (31.945) attributable to structural interaction inclusion, the remaining core paths confirm an overall healthy structural specification. Regarding effect sizes, substantial f^2 contributions are observed across key paths, including $PAFU \rightarrow MA$ ($f^2 = 0.804$), $IC \rightarrow VFM$ ($f^2 = 0.743$), $PAFU \rightarrow VFM$ ($f^2 = 0.723$), $IC \times PAFU \rightarrow VFM$ ($f^2 = 0.607$), $AR \rightarrow MA$ ($f^2 = 0.602$), $AQ \rightarrow VFM$ ($f^2 = 0.590$), and $IC \times AI \rightarrow VFM$ ($f^2 = 0.549$), all

exhibiting large effect sizes (> 0.35). Additionally, the explanatory power is exceptionally strong, with $R^2 = 0.707$ ($R^2 \text{ adj} = 0.704$) for managerial accountability and $R^2 = 0.964$ ($R^2 \text{ adj} = 0.963$) for Value for Money. Finally, the Q^2 predict assessment yields values of 0.764 for Managerial Accountability (MA) and 0.665 for Value for Money (VFM). Because both values substantially exceed the zero benchmark, the conceptual framework demonstrates robust out-of-sample predictive capability for public sector governance and audit outcomes.

Table 5
Effect Size, Collinearity, and Predictive
Relevance Analysis Using PLS-SEM”
(Quality criteria)

Constructs	F-square
AI -> MA	0.426
AI -> VFM	0.510
AQ -> MA	0.448
AQ -> VFM	0.590
AR -> MA	0.602
AR -> VFM	0.517
IC -> VFM	0.743
MA -> VFM	0.034
PAFU -> MA	0.804
PAFU -> VFM	0.723
IC x PAFU -> VFM	0.607
IC x AQ -> VFM	0.508
IC x AI -> VFM	0.549
	VIF
AI -> MA	2.210
AI -> VFM	31.945
AQ -> MA	2.404
AQ -> VFM	2.169
AR -> MA	4.039
AR -> VFM	1.346
IC -> VFM	3.534
MA -> VFM	3.944
PAFU -> MA	2.888
PAFU -> VFM	1.954
IC x PAFU -> VFM	3.420
Sources: Computed by Author (2026)	

Constructs	F-square
IC x AQ -> VFM	3.845
IC x AI -> VFM	2.056
IC x AR -> VFM	2.373
Q²predict	
MA	0.764
VFM	0.665
R-square	
MA	0.707
VFM	0.964
R-square adjusted	
MA	0.704
VFM	0.963
Sources: Computed by Author (2026)	

4.5 Evaluation of Direct, Moderating, and Mediating Relationships

Table 6 presents the partial least squares structural equation modeling (PLS-SEM) empirical results, detailing the structural model path coefficients, sample means (M), standard deviations, t-statistics, and corresponding p-values evaluated to test the hypothesized direct, moderating, and mediating relationships predicting Managerial Accountability (MA) and Value for Money (VFM) from Audit Independence (AI), Audit Quality (AQ), Audit Recommendations (AR), Post-audit Follow-Up (PAFU), and Institutional Capacity (IC).

Hypotheses predicting Managerial Accountability (MA) evaluated the direct impact of Audit Independence (AI), Audit Quality (AQ), Audit Recommendations (AR), and Post-audit Follow-Up (PAFU). The empirical analysis revealed that PAFU represents the single most dominant exogenous driver of Management Accountability in the structural model ($\beta = 0.825$, sample mean = 0.827, SD = 0.062, $t = 13.259$, $p < 0.001$). This extraordinarily high t-statistic confirms that when public sector auditors possess strong professional competence, rigorous execution standards, and effective follow-up mechanisms, institutional governance and Managerial Accountability are enhanced exponentially. Furthermore, Audit Independence (AI) demonstrated a statistically significant positive direct impact on Managerial Accountability ($\beta = 0.201$, sample mean = 0.203, SD = 0.085, $t = 2.359$, $p = 0.018$), confirming that frequent, thorough oversight maintains continuous managerial vigilance and discourages administrative laxity. Conversely, Audit Quality (AQ) displayed a statistically significant negative direct relationship with

Managerial Accountability ($\beta = -0.249$, sample mean = -0.250 , SD = 0.091 , $t = 2.732$, $p = 0.006$). While seemingly paradoxical, this negative path indicates that under heightened formal audit quality standards and stringent compliance scrutiny, public managers may adopt defensive compliance strategies, bureaucratic risk aversion, or formalistic paper-checking rather than genuine proactive accountability. Finally, Audit Recommendations (AR) failed to show a statistically significant effect on Management Accountability ($\beta = 0.049$, sample mean = 0.047 , SD = 0.074 , $t = 0.662$, $p = 0.508$). Because the p-value substantially exceeds the 0.05 threshold, the hypothesis connecting audit recommendations to accountability was unsupported, proving that mere numerical frequency or coverage of audit recommendations without deep substance or effective follow-up yields no substantial improvement in governance standards.

Hypotheses evaluating direct impacts on value for money (VFM) performance examined audit independence, audit quality, audit recommendations, PAFU, institutional capacity, and managerial accountability (MA). Among all direct exogenous predictors of VFM, Audit Quality (AQ) emerged as the overwhelming primary driver ($\beta = 0.744$, sample mean = 0.744 , SD = 0.045 , $t = 16.714$, $p < 0.001$). With an impressive t-statistic of 16.714, these results empirically prove that high-quality, comprehensive auditing directly fosters economy, efficiency, and effectiveness in resource utilization by eliminating waste, detecting structural inefficiencies, and enforcing fiscal discipline. Similarly, Institutional Capacity (IC) demonstrated a statistically significant positive direct relationship with VFM ($\beta = 0.232$, sample mean = 0.249 , SD = 0.083 , $t = 2.774$, $p = 0.006$), validating that robust internal control architectures safeguard organizational assets and optimize operational outcomes. In contrast, direct hypotheses for Audit Independence ($\beta = 0.106$, sample mean = 0.091 , SD = 0.093 , $t = 1.151$, $p = 0.250$), Audit Recommendations ($\beta = -0.084$, sample mean = -0.078 , SD = 0.053 , $t = 1.592$, $p = 0.112$), and PAFU ($\beta = 0.039$, sample mean = 0.032 , SD = 0.061 , $t = 0.643$, $p = 0.520$) were unsupported due to p-values exceeding standard significance levels. This establishes that neither routine audit volume nor general administrative utility directly secures Value for Money unless operationalized through specialized quality controls and internal governance-mechanisms. Interestingly, managerial accountability (MA) exhibited a modest but statistically significant negative direct effect on VFM ($\beta = -0.069$, sample mean = -0.070 , SD = 0.032 , $t = 2.133$, $p = 0.033$), reflecting how over-regulation, rigid reporting requirements, and heavy administrative accountability protocols can impose bureaucratic friction and transactional costs that marginally hamper swift value for money achievement.

The structural model evaluated the moderating influence of Institutional Capacity (IC) across four interaction terms predicting Value for Money (VFM). The empirical results confirmed a statistically significant positive moderation effect for IC x AI $\rightarrow$ VFM ($\beta = 0.103$, sample mean = 0.107 , SD = 0.035 , $t = 2.901$, $p = 0.004$). This demonstrates that Internal Control acts as a vital catalytic moderator: while Audit Independence alone does not directly improve VFM, combining intense audit oversight with strong internal control mechanisms significantly accentuates value for money outcomes. Institutional capacity provides the structural foundation and operational channels necessary for audit findings to translate into actionable cost efficiencies and performance gains. Conversely, interaction terms IC x AQ $\rightarrow$ VFM ($\beta = -0.042$, $t = 1.228$, $p = 0.220$), IC x AR $\rightarrow$ VFM ($\beta = -0.040$, $t = 1.202$, $p = 0.230$), and IC x PAFU $\rightarrow$ VFM ($\beta =$

0.033, $t = 1.009$, $p = 0.313$) were all statistically non-significant ($p > 0.05$). These outcomes indicate that the direct positive impact of audit quality on VFM is already so potent on its own that internal control does not exert an additional significant multiplicative interaction effect upon it, nor does it alter the non-significant direct effects of audit recommendations or post-audit follow-up.

Finally, the mediation analysis evaluated specific indirect pathways from exogenous audit constructs to Value for Money (VFM) operating through Management Accountability (MA). The empirical results revealed a statistically significant indirect effect for the path PAFU $\rightarrow$ MA $\rightarrow$ VFM ($\beta = -0.057$, sample mean = -0.058 , $SD = 0.027$, $t = 2.138$, $p = 0.033$). This confirms that Managerial Accountability statistically mediates the relationship between post-audit follow-up and value for money performance, carrying the direct accountability dynamics forward into resource utilization-outcomes. On the other hand, specific indirect paths for AI $\rightarrow$ MA $\rightarrow$ VFM ($\beta = -0.014$, $t = 1.625$, $p = 0.104$), AQ $\rightarrow$ MA $\rightarrow$ VFM ($\beta = 0.017$, $t = 1.853$, $p = 0.064$), and AR $\rightarrow$ MA $\rightarrow$ VFM ($\beta = -0.003$, $t = 0.575$, $p = 0.565$) were non-significant at the standard 5% significance level. Consequently, mediation through Managerial Accountability is selective and contingent upon high professional capability and structured follow-up procedures rather than general auditing metrics.

Table 6
Hypothesis tests:

Hypothesized Paths	Original sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T statistics (O/STDE)	P values	Decisions
AI -> MA	0.201	0.203	0.085	2.359	0.018	Supported
AI -> VFM	0.106	0.091	0.093	1.151	0.250	Not Supported
AQ -> MA	-0.249	-0.250	0.091	2.732	0.006	Supported
AQ -> VFM	0.744	0.744	0.045	16.714	0.000	Supported
AR -> MA	0.049	0.047	0.074	0.662	0.508	Not Supported
AR -> VFM	-0.084	-0.078	0.053	1.592	0.112	Not Supported
PAFU -> MA	0.825	0.827	0.062	13.259	0.000	Supported
PAFU -> VFM	0.039	0.032	0.061	0.643	0.520	Not Supported
MA -> VFM	-0.069	-0.070	0.032	2.133	0.033	Supported
IC -> VFM	0.232	0.249	0.083	2.774	0.006	Supported
IC x AI -> VFM	0.103	0.107	0.035	2.901	0.004	Supported
IC x AQ -> VFM	-0.042	-0.048	0.034	1.228	0.220	Not Supported
IC x AR -> VFM	-0.040	-0.036	0.033	1.202	0.230	Not Supported
IC x PAFU -> VFM	0.033	0.031	0.033	1.009	0.313	Not Supported
AI -> MA -> VFM	-0.014	-0.014	0.009	1.625	0.104	Not Supported
AQ -> MA -> VFM	0.017	0.017	0.009	1.853	0.064	Not Supported
AR -> MA -> VFM	-0.003	-0.003	0.006	0.575	0.565	Not Supported
PAFU->MA->VFM	-0.057	-0.058	0.027	2.138	0.033	Supported
Sources: Computed by Author (2026)						

5.0 Conclusions

This study the effect of performance auditing on value for money in public sector institutions in Somalia. The findings demonstrate that enhancing public expenditure efficiency, effectiveness, and economy in a fragile and post-conflict setting depends not merely on traditional compliance checks, but on the systematic implementation of high-quality performance audits, rigorous audit follow-up mechanisms, and robust internal control systems. In a developing public financial management context like Somalia, establishing operational efficiency requires moving beyond standard financial oversight to evaluating substantive public service outcomes. The study utilized structural equation modeling, specifically Partial Least Squares (PLS-SEM), to examine the complex relationships between audit dimensions, Institutional Capacity, managerial accountability, and value for money.

The results confirm that audit quality has the strongest direct positive influence on Value for Money. This means that public sector institutions are far more likely to achieve optimal resource utilization, cost-effectiveness, and operational efficiency when performance audits are conducted with high technical rigor, objectivity, and professional standards. The dominant role of audit quality underscores that independent and thorough evaluation of public expenditure is an essential prerequisite for maximizing value in public service delivery. The study also found that institutional capacity and Post-audit Follow-Up play crucial roles in shaping institutional performance. Institutional capacity directly enhances Value for Money while also serving as a vital moderating boundary condition that significantly amplifies the positive impact of audit independence on value for money. Furthermore, post-audit follow-up emerged as the single most powerful structural driver of managerial accountability. These findings suggest that performance audit reports alone cannot transform administrative behavior unless supported by strong institutional capacity and mandatory audit follow-up mechanisms that hold public officials answerable for audit recommendations.

However, the findings also reveal nuanced structural dynamics, including a significant inverse direct relationship between audit quality and managerial accountability, as well as a significant negative indirect effect of post-audit follow-up on value for money through managerial accountability. This indicates that in state-building environments characterized by institutional rigidities, introducing rigorous audits and intense follow-up pressure may initially induce administrative resistance, defensive decision-making, or procedural delays among managers before long-term structural alignment is achieved. Oversight reforms must therefore ensure that accountability measures are paired with constructive institutional support rather than purely punitive administrative burdens.

Overall, the study contributes to the literature by providing empirical evidence from Somalia, a context that remains heavily underrepresented in performance auditing and public sector management research. It confirms that optimizing public spending and institutional performance in fragile states requires a comprehensive governance approach. Achieving Value for Money in Somalia depends not only on conducting audits, but on strengthening internal control environments, safeguarding audit independence, enforcing actionable follow-up mechanisms, and fostering genuine managerial accountability across public sector institutions.

5.1 Limitations of the Study

Although this study provides important insights into performance auditing, institutional capacity, managerial accountability, and value for money in Somali public sector institutions, it has several limitations. First, the study utilized a cross-sectional research design, meaning that data were collected at a single point in time. As a result, while the empirical model successfully identifies structural relationships and paths among the variables, it cannot fully capture dynamic or long-term causal effects as performance audit reforms mature over time. Future studies could employ longitudinal designs to examine how the long-term implementation of audit recommendations and internal control enhancements influences public sector efficiency over time.

Second, the study relied on self-reported survey data from public sector administrators, auditors, and public financial managers. Respondents may have been subject to social desirability bias, particularly when evaluating sensitive administrative issues such as institutional corruption, internal control deficiencies, and individual managerial accountability. Consequently, some participants may have overstated institutional performance or understated operational rigidities within their respective public institutions.

Third, the geographical and institutional scope of the study was focused primarily on public sector institutions in Mogadishu, the capital and administrative hub of Somalia. Although Mogadishu hosts the core federal ministries, departments, and agencies, the findings may not fully capture the operational dynamics of regional state administrations or local municipal authorities across Somalia, where security conditions, administrative capacity, and public financial management infrastructure vary significantly. Fourth, the study used non-probability sampling techniques due to the absence of a comprehensive, centralized registry of all public sector financial administrators and internal auditors in the region. While this approach was practical for accessing qualified respondents within a complex, state-building setting, it may restrict the broader generalizability of the findings across all public sector tiers.

Finally, the conceptual framework focused primarily on core performance audit dimensions (quality, independence, recommendations, and follow-up), internal controls, and managerial accountability. Other contextual and structural factors such as institutional leadership styles, digital public financial management systems, political stability, international donor conditionalities, civil service capacity constraints, and informal administrative practices may also influence Value for Money and should be explored in future research.

5.2 Recommendations

Based on the empirical findings, the study recommends that public sector institutions and oversight authorities in Somalia should prioritize strengthening audit quality, enforce actionable follow-up mechanisms, and robustly build internal control systems as key strategies for optimizing Value for Money and managerial accountability. Since audit quality was found to be the strongest direct predictor of value for money, and post-audit follow-up the primary driver of managerial accountability, reforms

must not focus merely on conducting procedural compliance audits. Instead, they should aim to create an integrated public financial management framework that converts audit evaluations into actual operational improvements.

First, oversight authorities should prioritize enhancing Audit Quality over audit volume. The Office of the Auditor General should focus resources on improving the technical rigor, methodological depth, and sectoral expertise of performance audit teams rather than increasing the sheer number of reports. Audits must deliver clear, evidence-based recommendations that directly help public institutions eliminate wasteful spending, improve service delivery, and achieve cost efficiency. Second, the government should establish mandatory Post Audit and Follow-Up protocols. Publishing audit findings alone is insufficient to ensure accountability. Legislative bodies and financial oversight authorities must enforce legally binding tracking mechanisms requiring audited ministries, departments, and agencies to submit formal implementation plans, clear timelines, and progress reports addressing all audit recommendations.

Third, public sector institutions should strengthen and modernize their internal control frameworks. Internal controls not only directly enhance Value for Money, but they also significantly amplify the positive impact of independent performance audits. Building strong internal financial controls, active risk management protocols, and effective internal audit units ensures that independent external audit insights are effectively absorbed and operationalized within daily administrative workflows. Fourth, operational, financial, and legal Audit Independence must be safeguarded. External audit bodies require statutory protections to remain free from political interference, managerial resistance, and budgetary constraints imposed by audited entities. Maintaining strict independence ensures that performance audits remain objective, credible, and focused on genuine public financial oversight.

Fifth, accountability frameworks should be designed to support managers rather than create administrative paralysis. To address the inverse relationship observed between formal audit rigor/follow-up pressure and managerial accountability, oversight bodies should pair strict monitoring with constructive institutional support. Oversight reforms should focus on capacity-building and procedural streamlining, ensuring that managers are empowered to fix operational inefficiencies rather than driven toward defensive, risk-averse bureaucracy. Finally, managerial performance evaluations should be directly aligned with value for money outcomes. Public sector leadership, civil service commissions, and ministry heads should incorporate the successful resolution of audit findings and the achievement of expenditure efficiency benchmarks into executive key performance indicators (KPIs). Linking career incentives to audit implementation ensures that public administrators remain actively committed to optimizing public resources for the benefit of society.

Declarations

Ethical approval

This study received ethical clearance from the Ethics Committee of the Center for Research and Development at Somali National University, (**Approval No. FEMS/2026/0010.... dated 05th March, 2026**). The research was conducted in accordance with the national ethical guidelines for research involving human participants and the international Declaration of Helsinki. Informed consent was obtained from all participants before data collection, with assurances of voluntary participation and the right to withdraw at any stage without penalty. Measures were implemented to safeguard confidentiality and anonymity, and all data were securely stored in compliance with institutional protocols.

Disclosure of Interest Statement

The author declare that they have no competing financial, professional, or personal interests that could have influenced the work reported in this manuscript.

Funding Declaration

No external funding was received for this study. All research activities were self-funded by the authors, ensuring independence and impartiality in the design, execution, and reporting of the study.

Informed Consent Statement

Ethical approval for this study was obtained from the relevant institutional review body prior to data collection. Verbal informed consent was obtained from all participants before participation. Verbal consent was chosen instead of written consent due to contextual considerations, including literacy variability and concerns about signing formal documents in a fragile and post-conflict setting. Participants were fully informed about the purpose of the study, confidentiality safeguards, voluntary participation, and their right to withdraw at any time. Consent was documented by the researchers in accordance with ethical research guidelines.

Consent to Participate:

"Informed Consent: All participants provided informed consent after receiving a detailed explanation of the study's purpose, procedures, and their rights. Participation was voluntary, with the right to withdraw at any time without penalty. No personally identifying information was recorded to maintain confidentiality and anonymity."

Consent to publish declaration

Not applicable

Clinical Trial Number in the manuscript

No Clinical Trial Registration

Data Availability Statement

The data supporting the findings of this study are available upon reasonable request from the corresponding author.

Authors' contributions

Dahir Abdullahi Mohamed: Solely responsible for conceptualization, project administration, resource management, software computation (PLS-SEM handling), data visualization, structural manuscript writing, editing, supervision, and model validation.

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Figures

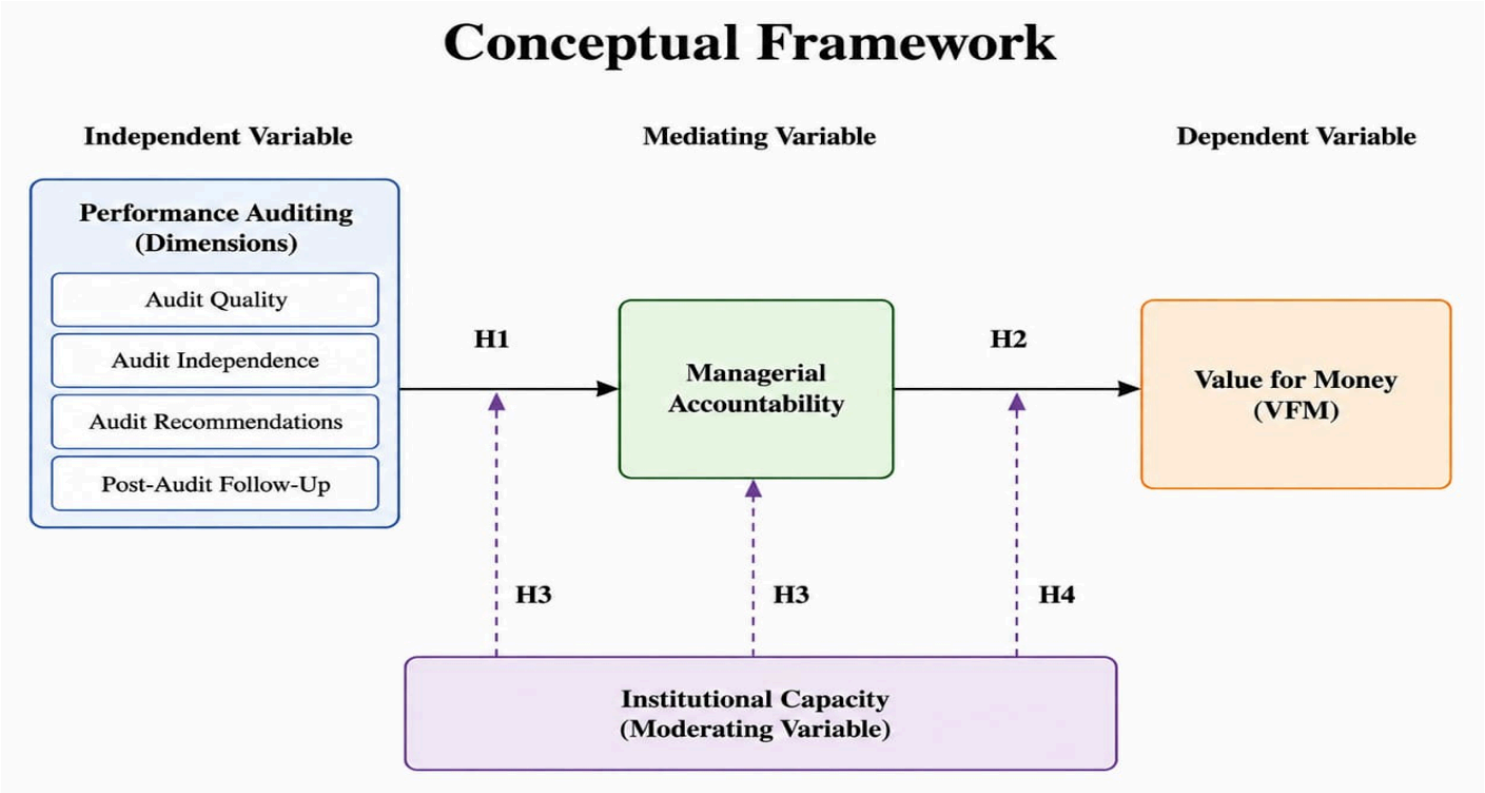


Figure 1

Conceptual Framework

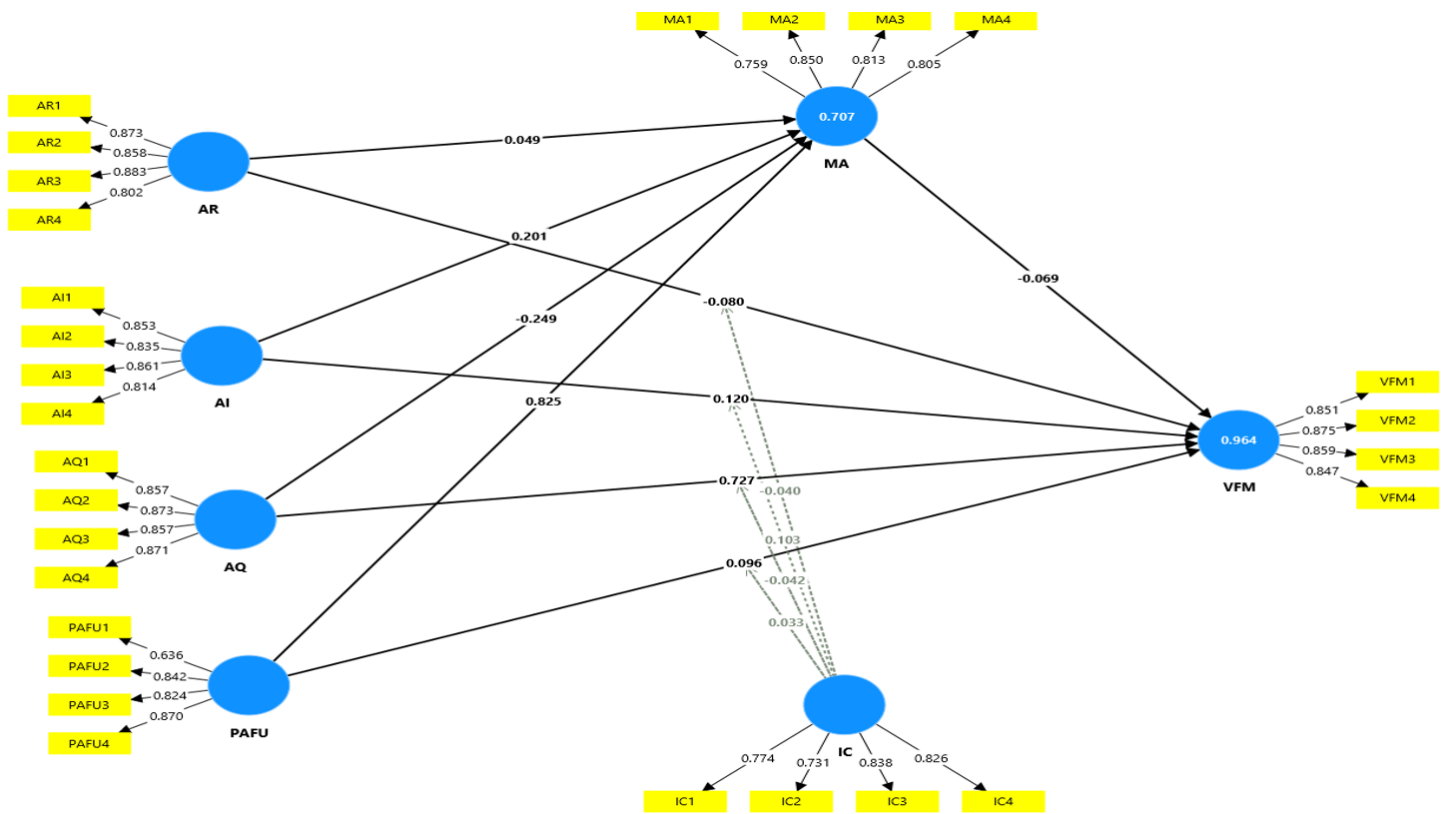


Figure 2

Model measurement

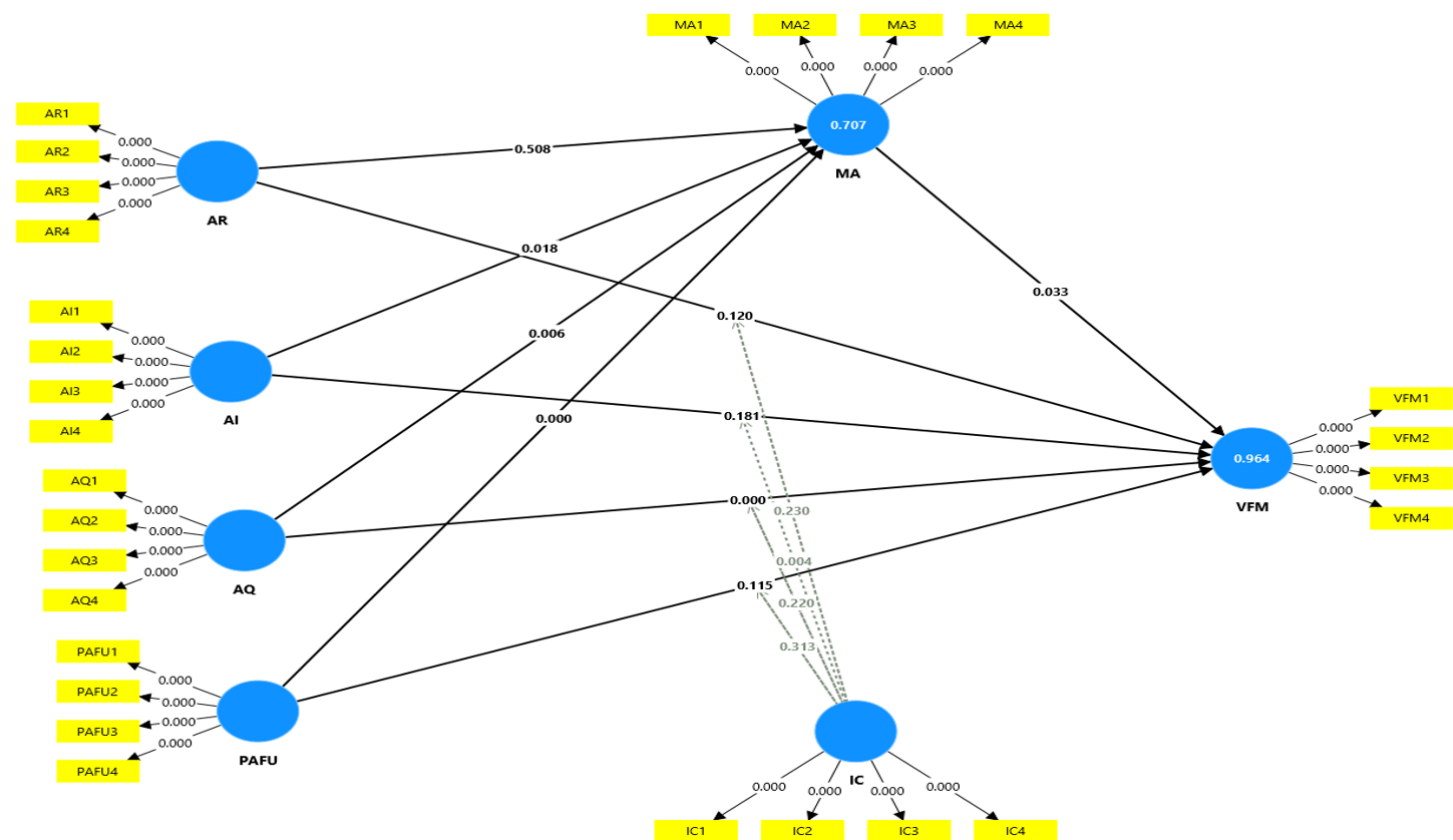


Figure 3

Structural Model

