Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Institutional decoupling in local health-system planning: a cross- sectional study of strategic plan implementation across five Tanzanian local government authorities

Tumaini Gotfried Rwela

tumainirwela@gmail.com

Sokoine University of Agriculture

Justin Kalist Urassa

Sokoine University of Agriculture

Edwin Estomii Ngowi

Sokoine University of Agriculture

Research Article

Keywords: strategic plan implementation, institutional decoupling, local government authorities, health systems governance, decentralisation, Tanzania

Posted Date: November 16th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-11157011/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Institutional decoupling in local health-system planning: a cross-sectional study of strategic plan implementation across five Tanzanian local government authorities

Tumaini Gotfried Rwela,*[1] Justin Kalist Urassa, [2] Edwin Estomii Ngowi [3]

[1]Department of Rural Development and Regional Planning–Institute of Rural Development, Dodoma, Tanzania
[2]Department of Policy Planning and Management, Sokoine University of Agriculture, Morogoro, Tanzania
[3]Department of Development and Strategic Studies, Sokoine University of Agriculture, Morogoro, Tanzania

*Corresponding Author Email: tumainirwela@gmail.com

Abstract

Background: Local governments are central to implementing health-sector plans in decentralised systems, but formal adoption of strategic plans does not necessarily translate into operational action. This study assessed the extent and correlates of perceived strategic plan implementation in selected Tanzanian local government authorities (LGAs), with particular attention to the gap between formal planning, monitoring and corrective action.

Methods: We conducted a cross-sectional survey of 385 officials involved in planning, execution, monitoring, financial management, or stakeholder engagement in five LGAs across four regions. A 17-item, theory-guided and pilot-tested instrument measured four implementation dimensions: awareness and adoption, activity implementation, monitoring and feedback, and stakeholder participation. Descriptive statistics, Friedman and Wilcoxon signed-rank tests, Mann-Whitney U and Kruskal-Wallis tests, and hierarchical ordinary least squares regression with HC3 robust standard errors were used. Because LGAs and respondents were purposively selected, inferential results are interpreted as associations within the study sample rather than population-representative estimates.

Results: Overall perceived implementation was high (mean 3.770, SD 0.611). Awareness and adoption had the highest dimension mean (3.842), whereas activity implementation had the lowest (3.694). Timely corrective action was the weakest individual item (mean 3.421), despite relatively strong data collection and reporting. No statistically detectable differences were observed across the five LGAs or four regions. In the adjusted model, departmental affiliation accounted for the largest incremental increase in explained variance; health and planning departments reported higher implementation

scores than administration. Longer professional experience and direct execution involvement were associated with more critical implementation assessments. These patterns are consistent with, but do not by themselves establish, institutional decoupling between formal planning arrangements and operational follow-through.

Conclusions: The principal implementation challenge in the selected LGAs appears to lie less in the existence or awareness of strategic plans than in the mechanisms that convert monitoring information into timely operational adjustment. Strengthening managerial decision space, predictable resource flows, cross-departmental coordination and corrective-action routines may improve the connection between formal health plans and service-delivery action. Findings should be interpreted in light of the cross-sectional design, purposive sampling and reliance on self-reported implementation.

Keywords: strategic plan implementation; institutional decoupling; local government authorities; health systems governance; decentralisation; Tanzania

1. Introduction

Strategic planning is a core governance mechanism through which public organisations translate policy priorities into programmes, budgets, targets and accountability arrangements [1,2]. In health systems, strategic plans are expected to align resources, coordinate actors and support progress toward universal health coverage and other national and global health objectives [3–5]. Yet formal planning does not guarantee implementation. In decentralised systems, the effectiveness of local health services depends on whether approved plans are converted into funded activities, monitored in routine practice and revised when implementation deviates from intended targets.

The wider strategy-implementation literature consistently identifies a gap between strategy formulation and execution. Frequently quoted failure rates should be treated cautiously because their empirical basis is uneven [6], but systematic reviews identify recurring implementation barriers, including inadequate resource allocation, weak vertical communication, limited monitoring and evaluation, insufficient managerial autonomy and poorly functioning feedback loops [7,8]. These challenges are particularly relevant to public organisations, where implementation is shaped not only by managerial choices but also by administrative rules, funding arrangements and accountability requirements.

Across sub-Saharan Africa, decentralisation has transferred important service-delivery responsibilities to subnational governments while often leaving unresolved questions about fiscal discretion, human-resource capacity, functional assignments and accountability [9–11]. This creates a health-systems governance problem: local governments may be mandated to plan and deliver services but remain constrained in their ability to adjust resources and operations in response to implementation evidence. Understanding this plan-to-action gap is therefore important for assessing whether decentralised governance arrangements support responsive service delivery.

Tanzania is an informative setting in which to examine this problem. Under decentralisation by devolution, LGAs have substantial responsibilities for health-service delivery and local planning. During the study period, LGA planning was aligned with national health policy and the Health Sector Strategic Plan V (HSSP V), which emphasised integrated planning, implementation and monitoring [12]. Previous Tanzanian studies have documented constraints related to fiscal flexibility, staffing, technical capacity and local participation [13,14]. Such conditions are compatible with institutional decoupling: organisations may adopt formally legitimate plans and reporting structures while day-to-day implementation remains shaped by resource pressures, routines and limited managerial discretion [15].

Note: The central-government portfolio responsible for regional administration and local government has periodically moved between the President's Office and the Prime Minister's Office. The manuscript uses PMO-RALG for the current arrangement while retaining the institutional names used in cited historical documents.

Despite the central role of LGAs in health-service governance, quantitative evidence on how officials perceive the implementation of local health-development plans remains limited. National performance reporting has continued to identify gaps in human resources, infrastructure and monitoring [16], while international reviews indicate that implementation outcomes depend on institutional and organisational conditions [8,10]. Health-governance research has also called for stronger attention to the institutional arrangements through which policies and plans are translated into operational practice [17]. Tanzanian health-services research has generated important evidence on decentralisation and service quality [13,18], but comparatively little work has operationalised strategic-plan implementation as a multidimensional organisational outcome across several LGAs.

This study therefore examines perceived strategic-plan implementation in five Tanzanian LGAs. It addresses four questions: (1) What is the overall level of perceived implementation? (2) Which implementation dimensions are relatively stronger or weaker? (3) How does perceived implementation vary by respondent and organisational characteristics? and (4) Which specific implementation processes appear to require strengthening? By linking these questions to institutional theory, the study focuses on whether formal planning arrangements are effectively coupled to operational execution, monitoring, feedback and stakeholder participation.

2. Theoretical framework

This study is grounded in institutional theory, which explains how organisational behaviour is shaped by regulative, normative and cultural-cognitive pressures rather than by technical efficiency alone [15,19,20]. The framework is useful for local health systems because LGAs operate within a dense institutional environment of national policies, planning templates, budget rules, reporting requirements and professional standards. Institutional theory therefore provides a basis for examining why formally similar planning structures may coexist with variation in operational implementation.

Institutional isomorphism operates through three mechanisms [19]. Coercive pressures arise from legal mandates, funding conditions and reporting requirements; in Tanzanian LGAs these include standardised planning, budgeting and performance-reporting systems. Mimetic pressures arise when organisations facing uncertainty imitate practices regarded as legitimate or successful. Normative pressures arise from professional training, occupational standards and shared expectations. These mechanisms may encourage convergence in formal planning arrangements while different professional groups and departments retain distinct interpretations of what effective implementation requires [20,21].

A second concept central to this study is organisational decoupling. Organisations may adopt policies, plans and structures that satisfy external expectations while operational activities continue to be shaped by resource constraints, routines and informal priorities [15,22]. In local health systems, decoupling may appear when strategic plans are well documented and widely known, yet implementation schedules, progress review and corrective action remain weak. This concept provides the theoretical basis for examining the relationship between formal plan adoption and the operational processes through which plans are converted into service-delivery action.

The framework therefore treats perceived implementation as a multidimensional organisational outcome and examines its association with respondent characteristics, functional involvement and departmental affiliation. Institutional theory suggests that common regulatory pressures may produce

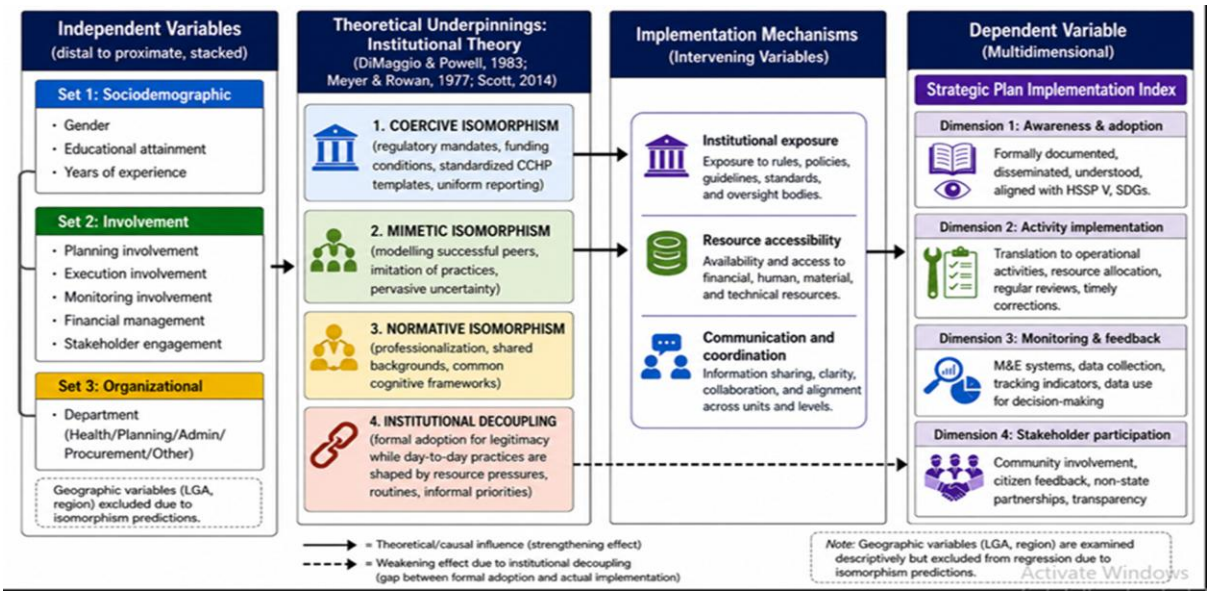
similarities across LGAs, while normative and professional differences may contribute to departmental variation. Experience may also shape how officials interpret implementation because longer exposure can increase awareness of gaps between formal structures and routine practice [23]. These propositions are used as interpretive lenses rather than as causal claims because the study is cross-sectional.

3. Conceptual framework

Figure 1 summarises the study framework. Three sets of observed factors are considered: sociodemographic characteristics, functional involvement in strategic-plan activities, and organisational affiliation. These factors position officials differently in relation to planning routines, information flows, professional norms and accountability requirements. The framework draws on institutional theory and the institutional-logics perspective [20,21].

Coercive, mimetic and normative pressures provide the theoretical context linking these observed factors to implementation perceptions. The framework also identifies three intervening mechanisms—institutional exposure, resource accessibility, and communication and coordination—because these mechanisms plausibly connect formal institutional requirements to operational action. They were not directly measured as mediators in the present survey and are therefore shown as conceptual mechanisms rather than estimated causal pathways. The dependent variable is the 17-item Strategic Plan Implementation Index, organised into four theory-guided dimensions: awareness and adoption, activity implementation, monitoring and feedback, and stakeholder participation.

Figure 1. Conceptual framework for strategic plan implementation in Tanzanian local government authorities



4. Methods

4.1 Study design

A cross-sectional survey was used to assess perceived strategic-plan implementation at one point in time across multiple LGAs and organisational units. The unit of analysis was the individual LGA official with direct knowledge of one or more strategic-plan processes. Cross-sectional surveys are appropriate

for estimating distributions and examining associations, but they do not establish temporal or causal ordering [24, 25]. Accordingly, all multivariable findings in this study are interpreted as adjusted associations rather than causal effects.

4.2 Study setting, participants and sampling

The study was conducted in five LGAs in four regions: Bahi District Council and Dodoma City Council in Dodoma Region, Gairo District Council in Morogoro Region, Kilindi District Council in Tanga Region, and Ushetu District Council in Shinyanga Region. The sites provided variation in administrative and service-delivery settings, including one urban city council and predominantly rural district councils. LGA health systems include council health management teams, district-level facilities, health centres, dispensaries, community-based services and referral linkages operating within national health-sector policy. Two LGAs were selected in Dodoma Region to provide an urban-rural contrast, while the remaining councils broadened geographic coverage. The study focused on organisational implementation processes in health-development projects and did not directly measure clinical outcomes, facility quality, budget execution or household service utilisation.

4.2.1 Scope and eligibility

The study covered five purposively selected LGAs and does not claim statistical representation of all Tanzanian LGAs. Eligible respondents were officials with strategic-plan responsibilities; health-service users, elected councillors and community members were outside the survey population. The outcome therefore represents perceived implementation rather than independently audited organisational performance.

The sampling frame comprised officials with functional responsibility for strategic-plan activities, including health officers, planners, administrators, monitoring and evaluation officers, finance officers, procurement officers and project managers. Purposive sampling was used to recruit information-rich respondents with direct knowledge of planning, execution, monitoring, financial management or stakeholder engagement [26]. Eligibility required at least six months of employment in the LGA, involvement in at least one strategic-plan activity and informed consent. The achieved sample comprised 385 officials across the selected councils.

A target of approximately 385 respondents was initially derived using Cochran's large-population formula ($Z = 1.96$, $p = 0.50$ and $e = 0.05$) as a pragmatic recruitment benchmark. Because the study used purposive rather than probability sampling, the 5% margin-of-error interpretation is not used to claim population-representative precision. The achieved sample also exceeded commonly used observations-per-parameter heuristics for the planned multivariable models [27,28].

4.3 Data collection instrument

A structured, self-administered questionnaire was developed in four stages. First, candidate items were informed by strategic-management and institutional-theory literature [1,7,15]. Second, three public-health researchers and two LGA planning officers reviewed the items for relevance, clarity, coverage and contextual appropriateness, supporting face and content validity. Third, the questionnaire was pilot-tested with 30 LGA officials who were excluded from the final sample. Fourth, unclear or repetitive wording was refined following pilot feedback. The questionnaire required approximately 20 minutes to complete. Because no factor-analytic construct validation was undertaken in the present study, the instrument is described as theory-guided and pilot-tested rather than as a fully validated scale.

The final questionnaire comprised three sections.

Section A: Sociodemographic and organisational characteristics. Items covered sex, age group (18–29, 30–39, 40–49, 50–59 and 60+ years), educational attainment, professional experience, department, LGA and region.

Section B: Involvement in strategic-plan activities. Respondents indicated whether they were involved in planning, execution, monitoring, financial management and stakeholder engagement. Multiple responses were permitted.

Section C: Strategic-plan implementation. Seventeen positively worded Likert items (1 = strongly disagree to 5 = strongly agree) measured four theory-guided dimensions: awareness and adoption (4 items), activity implementation (5 items), monitoring and feedback (4 items), and stakeholder participation (4 items). The overall scale had high internal consistency (Cronbach's alpha = 0.908). Dimension-specific alpha coefficients ranged from 0.670 to 0.721; these subscale results are interpreted cautiously because two coefficients were slightly below 0.70 and construct validity was not examined by factor analysis.

4.4 Statistical analysis

Data were cleaned and coded in Microsoft Excel 2021 using range, consistency, missing-value and duplicate checks, then analysed in IBM SPSS Statistics 27, Stata 17 and Python 3.12. Frequencies, percentages, means, standard deviations and 95% confidence intervals were calculated. The Strategic Plan Implementation Index was the arithmetic mean of the 17 items when all required responses were available; dimension scores were calculated as the mean of the relevant items. Equal-width categories were used only for descriptive presentation: very low (1.00–1.79), low (1.80–2.59), moderate (2.60–3.39), high (3.40–4.19) and very high (4.20–5.00). Cronbach's alpha assessed internal consistency. The Friedman test compared the four within-respondent dimension scores, followed by Wilcoxon signed-rank tests with Bonferroni adjustment. Mann-Whitney U and Kruskal-Wallis H tests examined unadjusted group differences, with eta-squared reported where applicable. Hierarchical ordinary least squares (OLS) regression was estimated in three blocks: sociodemographic variables, functional-involvement variables and departmental affiliation. HC3 robust standard errors were used because the Breusch-Pagan test indicated heteroskedasticity. Variance inflation factors assessed multicollinearity, and model comparison used changes in R^2 and the Akaike Information Criterion. Because respondents were nested within only five purposively selected LGAs, standard cluster-robust inference would be unstable; the HC3 correction addresses heteroskedasticity but not within-LGA dependence, which is acknowledged as a limitation.

5. Results

5.1 Respondent characteristics

A total of 385 respondents from five LGAs across four regions participated. The sample was nearly equally split by gender (50.4% female, 49.6% male). The majority were aged 30 to 39 years (51.2%), followed by 40 to 49 years (33.2%). Over half held a bachelor's degree (54.8%), and 14.3% had a master's degree. The health department accounted for the largest proportion (42.1%), followed by planning (25.5%) and administration (16.9%). Nearly all respondents (98.7%) reported awareness of their LGA's strategic plan. Table 1 presents the full sociodemographic profile.

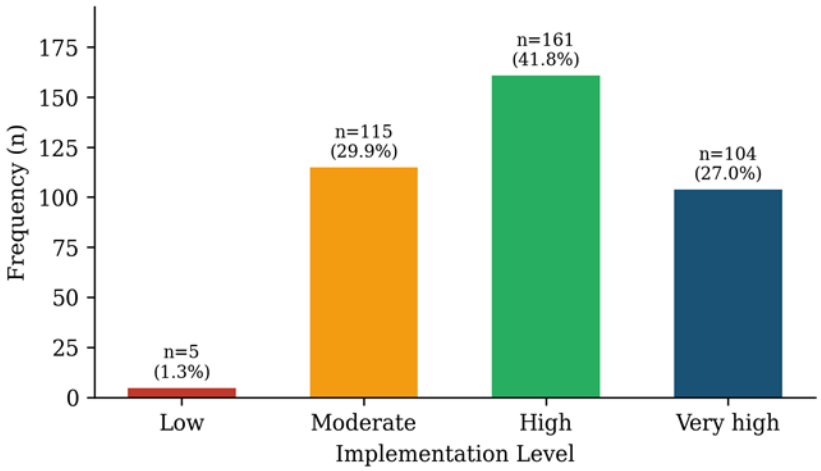
Table 1. Sociodemographic and organisational characteristics of respondents (n = 385)

Characteristic	Category	n	%
Gender	Male	191	49.6
	Female	194	50.4
Age group (years)	18 to 29	20	5.2
	30 to 39	197	51.2
	40 to 49	128	33.2
	50 to 59	35	9.1
	60+	5	1.3
Education	Certificate	10	2.6
	Diploma	109	28.3
	Bachelor's degree	211	54.8
	Master's degree	55	14.3
Experience (years)	0 to 2	60	15.6
	3 to 5	116	30.1
	6 to 10	121	31.4
	11+	88	22.9
Department	Health	162	42.1
	Planning	98	25.5
	Administration	65	16.9
	Procurement	25	6.5
	Other	35	9.1
LGA	Bahi DC	70	18.2
	Dodoma CC	100	26.0
	Gairo DC	65	16.9
	Kilindi DC	70	18.2
	Ushetu DC	80	20.8

5.2 Overall level of strategic-plan implementation

The overall Strategic Plan Implementation Index had a mean of 3.770 (SD = 0.611, 95% CI 3.709–3.831) on the five-point scale. Using the descriptive categories defined in the Methods, 41.8% of respondents were classified as high and 27.0% as very high, whereas 29.9% were moderate and 1.3% were low. No respondent was classified as very low (Figure 2). These categories are descriptive summaries of the continuous index and are not interpreted as externally validated cut-points.

Figure 2. Distribution of strategic-plan implementation levels (n = 385)

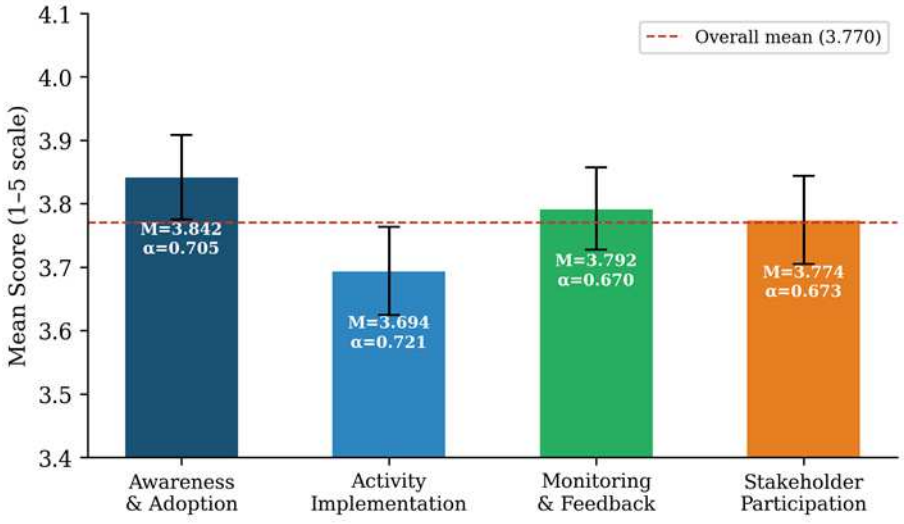


Note. Thresholds: Very low (1.00-1.79), Low (1.80-2.59), Moderate (2.60-3.39), High (3.40-4.19), Very high (4.20-5.00). No respondent was classified as very low.

5.3 Comparison across implementation dimensions

Figure 3 presents the mean scores, 95% confidence intervals and reliability coefficients for the four implementation dimensions. Awareness and adoption scored highest (mean 3.842, alpha = 0.705), followed by monitoring and feedback (3.792, alpha = 0.670), stakeholder participation (3.774, alpha = 0.673), and activity implementation (3.694, alpha = 0.721). The overall index had alpha = 0.908. The Friedman test indicated that the dimension distributions were not identical (chi-square(3) = 36.770, p < 0.001). Bonferroni-adjusted pairwise comparisons showed that activity implementation was lower than awareness and adoption, monitoring and feedback, and stakeholder participation.

Figure 3. Mean implementation scores with 95% confidence intervals and reliability coefficients



Note. Friedman test: $\chi^2(3) = 36.770$, $p < .001$. Post-hoc Wilcoxon signed-rank tests with Bonferroni correction ($\alpha = .008$): Awareness vs. Activity ($p < .001$), Activity vs. Monitoring ($p < .001$), Activity vs. Stakeholder ($p = .001$). Non-significant pairs: Awareness vs. Monitoring ($p = .080$), Monitoring vs. Stakeholder ($p = .148$). Dashed line = overall mean (3.770).

5.4 Implementation by respondent and organisational characteristics

Unadjusted non-parametric comparisons are presented in Table 2. Perceived implementation differed by sex, age group, professional-experience group and department, whereas no statistically detectable differences were observed across the five LGAs or four regions. These tests describe associations within the study sample and do not establish equivalence between locations or causal effects of respondent characteristics.

Table 2. **Group comparisons of the strategic plan implementation index (n = 385)**

Variable / Group	Category	n	M	SD	Statistic	p	η^2
Gender					15,942.0	**0.018**	—
	Male	191	3.694	0.616			
	Female	194	3.846	0.598			
Age group					53.226	**<.001**	0.130
	18 to 29	20	4.103	0.183			
	30 to 39	197	3.902	0.554			
	40 to 49	128	3.669	0.608			
	50 to 59	35	3.294	0.747			
	60+	5	3.176	0.000			
Experience (years)					50.361	**<.001**	0.124
	0 to 2	60	3.961	0.511			
	3 to 5	116	3.984	0.573			
	6 to 10	121	3.704	0.571			
	11+	88	3.450	0.625			
Department					48.426	**<.001**	0.117
	Health	162	3.977	0.554			
	Planning	98	3.763	0.697			
	Procurement	25	3.729	0.503			
	Other	35	3.496	0.532			
	Administration	65	3.430	0.465			
LGA					0.534	0.970	—
	Dodoma CC	100	3.790	0.581			
	Gairo DC	65	3.784	0.649			
	Ushetu DC	80	3.779	0.607			
	Kilindi DC	70	3.755	0.622			
	Bahi DC	70	3.737	0.625			
Region					0.106	0.991	—
	Morogoro	65	3.784	0.649			
	Shinyanga	80	3.779	0.607			

Variable / Group	Category	n	M	SD	Statistic	p	η²
	Dodoma	170	3.768	0.599			
	Tanga	70	3.755	0.622			

Note. η² = eta-squared effect size. Mann-Whitney U test for gender; Kruskal-Wallis H for variables with three or more groups. Bold p-values indicate significance at α = .05.

The largest unadjusted differences were observed across age, experience and department categories. Because age and experience were closely related conceptually and age was not included in the reported multivariable model, residual confounding by age cannot be excluded.

5.5 Adjusted associations with strategic-plan implementation

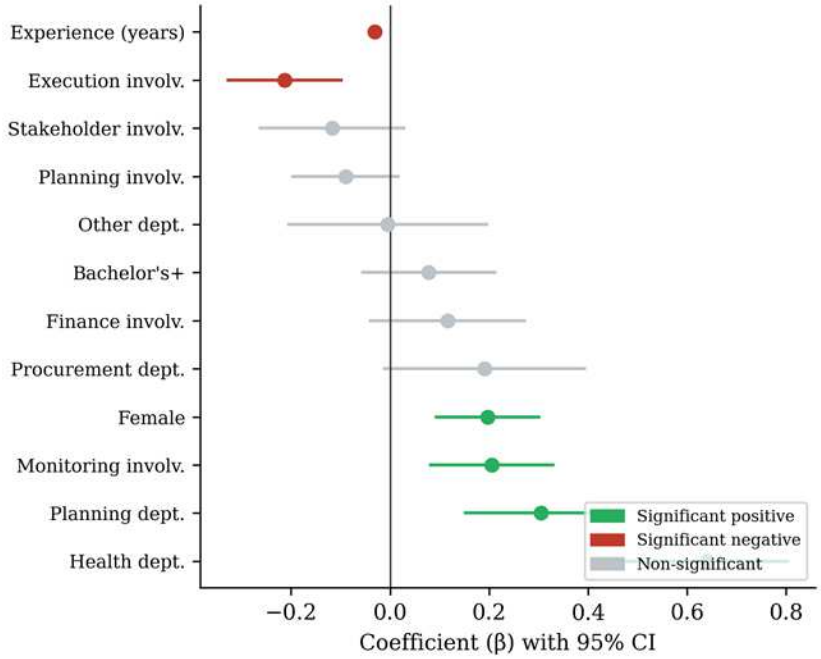
Hierarchical OLS regression was used to examine adjusted associations with the continuous implementation index (Table 3). Model 1 included sociodemographic predictors, Model 2 added functional involvement, and Model 3 added departmental affiliation. The full model (Figure 4), explained 31.8% of the observed variance (adjusted $R^2 = 0.296$), and adding department increased R^2 by 0.146. In Model 3, female respondents reported higher scores than male respondents (beta = 0.197, $p < 0.001$); execution involvement was associated with lower scores (beta = -0.213, $p < 0.001$), while monitoring involvement was associated with higher scores (beta = 0.205, $p < 0.01$). Compared with administration, health and planning departments reported higher implementation scores. These coefficients should be interpreted as associations, not causal effects.

Table 3. **Hierarchical OLS regression of strategic plan implementation index (n = 385)**

Predictor	Model 1	Model 2	Model 3
Sociodemographic variables			
Constant	**3.943*** ** (0.063)	**4.064*** ** (0.076)	**3.581*** ** (0.106)
Female (ref: male)	**0.216*** ** (0.058)	**0.200*** ** (0.059)	**0.197*** ** (0.053)
Years of experience	**-0.031*** ** (0.003)	**-0.026*** ** (0.003)	**-0.031*** ** (0.003)
Bachelor's degree or higher	-0.051 (0.062)	-0.066 (0.064)	0.078 (0.068)
Involvement in strategic plan activities			
Involved in planning	—	-0.093† (0.056)	-0.090† (0.054)
Involved in execution	—	**-0.192** ** (0.061)	**-0.213*** ** (0.058)
Involved in monitoring	—	0.051 (0.058)	**0.205** ** (0.063)
Involved in finance	—	-0.006 (0.079)	0.116 (0.079)
Involved in stakeholder eng.	—	-0.007 (0.078)	-0.117 (0.074)
Department (ref: Administration)			
Health dept. (ref: admin)	—	—	**0.640*** ** (0.083)
Planning dept.	—	—	**0.305*** ** (0.078)
Procurement dept.	—	—	0.191† (0.103)
Other dept.	—	—	-0.005 (0.102)
R^2	0.145	0.172	0.318
Adjusted R^2	0.138	0.154	0.296
ΔR^2	—	0.027	0.146
F-statistic	35.23***	15.52***	19.92***
AIC	659.9	657.7	591.1

*Note. Robust standard errors (HC3) in parentheses. ***p < .001, **p < .01, *p < .05, †p < .10. All models significant at p < .001.*

Figure 4. Coefficient plot for the full hierarchical OLS model with 95% confidence intervals

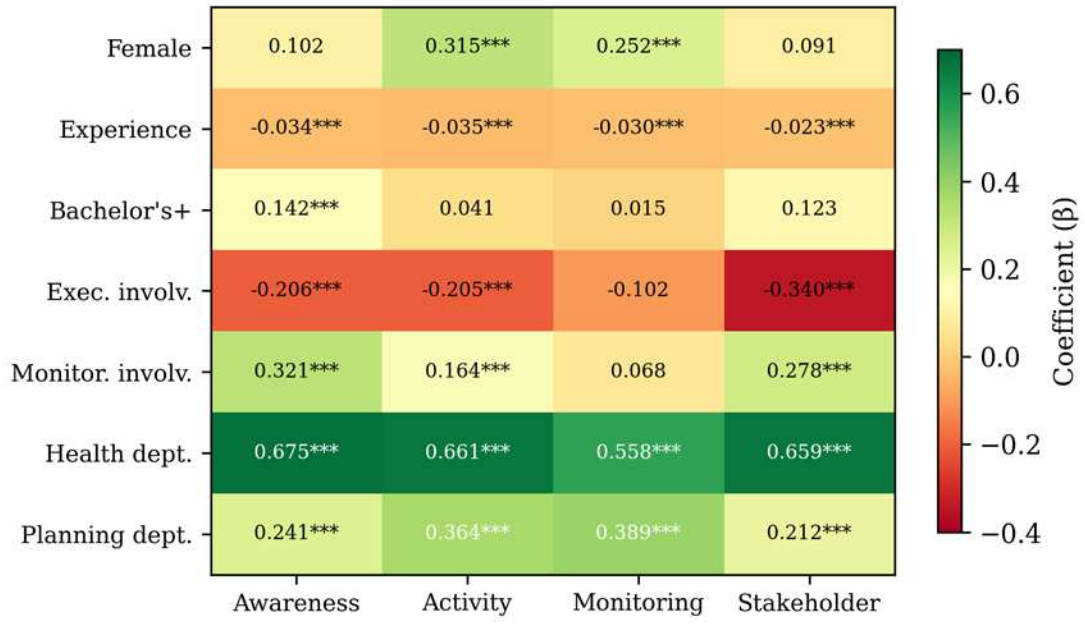


Note. Green = significant positive, red = significant negative, grey = non-significant (p ≥ .05). HC3 robust standard errors.

5.6 Associations across implementation dimensions

Figure 5 presents coefficients from dimension-specific models using the full Model 3 specification. Health-department affiliation was positively associated with all four dimensions, while professional experience was negatively associated across dimensions. Sex was associated mainly with activity implementation and monitoring, and education was associated mainly with awareness and adoption. These secondary models are exploratory and should be interpreted alongside the limitations of the cross-sectional design and the coding of professional experience.

Figure 5. Regression coefficients across implementation dimensions using the full model specification

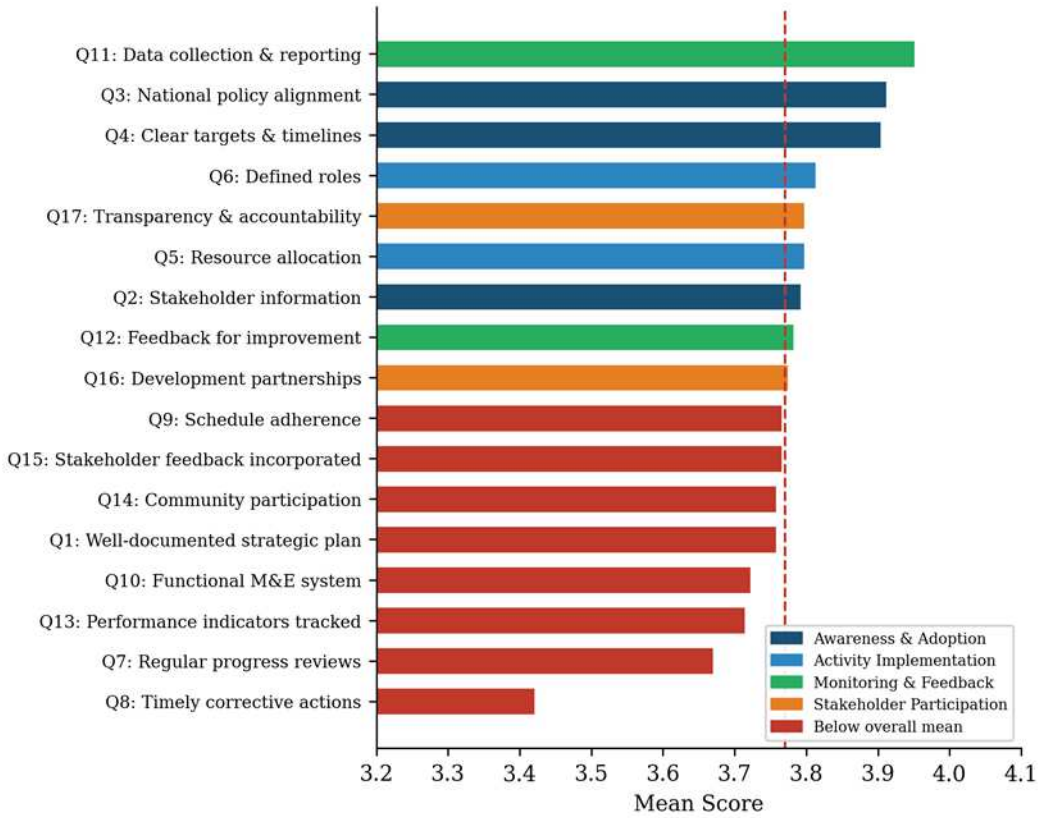


*Note. Full model with HC3 robust standard errors. ***p < .001. Colour gradient: green = positive, red = negative. Reference category: Administration.*

5.7 Item-level implementation profile

Figure 6 ranks all 17 implementation items by mean score. Regular data collection and reporting was the highest-scoring item (mean 3.951; 83.1% agreement), whereas timely corrective action when implementation deviated from planned targets was the lowest (mean 3.421; 57.7% agreement). Eight items scored below the overall index mean of 3.770, including three of the five activity-implementation items. The pattern suggests that routine information production was perceived more favourably than the use of that information for timely operational adjustment.

Figure 6. Item-level implementation means ranked by score



Note. Red bars indicate items scoring below the overall mean (3.770). Colour coding by dimension. All items measured on a 5-point Likert scale.

5.8 Model diagnostics

The Breusch-Pagan test indicated heteroskedasticity (LM = 55.387, p < 0.001), so all reported OLS models use HC3 robust standard errors. Variance inflation factors ranged from 1.04 to 1.27, providing no indication of problematic multicollinearity among the included predictors. The Shapiro-Wilk test was significant (W = 0.976, p < 0.001); given the sample size and the use of robust standard errors, inference was based on the regression estimates and robust uncertainty measures rather than on residual normality alone. The models do not adjust standard errors for clustering within LGA because only five LGAs were sampled; this limitation should be considered when interpreting p-values.

6. Discussion

6.1 Overall perceived implementation

The mean implementation index of 3.770 indicates generally favourable perceptions of strategic-plan implementation among the participating officials. This should not be read as an objective audit of LGA performance: the outcome is self-reported and may reflect both actual implementation and institutional expectations about how formal systems should operate. Similar public-sector studies in Malawi and Zambia have reported that apparently established strategy processes can coexist with resource and implementation constraints [29,30]. From an institutional perspective, strong formal requirements may produce widespread awareness and compliance with planning routines even when operational follow-through remains uneven [15,20,22].

6.2 Formal adoption versus operational follow-through

The contrast between high awareness and adoption and lower activity implementation is consistent with the possibility of institutional decoupling [15,22]. The most important empirical signal is not that planning is absent, but that the operational chain from information to action appears weaker. Data collection and reporting had one of the highest item means, whereas timely corrective action had the lowest. This pattern resembles the data-to-action challenge described in African health systems, where information may be routinely produced but not consistently converted into managerial decisions or service-delivery adjustments [31,32]. Because the present study did not directly observe decision processes, this interpretation remains a theoretically informed explanation rather than a demonstrated causal mechanism.

6.3 Organisational and respondent-level variation

No statistically detectable differences were observed across the five LGAs or four regions. This result is compatible with the possibility that shared national planning and accountability arrangements create common implementation patterns, but it does not demonstrate equivalence across locations or prove institutional isomorphism. The limited number and purposive selection of LGAs also restrict geographic inference. The finding should therefore be interpreted as an absence of detectable variation in this sample rather than evidence that implementation constraints are uniformly systemic.

Professional experience was negatively associated with implementation scores in the reported model. One possible explanation is that longer-serving officials have greater exposure to discrepancies between formal plans and operational conditions, which may make their assessments more critical [23,33,34]. However, the cross-sectional design cannot distinguish this explanation from cohort effects, role differences or other unmeasured factors. The interpretation also depends on how professional experience was coded in the regression and should be finalised only after that coding is confirmed.

Departmental affiliation produced the largest incremental gain in explained variance. Compared with administration, respondents in health and planning departments reported higher implementation scores. This may reflect differences in professional norms, reporting requirements, exposure to health-sector indicators and proximity to implementation processes [20,21]. The result is consistent with recent health-systems scholarship emphasising that administrative capacity and governance arrangements shape how reforms are translated into service delivery [35], but it should not be interpreted as evidence that one department objectively performs better than another.

Direct involvement in execution was associated with lower implementation scores, whereas monitoring involvement was associated with higher scores. A plausible explanation is that officials working closest to execution encounter delays, resource constraints and implementation trade-offs that are less visible to those primarily engaged in planning or oversight [8,36]. Female respondents also reported higher adjusted scores, particularly in activity implementation and monitoring. The data establish an association by sex but do not identify its mechanism; role composition, departmental placement, seniority or other organisational factors may contribute. Gender-related findings should therefore be interpreted without assuming intrinsic differences in leadership or work orientation [37,38].

6.4 Implications for health-system management

Timely corrective action and regular progress review were among the weakest implementation processes. For health-system management, the practical issue is whether local managers have the information, authority, resources and cross-departmental coordination required to modify implementation when plans deviate from targets. Previous Tanzanian evidence has highlighted constraints on local decision space and resources [14]. The present findings therefore support greater attention to the mechanisms that connect monitoring to action: predictable resource flows, structured review meetings, documented follow-up responsibilities and feasible authority for corrective decisions. These recommendations are based on perceived implementation patterns and should be evaluated against objective budget, audit and service-delivery indicators in future work.

7. Conclusions and implications

7.1 Conclusions

Among officials in the five participating LGAs, strategic planning was perceived as more strongly established at the stages of documentation, awareness and routine information production than at the stages of progress review and timely corrective action. The central pattern is therefore a potential plan-to-action gap rather than an absence of formal planning.

The study did not detect differences across the sampled LGAs or regions, but the purposive design and small number of LGAs mean that geographic equivalence cannot be inferred. The findings instead suggest that common institutional arrangements warrant attention alongside local context.

Departmental affiliation was strongly associated with implementation perceptions, indicating that officials encounter strategic plans from different professional and organisational positions. Cross-departmental coordination is therefore important when translating health-sector plans into operational activities.

More experienced officials and those directly involved in execution tended to report lower implementation scores. These associations may reflect greater exposure to practical constraints, but the cross-sectional design does not establish why the differences occurred.

Overall, strengthening the connection between formal plans, resource allocation, routine review, managerial decision space and corrective action may be more useful than adding further planning requirements. Future evaluations should combine staff perceptions with objective implementation, financial and service-delivery data.

7.2 Implications for policy and practice

1. PMO-RALG, the Ministry of Health and relevant financing authorities should review whether LGA managers have sufficient and clearly defined decision space to respond to implementation delays and resource bottlenecks, while maintaining appropriate accountability controls.

2. LGAs should strengthen structured progress-review routines that link monitoring information to named corrective actions, responsible officers, deadlines and documented follow-up.

3. Cross-departmental implementation forums should bring together health, planning, administration, finance and procurement functions so that strategic priorities, budgets and operational constraints are reviewed jointly.

4. Professional-development activities should focus on practical implementation problem-solving, data use and adaptive management rather than on plan preparation alone.

5. National and LGA-level managers should complement perception-based monitoring with objective indicators such as budget execution, procurement timeliness, service outputs and audit findings.

7.3 Future research

1. Longitudinal studies should follow LGAs and officials across planning cycles to distinguish tenure-related perception differences from temporal changes in implementation.

2. Mixed-methods studies should triangulate staff perceptions with budget execution, procurement timelines, audit findings and service-delivery indicators, and should examine how monitoring information is converted into corrective decisions.

3. Replication across additional Tanzanian zones and LGA types would test the transferability of the observed organisational patterns and permit stronger assessment of geographic variation.

4. After broader national evidence is available, comparative studies across East African decentralised health systems could examine how institutional arrangements shape the coupling of strategic plans to operational action.

7.4 Strengths and limitations

This study has several strengths, including a multi-LGA design, a multidimensional implementation measure, theory-informed analysis, and the use of robust standard errors for heteroskedasticity. Important limitations remain. First, the cross-sectional design does not establish temporal or causal ordering. Second, the LGAs and knowledgeable officials were purposively selected, so the findings are not statistically representative of all Tanzanian LGAs. Third, implementation was self-reported rather than independently verified and may be affected by social desirability or organisational position. Fourth, two dimension-specific reliability coefficients were slightly below 0.70, and no exploratory or confirmatory factor analysis was undertaken; the four dimensions should therefore be viewed as theory-guided subscales rather than a fully validated measurement model. Fifth, age showed an unadjusted association with implementation but was not included in the reported adjusted model, so residual confounding cannot be excluded. Sixth, HC3 standard errors address heteroskedasticity but not within-LGA dependence, and the five-cluster design limits conventional cluster-robust inference. Seventh, the interpretation of the experience coefficient depends on the coding of professional experience and should be confirmed before submission. Finally, the full model left substantial variance unexplained; future work should examine fiscal adequacy, leadership, organisational culture, political-administrative relations, training quality and objective implementation indicators.

List of abbreviations

AIC, Akaike Information Criterion; D-by-D, decentralisation by devolution; HSSP, Health Sector Strategic Plan; LGA, Local Government Authority; LMIC, low- and middle-income country; M&E, monitoring and evaluation; OLS, ordinary least squares; PMO-RALG, Prime Minister's Office – Regional Administration and Local Government; SDG, Sustainable Development Goal; UHC, universal health coverage.

Ethics approval and consent to participate

Ethical clearance for the study was approved by SUA Research Ethics Committee (REC) of the Sokoine University of Agriculture (SUA). The study was conducted in accordance with the ethical guidelines for research involving human participants prescribed by Sokoine University of Agriculture. Administrative permission for data collection was subsequently obtained from the relevant Regional Administrative Offices, District Administrative Secretary (DAS) offices, and District Executive Director (DED) offices in the participating LGAs. All participants were informed about the purpose of the study and their right to decline participation or withdraw at any time. Informed consent was obtained before questionnaire completion. No personal identifiers were collected, and the results were reported in aggregate form to maintain participants' confidentiality.

Consent for publication

Not applicable.

Availability of data and materials

The dataset analysed during the current study is available from the corresponding author on reasonable request, subject to the conditions of the ethics approval and any applicable institutional requirements.

Competing interests

The authors declare that they have no competing interests.

Funding

No specific fund was received for the research.

Authors' contributions

Tumaini Gotfried Rwela contributed to the conception and design of the study, methodology, literature review, and preparation of the original manuscript draft. Edwin Estomii Ngowi contributed to the methodology and critically reviewed and revised the manuscript. Justin Kalist Urassa provided supervision and critically reviewed and revised the manuscript. All authors read and approved the final manuscript, agreed to be accountable for their own contributions, and agreed to ensure that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Acknowledgements

The authors acknowledge the participating Local Government Authorities and the officials who contributed information to the study. The authors also acknowledge the academic supervisors and colleagues whose comments improved the manuscript.

Use of generative AI in manuscript preparation

OpenAI ChatGPT (GPT-5.6 Sol.) was used to assist with language editing, and structural refinement. The authors reviewed the revised text and remain fully responsible for the scientific content, interpretation, and accuracy.

References

1. Bryson JM. Strategic planning for public and nonprofit organizations: a guide to strengthening and sustaining organizational achievement. 5th ed. Hoboken: Wiley; 2018.
2. Poister TH, Pitts DW, Edwards LH. Strategic management research in the public sector: a review, synthesis, and future directions. Am Rev Public Adm. 2010;40(5):522–545.
3. World Health Organization. Universal health coverage: key facts. Geneva: WHO; 2023.
4. Dowou RK, Amu H, Saah FI, Adeagbo O, Bain LE. Increased investment in universal health coverage in sub-Saharan Africa is crucial to attain the SDG 3 targets on maternal and child health. Health Policy Open. 2023.
5. Debie A, Khatri RB, Assefa Y. Successes and challenges of health systems governance towards universal health coverage and global health security. Health Res Policy Syst. 2022.
6. Cândido CJF, Santos SP. Strategy implementation: what is the failure rate? J Manag Organ. 2015;21(2):237–262. doi:10.1017/jmo.2014.77.
7. Vigfússon K, Jóhannsdóttir L, Ólafsson S. Obstacles to strategy implementation and success factors: a review of empirical literature. Strategic Management. 2021;26(2):12–30.
8. Vigfússon K, Jóhannsdóttir L, Ólafsson S. Creating effective strategy implementation: a systematic review of managerial and organizational levers. Rev Manag Sci. 2025.
9. Smoke P. Rethinking decentralization: assessing challenges to a popular public sector reform. Public Adm Dev. 2015;35(2):97–112. doi:10.1002/pad.1703.

10. Akudugu MA. Success, challenges and prospects of decentralization in Africa: a systematic review. Cogent Soc Sci. 2025;11(1):2458700. doi:10.1080/23311886.2025.2458700.
11. Asamoah LO, Ile I. Voices in governance: assessing citizen participation in local government decision-making processes in Ghana. Afr J Public Aff. 2024.
12. United Republic of Tanzania. Health Sector Strategic Plan V (HSSP V): July 2021 to June 2026. Dodoma: Ministry of Health, Community Development, Gender, Elderly and Children; 2021.
13. Mubyazi GM, Hutton G. Challenges to the implementation of health sector decentralization in Tanzania. Glob Health Action. 2012;5:20983. doi:10.3402/gha.v5i0.20983.
14. Kapologwe NA, Kibusi SM, Borghi J, Gwajima DO, Kalolo A. Decentralisation and health services delivery in four districts in Tanzania. Int J Health Policy Manag. 2019.
15. Meyer JW, Rowan B. Institutionalized organizations: formal structure as myth and ceremony. Am J Sociol. 1977;83(2):340–363. doi:10.1086/226550.
16. United Republic of Tanzania. Annual Health Sector Performance Report 2023. Dodoma: Ministry of Health; 2024.
17. Doshmangir L, Bazyar M, Rashidian A, Gordeev VS. Institutionalization for good governance to reach sustainable health development: a framework analysis. BMC Health Serv Res. 2023.
18. Ismail IJ, Changalima IA, Mwaiseje SS. Quality of health service in the local government authorities in Tanzania. BMC Health Serv Res. 2024;24:81.
19. DiMaggio PJ, Powell WW. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. Am Sociol Rev. 1983;48(2):147–160.
20. Scott WR. Institutions and organizations: ideas, interests, and identities. 4th ed. Thousand Oaks: Sage; 2014.
21. Thornton PH, Ocasio W, Lounsbury M. The institutional logics perspective: a new approach to culture, structure, and process. Oxford: Oxford University Press; 2012.
22. Bromley P, Powell WW. From smoke and mirrors to walking the talk: decoupling in the contemporary world. Acad Manag Ann. 2012;6(1):483–530. doi:10.1080/19416520.2012.684462.
23. Tilcsik A. From ritual to reality: demography, ideology, and decoupling in a post-communist government agency. Acad Manag J. 2010;53(6):1474–1498.
24. Creswell JW, Creswell JD. Research design: qualitative, quantitative, and mixed methods approaches. 5th ed. Thousand Oaks: Sage; 2018.
25. Groves RM, Fowler FJ Jr, Couper MP, Lepkowski JM, Singer E, Tourangeau R. Survey methodology. 2nd ed. Hoboken: Wiley; 2009.
26. Palinkas LA, Horwitz SM, Green CA, Wisdom JP, Duan N, Hoagwood K. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. Adm Policy Ment Health. 2015;42(5):533–544. doi:10.1007/s10488-013-0528-y.
27. Harrell FE Jr. Regression modeling strategies: with applications to linear models, logistic and ordinal regression, and survival analysis. 2nd ed. Cham: Springer; 2015. doi:10.1007/978-3-319-19425-7.
28. Tabachnick BG, Fidell LS. Using multivariate statistics. 7th ed. Boston: Pearson; 2019.
29. Mwanza PM, Dar JA. The role of strategy implementation practices on performance of the public sector organisations. Afr Public Serv Deliv Perform Rev. 2025;13(1):a891. doi:10.4102/apsdpr.v13i1.891.
30. Mubanga A, Lesa CN. Evaluation of factors influencing the implementation of strategic plans in public universities: a case of the Copperbelt University. Am J Ind Bus Manag. 2024;14:148–164. doi:10.4236/ajibm.2024.142007.
31. Karamagi HC, Muneene D, Droti B, Jepchumba V, Okeibunor JC, Nabyonga J. eHealth or e-Chaos: the use of digital health interventions for health systems strengthening in sub-Saharan Africa. 2022.
32. Eddy-Spicer D, Ehren M, Bangpan M. Monitoring and data use in developing countries: findings from a systematic literature review. J Prof Cap Community. 2019.
33. Guzzo RF, Abbott J, Madera JM. Organizational tenure as a key indicator of firm-specific human capital: a meta-analytic review. J Manage. 2022;48(7):2110–2142.
34. Gilson L. Everyday politics and the leadership of health policy implementation. Health Syst Reform. 2016;2(3):187–193. doi:10.1080/23288604.2016.1217367.

35. Ndlovu J, Mbandlwa Z. Public administration and health system strengthening in low- and middle-income countries: exploring strategies to improve healthcare delivery and health governance. Front Health Serv. 2026;6:1798165. doi:10.3389/frhs.2026.1798165.
36. Bagherian R, Gershon M, Kumar S. Essential components of successful strategy implementation: a comprehensive investigation. Strategic Management Review. 2023;14(2):112–129.
37. Riche CT, Reif LK, Nguyen NT, Chipungu J, Wilson IB, Kanki PJ. Mobilizing our leaders: a multi-country qualitative study on women in global health leadership. 2023.
38. Hawkes S, Baru R. Dismantling the structures of inequality: why we need feminist leadership in the health sector. BMJ. 2024;386:e078927. doi:10.1136/bmj-2023-078927.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- SURVEYDOCQUESTIONAIRE.doc