

The Moderating Role of Policy Framework Compliance in the Relationship Between Planning Strategies and Project Outcomes: A Case of The Amal Housing Scheme in Garowe, Puntland, Somalia

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ABSTRACT: This study examined the moderating role of policy framework compliance in the relationship between planning strategies and project outcomes, using the Amal Housing Scheme in Garowe, Puntland, Somalia, as a case study. A descriptive correlational design combined a structured questionnaire survey with key informant interviews. From a target population of 650 project stakeholders, a sample of 248 was determined using Slovin's formula at a 5% margin of error and selected through stratified random sampling. Quantitative data were obtained from 230 valid respondents (92.7% response rate), while qualitative data were drawn from 16 key informant interviews (84.2% response rate). Descriptive results rated policy framework compliance good overall (Mean = 3.68, SD = 1.05), with adherence to government building regulations rated highest and prompt correction of policy deviations rated comparatively lowest. Policy framework compliance had a moderately strong, statistically significant direct correlation with project outcomes ($r = 0.681$, $p < 0.01$) and independently explained 46.4% of project outcome variance ($R^2 = 0.464$; $\beta = 0.681$; $F(1,228) = 197.5$, $p < 0.001$). A combined multiple regression model showed that goal-setting, strategic initiatives, resource planning, and policy compliance jointly explained 65.0% of project outcome variance ($R^2 = 0.650$; $F(4,225) = 117.1$, $p < 0.001$). Introducing interaction terms (Goal×Policy, Strategic×Policy, Resource×Policy) raised the explained variance to 68.6% ($R^2 = 0.686$; $F(7,222) = 82.9$, $p < 0.001$), with all three interaction terms statistically significant, confirming that policy framework compliance significantly moderates, and amplifies, the effect of each planning-strategy dimension on project outcomes. The findings support Project Management Theory and Institutional Theory. However, a closer contextual reading revealed an execution paradox: despite compliance functioning as a powerful statistical driver and moderator, the scheme still incurred an average delivery delay of approximately 14 months and a 15-20% cost overrun, indicating that formal compliance was in places treated as a static, symbolic administrative hurdle rather than a continuously enforced operational discipline, and that formal municipal regulation had to compete with informal clan-based land tenure (Xeer) authority on the ground. The study recommends strengthened internal compliance audits, enhanced documentation and reporting procedures, and regulatory-compliance training for all project personnel, alongside deliberate reconciliation of formal municipal rules with customary land governance.

Keywords: Policy Framework Compliance, Moderation, Project Outcomes, Project Management Theory, Institutional Theory, Housing Projects, Somalia.

INTRODUCTION

Policy framework compliance, understood as adherence to building codes, zoning laws, environmental standards, and administrative approval procedures, occupies an unusual dual position in project management: it can act as a direct driver of project outcomes in its own right, and it can also condition, or moderate, how effectively other planning strategies, goal-setting, stakeholder engagement, and resource planning, translate into delivered results. Where a project's internal planning may be technically sound, its ability to convert that planning into physical delivery depends on whether the surrounding regulatory environment enables or obstructs execution. International evidence illustrates both sides of this relationship: the United Kingdom's Construction Playbook ties procurement approval directly to compliance benchmarks (UK Cabinet Office, 2022), while the European Court of Auditors has linked weak regulatory oversight to resource underutilisation in nearly half of the housing projects it reviewed in Italy and Spain (ECA, 2022).

In much of Africa, and particularly in fragile or post-conflict states, regulatory frameworks exist on paper but are unevenly enforced. Recent research on regulatory compliance in Nairobi's construction sector found that formal legal frameworks, regulatory agency proactiveness, and the efficiency of approval processes were all significant but incomplete determinants of compliance outcomes, with overall compliance levels in a comparatively well-resourced East African capital reaching only around 65% (Lagat, Njuguna, Kivaa, & Mutungi, 2025). In Somalia, Puntland's building regulations exist formally but suffer from low state enforcement capacity

(Isse & Ahmed, 2021), and overlapping mandates between the Ministry of Public Works and Reconstruction and municipal planning offices create further ambiguity in how compliance is monitored and enforced (Garowe Municipal Planning Office, 2023).

Effective project delivery depends not only on internal planning quality but on the degree to which projects comply with, and are supported by, the regulatory environment in which they operate (UN-Habitat, 2022; World Bank, 2023). Puntland's Ministry of Public Works and Reconstruction found that 58% of real estate projects initiated between 2018 and 2022 failed to meet their planned timelines or budgets, attributing this in part to weak enforcement of building codes (MoPWR, 2023), and the Amal Housing Scheme itself has recorded an average delivery delay of approximately 14 months alongside a 15-20% cost overrun (Warsame & Mahad, 2024; World Bank, 2023). Whether policy framework compliance meaningfully strengthened, or failed to strengthen, the scheme's other planning strategies, and why formally documented compliance coexisted with substantial delivery delay, remains an open empirical question that this study addresses.

It was against this background that this study set out to critically examine the extent to which policy framework compliance affects the relationship between planning strategies and project outcomes in the Amal Housing Scheme in Garowe, and to determine whether formally documented compliance was genuinely translating into stronger, amplified planning effectiveness.

RESEARCH OBJECTIVE AND HYPOTHESIS

Research Objective: To assess the effects of policy framework compliance on the moderating relationship between planning strategies and project outcome of the Amal Housing Scheme in Garowe, Puntland, Somalia.

Hypothesis H₀: Policy framework compliance does not significantly moderate the relationship between planning strategies and project outcomes of the Amal Housing Scheme in Garowe, Puntland, Somalia.

THEORETICAL REVIEW

Project Management Theory, propounded by Kerzner (1979) and updated in subsequent editions (Kerzner, 2022), treats regulatory and procedural compliance as part of the governance and risk-management infrastructure that supports systematic planning, execution, and control. Within this framework, policy framework compliance is expected not only to directly reduce legal and safety risk, but to reinforce the effectiveness of a project's other planning strategies by embedding them within a predictable, enforceable rule structure. Applied to the Amal Housing Scheme, this implies that policy compliance should both directly improve project outcomes and strengthen the outcome-generating effect of goal-setting, strategic initiatives, and resource planning, Abdillahi, M. M. (2026). The theory's limitation, as with the other objectives in this research programme, is its assumption of a reasonably capable, consistent regulatory state, an assumption that sits uneasily with Puntland's overlapping and unevenly enforced institutional mandates (Muriithi & Crawford, 2022).

Institutional Theory, as developed by DiMaggio and Powell (1983), explains why organisations, and by extension projects, often adopt formal structures and procedures not purely for technical efficiency but to secure legitimacy within their institutional environment. A central implication of this theory, developed further in subsequent institutional scholarship on projects, is that formal compliance can become decoupled from actual operational practice: rules are adopted and documented to satisfy external expectations, while day-to-day execution proceeds according to different, often more expedient, logics. This concept of decoupling, or what more recent project-institutional scholarship terms symbolic or 'façade' compliance, in which practices are formally adopted yet remain operationally hollow, is directly relevant to interpreting cases where a project records strong formal compliance scores while still experiencing substantial delivery delay.

Taken together, these two theories converge on a directly testable prediction: policy framework compliance should both independently improve project outcomes and amplify the effect of goal-setting, strategic initiatives, and resource planning on those outcomes, while Institutional Theory supplies a mechanism for why this statistically powerful role might coexist with real-world execution problems, since compliance measured through documentation and stated adherence may capture the existence of rules more reliably than their continuous, substantive enforcement. Recent East African evidence supports this reading: Lagat et al. (2025) found that even in Nairobi's comparatively well-resourced construction sector, formal regulatory frameworks did not automatically produce high substantive compliance, while Mwangi and Mutuku (2023) and Ejidike and Mewomo (2025) both found that governance and monitoring weaknesses remain significant, recurring barriers to project performance in African construction markets. None of these studies, however, examined a setting in which formal municipal compliance requirements must be reconciled with customary land tenure systems carrying independent legal authority, as is the case in Garowe, where traditional Xeer customary law

continues to govern land and resource claims alongside formal state regulation. This integrated theoretical expectation guided the design of the study's instruments and the interpretation of its descriptive and inferential results.

RESEARCH METHODOLOGY

Research design

The study adopted a descriptive correlational research design, combining quantitative and qualitative approaches within a single mixed-methods strategy (Creswell & Creswell, 2018; Sekaran & Bougie, 2022; Bryman, 2016). This concurrent design allowed the quantitative survey data to establish both the direct statistical relationship between policy compliance and project outcomes and its moderating effect on the other planning-strategy relationships, while the qualitative interview data provided the interpretive depth needed to understand why formally documented compliance coexisted with real delivery delay.

Population and Sample Frame

The study population comprised 650 stakeholders directly involved in the planning and implementation of the Amal Housing Scheme in Garowe (Puntland Ministry of Public Works and Housing, 2023). Using Slovin's formula at a 5% margin of error, a quantitative sample of 248 was determined and allocated proportionally across stakeholder categories through stratified random sampling. The sampling frame is in Table 1.

Table 1: Sampling frame – target population and sample size by stakeholder category

No.	Category	Target Population (N)	Sample Size (n)	Sampling Technique
1	Community members	345	130	Stratified Random
2	Private homeowners	200	76	Stratified Random
3	Rental occupants	100	38	Stratified Random
4	Project management staff	5	4	Stratified Random
	Total	650	248	

Source: Puntland Ministry of Public Works and Housing, 2023

Qualitative data were drawn from 16 in-depth interviews with project managers, site engineers, government officials, and contractors exploring policy compliance practice and project outcomes in the Amal Housing Scheme.

Data Collection

Quantitative data were collected through structured Likert-scale questionnaires assessing policy framework compliance across adherence to building regulations, policy communication, compliance monitoring, corrective action, and staff training. Project outcomes were assessed through timeliness, budget adherence, objective achievement, community impact, and documentation of lessons learned. The qualitative interview guide covered how regulatory compliance was approved, monitored, and enforced in practice.

Validity and Reliability

Content validity was established through expert evaluation, and Cronbach's Alpha coefficients exceeded the conventional 0.70 threshold for both the policy-compliance and project outcome scales. Qualitative trustworthiness was ensured through triangulation across the 16 key informants and cross-referencing with project documentation.

Data Analysis

Quantitative data were analysed using SPSS Version 25. Pearson correlation and simple linear regression tested the direct relationship between policy compliance and project outcomes. The moderating role of policy compliance was tested using a two-step hierarchical multiple regression: an initial model entered goal-setting, strategic initiatives, resource planning, and policy compliance as direct predictors of project outcomes, and a second model added the mean-centred interaction terms Goal×Policy,

Strategic×Policy, and Resource×Policy to test whether policy compliance significantly moderated each planning-strategy relationship. Thematic analysis was applied to qualitative data.

Ethical Consideration

Ethical clearance was obtained prior to data collection, and all respondents provided informed consent after being briefed on the study's purpose, procedures, and their right to withdraw at any stage. Key informants are identified in this manuscript only by role and interview code (e.g., KII1) rather than by name.

RESULTS

Response Rate

Of the 248 questionnaires distributed, 230 were completed and validly returned, and of the 19 key informants purposively targeted for interview, 16 participated. The breakdown is in Table 2.

Table 2: Response rate for the respondents

Category	Distributed	Valid Respondents	Response Rate (%)
Questionnaire	248	230	92.7%
Interview	19	16	84.2%
Total	267	246	92.1%

Source: Primary data, 2025

This high overall response rate, well above the threshold conventionally regarded as adequate for social science survey research, strengthens confidence that the findings reported below reflect the perspectives of project stakeholders involved in the Amal Housing Scheme.

Demographic characteristics of respondents

Table 3 presents the demographic characteristics of the quantitative respondents (n = 230).

Table 3: Demographic characteristics of respondents (n = 230)

Variable	Category	Frequency (n)	Percent (%)
Gender	Male	150	65.2
	Female	80	34.8
Age	Below 30 years	35	15.2
	30-39 years	90	39.1
	40-49 years	70	30.4
	50 years and above	35	15.2
Education Level	Secondary	45	19.6
	Diploma	65	28.3
	Bachelor's Degree	90	39.1
	Postgraduate	30	13.0
Years of Engagement with the Project	Less than 1 year	40	17.4
	1-2 years	85	37.0

Variable	Category	Frequency (n)	Percent (%)
	3-4 years	70	30.4
	5 years and above	35	15.2

Source: Primary data, 2025

Regarding gender, male respondents constituted 65.2% (n = 150) of the sample compared with 34.8% (n = 80) female, a distribution broadly consistent with the male-dominated composition of construction-sector project management, engineering, and contracting roles in Puntland. This imbalance is worth noting as a limitation, since female stakeholders may hold systematically different perceptions of regulatory compliance and enforcement that a two-thirds-male sample could under-represent.

Regarding age, respondents were predominantly mid-career, with 69.5% falling within the 30-49 year bracket (39.1% aged 30-39 and 30.4% aged 40-49) and only 15.2% below 30 and 15.2% aged 50 and above. This age profile suggests a respondent base with sufficient tenure to have witnessed the Amal Housing Scheme's compliance practices from initial approval through to the delays documented in later implementation stages, strengthening confidence that the retrospective judgements reported below draw on sustained, first-hand observation rather than partial or recent exposure.

Regarding education, over half of the sample (52.1%) held a bachelor's degree or higher (39.1% bachelor's, 13.0% postgraduate), with the remaining 47.9% holding a diploma (28.3%) or secondary education (19.6%). This comparatively well-educated profile supports the reliability of respondents' assessments of technical regulatory constructs such as compliance-monitoring mechanisms, since these concepts presuppose a baseline familiarity with building codes and administrative procedure that a purely secondary-educated sample might not consistently possess.

Regarding years of engagement with the project, 82.6% of respondents had been involved with the Amal Housing Scheme for one year or more (37.0% for 1-2 years, 30.4% for 3-4 years, and 15.2% for five years or more), with only 17.4% engaged for less than one year. This extended engagement profile is particularly relevant to the policy-compliance construct specifically, since accurately judging whether policy deviations were 'corrected promptly' or whether compliance monitoring was 'consistently applied throughout the project' requires observation spanning multiple inspection and enforcement cycles rather than a single point in time, a condition the large majority of this sample satisfies.

Descriptive statistics of policy framework compliance

Table 4 presents the descriptive statistics for policy framework compliance within the Amal Housing Scheme.

Table 4: Descriptive statistics on policy framework compliance of the Amal Housing Scheme in Garowe, Puntland, Somalia (n = 230)

Code	Statement	SD F(%)	D F(%)	N F(%)	A F(%)	SA F(%)	Mean	Std. Dev.	Interp.
PC1	The project strictly adhered to government building regulations.	10 (4.3)	20 (8.7)	35 (15.2)	105 (45.7)	60 (26.1)	3.81	1.02	Good
PC2	Policies and guidelines were well communicated to all project staff.	12 (5.2)	22 (9.6)	40 (17.4)	100 (43.5)	56 (24.3)	3.72	1.04	Good
PC3	Compliance monitoring mechanisms were consistently applied throughout the project.	15 (6.5)	28 (12.2)	38 (16.5)	95 (41.3)	54 (23.5)	3.63	1.08	Good
PC4	Any deviations from policy were corrected promptly.	14 (6.1)	30 (13.0)	42 (18.3)	95 (41.3)	49 (21.3)	3.59	1.07	Good
PC5	Staff received adequate training on policy requirements and compliance standards.	10 (4.3)	25 (10.9)	45 (19.6)	100 (43.5)	50 (21.7)	3.67	1.03	Good
	Average Mean and Std. Dev.						3.68	1.05	Good

Source: Primary data, 2025

Regarding PC1, *The project strictly adhered to government building regulations*. This item recorded the highest mean of all five statements (Mean = 3.81, SD = 1.02), with 71.8% combined agreement and only 13.0% disagreement. This finding indicates that formal regulatory approval was treated as a firm precondition for construction to proceed, consistent with Institutional Theory's account of formal compliance being readily adopted where it confers legitimacy and unlocks the ability to operate. This quantitative finding was supported by Respondent 1, a project manager, who stated that:

"Before construction began, all designs were reviewed and approved by Garowe's municipal authorities to ensure compliance with national housing policies. (Source: KII1, 2025)"

Concerning PC2, *Policies and guidelines were well communicated to all project staff*. This item recorded a mean of 3.72 (SD = 1.04), with 67.8% combined agreement, the third-highest rating in the construct. This finding suggests that regulatory requirements were disseminated reasonably consistently to project personnel, though somewhat less consistently than the initial approval itself, foreshadowing the larger gap this study documents between formal compliance approval and its continuous, on-site enforcement.

With respect to PC3, *Compliance monitoring mechanisms were consistently applied throughout the project*. This item recorded a mean of 3.63 (SD = 1.08), the second-lowest rating in the construct, with 64.8% combined agreement. This comparatively modest rating is consistent with the view that regulatory agency proactiveness and monitoring efficiency, rather than the mere existence of a legal framework, are what most directly determine substantive compliance outcomes in East African construction markets.

As for PC4, *Any deviations from policy were corrected promptly*. This item recorded the lowest mean of all five statements (Mean = 3.59, SD = 1.07), with 62.6% combined agreement, indicating that while rules were largely followed at the outset, enforcement of corrective action once deviations occurred was comparatively less consistent. This quantitative finding was supported by Respondent 6, a site engineer, who nonetheless described an active corrective process in the specific instances he encountered:

"Whenever an issue was identified, such as improper material use, corrective measures were taken immediately under supervision. (Source: KII6, 2025)"

A similar account came from Respondent 8, a contractor:

"If we deviated from specifications, we were required to redo the work to meet compliance standards. (Source: KII8, 2025)"

However, this finding diverged somewhat from the item's own aggregate rating: while both respondents described corrective action as immediate and effective in the specific instances they personally encountered, the item nonetheless recorded the lowest mean and among the highest disagreement of the five compliance dimensions, suggesting that corrective enforcement may have been applied reliably in some observed cases while remaining inconsistent, or absent, in others that individual respondents were less likely to volunteer.

Lastly, on PC5, *Staff received adequate training on policy requirements and compliance standards*. This item recorded a mean of 3.67 (SD = 1.03), with 65.2% combined agreement. This finding indicates that regulatory training, while present, was somewhat less consistently delivered than initial project approval, a pattern consistent with this study's broader finding that the scheme's compliance strength lay disproportionately in front-loaded formal approval rather than in the ongoing training and enforcement infrastructure needed to sustain compliance throughout implementation.

The overall mean for policy framework compliance was 3.68 (SD = 1.05), interpreted as Good, indicating that regulatory adherence was consistently strong at the level of initial approval (PC1), with corrective enforcement of deviations (PC4) being the relative weak point among the five dimensions.

Descriptive statistics of the project outcome construct

Table 5 presents the descriptive statistics for project outcomes.

Table 5: Descriptive statistics on project outcomes of the Amal Housing Scheme in Garowe, Puntland, Somalia (n = 230)

Code	Statement	SD F(%)	D F(%)	N F(%)	A F(%)	SA F(%)	Mean	Std. Dev.	Interp.
PO1	The Amal Housing Scheme was completed on time.	12 (5.2)	25 (10.9)	40 (17.4)	105 (45.7)	48 (20.9)	3.66	1.04	High
PO2	The project was implemented within the planned budget.	10 (4.3)	22 (9.6)	38 (16.5)	110 (47.8)	50 (21.7)	3.73	1.01	High
PO3	Project objectives were achieved satisfactorily.	8 (3.5)	20 (8.7)	35 (15.2)	115 (50.0)	52 (22.6)	3.80	0.99	High
PO4	The project has positively impacted the target community.	6 (2.6)	15 (6.5)	30 (13.0)	115 (50.0)	64 (27.8)	3.94	0.93	High
PO5	Lessons learned from the project have been documented to guide future projects.	10 (4.3)	18 (7.8)	40 (17.4)	110 (47.8)	52 (22.6)	3.77	1.00	High
	Average Mean and Std. Dev.						3.78	1.00	High

Source: Primary data, 2025

Regarding PO1, *The Amal Housing Scheme was completed on time*. This item recorded the lowest mean of the five outcome statements (Mean = 3.66, SD = 1.04), with 66.6% combined agreement, consistent with the scheme's documented delivery delay. This quantitative finding was supported by Respondent 1, a project manager, who offered a qualified account:

"The project was largely completed as per the set timeline, despite some minor delays due to supply shortages during the early stages. (Source: KII1, 2025)"

However, this finding diverged somewhat from the project's own audit data, which recorded a substantially longer average delay of approximately 14 months, suggesting that Respondent 1's characterisation of the delay as 'minor' likely reflects the perspective of someone closely involved in managing, and therefore normalising, an incrementally accumulating delay, rather than an external assessment of its full cumulative scale.

On PO2, *The project was implemented within the planned budget*. This item recorded a mean of 3.73 (SD = 1.01), with 69.5% combined agreement. This comparatively favourable rating, despite the scheme's documented 15-20% cost overrun, suggests that respondents' perception of 'staying within budget' likely references a revised, rather than the original baseline, budget ceiling, a common pattern in project environments where cost ceilings are informally renegotiated upward as expenses rise rather than being rigidly enforced against the original baseline.

For PO3, *Project objectives were achieved satisfactorily*. This item recorded a mean of 3.80 (SD = 0.99), with 72.6% combined agreement, the third-highest rating in the construct. This finding suggests that respondents distinguish between the scheme's substantive achievement of its housing-delivery objectives, which they rate highly, and the more process-oriented dimensions of timeliness and cost discipline, which they rate somewhat lower, indicating that the scheme is perceived as having delivered on its core purpose even where its execution against schedule and budget targets was less consistent.

Concerning PO4, *The project has positively impacted the target community*. This item recorded the highest mean of all five outcome statements (Mean = 3.94, SD = 0.93), with 77.8% combined agreement and the lowest standard deviation in the construct, indicating strong consensus. This quantitative finding was supported by Respondent 7, a government official, who stated that:

"The housing project improved living conditions for many families and created temporary employment during construction. (Source: KII7, 2025)"

Lastly, regarding PO5, *Lessons learned from the project have been documented to guide future projects*. This item recorded a mean of 3.77 (SD = 1.00), with 70.4% combined agreement, the second-highest rating in the construct. This finding is notable given that documentation and institutional learning are frequently among the weakest-rated dimensions in comparable project-performance studies, suggesting that the Amal Housing Scheme's management placed comparatively strong emphasis on recording lessons for future replication.

The overall mean for project outcomes was 3.78 (SD = 1.00), interpreted as High, indicating that respondents generally regarded the scheme as successful, notably on community impact (PO4) and objective achievement (PO3), while timeliness (PO1), though still rated favourably, was the relative weak point among the five outcome indicators.

The relationship between policy framework compliance and project outcomes

Table 6: Correlation between policy framework compliance and project outcomes

		Policy Compliance	Project Outcomes
Policy Compliance	Pearson Correlation	1	0.681**
	Sig. (2-tailed)		.000
	N	230	230
Project Outcomes	Pearson Correlation	0.681**	1
	Sig. (2-tailed)	.000	
	N	230	230

**Correlation is significant at the 0.01 level (2-tailed). Source: Primary data, 2025

The analysis revealed a moderately strong, statistically significant positive correlation between policy framework compliance and project outcomes ($r = 0.681$, $p = .000$), confirming that adherence to building regulations, policy communication, compliance monitoring, corrective action, and staff training is closely and reliably associated with the scheme's performance across timeliness, cost, quality, and community-impact indicators.

Table 7: Simple regression of policy framework compliance and project outcomes

Variables	Unstd. Beta	Std. Beta	t-value	Adj. R ²	F-Value	p-value
Constant	0.88		6.77			.000
Policy Framework Compliance	0.66	0.681	14.05	0.460	197.5	.000

Source: Primary data, 2025

The unstandardised coefficient ($B = 0.66$, $p < 0.001$) indicates that for every one-unit improvement in policy framework compliance, project outcomes improve by 0.66 units, holding other factors constant, while the standardised coefficient ($\beta = 0.681$) confirms policy framework compliance as a significant direct predictor within this model. The Adjusted R² of 0.460 indicates that policy framework compliance alone explains close to half of the variance in project outcomes, a finding consistent with Project Management Theory's treatment of regulatory compliance as governance infrastructure that supports project performance (Kerzner, 2022).

The moderating role of policy framework compliance

To test the moderating role of policy framework compliance, the study estimated a combined multiple regression model entering goal-setting strategies, strategic initiatives, resource planning strategies, and policy framework compliance as simultaneous predictors of project outcomes, before adding three mean-centred interaction terms.

Table 8: Multiple regression of combined planning strategies and policy compliance on project outcomes

Variables	Unstd. Beta	Std. Beta	t-value	Adj. R ²	F-Value	p-value
Constant	0.45		5.63			.000
Goal-Setting Strategies	0.28	0.27	5.60			.000
Strategic Initiatives	0.24	0.23	4.00			.000
Resource Planning	0.30	0.33	6.00			.000

Variables	Unstd. Beta	Std. Beta	t-value	Adj. R ²	F-Value	p-value
Policy Framework Compliance	0.20	0.19	4.00	0.643	117.1	.000

Source: Primary data, 2025

The four predictors jointly explained 65.0% of the variance in project outcomes ($R^2 = 0.650$, Adjusted $R^2 = 0.643$), $F(4, 225) = 117.1$, $p < 0.001$, a substantially higher share than any single planning-strategy dimension explained on its own. With all four predictors entered simultaneously, resource planning retained the strongest standardised effect ($\beta = 0.33$), followed by goal-setting ($\beta = 0.27$), strategic initiatives ($\beta = 0.23$), and policy framework compliance ($\beta = 0.19$), confirming that each planning dimension makes an independent, significant contribution to project outcomes even after accounting for the other three.

Table 9: Multiple regression with interaction terms testing the moderating role of policy compliance

Variables	Unstd. Beta	Std. Beta	t-value	Adj. R ²	F-Value	p-value
Constant	0.39		5.57			.000
Goal-Setting Strategies	0.22	0.21	4.40			.000
Strategic Initiatives	0.19	0.18	3.17			.002
Resource Planning	0.25	0.28	5.00			.000
Policy Framework Compliance	0.12	0.11	2.40			.017
Goal × Policy	0.14	0.13	3.50			.001
Strategic × Policy	0.09	0.09	2.25			.025
Resource × Policy	0.11	0.10	2.75	0.673	82.9	.007

Source: Primary data, 2025

Adding the three interaction terms raised the explained variance from 65.0% to 68.6% ($R^2 = 0.686$, Adjusted $R^2 = 0.673$), $F(7, 222) = 82.9$, $p < 0.001$, an increment directly attributable to the moderating role of policy framework compliance. All three interaction terms were statistically significant: Goal×Policy ($B = 0.14$, $p = 0.001$), Strategic×Policy ($B = 0.09$, $p = 0.025$), and Resource×Policy ($B = 0.11$, $p = 0.007$), confirming that policy framework compliance does not merely add its own direct contribution to project outcomes; it significantly strengthens the effectiveness of goal-setting, strategic initiatives, and resource planning, with the largest moderating effect on goal-setting and the smallest, though still significant, on strategic initiatives. Because all three interaction terms were statistically significant and the inclusion of the interaction terms produced a meaningful increase in explained variance, the null hypothesis was rejected, confirming that policy framework compliance significantly moderates the relationship between planning strategies and project outcomes, in addition to its own significant direct effect.

DISCUSSIONS

The results rejected the null hypothesis (H_0). This is consistent with Kerzner (1979, 2022), who treated governance and regulatory adherence as infrastructure that reinforces, rather than merely supplements, a project's other planning strategies; with DiMaggio and Powell (1983), whose account of institutional decoupling explains why formal compliance can coexist with substantive execution gaps; and with recent empirical evidence, including Lagat et al.'s (2025) finding that the strength and enforcement efficiency of a regulatory framework materially shape construction project compliance and performance even in a comparatively well-resourced East African capital such as Nairobi.

The demographic profile of respondents adds an important interpretive layer to this theoretical confirmation. The sample was predominantly mid-career, experienced, and comparatively well-educated, characteristics that suggest a respondent base well positioned to assess compliance practice with informed judgement. This strengthens confidence that the item-level pattern documented above, strong initial regulatory approval alongside comparatively weaker corrective enforcement, reflects a genuine institutional pattern rather than inexperience.

The item-level and model-level findings together provide the clearest evidence yet of a broader planning-execution gap that runs through this research programme. Policy framework compliance scored highest on initial regulatory adherence but lowest on prompt correction of deviations, and this same divide, strong formal standing but weaker continuous enforcement, reappears at the level of the moderation model itself: compliance is confirmed as a powerful direct driver and amplifier of the other planning strategies, yet the scheme still incurred a 14-month delivery delay and a 15-20% cost overrun. This execution paradox is directly tied to Garowe's institutional context. As an emerging urban centre with historically fragmented municipal oversight, the Ministry of Public Works and Reconstruction and the Garowe Municipal Planning Office hold overlapping, evolving mandates, which frequently produces asymmetrical or delayed enforcement of building codes and zoning laws, precisely the kind of regulatory fragmentation Lagat et al. (2025) identify as undermining compliance even in better-resourced settings. Compounding this, formal municipal regulation in Garowe does not operate in isolation; it must coexist with customary Xeer land tenure systems that carry substantial local authority, and the scheme's compliance strategy, initially focused on formal state guidelines, at points triggered friction with community gatekeepers who viewed formal municipal zoning as encroaching on customary land claims, Abdillahi, M. M. (2025). The implication, consistent with Institutional Theory's account of competing institutional logics, is that governance in fragile, post-conflict housing markets cannot be modelled as a purely bureaucratic exercise; formal regulatory compliance must be actively reconciled with parallel informal community authority to translate its considerable statistical leverage into consistent, on-the-ground delivery.

CONCLUSION

The analysis confirmed that policy framework compliance plays a significant dual role in the Amal Housing Scheme, operating both as a direct driver of project outcomes and as a moderator that strengthens the effect of goal-setting, strategic initiatives, and resource planning on those outcomes, with the null hypothesis rejected. Embedding planning practices within an enforced regulatory framework amplifies their effectiveness by promoting transparency, standardised documentation, and operational discipline. However, this moderating effect is bounded by the administrative capacity of the state apparatus: statutory compliance is not sufficient on its own where enforcement is fragmented and where formal regulation must contend with parallel customary authority over land and resources. In such contexts, policy compliance functions as a genuine statistical multiplier of planning effectiveness in principle, while remaining vulnerable to administrative gridlock and informal contestation in practice.

RECOMMENDATIONS

For the Amal Housing Scheme and comparable projects, the study implies strengthening internal compliance audits so that adherence to regulations is verified continuously during construction rather than only at the initial approval stage, directly addressing this study's finding that corrective enforcement of deviations was the weakest compliance dimension (Mean = 3.59).

For project managers and site supervisors, it would be recommended to enhance documentation and reporting procedures to improve transparency and accountability, and to extend regulatory-compliance training to all project personnel, not only site supervisors.

For the Ministry of Public Works and Reconstruction and Garowe municipal authorities, the research implies clarifying overlapping regulatory mandates between national and local planning offices to reduce administrative gridlock, consistent with recent evidence that regulatory fragmentation undermines substantive compliance even in better-resourced East African settings (Lagat et al., 2025).

For future housing scheme developers in Garowe, project teams should engage customary land and community authorities alongside formal regulators from the outset, so that formal compliance strategies do not inadvertently trigger disputes with parallel informal governance structures.

CONTRIBUTION TO KNOWLEDGE

The article empirically documents an 'execution paradox' in the Amal Housing Scheme: policy framework compliance is statistically confirmed as both a significant direct driver of project outcomes and a significant moderator that amplifies the effect of goal-setting, strategic initiatives, and resource planning, yet this considerable statistical leverage coexists with a substantial real-world delivery delay. By modelling compliance's dual direct and moderating roles explicitly, rather than treating it as a single undifferentiated construct, this study demonstrates that the paradox is visible at the level of specific, actionable dimensions, strong initial regulatory approval alongside weaker corrective enforcement, rather than being merely an artefact of an aggregate compliance score, a methodological contribution that future governance and compliance research in comparable post-conflict or fragile-state housing contexts may usefully replicate. Future research should examine longitudinal compliance-enforcement trends and test specific mechanisms for reconciling formal municipal regulation with customary Xeer land governance in Garowe's institutional context.

AREAS FOR FURTHER RESEARCH

- I. A longitudinal study examining trends in policy compliance enforcement and project outcomes across housing schemes in Puntland, determining whether continuous compliance audits generate measurable reductions in delivery delay.
- II. Qualitative examination of how customary Xeer land governance interacts with formal municipal compliance requirements in Somali housing schemes, and the conditions under which the two systems can be reconciled without derailing project timelines.
- III. A comparative analysis of regulatory compliance practice across housing schemes in Puntland and Somaliland, to identify the institutional conditions that most effectively convert formal compliance into substantive, continuously enforced operational discipline.
- IV. A study that tests specific administrative-coordination mechanisms between overlapping regulatory bodies and their effect on closing the gap between statistically strong compliance-moderation scores and actual project delivery performance.
- V. A gender-disaggregated replication of this study's policy-compliance and project outcome constructs, to test whether the execution paradox identified here is experienced uniformly across male and female project stakeholders.

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Declaration of Competing Interests

The authors declare no competing interests. All authors have reviewed and approved the final version.