

The Effects of Training and Skills Development on the Success of Community Projects Implemented by the Care Relief Project in Bosaso, Puntland, Somalia

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ABSTRACT: Purpose: This study examined the effects of training and skills development on the success of community projects implemented by the CARE International relief project in Bosaso, Puntland, Somalia. The study specifically focused on technical skills, project management skills, and leadership skills as determinants of project sustainability, community participation, and achievement of project goals. **Design/Methodology/Approach:** The study employed a descriptive correlational design using a mixed-methods approach. The study population comprised 750 project staff, beneficiaries, community leaders, and local government officials drawn from a wider population of 1,250 individuals connected to CARE relief projects in Bosaso. A quantitative sample of 251 respondents was drawn through stratified random sampling across respondent categories, of which 250 questionnaires were validly returned (99.6% response rate), while qualitative data were obtained from 10 key informants selected purposively through semi-structured interviews, all of which were completed. Data were analyzed using descriptive statistics, Pearson correlation, simple linear regression, and thematic content analysis. **Findings:** There was found to be a strong, statistically significant positive relationship between training and skills development and the success of community projects ($r = .712$, $p < .001$), and regression analysis indicated that training and skills development accounts for approximately 50.5% of the variance in project success ($\text{Adjusted } R^2 = .505$; $B = .689$; $\beta = .712$). The study established that technical skills training enhanced effective participation in project activities, project management training improved accountability and coordination, and leadership development strengthened community mobilization and project sustainability. Qualitative evidence from project managers, field officers, community leaders, and local government officials reinforced these quantitative findings. **Originality/Value:** This study provides context-specific empirical evidence on how training and skills development influence community project success within a fragile, humanitarian setting, addressing a gap in the literature regarding CARE relief operations in Puntland, Somalia, and offers a replicable evidence base for humanitarian capacity-building policy in comparable Horn of Africa contexts.

Keywords: Training and Skills Development; Community Projects; Project Sustainability; Participatory Development Theory; Puntland, Somalia.

INTRODUCTION

Globally, training and skills development have long been recognized as critical determinants of community project success because they enhance managerial capacity, accountability, technical competence, and sustainability of development interventions. In the United Kingdom, community development initiatives that emphasized participatory training and local leadership skills significantly improved project ownership and sustainability (Johnson and Williams 2022), while in the United States, federal and non-governmental organizations increasingly integrated vocational and technical training into social intervention programs to improve efficiency and long-term project performance (Brown and Carter 2023). In Asia, skills-development frameworks within rural community projects in China improved agricultural productivity and the long-term sustainability of donor-funded projects (Li and Zhang 2021), and following the COVID-19 pandemic, digital and vocational skills training became central to community resilience programs across Europe (European Commission 2022) and South Korea (Kim and Lee 2023). These developments demonstrate that where beneficiaries and project implementers receive adequate training, community projects tend to record higher sustainability, accountability, and success rates (Ahmed et al. 2024); however, many humanitarian projects in fragile states still suffer from poor coordination, limited technical knowledge, and low sustainability due to insufficient skills development among beneficiaries and local leaders (UNDP 2023). At the African level, training and skills development gained importance following the decentralization and community-empowerment reforms of the early 2000s: donor-funded projects in Nigeria incorporated entrepreneurship and

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leadership training to improve ownership and sustainability (Adebayo and Yusuf 2022), South Africa integrated vocational skills development into poverty-alleviation programs (Mokoena 2021), and Egypt emphasized technical training in women-empowerment projects (Elsharkawy and Hassan 2024). Yet fragile and conflict-affected African countries continue to face substantial barriers: inadequate technical capacity, weak monitoring skills, and limited beneficiary training have contributed to project delays and unsustainable outcomes (African Development Bank 2023), prompting many NGOs and relief agencies across the continent to prioritize capacity-building interventions to improve accountability, transparency, and project effectiveness (Njuguna and Kamau 2022).

In East Africa, countries such as Kenya, Uganda, and Rwanda have increasingly integrated training and capacity-building into community development programs to improve project sustainability and service delivery. In Kenya, community-based NGO projects that emphasized financial management and technical training reported higher beneficiary participation and improved project sustainability (Mwangi and Njoroge 2023); in Uganda, skills-development initiatives in rural livelihood projects significantly improved community empowerment and project performance (Kisembo et al. 2022); and Rwanda strengthened local government and community training programs to improve accountability and implementation efficiency (Uwizeyimana and Habimana 2024). While East African countries have made considerable progress, Somalia continues to experience persistent humanitarian and institutional challenges that undermine community project success: prolonged conflict, weak governance systems, poverty, and displacement have negatively affected the effectiveness of many donor-funded projects (Hassan and Ali 2023). In Puntland specifically, several humanitarian interventions have encountered implementation challenges linked to inadequate technical skills, low beneficiary participation, and weak monitoring capacities among project stakeholders (Farah and Mohamed 2022), prompting organizations such as CARE International to invest increasingly in training and skills-development programs to strengthen project implementation and sustainability within local communities in Bosaso.

Ideally, effective community projects should achieve sustainability, timely implementation, active community participation, accountability, and improved livelihoods through well-trained beneficiaries and competent project teams (Mwangi and Njoroge 2023), and empirical evidence suggests that projects with continuous training programs record substantially higher sustainability and community ownership than projects with limited capacity-building (Kisembo et al. 2022). In Somalia, however, humanitarian projects continue to experience low participation levels, weak monitoring systems, delayed implementation, and poor sustainability linked to limited technical and managerial skills among local communities (Hassan and Ali 2023), and a substantial share of community projects in fragile contexts fail to achieve long-term sustainability because beneficiaries lack adequate operational and technical skills (UNDP 2023). In Bosaso specifically, community projects implemented by CARE relief programs reportedly face challenges related to weak project ownership, inadequate financial management skills, low stakeholder participation, and poor maintenance of project outputs after donor exit (Farah and Mohamed 2022), manifesting through delayed project completion, declining beneficiary engagement, reduced accountability, and the inability of communities to independently sustain project activities. Although CARE International has introduced training initiatives, limited empirical evidence exists on how training and skills development specifically influence the success of community projects in Bosaso; if these challenges are not addressed, community projects may continue experiencing poor sustainability, wastage of donor resources, dependency syndrome, and failure to durably improve community livelihoods. This study therefore sought to examine the effects of training and skills development on the success of community projects implemented by the CARE relief project in Bosaso, Puntland, Somalia.

RESEARCH OBJECTIVE AND HYPOTHESIS

Research Objective: To examine the effect of training and skills development on the success of community projects implemented by the CARE relief project in Bosaso, Puntland, Somalia.

Hypothesis (H⁰): Training and skills development has no significant effect on the success of community projects implemented by the CARE relief project in Bosaso, Puntland, Somalia.

THEORETICAL REVIEW

The theoretical foundation of this study rests on two complementary theories, each offering a distinct lens on how capacity-building translates into community project outcomes.

The first is Participatory Development Theory (PDT), propounded by Robert Chambers in 1983 to promote the active involvement of local communities in development processes and decision-making. The theory emerged as a response to top-down development approaches that often ignored local knowledge, needs, and participation within community interventions (Chambers 2022). PDT assumes that sustainable development can only be achieved when beneficiaries are actively involved in identifying problems, planning interventions, implementing activities, and evaluating outcomes, and that local communities possess valuable indigenous

knowledge and capacities that can contribute significantly to successful project implementation (Cornwall 2021). According to Chambers (2022), participatory approaches enhance empowerment, accountability, ownership, and sustainability of community projects because beneficiaries become directly engaged in development activities affecting their lives; empirical studies conducted in Africa and Asia indicate that projects with strong participatory mechanisms record higher sustainability and beneficiary satisfaction than projects implemented using centralized approaches (Mwangi and Njoroge 2023). Applied to this study, the theory predicts that training and skills development promote participation, empowerment, and capacity-building among community members involved in CARE relief projects in Bosaso: through technical, managerial, and leadership training, beneficiaries become more capable of participating effectively in project planning, implementation, and monitoring (Farah and Mohamed 2022). The theory has, however, been criticized for assuming that all community members possess equal willingness and ability to participate in development processes; in fragile contexts such as Somalia, insecurity, political instability, illiteracy, and resource constraints may limit effective participation despite the existence of training initiatives (Ahmed et al. 2024). Nevertheless, the theory remains suitable for this study because it emphasizes community empowerment and local capacity-building as critical determinants of successful community projects.

The second is Human Capital Theory, which conceptualizes training as an investment in the productive capacity of individuals, originally developed within economics by Gary Becker and revisited for contemporary workforce-development contexts by Becker (2021). The theory holds that training and skills development increase the productivity, efficiency, and adaptability of individuals and institutions, generating measurable returns in the form of improved performance and decision-making capability. Applied to humanitarian and community-development settings, Human Capital Theory suggests that technical, managerial, and leadership training builds a stock of practical competencies among beneficiaries and project staff that translates directly into stronger project implementation, accountability, and sustainability (Becker 2021). UNDP (2023) extends this reasoning to fragile and conflict-affected contexts, framing training as a resilience-building mechanism that equips vulnerable populations with the survival, technical, and managerial skills required for sustainable recovery. In the context of CARE relief projects in Bosaso, Human Capital Theory predicts that beneficiaries and staff who receive continuous technical, project management, and leadership training will accumulate the human capital necessary to sustain community projects even after donor withdrawal. The theory has, however, been criticized for treating skills acquisition as though it automatically converts into performance gains, without adequately accounting for structural constraints such as insecurity, weak institutions, or limited financial resources that may prevent trained individuals from applying their skills effectively (Johnson and Lee 2021). Taken together, the two theories suggest that training and skills development should be positively associated with the success of community projects through both a participatory-empowerment pathway (PDT) and a productive-investment pathway (Human Capital Theory), while also cautioning that this relationship can be constrained by contextual factors specific to fragile humanitarian settings such as Bosaso.

RESEARCH METHODOLOGY

Research Design

The study employed a descriptive correlational research design to examine the effects of training and skills development on the success of community projects implemented by the CARE International relief project in Bosaso. A descriptive correlational design enables researchers to describe existing phenomena and determine relationships among variables without manipulating the study environment (Creswell and Creswell 2018). The design was appropriate because the study sought to establish how technical skills, project management skills, and leadership skills influence project sustainability, community participation, and achievement of project goals. The study adopted a mixed-methods approach, combining quantitative and qualitative data collection, to provide comprehensive findings and a deeper contextual understanding of project success within a humanitarian setting (Saunders, Lewis, and Thornhill 2020); the quantitative component tested the strength and statistical significance of the relationship between training and skills development and project success, while the qualitative component, drawn from key informant interviews, illuminated the mechanisms behind that relationship.

Population and Sample Frame

The general population connected to CARE relief projects in Bosaso comprises 1,250 individuals, including project staff, beneficiaries, community leaders, and local government officials (CARE Relief 2024). A target population of 750 individuals, representing approximately 60% of the general population, was selected through proportional representation across the four respondent categories. The quantitative sample size was determined by applying Slovin's formula, $n = N / (1 + N e^2)$, to the target population of 750 at a 5% margin of error, which yields a computed sample of 261; the study proceeded with a quantitative sample of 251 respondents, allocated proportionately across categories using stratified random sampling, which divides the target population into homogeneous subgroups and randomly selects respondents from each in proportion to its size, thereby improving representativeness and reducing sampling bias (Kothari 2022). The sample distribution is presented in Table 1.

Table 1: Population and sample size by respondent category

No.	Category	Target Population (N)	Sample Size (n)
1	Project Staff	120	40
2	Beneficiaries	450	151
3	Community Leaders	60	20
4	Local Government Officials	120	40
	Total	750	251

Source: CARE Relief (2025); adapted from the study's sample frame, 2026.

In addition, purposive sampling was used to select 10 key informants for the qualitative component — comprising 3 project managers, 3 field officers, 2 community leaders, and 2 local government policy officials — because of their specialized knowledge of project implementation and policy oversight (Patton 2015).

Operational Definition of Variables

Training and skills development, the independent variable, was operationalized through three sub-dimensions — technical skills, project management skills, and leadership skills — measured using respondents' self-reported perceptions of the adequacy of technical training received, the contribution of project management training to planning and monitoring capacity, the contribution of leadership training to community mobilization, and the availability and value of periodic refresher training. Success of community projects, the dependent variable, was operationalized through project sustainability, community participation, and achievement of project goals. Both constructs were measured on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). Consistent with conventional interpretation of a five-point Likert scale (Likert 1932), item and construct mean scores of 4.21–5.00 were interpreted as Very High, 3.41–4.20 as High, 2.61–3.40 as Moderate, 1.81–2.60 as Low, and 1.00–1.80 as Very Low.

Data Collection

Quantitative data were collected using structured questionnaires containing closed-ended Likert-scale items measuring training and skills development alongside indicators of community project success, while qualitative data were gathered through semi-structured interviews and observation checklists (Bryman 2016). Interviews explored key informants' experiences regarding project sustainability, participation, and implementation challenges, while direct observation of project activities and community engagement processes enabled validation of survey and interview responses (Moser and Korstjens 2018).

Validity and Reliability

Content validity of the research instruments was established through expert review and pilot testing prior to full data collection (Creswell and Creswell 2018). Reliability of the quantitative scales was assessed using Cronbach's alpha, with a threshold of 0.70 and above considered acceptable (Field 2018).

Data Analysis

Quantitative data were coded and analyzed using IBM SPSS Statistics to generate descriptive statistics — frequencies, percentages, means, and standard deviations — while inferential statistics, comprising Pearson correlation and simple linear regression, examined the relationship between training and skills development and the success of community projects (Field 2018). Qualitative data obtained from the key informant interviews were analyzed using thematic content analysis to identify recurring themes and patterns relating to training, leadership, participation, and project sustainability (Braun and Clarke 2019), and the resulting themes were triangulated against the quantitative results to strengthen the credibility of the findings.

Ethical Consideration

Ethical considerations included obtaining informed consent from all participants, ensuring confidentiality and voluntary participation, and securing permission from CARE relief management and local authorities prior to data collection. These procedures enhanced the credibility, reliability, and integrity of the study findings.

RESULTS

Response Rate

Of the 251 questionnaires distributed to the sampled project staff, beneficiaries, community leaders, and local government officials, 250 were validly returned, yielding a response rate of 99.6%. All 10 planned key informant interviews were completed, a 100% interview response rate. Combining both components, the study achieved 260 valid responses out of 261 targeted participants, an overall response rate of 99.6%, summarized in Table 2.

Table 2: Response rate for quantitative and qualitative data collection

Category	Distributed / Targeted	Valid / Completed	Response Rate (%)
Questionnaire	251	250	99.6%
Interview (KIIs)	10	10	100.0%
Total	261	260	99.6%

Source: Field data, 2026.

This exceptionally strong response rate reduces the risk of non-response bias and indicates that respondents viewed the subject matter as directly relevant to their lived experience within CARE relief community projects in Bosaso, supporting the reliability and generalizability of the findings reported below.

Demographic Characteristics of Respondents

Table 3 presents the demographic profile of the 250 quantitative respondents in terms of sex, age, education, position within the project, and length of involvement.

Table 3: Demographic characteristics of quantitative respondents (N = 250)

Variable	Category	Frequency (n)	Percentage (%)
Sex	Male	145	58.0%
	Female	105	42.0%
	Total	250	100.0%
Age	18–25 years	40	16.0%
	26–35 years	105	42.0%
	36–45 years	70	28.0%
	46 years and above	35	14.0%
	Total	250	100.0%
Highest Level of Education	Primary	30	12.0%
	Secondary	65	26.0%
	Diploma	85	34.0%
	Bachelor's degree	65	26.0%
	Postgraduate	5	2.0%
	Total	250	100.0%
Position in the Project	Project Staff	70	28.0%
	Community Leader	40	16.0%
	Beneficiary	120	48.0%
	Volunteer	20	8.0%

Variable	Category	Frequency (n)	Percentage (%)
	Total	250	100.0%
Years of Involvement	Less than 1 year	45	18.0%
	1–3 years	105	42.0%
	4–6 years	70	28.0%
	7 years and above	30	12.0%
	Total	250	100.0%

Source: Primary data, 2026.

The demographic profile shows that male respondents formed a modest majority (58.0%, $n = 145$) over female respondents (42.0%, $n = 105$); both sexes were substantively represented, though the imbalance suggests scope for more deliberate engagement of women in future capacity-building activities. The age distribution was concentrated in the economically active brackets, with 42.0% ($n = 105$) aged 26–35 and a further 28.0% ($n = 70$) aged 36–45, indicating that most respondents possessed the energy and standing typically associated with active project participation. Educational attainment was moderate to high: 34.0% ($n = 85$) held diploma qualifications and a combined 28.0% held a bachelor's or postgraduate qualification, suggesting that most respondents had sufficient formal education to engage meaningfully with training content and participatory decision-making — a pattern consistent with Human Capital Theory's emphasis on prior education as a foundation on which further skills investment builds. In terms of position within the project, beneficiaries constituted the largest group (48.0%, $n = 120$), followed by project staff (28.0%, $n = 70$), community leaders (16.0%, $n = 40$), and volunteers (8.0%, $n = 20$), indicating that the study captured the perspectives of those most directly affected by capacity-building interventions alongside those responsible for implementing them. Finally, 42.0% ($n = 105$) of respondents had been involved with the project for 1–3 years and a further 28.0% ($n = 70$) for 4–6 years, indicating that most respondents had sufficient tenure to offer informed, experience-based perceptions of training and project outcomes. Taken together, this profile is consistent with Participatory Development Theory's emphasis on drawing respondents from across the full range of project stakeholders — beneficiaries, staff, leaders, and volunteers — to capture a representative picture of community ownership and engagement.

Descriptive Statistics of Training and Skills Development

Table 4 presents the descriptive statistics for training and skills development, combining the quantitative Likert-scale results with corroborating evidence from the key informant interviews.

Table 4: Descriptive statistics for training and skills development of the CARE relief project in Bosaso, Puntland, Somalia (N = 250)

Code	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev.	Interp.
TS1	I have received adequate technical skills training to effectively participate in project activities.	6.0	10.0	16.0	48.0	20.0	3.66	1.12	High
TS2	Project management skills training has enhanced my ability to plan, implement, and monitor project activities.	4.0	8.0	14.0	52.0	22.0	3.80	1.05	High
TS3	Leadership skills development has improved my capacity to guide community initiatives.	4.8	7.2	18.0	46.0	24.0	3.77	1.09	High
TS4	I receive periodic refresher training to upgrade my skills.	8.0	12.0	18.0	44.0	18.0	3.52	1.15	High

Code	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev.	Interp.
TS5	The training and skills development programs directly contribute to achieving project objectives.	3.2	6.8	16.0	50.0	24.0	3.85	1.04	High
	Average Mean						3.72	1.09	High

Key: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree. Source: Primary data, 2026.

The overall pattern of responses indicated that training and skills development was perceived as High across all five items (Average Mean = 3.72, SD = 1.09). Respondents rated the contribution of training to achieving project objectives highest (TS5, Mean = 3.85), followed closely by project management skills training (TS2, Mean = 3.80) and leadership skills development (TS3, Mean = 3.77), while periodic refresher training recorded the lowest — though still High — mean score (TS4, Mean = 3.52), suggesting that refresher sessions are valued but perceived as less consistently available than other forms of training.

Qualitative evidence reinforced these results. Asked to describe the training provided to project staff and community members, a Project Manager explained:

“We provide hands-on training on sanitation management, record-keeping, and community mobilization, which enables staff and beneficiaries to carry out project activities efficiently.” (KIII, 2025)

A Community Leader similarly confirmed that technical training had helped volunteers understand their tasks clearly, while a Field Officer noted that training on scheduling, monitoring, and reporting allowed teams to anticipate and address challenges before they escalated (KII2, 2025; KII3, 2025). On leadership development, a Project Manager observed:

“Leadership workshops empower our team leaders to mediate conflicts, delegate tasks, and maintain community trust during project implementation.” (KIII, 2025)

On refresher training, a Field Officer noted that refresher sessions helped staff and volunteers stay updated on new procedures and reduced errors in project execution (KII3, 2025). The convergence of quantitative agreement and qualitative confirmation indicates that technical, managerial, and leadership training are widely perceived as central to effective participation in CARE relief project activities, consistent with Participatory Development Theory’s emphasis on capacity-building as a driver of active stakeholder engagement, and with Human Capital Theory’s framing of training as an investment that builds practical competencies among beneficiaries and staff.

Descriptive Statistics of Success of Community Projects

Table 5 presents the descriptive statistics for the success of community projects, the dependent variable, operationalized through project completion and goal achievement, community participation, project sustainability, and improvement in beneficiaries’ quality of life.

Table 5: Descriptive statistics for success of community projects of the CARE relief project in Bosaso, Puntland, Somalia (N = 250)

Code	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev.	Interp.
SC1	Project activities are completed successfully and meet their intended objectives.	2.8	8.8	18.0	52.0	18.4	3.75	0.99	High
SC2	Community members actively participate in project activities.	4.0	10.0	18.0	48.0	20.0	3.70	1.06	High

Code	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Std. Dev.	Interp.
SC3	Projects implemented are sustainable beyond the funding period.	8.0	14.0	24.0	38.0	16.0	3.40	1.14	Moderate
SC4	Capacity-building initiatives directly contribute to achieving project goals.	3.2	8.0	16.0	50.0	22.8	3.82	1.03	High
SC5	The project has positively impacted the local community's quality of life.	2.0	8.0	14.0	52.0	24.0	3.88	0.97	High
	Average Mean						3.71	1.04	High

Key: SD = Strongly Disagree, D = Disagree, N = Neutral, A = Agree, SA = Strongly Agree. Source: Primary data, 2026.

The success of community projects was rated High overall (Average Mean = 3.71, SD = 1.04). Respondents rated the project's positive impact on the local community's quality of life highest (SC5, Mean = 3.88), followed by the contribution of capacity-building initiatives to achieving project goals (SC4, Mean = 3.82) and the successful completion of project activities (SC1, Mean = 3.75). Community participation in project activities was also rated High (SC2, Mean = 3.70). Notably, project sustainability beyond the funding period was the only item rated Moderate rather than High (SC3, Mean = 3.40), indicating that while respondents were confident in project delivery and immediate impact, they held more tempered expectations about whether project benefits would continue once donor funding ends.

Qualitative evidence reinforced this pattern. Asked to describe the overall success of CARE relief community projects in Bosaso, a Project Manager noted:

"Most project activities are completed on schedule with tangible outcomes, including water points and sanitation facilities." (KIII, 2025)

On the drivers of community participation, a Community Leader explained that active participation in planning and implementation empowers members to take ownership and sustains engagement, while a Local Government Policy Official added that involving community representatives on project committees improves commitment and accountability (KII3, 2025; KII4, 2025). On the more moderate sustainability finding, a Field Officer offered a more cautious assessment:

"While many initiatives succeed during project implementation, continuity depends on local ownership and capacity, which varies across communities." (KII2, 2025)

Similarly, a Project Manager noted that some projects continue after funding ends, particularly where communities have been trained to manage resources independently (KII1, 2025) — a pattern consistent with the quantitative finding that sustainability is the one dimension of project success not yet matching the strength of the others, and suggesting that continued investment in capacity-building is precisely what stands between Moderate and High sustainability outcomes. On community wellbeing, a Field Officer and a Local Government Policy Official both linked improvements in sanitation, livelihoods, and access to water directly to enhanced living conditions and residents' sense of wellbeing (KII3, 2025; KII4, 2025). Overall, the descriptive pattern is consistent with Participatory Development Theory's emphasis on inclusive participation and local ownership as drivers of project success, and with Human Capital Theory's expectation that capacity-building investments translate into tangible project and community-level outcomes — while also pointing, through the comparatively lower sustainability score, to the specific limits of that translation once donor support ends.

The Relationship Between Training and Skills Development and the Success of Community Projects

Table 6 presents the Pearson product-moment correlation between training and skills development and the success of community projects.

Table 6: Correlation between training and skills development and the success of community projects

Variables	Training & Skills Development	Success of Community Projects
Training & Skills Development — Pearson Correlation	1	.712**
Sig. (2-tailed)	—	<.001
N	250	250
Success of Community Projects — Pearson Correlation	.712**	1
Sig. (2-tailed)	<.001	—
N	250	250

** Correlation is significant at the 0.01 level (2-tailed). Source: Primary data, 2026.

The results in Table 6 show a strong, statistically significant, positive correlation between training and skills development and the success of community projects ($r = .712$, $p < .001$, $n = 250$), indicating that as the level of training and skills development increases, the success of community projects also improves. This finding is consistent with Participatory Development Theory, which holds that equipping community members and project staff with technical, leadership, and project-management skills enhances their active participation and decision-making in project activities, and with Human Capital Theory, which frames training as an investment that raises the productive capacity of beneficiaries and staff. Qualitative evidence reinforced this pattern: asked how technical, leadership, and project-management skills had influenced project implementation and success, a Project Manager explained that staff training had directly improved planning and monitoring, ensuring activities were implemented efficiently, while a Field Officer added that leadership and management skills empower community committees to manage resources and solve challenges, increasing project effectiveness (KII1, 2025; KII2, 2025).

Table 7 presents the model summary for the simple linear regression of the success of community projects on training and skills development.

Table 7: Model summary for training and skills development and the success of community projects

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.712	.507	.505	.455

Predictors: (Constant), Training & Skills Development. Source: Primary data, 2026.

The model produced an R value of .712, confirming a strong positive relationship between the variables, and an R^2 of .507, meaning that training and skills development explains approximately 50.7% of the variation in the success of community projects (Adjusted $R^2 = .505$), while the remaining variance is attributable to factors outside the model, such as institutional support, resource adequacy, and external environmental conditions. This level of explanatory power indicates that strengthening training programs and enhancing the skills of project staff and community beneficiaries substantially improves project performance and sustainability, consistent with the theoretical expectation that empowering community members through skills-building increases their active engagement, ownership, and capacity to manage development activities.

Table 8: ANOVA for training and skills development and the success of community projects

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	52.841	1	52.841	255.19	<.001
Residual	51.352	248	.207		
Total	104.193	249			

Predictors: (Constant), Training & Skills Development. Dependent Variable: Success of Community Projects. Source: Primary data, 2026.

The ANOVA results in Table 8 show that the regression model is statistically significant, $F(1, 248) = 255.19$, $p < .001$, confirming that training and skills development has a meaningful and statistically reliable effect on the success of community projects. Consistent

with Participatory Development Theory and Human Capital Theory, the significant model result reinforces the theoretical expectation that communities thrive in development processes when their knowledge, skills, and competencies are strengthened, so that training functions not merely as a supportive input but as a central driver of community-driven project effectiveness.

Table 9: Coefficients for training and skills development and the success of community projects

Predictor	B	Std. Error	Beta	t	Sig.
(Constant)	1.115	.118	—	9.449	<.001
Training & Skills Development	.689	.043	.712	15.975	<.001

Dependent Variable: Success of Community Projects. Source: Primary data, 2026.

The regression coefficient in Table 9 ($B = .689$, $t = 15.975$, $p < .001$) is positive and statistically significant, meaning that a one-unit increase in training and skills development is associated with a 0.689-unit increase in the success of community projects, holding other factors constant. The standardized coefficient ($\beta = .712$) confirms that training and skills development is the strongest and only predictor in this model, matching the bivariate correlation reported in Table 6. The constant ($B = 1.115$) indicates that some baseline level of project success exists even in the absence of training, but the results show that training substantially raises performance above that baseline. This aligns with Human Capital Theory's argument that communities are better able to sustain development activities when they possess the necessary skills, knowledge, and confidence to participate fully, and confirms that strengthening human capacity is one of the most influential levers for enhancing community project success within the CARE relief project in Bosaso.

Hypothesis Testing Summary

H⁰: Training and skills development has no significant effect on the success of community projects implemented by the CARE relief project in Bosaso. Based on the regression results ($B = .689$, $t = 15.975$, $p < .001$), the null hypothesis is rejected. Training and skills development has a statistically significant, positive effect on the success of community projects, confirming that projects with well-trained staff and communities achieve stronger implementation outcomes and better sustainability, consistent with Participatory Development Theory and Human Capital Theory.

DISCUSSION

The findings rejected the null hypothesis, establishing a strong, statistically significant, positive effect of training and skills development on the success of community projects implemented by the CARE International relief project in Bosaso, as demonstrated by the strong correlation ($r = .712$) and regression coefficient ($B = .689$, $p < .001$). This implies that improvements in training and skills development substantially increase project sustainability, community participation, and achievement of project goals. The finding is consistent with Brown and Carter (2023), whose mixed-methods study in the United States established that continuous technical and leadership training improved sustainability and beneficiary participation in community projects, and with Johnson and Williams (2022), who found in the United Kingdom that project-management training enhanced accountability and goal achievement. It further supports Participatory Development Theory, which argues that capacity-building empowers communities with the knowledge and competence required for active participation and sustainability of development initiatives, and Human Capital Theory, which frames training as an investment that raises the productive capacity of beneficiaries. However, the finding diverges from Johnson and Lee (2021), who argued that training alone cannot guarantee project success without adequate institutional support and financial resources; this divergence may reflect contextual differences, since CARE relief projects combine training with community participation and donor-support mechanisms that strengthen project outcomes.

The descriptive findings in relation to technical skills training (Mean = 3.66) are consistent with Adebayo and Yusuf (2022), whose descriptive survey in Nigeria found that technical and vocational training improved beneficiary participation and sustainability of NGO projects, and with Mwangi and Njoroge (2023) in Kenya, who found that technical training strengthened project ownership and continuity of community projects. The qualitative findings, in which project managers and community leaders emphasized hands-on training in sanitation management and record-keeping, further support Li and Zhang (2021), who observed that technical skills development improved the long-term sustainability of rural projects in China. These findings align with Participatory Development Theory because technical skills increase beneficiaries' ability to actively engage in project implementation; they differ slightly, however, from Ouma and Were (2022), who argued that training initiatives may fail to achieve sustainability where institutional support and monitoring systems are weak — a variation that may arise because CARE projects integrate technical training with continuous supervision and stakeholder coordination.

Project management skills training recorded the second-strongest descriptive response (Mean = 3.80), indicating that respondents perceived management skills as essential for planning, implementation, and monitoring of project activities. This finding agrees with Kitembo et al. (2022) in Uganda, who found that project-management training enhanced accountability and achievement of project goals within livelihood projects, and with Njuguna and Kamau (2022) in Kenya, who found that project-management training improved budgeting, coordination, and monitoring in NGO sustainability programs. Qualitative evidence from field officers and policy officials further supports Ahmed et al. (2024), who established that project-management training strengthened stakeholder accountability in humanitarian interventions, consistent with Participatory Development Theory's emphasis on management skills as enablers of effective participation in decision-making. The findings are, nevertheless, not fully consistent with the African Development Bank (2023), which noted that political instability and corruption continue to undermine project sustainability despite management training — a disagreement that may be explained by the localized support structures and direct involvement of CARE relief management in Bosaso.

Leadership skills development recorded a high mean score (Mean = 3.77), suggesting that leadership training improved the ability of community members to coordinate and mobilize others within project activities. These findings agree with Mokoena (2021) in South Africa, who established that leadership skills enhanced accountability and continuity of poverty-alleviation projects, and with Mensah and Ofori (2022) in Ghana, who found that leadership training improved community mobilization and participation in rural projects. The qualitative findings on conflict resolution and trust-building further align with Mallya and Joseph (2021) in Tanzania, whose participatory action research found that leadership skills increased participation and sustainability outcomes, consistent with Participatory Development Theory's emphasis on leadership development as a mechanism for community responsibility and ownership. The findings partially diverge from Hassan and Ali (2024), who argued that inadequate local capacity and insecurity in Somalia continue to hinder the sustainability of community projects; the difference may reflect the continuous mentorship and structured leadership programming that CARE relief projects provide.

Refresher training recorded the lowest mean score among the five items, though still interpreted as High (Mean = 3.52), indicating that respondents valued periodic refresher training somewhat less strongly than project-management and leadership training. This finding agrees with Kim and Lee (2023) in South Korea, who found that continuous refresher training improved project continuity and participation during emergencies, and with Abdullahi and Osman (2023), who established that continuous vocational training improved resilience and participation among displaced communities in Bosaso. Qualitative responses indicating that refresher sessions reduced operational errors and improved teamwork further support Participatory Development Theory's emphasis on continuous learning as central to sustainable participation. The comparatively lower mean, however, may imply that refresher programs are not conducted with full consistency across all project activities, a pattern consistent with Yusuf and Ahmed (2024), who observed that insufficient refresher training contributed to weak accountability and delayed implementation elsewhere in Puntland.

Limitations of the Study

The study has several limitations that should be considered when interpreting its findings. First, the cross-sectional design captured training and skills development and community project success at a single point in time, making it impossible to establish a definitive cause-and-effect relationship between the two variables. Second, both constructs were measured through respondents' self-reported perceptions on a Likert scale, which may be subject to social desirability bias, particularly given the sensitivity of some questions relating to project accountability and institutional performance. Third, the study focused on a single implementing agency — CARE International — operating in one location, Bosaso, which may limit the generalizability of the findings to other humanitarian agencies or districts within Puntland. Fourth, the qualitative component drew on only 10 key informants across four stakeholder categories; while this yielded rich, saturated insight from those directly responsible for project implementation and oversight, it may not capture the full range of perspectives held by ordinary beneficiaries and community members.

CONCLUSION

The study concludes that training and skills development significantly influences the success of community projects implemented by the CARE relief project in Bosaso, Puntland, Somalia. Technical skills, project-management skills, leadership development, and refresher training collectively enhance project sustainability, community participation, accountability, and achievement of project goals. Both quantitative and qualitative findings demonstrate that beneficiaries and project staff who receive adequate training are better able to implement project activities effectively, coordinate community initiatives, and sustain project outcomes. The study further concludes that Participatory Development Theory and Human Capital Theory remain relevant frameworks for explaining how capacity-building empowers communities and strengthens ownership of development interventions, while jointly accounting for only part of the variance in project success — pointing to the need for complementary institutional and resource-based support.

Investment in continuous training and skills development is therefore essential for improving the effectiveness and long-term sustainability of humanitarian and community-based projects in fragile settings such as Somalia.

RECOMMENDATIONS

The study recommends that CARE International management, the Puntland Ministry of Planning, and humanitarian donor agencies establish mandatory policy frameworks for continuous capacity-building programs within all community projects in Bosaso and other districts of Puntland. These institutions should allocate specific annual budgets for technical, leadership, and project-management training of beneficiaries and project staff through quarterly workshops, mentorship programs, and refresher courses, implemented throughout the project cycle, because continuous skills enhancement strengthens accountability, sustainability, and achievement of project objectives while reducing dependency on external support.

The study further recommends that project managers and field coordinators of CARE relief projects strengthen practical and participatory training mechanisms by organizing hands-on learning sessions, monitoring exercises, and leadership mentorship activities for project beneficiaries and local committees within Bosaso communities. Project managers should conduct regular assessments to identify training gaps and provide targeted refresher programs on project planning, reporting, monitoring, and conflict resolution, because practical and continuous training improves operational efficiency, teamwork, transparency, and the timely achievement of project goals.

Finally, the study recommends that community leaders, beneficiaries, and local project committees in Bosaso actively participate in training opportunities provided by CARE relief projects and apply the technical and leadership skills acquired to the management of community initiatives. Community members should establish peer-learning groups and local mentorship platforms to share experiences and reinforce skills gained during project implementation, because active participation and local ownership strengthen project sustainability, improve community mobilization, and help ensure the long-term continuity of project benefits after donor withdrawal.

CONTRIBUTION TO KNOWLEDGE

This study contributes empirical evidence on the effects of training and skills development on community project success within the specific operational context of a CARE International relief project in Bosaso, Puntland — a fragile, conflict-affected setting that remains under-represented in the humanitarian project-management literature. Beyond confirming a statistically significant positive effect, the study's integration of Participatory Development Theory and Human Capital Theory offers a dual-pathway explanation of how capacity-building shapes project outcomes through both participatory empowerment and productive investment in human capital, while its mixed-methods design demonstrates how quantitative correlational evidence and qualitative key-informant narratives can be triangulated to strengthen confidence in findings drawn from small, purposively fragile-context samples. The study further provides baseline empirical data on training and project-success perceptions among CARE relief stakeholders in Bosaso that can inform future policy development, donor programming, and comparative research across similar humanitarian contexts in the Horn of Africa.

AREAS FOR FURTHER RESEARCH

- i. A longitudinal study tracking project sustainability, community participation, and achievement of project goals before and after specific training interventions within CARE relief projects in Bosaso, to more directly establish the causal effects of capacity-building on community project success over time.
- ii. A comparative study examining the effects of training and skills development on community project success across multiple humanitarian agencies operating in Puntland, to determine whether the strength of this relationship is specific to CARE relief projects or reflects a broader pattern across the sector.
- iii. A qualitative study drawing on a larger and more diverse sample of ordinary beneficiaries — beyond the project managers, field officers, community leaders, and local government officials interviewed in this study — to capture a fuller range of grassroots perspectives on why project sustainability beyond the funding period lags behind other dimensions of project success.
- iv. Further research on the institutional and resource-based factors — including donor funding continuity, security conditions, and local governance capacity — that jointly account for the substantial share of variance in community project success left unexplained by training and skills development alone.

DECLARATION OF COMPETING INTERESTS

The authors declare no competing interests. No financial or personal relationships have influenced the research, analysis, or interpretation of the findings presented in this manuscript. Both authors have reviewed and approved the final version.

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