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Resource Mobilisation and Management Practices for Sustainability: A Comparative Study of Farmers Organisations in Cameroon

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Abstract

How best they manage and mobilise resources determines the sustainability of farmer organisations (CIGs and Cooperatives). Although they play an important role in the fight against food insecurity, many farmers' organisations in Cameroon face resource constraints, jeopardizing their sustainability. This study investigates and compares the influence of resource mobilisation and management practices on Common Initiative Groups (CIGs) vis-a-vise Cooperatives sustainability in Cameroon. A stratified random sampling of 200 farmers' organisations (100 CIGs and, 100 Cooperatives) was covered, using a quantitative & comparative research design. Data were collected primarily using structured questionnaires and distributed to organisational leaders. Data were analysed using descriptive statistics, pairwise correlations, two-sample t-tests, ordinary least squares (OLS) regressions and interaction models with post-estimation margins analysis. Results revealed that Cooperatives have a significantly higher mean score than CIGs in terms of sustainability (mean = 3.58 vs 3.03, $t = 6.61$, $p < 0.001$). The regression results for CIGs shows that financial resources ($\beta = 0.286$, $p < 0.01$), human resources ($\beta = 0.462$, $p < 0.01$) as well as resource utilization ($\beta = 0.312$, $p < 0.01$) significantly increase sustainability while allocation was marginally significant on the other hand, financial resources ($\beta = 0.323$, $p < 0.01$) and allocation practices ($\beta = 0.320$, $p < 0.01$) are primarily positive factors in cooperatives sustainability. As shown in the pooled interaction model, while financial resources ($\beta = 0.332$), human resources ($\beta = 0.428$), and utilization ($\beta = 0.312$) all demonstrate strong positive effects across cooperatives and CIGs as a whole, further examination of

the interaction terms indicates that this trend does not hold true for cooperatives compared to CIGs when it comes to human resources ($\beta = -0.451$, $p < 0.01$), as well as utilization ($\beta = -0.296$, $p < 0.05$). On average, cooperatives are more sustainable (mean score: 3.58 vs 3.03 for CIGs, $p < 0.001$). Resource mobilisation and management practices are far better than that of CIGs. The results of the analysis emphasize that to achieve sustainability it is crucial to mobilize effort and manage resources; these factors have a variable effect related to organizational type of farmers. Given the stronger sustainability of Cooperatives, policymakers and stakeholders need to scale up support for CIGs thus would match the performance quotient. Strengthening the financial capabilities of CIGs to foster sustainable agribusiness in Cameroon.

Keywords

Resource Mobilisation, Management Practices, Sustainability, Farmer Organisations

1. Introduction

Farmers organizations (FOs), which consist of Common Initiative Groups (CIGs) and Cooperatives, have a crucial role to play in the mobilization of resources and management practices for sustainability globally [1]. These organisations have been acknowledged that they empower farmers to access capital, technology and markets by coming together to promote their products and share resources [2]. As farmers organisations mobilise resources and enhance negotiating capacity; they play a vital role in providing food security and economic stability [3]. Moreover, according to the International Cooperative Alliance [4], cooperatives excel in pooling community resources for local development efforts and minimizing transaction costs while encouraging innovative farming practices among member farmers, making them more sustainable.

An analysis of farmers' organisations in Tubah reveals differences in resource mobilization and management practices. There are groups that engage in collective savings and loans, creating financial inclusion; there are also those who live on grants and partnerships for infrastructure such as storages [4]. Sustainability is more commonly achieved in organisations featuring transparent governance, including sustainable business skills training [5]. Sustainability impacts are also uneven, with groups advocating for climate-smart practices such as agroforestry generating greater environmental and livelihood outcomes [6]. These organisations' contributions to food security and economic growth in Cameroon can be reinforced with stronger resource mobilization and management capacities.

Farmers' organisations consisting of Common initiative groups and cooperatives have been instrumental for agricultural development particularly in an agrarian economy like Cameroon [6]. These organisations often act as intermediaries between farmers and markets, improving productivity, incomes and food security.

In Cameroon, organisations such as the Tubah Farmers' Cooperative fill this role by helping members access inputs and markets. These organisations rely on effective resource mobilization and management to achieve their goals, enhance food security and stimulate economic growth [2]. This has made most of the farmer organisations to be sustainable at the end. Capital, technology and knowledge are the main resources for sustainable agricultural practices. For example, mobilizing financial resources helps farmer organisations to finance storage facilities and enhanced post-harvest handling [5]. With its rich agricultural potential, Cameroonit is an interesting place to study the dynamics of how farmers organisations mobilise and manage resources for sustainability [7]. The zone is majorly suitable for the cultivation of maize and potatoes; hence, value chain bulking can also be an opportunity in this area. Here organisations also encourage practices like soil conservation that are climate-smart.

In Cameroon, these farmers' organisations have limited access to capital, and technology, and markets efficient resource management can help overcome the challenge. High transaction costs and lack of collateral, for example, restrict access to formal credit. Building these organisations will help build resilience. The UAW laid out four pillars on its website that describe resource mobilization, which involves using financial, human and natural resources to empower agricultural projects and create better sustainability [4]. To farmer's organisations, this often translates to using member contributions, grants and partnerships. In Cameroon, some groups engage NGOs for training on sustainable farming. At the core of all farmers organisations' activities is sustainability, advocating for farming practices that not only protect the environmental ecosystem but are also economically viable in the long run [8].

Using this as a background, this study was able to assess and compare the practices of Common Initiative Groups (CIGs) and Cooperatives in Cameroon, on resource mobilization and management; which ultimately impact sustainability thereby addressing a knowledge gap that currently limits improvements in organisational effectiveness with relation to contribution to food security and local economic growth. Farmers organisations serve a crucial purpose in agricultural development, yet they are often faced with barriers to successfully mobilising and managing resources; leading in turn to their unsustainability and failure to deliver social impact within Cameroon. Restricted access to finance, technology, and markets limits productivity and food security.

Literature Review

The empirical review noted that successful organisations with high member contributions and external partnerships were able to better mobilise resources (ICA, 2023). Cooperatives that tapped into member savings had enhanced access to inputs in Ghana [2]. Farmers groups also gained resources from partnerships with NGOs and government agencies. Sustainability was said to be promoted by good governance, financial management and transparency [5]. Other farmer organisa-

tions in Kenya that were open and transparent had performed better with limited resources and gained the trust of their members. Business skills training enhanced management results. Organisations that promoted climate-smart practices (e.g., agroforestry) and value addition (e.g., processing of maize into flour) also improved livelihoods and environmental outcomes [2], according to the review. Sustainable practices also created market opportunities.

Recent peer-reviewed evidence from Sub-Saharan Africa confirms that resource governance structures critically shape farmer organisation sustainability. In Tanzania, Mwambi *et al.* (2020) found that cooperatives with transparent financial allocation rules had 34% higher member retention than those with discretionary practices [9]. In Ethiopia, Getnet and Anullo (2022) reported that human resource capacity (training frequency, leadership literacy) was the strongest predictor of cooperative sustainability, not asset ownership. In Cameroon specifically, Nkengla-Asi *et al.* (2021) documented that Common Initiative Groups practicing participatory resource utilisation had significantly better food security outcomes than those relying on external grants. These studies reinforce the present study's focus on distinguishing between resource availability (mobilisation) and resource deployment (allocation/utilization). They also highlight the importance of comparing informal (CIG) and formal (cooperative) organisational types a comparison rarely undertaken in previous work, which has typically studied only one type.

2. Methodology

The research design for this study was quantitative to access and compare the mobilization and management practices of resources of CIGs and Cooperatives in Cameroon. Furthermore, a comparative research design was conducted for resource mobilization and management practices of (CIGs) and Cooperatives on the basis this comparative approach assisted in exploring similarities and types of farmer organisations and the strengths and weaknesses of each. Out of the 10 regions of Cameroon, 10 Common Initiative Groups (CIGs) and 10 cooperatives were randomly selected from each region, employing a stratified random sampling technique where each region served as a distinct stratum. These farmer organisations were identified from each region delegation of agriculture and rural development (MINADER), which maintains an official registry of all legally recognized CIGs and cooperatives in each region; from each region's complete list of registered farmer organizations, a simple random sample of 10 CIGs and 10 cooperatives was drawn independently, resulting in a total sample size of 200 organizations (100 CIGs and 100 cooperatives). Only organizational leaders were surveyed because they possess the most comprehensive knowledge of resource mobilization, management practices, and sustainability challenges, while other members were not surveyed to avoid potential response fatigue and because the study focused on organizational-level rather than individual-level practices. The response rate was 100% (200 fully completed questionnaires) (**Table 1**).

Table 1. Measurement of key constructs.

Construct	Items (Listed)	Item Source(s)	Response Scale	Cronbach's α
Sustainability (DV)	Organisational continuity over time without external bailouts, Member satisfaction and retention, Financial self-reliance, Adaptive capacity to external shocks	FAO (2020); Birchall (2013); World Bank (2023)	5-point Likert	0.81
Financial Resources	Access to credit or loans, Member savings mobilization, External funding	FAO (2020); ICA (2023)	5-point Likert	0.79
Human Resources	Availability of skilled leadership, Member participation in decision-making, Access to technical or business training	Birchall (2013); Getnet & Anullo (2022)	5-point Likert	0.76
Material Resources	Access to farm equipment Availability of storage facilities, Access to transport infrastructure	World Bank (2023); MINADER (2020)	5-point Likert	0.73
Allocation	Transparency of resource distribution, Fairness in allocating inputs/benefits among members, Adherence to budgets and agreed rules	Ostrom (1990); Mwambi *et al.* (2020)	5-point Likert	0.78
Utilization	Efficiency of resource use (minimal waste), Regular maintenance of shared assets, Timely deployment of resources for productive activities	Nkengla-Asi *et al.* (2021); FAO (2022)	5-point Likert	0.75

Response Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree; **Composite Score:** The arithmetic mean of all items for each construct, preserving the original 1 - 5 metric; **Centering for regression:** Composite scores for FinRes, HumRes, MatRes, Alloc, and Util were mean-centered before creating interaction terms (denoted as finres_c, humres_c, etc.); **Reliability:** Cronbach's alpha > 0.70 indicates acceptable internal consistency for all constructs.

Model Specifications

For CIGs:

X1 = Resource Mobilization (ResMob)

Financial Resources: (FinRes)

Human Resources: (HumRes)

Material Resources: (MatRes)

X2 = Resource Management Practice (ResMgmt)

Allocation: (Alloc)

Utilization: (Util)

$$\begin{aligned}\text{Sustainability\_CIG} = {} & \beta 0 + \beta 1(\text{FinRes}) + \beta 2(\text{HumRes}) + \beta 3(\text{MatRes}) \\ & + \beta 4(\text{Alloc}) + \beta 5(\text{Util}) + \beta 6(\text{Longevity}) \\ & + \beta 7(\text{MemberSize}) + \beta 8(\text{AgActivities}) + \varepsilon\end{aligned}$$

For Cooperatives:

$$\begin{aligned}\text{Sutainability\_Cooperative} = {} & \beta 0 + \beta 1(\text{FinRes}) + \beta 2(\text{HumRes}) + \beta 3(\text{MatRes}) \\ & + \beta 4(\text{Alloc}) + \beta 5(\text{Util}) + \beta 6(\text{Longevity}) \\ & + \beta 7(\text{MemberSize}) + \beta 8(\text{AgActivities}) + \varepsilon\end{aligned}$$

where:

- Sustainability_CIG and Sustainability_Coop: Sustainability outcomes
- Longevity: Years the organisation has been operating
- Size: Number of members or scale of operations
- β and α: Coefficients for CIGs and Cooperatives
- ε: Error term

Ordinary Least Squares (OLS) was chosen because the dependent variable (sustainability composite score) is continuous and approximately normally distributed (Skewness = −0.42, Kurtosis = 2.89). OLS also allows straightforward interpretation of interaction effects using centered variables. Based on the literature [10]. We included three organisational characteristics that could confound the relationship between resource practices and sustainability: *Years_operating* (continuous): Organisational age, *Members* (continuous): Number of active members, *Crop, livestock, processing* (binary indicators): Main agricultural activities.

To reduce multicollinearity between main effects and interaction terms, all continuous predictor variables (finres, humres, matres, alloc, util) were mean-centered before creating interaction terms. For example, finres_c = finres − mean (finres). The interaction term orgtype#c.finres_c then represents the product of organisational type (0 = CIG, 1 = Cooperative) and centered financial resources. Centering does not affect the statistical significance of interaction coefficients but improves interpretability of main effects as the effect of a predictor when other predictors are at their mean.

3. Results and Discussion

Regression results assessing the effect of resource mobilization, management practices, and organisational characteristics on sustainability for Common Initiative Groups (CIGs) in Cameroon (**Table 2**). The model is statistically significant ($F = 6.08$, $p < 0.001$), explaining 40.6% of the variation in sustainability (Adj. $R^2 = 0.3393$), indicating a reasonably strong fit. Among the resource mobilization indicators, financial resources (finres) and human resources (humres) are positively and significantly associated with sustainability at the 1% level, with coefficients of 0.286 and 0.462 respectively. This implies that CIGs with better access to financial support and skilled personnel are more likely to achieve sustainable outcomes. Material resources (matres) do not significantly influence sustainability, suggesting that mere availability of equipment or inputs may not be sufficient without effective deployment. Resource management practices also show notable effects: allocation (alloc) is marginally significant ($p = 0.052$), while utilization (util) is strongly significant ($p = 0.001$), indicating that efficient distribution and use of resources critically enhance CIG sustainability. These results underscore the importance of active resource mobilization and management in promoting long-term organisational viability.

The regression results also highlight the role of organisational characteristics in shaping sustainability outcomes. Years of operation is not significant, indicating

that longevity alone does not guarantee higher sustainability. Conversely, membership size shows a small negative effect (coef = −0.002, p = 0.067), suggesting that larger groups may face coordination challenges or inefficiencies, which could dilute sustainable outcomes. Among agricultural activities, engagement in crop production has a significant positive effect (coef = 0.393, p = 0.002), whereas livestock and processing activities are not significant, implying that focusing on core crop-based activities may contribute more to sustainability in the context of CIGs. The constant term is negative but not significant, reflecting that baseline sustainability without the included predictors is low. The Breusch-Pagan test indicates no heteroskedasticity (p = 0.6623), confirming the validity of the standard errors, while the mean VIF of 1.12 suggests minimal multicollinearity. Overall, these findings indicate that strategic investment in financial and human resources, coupled with efficient resource management and a focus on crop activities, are the primary levers to enhance sustainability among CIGs in Cameroon (Table 2).

Table 2. Regression effects of common initiative groups (CIGs) in Cameroon.

sustainability	Coef.	Std. Err.	t	P > t	[95% Conf.	Interval]
finres	0.2864901***	0.1060844	2.70	0.008	0.0757028	0.4972775
humres	0.4622125***	0.1327936	3.48	0.001	0.1983545	0.7260706
matres	0.0923406	0.1139565	0.81	0.420	−0.1340885	0.3187697
alloc	0.2473301*	0.1253932	1.97	0.052	−0.0018235	0.4964836
util	0.3123348***	0.0943803	3.31	0.001	0.1248031	0.4998664
years_operating	−0.0061367	0.0080517	−0.76	0.448	−0.0221353	0.0098619
members	−0.0022029*	0.0011865	−1.86	0.067	−0.0045605	0.0001546
crop	0.392669***	0.1241821	3.16	0.002	0.1459217	0.6394163
livestock	0.1359061	0.1184974	1.15	0.254	−0.0995457	0.3713578
processing	−0.0670496	0.113897	−0.59	0.558	−0.2933606	0.1592614
_cons	−1.124537	0.7665595	−1.47	0.146	−2.647674	0.3986002

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of sustainability
chi2(1) = 0.19
Prob > chi2 = 0.6623
Mean VIF = 1.12

Number of obs = 100
F(10, 89) = 6.08
Prob > F = 0.0000
R-squared = 0.4060
Adj R-squared = 0.3393
Root MSE = 0.52253

Effects of resource mobilization, management practices and organisational characteristics on sustainability of cooperatives in Cameroon are presented in Table 3. The model is statistically significant (F = 2.86, p = 0.0039) but accounts for a small proportion of variance in sustainability (R^2 = 0.2434, Adj. R^2 = 0.1584), implying that the predictors under consideration affect sustainability, but there

may be additional factors that are not accounted for in the model. Among the different indicators of resource mobilization, only financial resources (finres) is positively and significantly correlated with sustainability (coef = 0.323, p = 0.005); meaning, cooperatives that have been able to access sufficient financial support tend to have higher sustainable outcomes. Humres and matres are not significant, implying that for the cooperation structures alone skilled personnel and available equipment does not push directly to sustainability. In terms of resource management practices, alloc is also highly significant (coef = 0.320, p = 0.003), indicating that allocation matters in this model as well. Meanwhile, utilization (util) is not significant, which has the implication that efficiency in term of usage does not necessarily lead to increased sustainability on cooperative. The key takeaway from both findings is that for cooperatives financial power and resource allocation strategies are the crucial sustainability levers.

The regression also shows the effects of organisational characteristics to lead towards cooperative sustainability. Years in operation and number of membership are not statistically significant, meaning longevity or scale does not equate to better sustainability outcomes. And also, none of the specific agricultural activities such as crop production or livestock and processing have significant effects which imply that cooperatives sustainability may not depend much on activity type but more on institutional and financial factors. The constant term is positive but not significant, suggesting moderate baseline sustainability in the absence of the included predictors. The Breusch-Pagan test for heteroskedasticity (p = 0.3835) supports constant variance of the residuals, and a low mean VIF (1.10) indicates little multicollinearity among predictors. In the broad sense, these findings imply that financially driven cooperative sustainability is the main component of Cameroon performance, rather than human resources access, utilization practices and specific agricultural activities (Table 3).

Table 3. Regression effects of cooperatives in Cameroon.

sustainability	Coef.	Std. Err.	t	P > t	[95% Conf.	Interval]
finres	0.3230016***	0.1116833	2.89	0.005	0.1010892	0.544914
humres	0.0258309	0.113345	0.23	0.820	−0.1993832	0.251045
matres	0.1275409	0.1067953	1.19	0.236	−0.084659	0.3397409
alloc	0.3200051***	0.1058907	3.02	0.003	0.1096026	0.5304076
util	−0.0104677	0.1113531	−0.09	0.925	−0.2317239	0.2107884
years_operating	0.002401	0.007265	0.33	0.742	−0.0120345	0.0168365
members	−0.0015788	0.0010785	−1.46	0.147	−0.0037217	0.0005641
crop	−0.146504	0.111542	−1.31	0.192	−0.3681355	0.0751275
livestock	0.0821623	0.107152	0.77	0.445	−0.1307465	0.2950712

Continued

processing	0.0671637	0.10737	0.63	0.533	−0.1461782	0.2805056
_cons	1.043783	0.8146629	1.28	0.203	−0.574935	2.662501

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity	Number of obs = 100
Ho: Constant variance	F(10, 89) = 2.86
Variables: fitted values of sustainability	Prob > F = 0.0039
chi2(1) = 0.76	R-squared = 0.2434
Prob > chi2 = 0.3835	Adj R-squared = 0.1584
Mean VIF=1.10	Root MSE = 0.49246

Regression Analysis of Resource Mobilization and Management Practices on Sustainability: Comparative Effects of CIGs and Cooperatives in Cameroon

The regression results in Table 4 provide a comprehensive view of the factors influencing sustainability in Common Initiative Groups (CIGs) and Cooperatives within Cameroon. The overall model demonstrates strong explanatory power, with an R-squared of 0.4202 and an adjusted R-squared of 0.3695, indicating that approximately 37% of the variability in sustainability outcomes is accounted for by financial, human, material, allocation, and utilization resources, as well as organizational characteristics and their interactions. The model is statistically significant $F(16, 183) = 8.29$, $p < 0.001$), confirming the joint influence of these factors on sustainability outcomes. Diagnostics show no evidence of heteroskedasticity (Breusch-Pagan test, $chi2(1) = 0.19$, $p = 0.6589$) and no omitted variable bias (Ramsey RESET, $F(3, 180) = 0.47$, $p = 0.7035$), suggesting the model is well-specified. Multicollinearity is also within acceptable limits (mean VIF = 2.00), allowing for reliable coefficient interpretation. These statistics collectively validate the robustness of the regression model, providing confidence that the estimated relationships accurately reflect the comparative effects of CIGs and Cooperatives on sustainability. This framework ensures that both direct and interaction effects can be meaningfully interpreted in the context of resource allocation and organizational structure in Cameroon.

The main effects of resources on sustainability reveal critical insights. Financial resources (finres_c), human resources (humres_c), and utilization (util_c) exhibit strong positive effects on sustainability, with coefficients of 0.332, 0.428, and 0.312, respectively, all significant at the 1% level. Allocation resources (alloc_c) also positively influence sustainability, albeit marginally significant ($p = 0.074$), highlighting that effective distribution and use of resources contributes to improved outcomes. Crop and livestock engagement display positive impacts, with coefficients of 0.120 and 0.160, respectively, indicating that diversification in production enhances sustainability. Material resources, years of operation, member size, and processing activities do not significantly influence sustainability, suggesting that the mere availability of materials or scale of operations is insufficient without effective utilization. These findings imply that sustainability is highly dependent on financial investments, skilled human resources, and the efficient use of availa-

ble resources. Therefore, programs aiming to improve sustainability should prioritize enhancing financial capacity, human resource development, and resource utilization efficiency to achieve better outcomes for both CIGs and Cooperatives.

Table 4. Comparative effects of common initiative groups (CIGs) and cooperatives on sustainability in Cameroon.

sustainability	Coef.	Std. Err.	t	P > t	[95% Conf.	Interval]
finres_c	0.3324047***	0.1006839	3.30	0.001	0.1337542	0.5310553
1.orgtype	0.0392085	0.1097081	0.36	0.721	−0.1772469	0.2556639
orgtype#c.finres_c						
1	0.0421681	0.1527528	0.28	0.783	−0.2592149	0.3435511
humres_c	0.42816***	0.1281663	3.34	0.001	0.1752863	0.6810337
orgtype#c.humres_c						
1	−0.451178***	0.1719444	−2.62	0.009	−0.7904264	−0.1119295
matres_c	0.0896774	0.1105387	0.81	0.418	−0.1284168	0.3077715
orgtype#c.matres_c						
1	0.0341011	0.1574972	0.22	0.829	−0.2766427	0.344845
alloc_c	0.2215822*	0.1234644	1.79	0.074	−0.0220146	0.465179
orgtype#c.alloc_c						
1	0.1218418	0.1649782	0.74	0.461	−0.2036622	0.4473458
util_c	0.3119616***	0.0922999	3.38	0.001	0.1298528	0.4940705
orgtype#c.util_c						
1	−0.2964933**	0.1480785	−2.00	0.047	−0.588654	−0.0043327
years_operating	0.0002809	0.0054846	0.05	0.959	−0.0105403	0.0111021
members	−0.0019492**	0.0008092	−2.41	0.017	−0.0035457	−0.0003526
crop	0.1195328	0.0824186	1.45	0.149	−0.0430801	0.2821457
livestock	0.1602561**	0.0794185	2.02	0.045	0.0035624	0.3169499
processing	−0.0125109	0.0789735	−0.16	0.874	−0.1683265	0.1433046
_cons	3.392895***	0.1639344	20.70	0.000	3.069451	3.71634

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of sustainability
chi2(1) = 0.19
Prob > chi2 = 0.6589

Ramsey RESET test using powers of the fitted values of sustainability
Ho: model has no omitted variables
F(3, 180) = 0.47
Prob > F = 0.7035

Mean VIF = 2.00

Number of obs = 200
F(16, 183) = 8.29
Prob > F = 0.0000
R-squared = 0.4202
Adj R-squared = 0.3695
Root MSE = 0.51817

The interaction terms further differentiate the performance of CIGs and Cooperatives. Notably, the interaction of organizational type with human resources (orgtype#humres_c) is negative and significant (−0.451, p = 0.009), indicating that the positive impact of human resources on sustainability is lower for Cooperatives compared to CIGs. Similarly, the interaction with utilization (orgtype#util_c) is negative and significant (−0.296, p = 0.047), suggesting that Cooperatives benefit less from effective resource utilization than CIGs. Interactions with financial, material, and allocation resources are not statistically significant, indicating comparable effects across organizational types. These results imply that while both CIGs and Cooperatives benefit from resource inputs, CIGs derive greater returns from human capital and resource management practices (Table 4).

Margins and Marginsplot Outputs

As seen in the margins and margins plot outputs (Figure 1), human resources and human utilization interact with organizational type (CIGs vs. Cooperatives) to influence sustainability outcomes in Cameroon. Starting from the first margins command for humres_c, we note that predicted sustainability scores corresponding to increasing human resources for CIGs are on the rise from 2.49 at their lowest centered value (−2) to 4.20 at their highest (5). In comparison, Cooperatives exhibit a more stable sustainability prediction range (3.43 to 3.34), suggesting that human resources and sustainability are less correlated in this case. The margins plot establishes this disparity visually: the slope forming between CIGs is noticeably steeper than that of Cooperatives, implying that human resources have a comparatively larger impact on sustainability in CIGs. Comparably, there was a significant interaction term with body type in Table 3: A negative interaction coefficient indicated that the effect of human resources varies depending on organizational type [11] [12]. Specifically, those CIGs reap greater capital increases from enhancements to human capital than do other types (Figure 1).

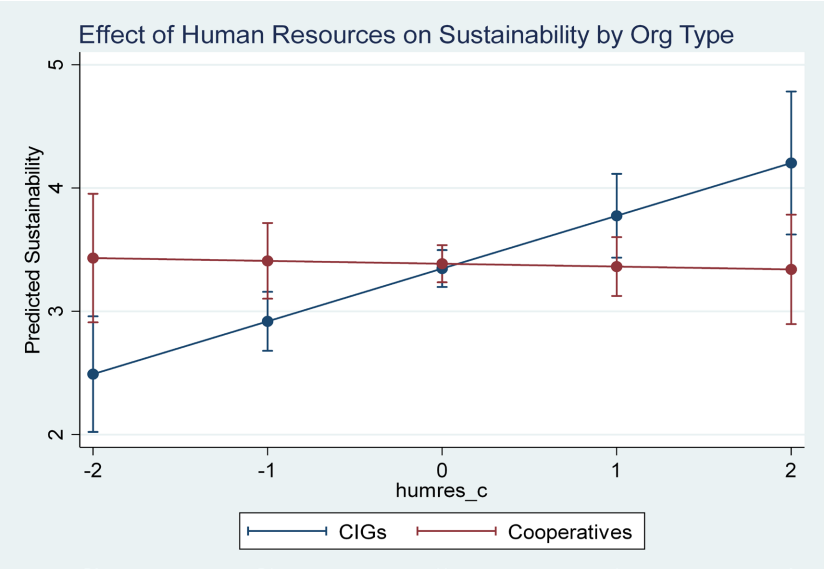

Figure 1. Effect of human resources on sustainability by organization type.

Likewise, the margins estimation for utilization (util_c) shows a variable impact based on organizational type (Figure 2). For CIGs, expected sustainability values also increase with improvement in utilization; they go from 2.72 at −2 to a value of 3.97 at 5; whereas those of Cooperatives have a much flatter trajectory (ranging from (3.36 - 3.42) indicating that gains in sustainability do not substantially follow improvements on utilization scores for the latter group of actors. As depicted in the corresponding margins plot, this refinement of results further confirms that resource allocation and operational utilization positively influence sustainability to a more considerable extent in CIGs than Cooperatives. These results are in line with the theoretical prediction that smaller and more flexible organizations like CIGs can use resource utilization in a more efficient manner to enhance sustainability achievements, while larger cooperatives may be hindered by structural rigidity decreasing the potential for positive effects [10] [13].

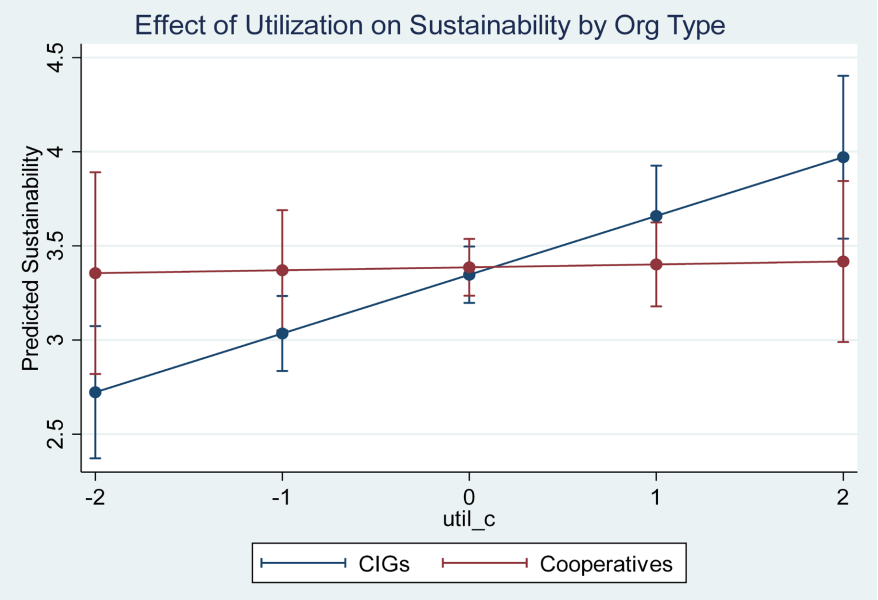

Figure 2. Effect of utilization on sustainability by organization type.

4. Discussion of Findings

The findings demonstrate that cooperatives achieve higher overall sustainability than CIGs (mean 3.58 vs 3.03, $p < 0.001$), consistent with Birchall (2013) and FAO (2020), who attribute this to better financial governance and formalised structures. However, the drivers of sustainability differ by organisational type. For CIGs, human resources ($\beta = 0.462$, $p < 0.01$) and utilisation ($\beta = 0.312$, $p < 0.01$) are strong positive predictors, supporting Ostrom (1990) that flexible, smaller groups benefit more from collective action and efficient resource use. For cooperatives, only financial resources ($\beta = 0.323$, $p < 0.01$) and allocation ($\beta = 0.320$, $p < 0.01$) are significant, aligning with World Bank (2023) that formal organisations require structured financial mechanisms. In the pooled interaction model, material resources ($p = 0.418$) and years of operation ($p = 0.959$) show no significant

effects, indicating that longevity and equipment availability alone do not guarantee sustainability a finding that qualifies earlier claims by FAO (2022). The results of this study correspond heavily with literature on farmers organisations and sustainability. Our descriptive and econometric findings indicate that cooperatives are more overall sustainable than Common Initiative Groups (CIGs), which supports claims made by [14] [15] and ICA (2023) that formalised cooperative arrangements improve their access to finance, governance quality and long-term viability. Cooperatives, reflecting more robust mobilisation of financial resources and allocation practices, demonstrate higher mean sustainability scores compared to the rest of the categories [6] consistent with governance transparency and good financial management improving organisational performance. However, regression results indicate that human resources and utilisation practices contribute significantly more positively to CIG sustainability providing evidence for Zimmer (1986) and Ostrom (1990), revealing smaller, flexible organisations benefit from social networks, trust and efficient modes of collective action [10] [12]. This prominence of crop activities for the sustainability of CIGs confirmed the importance of primary production as a vital livelihood support system in rural Africa [2] [3].

These insights are further deepened with regression and comparative interaction results. Access to finance is still a major driver of sustainability for both types of organisation, mirroring findings by Osei and Jedwab (2016) and Akintola (2025), who found that availability of financial resources enhances productivity and strengthens organisational resilience [16]. Yet marginal returns to the human resource/utilisation in cooperatives are weaker, indicating an ability of formal structures to impose institutional rigidity [11] [13], hence, flexibility and its transformative capacity may be limited. The two-sample t-test indicates the existence of a statistically significant sustainability gap (p-value = 0.024) in favour of cooperatives corroborating evidence from Sub-Saharan Africa showing that cooperatives have more latent institutional support [6] [17]. In summary, the results show that although the cooperatives had structural advantages over CIGs, modest performance gains in sustainability (compared to cooperatives) can still be achieved through strategic investiture of human capital and proper resource management and contextualisation of agricultural activities within Cameroon [18].

5. Conclusion and Recommendation

In conclusion, the present study was undertaken to evaluate and compare the resource mobilization and management practices of Common Initiative Groups and Cooperatives and the influence on sustainability in Cameroon; results evidently showed that sustainability outcome is significantly determined by resource mobilization and management practice or not just by organizational existence. Cooperatives had a higher overall sustainability than other types of enterprises, facilitated mainly by better mobilization of financial resources and structured allocation mechanisms thereof thus confirming their institutional advantage. Neverthe-

less, the analysis also indicates that effective human resource deployment and efficient use of resources lead to higher sustainability returns for Common Initiative Groups, thus emphasizing that flexibility, coordination and operational efficiency are key drivers of sustainability in small-scale organisations. Financial resources evolve as a prominent facilitator of sustainability for both organisational typologies, however under utilisation and poor management practices significantly limit long-term viability. The detected sustainability gap among CIGs and Cooperatives shows differentiated strategies is required to strengthen financial capacity, human capital, and resource management systems. In the end, for farmers' organisations in Cameroon to become sustainable they need access to resources and their strategic and efficient management according to organisational structure as well as local realities.

5.1. Limitations

This study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design captures associations at a single point in time, not causal relationships; unobserved temporal dynamics (e.g., seasonality of resource availability) may influence sustainability. Second, data were collected from only one respondent per organisation (the leader), introducing potential single-informant bias; members' perspectives might differ regarding resource allocation fairness or sustainability perceptions. Third, the reliance on self-reported Likert-scale measures, although reliability-checked, may suffer from social desirability bias, where leaders over-report positive practices. Future research should employ longitudinal designs, multiple respondents per organisation, and objective indicators (e.g., financial records, asset inventories) to validate and extend these findings. Fourth, the census approach, while ensuring representativeness for Cameroon, limits generalizability to other regions with different institutional support systems.

5.2. Recommendations

Farmers' organisations should build financial resource mobilization strategies with diversified funding sources. Beyond member contributions, CIGs and cooperatives should also collaborate with micro finance institutions (MFI), non-government organizations (NGO) and government programs. Enhancing financial management, savings plans and access to low-cost credit will help them invest in productive endeavors and promote long-term viability.

Human resource development and capacity building targeting human resource successful cooperatives work can be implemented to yield results, as they are relatively weaker. Organisational efficiency can be improved and ensure that available skills do not go to waste by providing regular training on leadership, financial management and project implementation.

Organizations need to improve their resource allocation and utilization practices. In particular, CIGs should continue to use their flexibility in this regard;

cooperatives need to implement systems of clearer allocation frameworks and monitoring. We must continue to improve utilization efficiency so that the mobilized resources deliver substantial sustainability benefits.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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