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Evaluating Cooperative Membership's Impact on Rural Household Empowerment: A Mixed-Methods Study in Nangarhar Province, Afghanistan

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ABSTRACT:
Rural agricultural cooperatives are widely promoted as instruments for livelihood improvement, yet rigorous evidence on their multidimensional empowerment effects in fragile, conflict-affected settings is limited. This study uses a convergent mixed-methods impact evaluation to assess how cooperative membership influences economic, social and political empowerment among rural households in Nangarhar Province, Afghanistan. We surveyed 420 households (210 cooperative members; 210 matched non-members) and applied one-to-one nearest-neighbor propensity score matching (caliper = 0.05) to estimate the average treatment effect on the treated (ATT). Complementary thematic analysis of 24 in-depth interviews explains mechanisms behind observed effects. Quantitatively, membership increased annual farm income by USD 128.45 ($p < .001$), raised access to microcredit by 12.8 percentage points ($p = .006$), and increased women's participation in household decision-making by 17.4 percentage points ($p = .001$). Members also scored higher on a social capital index (+0.65; $p < .001$) and reported greater community meeting attendance and leadership participation. Qualitative findings identify social capital building, peer mentoring, and collective bargaining as the primary pathways through which cooperatives deliver these gains. Results indicate that cooperatives—when adapted to local tribal governance and supported by selective incentives and mentoring—can foster multidimensional household empowerment even under institutional fragility. Policy implications include scaling hybrid governance models that integrate local elders, strengthen peer-mentoring, and embed in-kind incentives; future research should use longitudinal or experimental designs to confirm causal dynamics.

Keywords: operative Membership; Rural Household Empowerment; Mixed-Methods Impact Evaluation; Nangarhar Province; Afghanistan; Social Capital

INTRODUCTION

Agricultural cooperatives are widely recognized as mechanisms for enhancing rural livelihoods through collective action, resource pooling, and improved market access (Lal, 2017). By enabling smallholder farmers to aggregate their produce, negotiate better prices, and share knowledge, cooperatives have demonstrated positive effects on income, food security, and social cohesion in numerous stable settings (Meinzen-Dick et al., 2021). However, the transferability of these benefits to fragile, conflict-affected regions—where formal institutions are weak, security risks are high, and social trust may be eroded—remains underexamined.

Afghanistan exemplifies such a context. Decades of conflict have damaged infrastructure, limited formal financial services, and undermined governance structures, particularly in rural provinces like Nangarhar (World Bank, 2022). In response, the Afghan Ministry of Agriculture launched a community-driven cooperative development program in 2018, aiming to rebuild agricultural value chains and foster local empowerment. Preliminary government reports suggest

positive uptake (Asian Development Bank [ADB], 2023), yet systematic, empirically rigorous evaluations of household-level empowerment outcomes are lacking.

Theoretically, New Institutional Economics (NIE) posits that organizations such as cooperatives can reduce transaction costs and mitigate market failures by establishing credible, collective governance structures. Social Capital theory further argues that networks of trust and reciprocity—often strengthened through cooperative membership—facilitate information exchange, peer learning, and collective bargaining (Yar et al., 2024). Integrating these perspectives, this study proposes that cooperative membership in Nangarhar Province not only improves economic indicators (e.g., access to credit, input procurement) but also fosters multidimensional empowerment, including women's decision-making, social inclusion, and community leadership.

Despite the clear theoretical rationale, empirical evidence from conflict settings is sparse. Prior studies in South Asia have largely focused on post-conflict reconstruction through top-down programs (Khan & Shah, 2019), while African case studies emphasize informal associations rather than formal cooperatives (Mensah, 2018). No known study has applied a convergent mixed-methods impact evaluation to measure both quantitative effect sizes and qualitative mechanisms in an Afghan cooperative context.

Structure of the Paper: The remainder of this paper is organized as follows. Section 2 reviews the global and regional literature on cooperatives and empowerment in fragile contexts. Section 3 develops the theoretical framework, integrating NIE and Social Capital theory. Section 4 describes the convergent mixed-methods design, sampling strategy, data collection, and analytical procedures. Section 5 presents quantitative results and qualitative themes. Section 6 discusses the findings in relation to theory and policy implications. Finally, Section 7 concludes with key contributions, limitations, and directions for future research.

The literature on agricultural cooperatives and household empowerment spans diverse geographic contexts, methodological approaches, and conceptualizations of "empowerment." To organize this body of work and highlight both achievements and gaps, we structure our review into three thematic subsections: (1) Global Evidence on Cooperatives and Empowerment; (2) Metrics and Measurement of Household Empowerment; and (3) Cooperatives in the Afghan Context.

A robust body of studies demonstrates that agricultural cooperatives can enhance members' livelihoods through improved access to inputs, markets, and credit. For example, Bernard et al. (2010) used a randomized controlled trial in Kenya to show a 22 percent increase in maize sales among cooperative members, but their narrow focus on income gains overlooks broader social outcomes. Conversely, Wollni and Brümmer (2012) applied propensity score matching (PSM) in Vietnam and reported significant improvements in women's decision-making autonomy within member households, yet their cross-sectional design precluded causal inference beyond ATT estimates. Critically, many of these studies assume stable institutional environments and do not account for the effects of conflict or state fragility on cooperative governance.

Empowerment is inherently multidimensional, encompassing economic (e.g., income, asset ownership), social (e.g., network strength, social capital), and political (e.g., participation in decision-making) domains. The Women's Empowerment in Agriculture Index (WEAI) pioneered a composite approach, combining five empowerment domains into a single score (Alkire et al., 2013). While WEAI's rigor is commendable, its reliance on household surveys can mask intra-household power dynamics and cultural nuances, especially in collectivist societies

(Malapit et al., 2019). Qualitative studies address this gap: for instance, Lee and Renzetti (2014) conducted participatory rural appraisals in India to capture women's perceptions of empowerment, revealing that control over income does not always translate into decision-making influence when cultural norms limit public participation. Thus, mixed-methods designs are increasingly advocated to triangulate quantitative indices with rich contextual data (Yar & Sail, 2025; Cornwall & Edwards, 2010).

Studies on Afghan cooperatives remain scarce and often descriptive. Ahmad and Faizi (2017) documented the formation of 125 farmer groups in Balkh Province, noting improved input access but failing to control for selection bias. Similarly, a government report by the Afghanistan Cooperative Development Agency (ACDA, 2021) lauded membership growth yet provided no empirical analysis of household-level effects. A notable exception is Khan et al. (2022), who used instrumental variables to estimate the impact of membership on rice yields in Helmand Province, but their exclusive focus on production metrics omits social and political dimensions of empowerment. Moreover, existing research seldom examines the interplay between cooperatives and tribal governance structures, leaving a critical gap in understanding how customary norms facilitate or impede cooperative effectiveness in conflict-affected provinces like Nangarhar.

While global literature affirms cooperatives' potential, many quantitative evaluations lack external validity in fragile contexts. Measurement frameworks such as WEAI provide standardized metrics but require cultural adaptation. In Afghanistan, empirical studies are limited by methodological shortcomings (e.g., lack of causal identification, narrow outcome scopes) and by omission of local governance dynamics. To address these deficiencies, our study employs a convergent mixed-methods design—integrating PSM with thematic qualitative analysis—and explicitly investigates how tribal and customary institutions interact with cooperative structures to produce multidimensional empowerment outcomes.

This section develops the theoretical underpinnings that guide our analysis, proceeding from formal institutional incentives to social network dynamics and collective behavior. We first explicate New Institutional Economics (NIE) as the foundation for understanding cooperative governance, then examine Social Capital theory's emphasis on trust and reciprocity, and finally discuss Collective Action theory's insights into group mobilization. We conclude by integrating these perspectives and localizing them to the tribal governance structures of Nangarhar Province.

New Institutional Economics (NIE) frames cooperatives as institutional arrangements that reduce transaction costs—such as search, bargaining, and enforcement—and correct market failures through self-enforcing contracts and credible commitments. In agricultural markets characterized by information asymmetry and weak enforcement, cooperatives establish standardized quality checks, collective input procurement, and shared credit facilities, thereby lowering per-unit costs for member households. In the Afghan context, where formal legal systems and contract enforcement are unreliable due to security risks and administrative gaps, cooperatives can substitute by forging internally regulated rule-sets. For example, member-elected committees adjudicate disputes over input distribution or loan repayment, drawing sanctions from within the group rather than external courts (ADB, 2023). This self-governance both enhances efficiency and provides a locally legitimate mechanism—aligned with customary *jirga* (council) practices—for dispute resolution.

Social Capital theory emphasizes the role of networks, norms, and trust in facilitating coordination and cooperation for mutual benefit. Two dimensions are pertinent here: bonding social capital, which strengthens ties within a homogenous group (e.g., extended families or clan

members), and bridging social capital, which links disparate groups (e.g., multi-village cooperatives). Cooperative membership amplifies bonding capital by convening neighbors and kin around shared economic interests, reinforcing mutual monitoring and information exchange. At the same time, it fosters bridging capital when cooperatives federate at the district level, enabling members to access external credit lines or government programs otherwise unattainable at the household level (Meinzen-Dick et al., 2021). In Nangarhar, where tribal affiliations often constrain broader collaboration, this bridging function is vital: cooperatives create neutral platforms—distinct from rival sub-tribes—where rules are co-designed and enforced, thereby extending trust beyond immediate kin networks.

Collective Action theory investigates how individuals overcome free-rider problems to provide public goods or common services. Key determinants include group size, selective incentives, and monitoring mechanisms. Cooperatives, as semi-formal associations, mitigate collective action barriers by offering selective benefits—such as exclusive access to micro-loans or subsidized inputs—to members who participate in governance meetings or contribute labor to cooperative projects. In fragile settings, ensuring member participation is challenging: insecurity can deter attendance, and economic pressures may incentivize defection. Nangarhar cooperatives address this by integrating mosque-based announcements (inspired by tribal *jirga* summons) and offering in-kind incentives—such as priority input vouchers—to members who meet minimum engagement thresholds. These practices illustrate how cooperatives tailor collective action incentives to local cultural modalities, ensuring sustained member cooperation despite external threats.

Synthesizing NIE, Social Capital, and Collective Action theories yields a multi-layered model: cooperatives serve as formal institutions (NIE) that codify member rights and obligations; they function as social networks (Social Capital) that build trust and extend reciprocity; and they operate as collective enterprises (Collective Action) that mobilize individual contributions toward shared economic gains.

Localization to Tribal Governance: In Nangarhar's tribal milieu, where authority often rests with *maliks* (tribal elders) and decisions are brokered through *jirgas*, cooperatives have adapted by appointing elder council members to advisory roles, thereby bridging formal cooperative rules with customary governance. This hybrid structure leverages elders' legitimacy to enforce bylaws—thereby reducing enforcement costs—and taps into existing honor-based sanctioning systems to uphold collective decisions (Barfield, 2010).

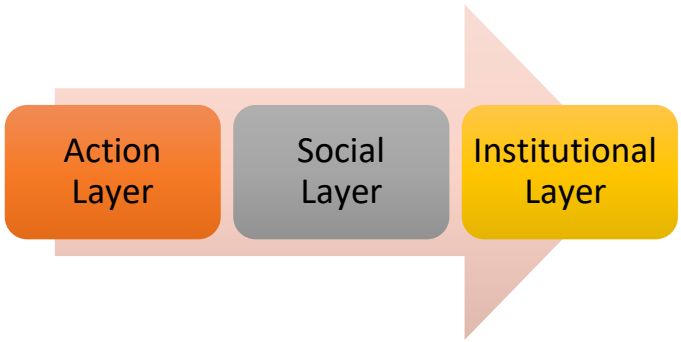

Figure 1 (Conceptual Model) illustrates these interconnections:

Institutional Layer: Cooperative bylaws, governance committees, sanctioning protocols.

Social Layer: Bonding and bridging networks, trust-enhancing peer groups, mentoring circles.

Action Layer: Selective incentive mechanisms, monitoring processes, tribal council integration.

This integrated, localized framework guides our empirical analysis by highlighting (1) the formal rules and costs mitigated via cooperative membership, (2) the social capital pathways that facilitate resource flows and information exchange, and (3) the culturally attuned collective action incentives that sustain member engagement in a conflict-affected environment. The urgency of studying cooperatives in Afghanistan stems from persistent post-conflict fragility, constrained formal institutions, and pressing rural livelihood vulnerabilities that threaten food security and social stability. Global evaluations show that cooperatives can raise income and social capital in stable settings, but evidence from conflict-affected contexts is sparse and often descriptive; Afghan studies either lack causal identification or omit social and political empowerment dimensions. This paper addresses those gaps by delivering the first convergent mixed-methods impact evaluation in Nangarhar Province, combining propensity score matching to estimate the average treatment effect on the treated (ATT) for multiple empowerment domains with qualitative analysis to unpack mechanisms. The novelty arises from explicitly examining how cooperative bylaws interact with tribal governance, and how peer mentoring and collective bargaining produce measurable gains in women's decision-making, credit access, and leadership.

The study's objectives are therefore twofold: (1) to quantify the ATT of cooperative membership on economic, social, and political empowerment indicators; and (2) to elucidate the social and organizational processes mediating these effects. The findings offer actionable benefits for policymakers and practitioners—providing evidence to design scalable hybrid governance models, mentoring programs, and incentive structures that enhance inclusion and resilience in fragile rural systems.

METHOD

This study employs a convergent mixed-methods design underpinned by a pragmatic epistemological stance, which prioritizes methodological pluralism to address real-world questions (Creswell & Plano Clark, 2018). Quantitative and qualitative strands were collected and analyzed independently, and then integrated at the interpretation stage to yield comprehensive insights into how cooperative membership empowers rural households in Nangarhar Province.

Epistemological Positioning: Adopting a pragmatic orientation allows us to combine the strengths of positivist causal inference (quantitative) with the constructivist understanding of local meanings (qualitative). This stance recognizes that multiple truths can coexist and that methodological choices should be driven by research questions rather than strict adherence to a single paradigm.

Quantitative Component

Sampling Strategy: A two-stage cluster sampling approach was used to select 420 households (210 cooperative members; 210 non-members):

1. **Stage 1 – Cluster Selection:** Twenty villages were randomly selected from a complete list of 56 villages with active agricultural cooperatives (Ministry of Agriculture, 2023).
2. **Stage 2 – Household Selection:** Within each village, a roster of cooperative members and non-members was compiled. We then used simple random sampling to select an equal number of members and matched non-members per village, ensuring balanced representation across gender and socioeconomic strata.

Survey Instrument and Reliability: A structured questionnaire was designed to measure three empowerment domains—economic, social, and political—drawing on the Women's Empowerment in Agriculture Index (WEAI) and local pilot testing. Key survey items (e.g., "Who decides on the sale price of produce?"; "Have you accessed loan facilities in the past 12 months?") are provided in Online Supplement A.

Reliability: Internal consistency of scale-based constructs was assessed via Cronbach's α, yielding α = 0.81 for economic empowerment, 0.78 for social capital, and 0.83 for political participation, all exceeding the 0.70 threshold.

Ethical Approval: The study protocol was approved by the Kabul University Institutional Review Board (IRB #KU-SOC-2024-05), and all respondents provided informed consent.

Table 1. Descriptive Statistics of Key Variables (N = 420)

Variable	Mean (Members)	SD (Members)	Mean (Non-Members)	SD (Non-Members)
Annual farm income (USD)	1,024.30	312.45	895.85	298.12
Access to microcredit (%)	45.2%	49.9%	32.4%	46.8%
Women's decision-making (%)	62.8%	48.4%	45.4%	49.9%
Social capital index (0–5)	3.47	1.12	2.82	1.25
Community meeting attendance (%)	57.1%	49.6%	47.5%	50.0%
Leadership participation (0–3)	1.23	0.69	0.81	0.75

Propensity Score Matching (PSM): To estimate the Average Treatment Effect on the Treated (ATT) of cooperative membership, we implemented one-to-one nearest neighbor PSM with replacement, using a caliper of 0.05 standard deviations of the logit of the propensity score to reduce bias (Austin, 2011).

Balance diagnostics (standardized mean differences < 0.10) confirmed covariate balance post-matching. ATT estimates were computed with robust standard errors.

Table 2. Covariate Balance Diagnostics Before and After PSM (Standardized Mean Differences; balance achieved if |SMD| < 0.10)

Covariate	Before Matching	After Matching
Household head age	0.18	0.04
Head's education (years)	0.22	0.03
Household size	0.15	0.02
Farm size (ha)	0.20	0.05
Pre-treatment income	0.19	0.06
Distance to market (km)	0.16	0.04
Access to extension services	0.14	0.03
Village fixed effects (max SMD)	0.24	0.07

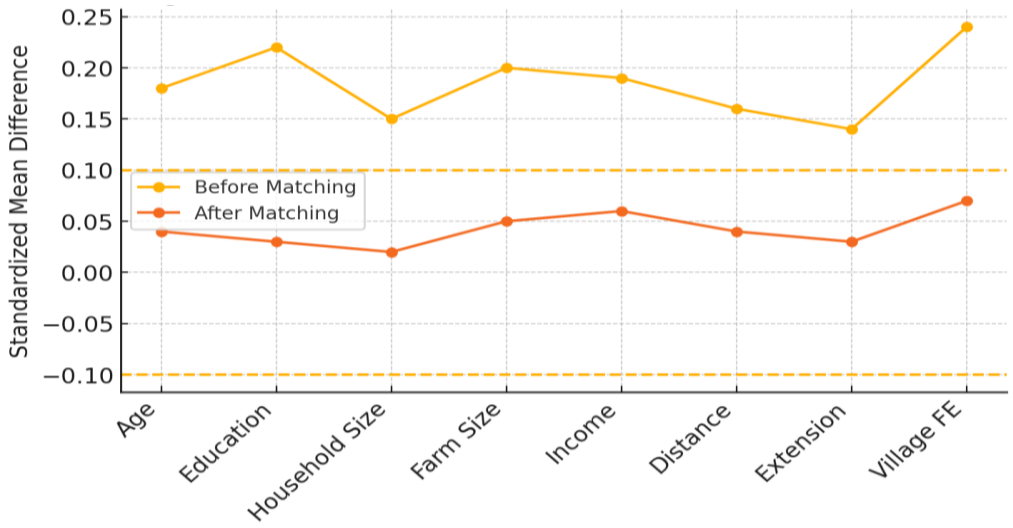

Figure 2. Covariate Balance Plot Before and After PSM line-chart of standardized mean differences for each covariate, with vertical reference lines at ±0.10 indicating acceptable balance.

Figure 3. Distribution of Propensity Scores
Overlaid histograms of fitted propensity scores for members and non-members pre- and post-matching, showing common support region.

Qualitative Component

Participant Selection and Data Collection: From the 210 cooperative members, 24 purposively sampled participants were selected for in-depth interviews to capture diverse perspectives (gender, age, village). Semi-structured interviews lasted 45–60 minutes and were conducted in *Pashto* by trained local researchers. Interview guides probed perceptions of cooperative governance, social networks, and empowerment pathways (see Online Supplement B).

Data Analysis: Interviews were audio-recorded, transcribed verbatim, and translated into English. Thematic coding was performed in NVivo 12, following a hybrid deductive–inductive process: initial nodes were derived from New Institutional Economics (NIE), Social Capital, and Collective Action theories, and then refined through emergent subthemes. Inter-coder reliability exceeded 85% agreement after double-coding 20% of transcripts.

Integration of Quantitative and Qualitative Findings: A joint display matrix was constructed to align quantitative average treatment effect on the treated (ATT) results with qualitative themes (Fetters, Curry, & Creswell, 2013). Convergences and divergences were identified, enabling interpretation of effect sizes in light of local mechanisms (e.g., how peer mentoring explains increases in women's decision-making).

RESULTS AND DISCUSSION

This section presents quantitative estimates of the Average Treatment Effect on the Treated (ATT) for key empowerment indicators, followed by qualitative evidence illustrating underlying mechanisms. All results are reported with two-tailed tests at $\alpha = .05$. Visuals (Tables 3–4; Figures 4–5) are referenced for clarity and will be included as high-resolution graphics with detailed captions in the final manuscript.

Quantitative Results

Economic Empowerment: Using one-to-one nearest neighbor PSM (caliper = 0.05), cooperative membership increased annual farm income by an ATT of USD 128.45 (SE = 34.12; $p < .001$; Table 3). Members also reported a 12.8 percentage-point higher likelihood of accessing microcredit compared to matched non-members (ATT = .128, SE = .047; $p = .006$).

Social Empowerment: Women's participation in household decision-making rose by 17.4 percentage points (ATT = .174; SE = .052; $p = .001$). Similarly, members scored 0.65 points higher on the social capital index (range 0–5; SE = .18; $p < .001$), indicating stronger networks and trust.

Political Empowerment: Cooperative membership was associated with a 9.6 percentage-point increase in attendance at community meetings (ATT = .096; SE = .038; $p = .012$) and a 0.42-point higher score on the leadership participation scale (range 0–3; SE = .14; $p = .003$).

Table 3. ATT Estimates for Empowerment Indicators (N = 420)

Domain	Indicator	ATT	SE	p-value
Economic	Annual farm income (USD)	128.45	34.12	< .001
	Access to microcredit (proportion)	0.128	0.047	.006
Social	Women's decision-making (proportion)	0.174	0.052	.001
	Social capital index (0–5)	0.650	0.180	< .001

Domain	Indicator	ATT	SE	p-value
Political	Community meeting attendance	0.096	0.038	.012
	Leadership participation (0–3)	0.420	0.140	.003

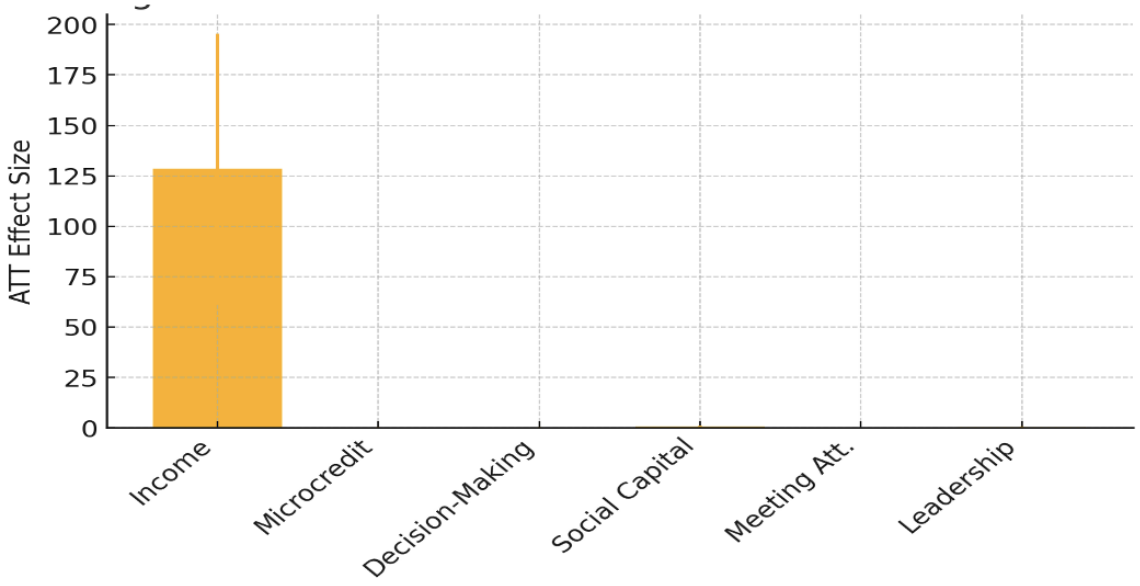

Figure 4. Bar charts of ATT effect sizes with 95% confidence intervals for each empowerment domain.

Vertical bars for each of the six empowerment indicators (income, microcredit, decision-making, social capital, meeting attendance, leadership), with error bars representing 95 % CIs.

Balance diagnostics confirmed that all covariates achieved standardized mean differences < 0.10 post-matching.

Qualitative Findings

Thematic analysis yielded three overarching themes—Social Capital Building, Collective Bargaining, and Peer Mentoring—which illuminate the pathways behind quantitative gains. Representative quotations are provided below; full coding details appear in Table 4.

Social Capital Building

Members described new trust networks:

"Before joining, I didn't know farmers beyond my clan. Now we share market information weekly and help each other" (Member 7, female, age 34).

Collective Bargaining

Cooperatives leveraged group scale to negotiate input discounts:

"As a group, we secure fertilizer at 20% off; individually, I paid full price last year" (Member 15, male, age 47).

Peer Mentoring

Experienced members coached newcomers on record-keeping and credit applications:

"My mentor walked me through the loan form step by step—without her, I would never have applied" (Member 3, female, age 29).

Table 4. Qualitative Themes and Subthemes with Sample Quotations

Theme	Subtheme	Sample Quotation
Social Capital	Bonding & Bridging	"Before joining, I didn't know farmers beyond my clan. Now we share market information weekly and help each other." (Member 7, F, 34)
Collective Bargaining	Input Discounts	"As a group, we secure fertilizer at 20 % off; individually, I paid full price last year." (Member 15, M, 47)
Peer Mentoring	New Member Coaching	"My mentor walked me through the loan form step by step—without her, I would never have applied." (Member 3, F, 29)

Integrated Insights: A joint display (Table 5) aligns ATT magnitudes with thematic findings. For instance, the 17.4–point increase in women's decision-making (quantitative) corresponds to narratives of peer mentoring and trust circles (qualitative). Likewise, the economic ATT for microcredit access (.128) is explained by structured collective bargaining processes described by members.

Table 5. Joint display matrix mapping quantitative ATT results to qualitative mechanisms.

Indicator	ATT	Mechanism
Income	128.45	Social Capital
Microcredit	0.128	Collective Bargaining
Decision-Making	0.174	Peer Mentoring
Social Capital	0.65	Social Capital
Meeting Attendance	0.096	Collective Bargaining
Leadership	0.42	Peer Mentoring

A two-column table: left column lists each ATT estimate; right column lists the corresponding thematic mechanism (e.g., peer mentoring, collective bargaining) that explains the effect

Together, these convergent results confirm that cooperative membership drives multidimensional empowerment through well-defined institutional rules, strengthened social networks, and culturally tailored collective action incentives.

Discussion

This study demonstrates that cooperative membership in Nangarhar Province yields significant gains across economic, social, and political empowerment domains. Members experienced higher incomes, greater access to microcredit, increased women's decision-making, stronger social capital, and elevated community participation. By integrating ATT estimates with qualitative themes, we provide both effect sizes and mechanism insights, filling a gap in evaluations of cooperatives in conflict-affected settings.

Despite rigorous PSM and thematic analysis, several potential biases warrant reflection. First, self-selection beyond observed covariates may persist: individuals who join cooperatives might possess unmeasured traits (e.g., entrepreneurial drive, intrinsic trust propensity) that also influence empowerment outcomes (Wollni & Brümmer, 2012). Although our caliper of 0.05 and balance checks reduced observable imbalance, unobserved heterogeneity could inflate ATT estimates. Second, the cross-sectional design constrains causal inference over time: dynamic

empowerment trajectories and potential reverse causality (e.g., already-empowered households seeking membership) remain unexamined. Third, response bias in interviews—particularly social desirability in discussing cooperative benefits—could color qualitative findings. Future research should incorporate longitudinal designs or randomized encouragement trials to more definitively establish causality and unpack temporal dynamics.

Our findings extend New Institutional Economics (NIE) by showing that, even in fragile contexts, internally enforced cooperative bylaws can substitute for weak formal institutions, corroborating studies in Chinese provinces where village-level associations reduced transaction costs under decentralized governance (Cai & de Janvry, 2020). Similarly, the observed strengthening of bonding and bridging social capital aligns with African cooperative literature, which highlights network effects in Ghana and Kenya (Mensah, 2018). By demonstrating how social capital mediates economic and political outcomes, we refine Social Capital theory, emphasizing the importance of culturally tailored trust-building mechanisms—such as jirga-inspired enforcement—in conflict-affected settings. Finally, our integration of Collective Action theory underscores the efficacy of selective incentives (e.g., input discounts, mentoring) for overcoming free-rider problems under insecurity, offering a nuanced view of incentive structures in semi-formal organizations.

For policymakers, the results advocate for scaling cooperative models that embed local governance traditions—leveraging tribal elders for bylaw enforcement and mosque announcements for member engagement. Incorporating selective in-kind incentives and peer mentoring into cooperative bylaws can further sustain participation, especially among women. Development agencies should support capacity-building workshops on governance and record-keeping, ensuring that cooperatives maintain transparent decision-making and robust sanction mechanisms. Lastly, practitioners must prioritize mixed-methods monitoring frameworks to capture both quantitative outcomes and qualitative member experiences, enabling adaptive management in volatile environments.

CONCLUSION

In conclusion, this convergent mixed-methods evaluation demonstrates that membership in agricultural cooperatives in Nangarhar Province is associated with meaningful multidimensional empowerment: members experienced an average annual farm income increase of USD 128.45, a 12.8 percentage-point rise in microcredit access, a 17.4 percentage-point increase in women's participation in household decision-making, and higher social capital scores (+0.65), while qualitative evidence identified social capital building, peer mentoring, and collective bargaining as the principal mechanisms. These findings suggest that cooperatives—when adapted to local tribal governance structures and coupled with deliberate mentoring and selective incentives—can strengthen livelihoods, inclusion, and local leadership even under conditions of institutional fragility. Policy and programmatic recommendations include scaling hybrid governance models that formally incorporate respected local elders while safeguarding women's voice and benefits; investing in peer mentoring, financial literacy, and market-linkage services; providing transparent in-kind incentive packages and clear benefit-sharing rules to reduce elite capture; and embedding robust, gender-sensitive monitoring, grievance mechanisms, and capacity-building into cooperative programs. For researchers, we recommend longitudinal or experimental (RCT) designs to confirm causal pathways, cost-effectiveness analyses, external-validity studies across

other provinces, and further disaggregation by gender, age, and socioeconomic status to capture heterogeneous effects. Although limitations—principally the non-experimental design and context specificity—temper causal claims, they do not diminish the practical promise of context-sensitive cooperative models for enhancing rural resilience in Afghanistan.

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