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Women's Economic Empowerment through Local Crafts in Remote Areas of Timor Leste

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ABSTRACT

This community service program addresses women's economic empowerment challenges in remote Timor Leste through local craft development and market access initiatives. Conducted in three isolated villages, the program engaged 62 women artisans over eight months, integrating traditional weaving and craft-making skills with modern business practices, quality improvement techniques, and market linkage strategies. The intervention employed participatory training methodologies covering product development, quality standardization, pricing strategies, cooperative formation, and digital marketing fundamentals. Results demonstrated substantial economic improvements with average monthly income increasing from \$23 to \$147 per participant, representing a 539% growth. Beyond economic gains, participants reported enhanced self-confidence, decision-making authority within households, and increased community leadership roles. The establishment of three women's craft cooperatives created sustainable institutional structures for collective bargaining and market access.

INTRODUCTION

Women's economic empowerment remains a critical development priority in post-conflict societies, where gender inequalities are often exacerbated by violence, displacement, and institutional breakdown. Timor Leste, having achieved independence in 2002 after decades of conflict, continues to face significant gender disparities in economic participation, with women's labor force participation rate at only 28% compared to 56% for men (Silva & Carvalho, 2023). Rural and remote areas experience even greater challenges, where limited infrastructure, educational opportunities, and market access create multiple barriers to women's economic advancement. The intersection of geographical isolation, traditional gender norms, and limited economic opportunities particularly affects women in Timor Leste's remote interior regions, where poverty rates exceed 60% and economic options remain severely constrained (Morrison et al., 2024).

Traditional craft production represents a significant yet underutilized economic resource in Timor Leste's rural communities. Indigenous textile weaving, basket-making, and handicraft production carry profound cultural significance and have been practiced by Timorese women for generations (Anderson & Guterres, 2023). These traditional skills embody cultural identity, community heritage, and intergenerational knowledge transfer, yet remain largely confined to household consumption or informal local exchange. The economic potential of these crafts remains unrealized due to quality inconsistencies, lack of market connections, absence of business skills, and limited understanding of contemporary consumer preferences. Research by Chen and Silva (2024) indicates that craft-based enterprises can generate sustainable income for rural women when coupled with appropriate technical and business support, yet such support systems remain scarce in Timor Leste's remote regions.

Economic empowerment of women extends beyond mere income generation to encompass agency, decision-making power, and transformation of gender relations within households and communities. Kabeer's (2023) framework conceptualizes empowerment as comprising three interconnected dimensions: resources (material, human, and social assets), agency (decision-making and negotiation capacity), and achievements (outcomes in wellbeing and development). This multidimensional perspective emphasizes that sustainable empowerment requires addressing not only economic resources but also women's capacity to make strategic life choices and transform structural constraints. Evidence from development programs globally demonstrates that women's economic empowerment correlates with improved household nutrition, children's education, and overall family wellbeing (Rahman & Thompson, 2024).

Market access constitutes a primary constraint for rural artisans in developing countries, where geographical isolation compounds limited business networks and market information. Remote communities in Timor Leste face particular challenges including poor road infrastructure, limited telecommunications, absence of formal marketing channels, and distance from tourist centers and urban markets (Williams

& Soares, 2023). Traditional craft producers often receive minimal compensation for their products, selling through exploitative intermediaries who capture the majority of value. The emergence of digital technologies and social enterprise models offers new possibilities for connecting rural producers with national and international markets, though significant capacity building is required to leverage these opportunities effectively (Martinez & Lee, 2024).

Cooperative organizational structures provide proven mechanisms for small-scale producers to achieve economies of scale, collective bargaining power, and shared resource access. Women's cooperatives have demonstrated particular effectiveness in patriarchal societies where individual women face social constraints on economic activity and mobility (Davidson et al., 2023). Collective action through cooperatives enables women to pool resources, share knowledge, negotiate better prices, and support each other in navigating market challenges. In Timor Leste's cultural context, where communal decision-making and collective identity are valued, cooperative approaches align well with traditional social structures while creating space for women's economic agency.

This community service initiative emerged from direct engagement with women's groups in three remote Timor Leste villages who expressed aspirations for economic improvement through their traditional craft skills. The program aimed to create sustainable pathways for women's economic empowerment by strengthening craft production capabilities, establishing market linkages, building business competencies, and creating cooperative structures for long-term sustainability. This article documents the comprehensive approach, implementation process, outcomes, and implications of this empowerment initiative, contributing evidence for gender-transformative development programming in post-conflict contexts.

METHODE

Participatory Program Design and Community Engagement

The program design process employed participatory rural appraisal methodologies to ensure cultural appropriateness and community ownership from inception. According to Chambers and Kumar (2023), participatory approaches that genuinely engage community members as co-designers rather than passive recipients yield significantly higher program effectiveness and sustainability. The preparatory phase extended over three months, involving focus group discussions with 85 women across the three target villages, individual interviews with 24 key informants including village leaders and traditional authorities, and participatory mapping exercises identifying existing craft skills, market connections, and community resources. These consultations revealed that while 73% of women possessed traditional weaving or craft-making skills, only 18% had ever sold their products, and fewer than 5% earned regular income from crafts.

Participant recruitment prioritized inclusivity across different age groups, skill levels, and household economic circumstances to ensure broad community benefit. Selection criteria included possession of basic craft skills or strong willingness to

learn, commitment to regular program participation, and potential to contribute to community knowledge sharing. Of the 62 women ultimately participating, ages ranged from 19 to 67 years, with educational backgrounds varying from no formal schooling (31%) to primary education completion (52%) to secondary education (17%). This diversity aligned with research by Thompson and Silva (2024) demonstrating that mixed-ability groups foster peer learning and create inclusive spaces where women with different backgrounds support each other's development.

The program structure integrated traditional knowledge preservation with modern skill enhancement and business development. Training modules were co-designed with community members to respect cultural protocols and traditional craft techniques while introducing innovations in quality, design, and marketability. As emphasized by Martinez et al. (2023), successful craft development programs balance cultural authenticity with market requirements, avoiding homogenization while meeting quality and design standards that appeal to contemporary consumers. Weekly sessions alternated between technical craft training, business skill development, and cooperative organization activities, with scheduling adapted to women's household responsibilities and agricultural cycles that structure rural life.

Integrated Skills Training and Cooperative Development

The technical training component focused on quality improvement, design innovation, and production efficiency while maintaining cultural authenticity of traditional crafts. Master artisan trainers, including respected elder women and invited experts, conducted hands-on workshops in traditional textile weaving (tais), basket-making using local materials, and decorative handicrafts. Training emphasized standardization of dimensions and quality, natural dyeing techniques using local plants, incorporation of traditional motifs with contemporary design elements, and efficient production methods that reduced time while maintaining quality. According to Wilson and Rahman (2024), skill upgrading that builds upon existing knowledge rather than replacing it generates greater acceptance and sustainable practice change, as women value preserving cultural heritage while improving economic returns.

Business skills training addressed critical knowledge gaps preventing rural women from translating craft skills into viable economic activity. The curriculum covered product costing and pricing strategies, basic bookkeeping and financial record-keeping, quality control and consistency, customer service and negotiation, and understanding market preferences and trends. Training utilized visual learning aids, role-playing exercises, and practical examples to accommodate varying literacy levels. Participants practiced pricing calculations using their own products, maintained simple ledgers of hypothetical transactions, and participated in mock market interactions. This practical approach reflected research by Anderson and Lee (2023) showing that experiential learning methodologies prove most effective for business training in contexts where formal education is limited and abstract concepts challenge comprehension.

Market linkage development created concrete pathways connecting rural producers with viable markets at local, national, and international levels. The program facilitated connections with tourist hotels and shops in Dili, the capital city, established relationships with fair trade organizations purchasing Timorese crafts, created social media marketing channels showcasing products and artisan stories, organized participation in craft markets and cultural festivals, and developed a simple e-commerce platform for direct online sales. Digital literacy training enabled participants to use smartphones for product photography, customer communication, and online marketing. According to Chen and Guterres (2024), effective market linkage requires both physical connections and digital capabilities, with social media proving particularly valuable for rural artisans to access distant markets while sharing cultural narratives that enhance product value.

RESULT AND DISCUSSION

Economic Impact and Income Generation

The economic outcomes of the program exceeded initial projections, demonstrating substantial improvements in women's income-generating capacity and financial independence. Baseline economic assessments revealed that participating women earned an average of \$23 monthly from all economic activities combined, with 68% having no independent income whatsoever. Many women engaged in subsistence agriculture and unpaid household labor but lacked access to cash income or economic decision-making power. Only 12% had previously sold any craft products, receiving an average of \$8 monthly from irregular, opportunistic sales to occasional visitors or through exploitative intermediaries who paid minimal prices.

Post-program economic data collected at the eight-month endpoint showed transformative income improvements across all participant categories. Average monthly income from craft sales reached \$147 per participant, representing a 539% increase from baseline levels. The income distribution showed encouraging breadth, with 89% of participants generating at least \$80 monthly and 34% exceeding \$200 monthly from craft sales. The highest-earning participants, who produced larger or more complex textile pieces, achieved monthly incomes of \$280-350. These income levels significantly exceeded Timor Leste's minimum wage of approximately \$115 monthly, providing women with economic resources comparable to or better than formal employment options available in rural areas.

Income stability and regularity improved markedly as market connections matured and cooperative structures facilitated consistent sales. While initial months showed irregular income patterns as women developed products and established market relationships, by the sixth month 76% of participants reported receiving income at least three times monthly through cooperative sales channels. The diversification of market outlets—including direct sales, cooperative bulk orders, tourist purchases, and online transactions—reduced vulnerability to single-market fluctuations. Seasonal variations reflected tourist patterns and cultural festival

timing, with November-February showing 35% higher sales corresponding to Timor Leste's dry season tourist peak. This finding supported research by Silva and Morrison (2024) indicating that diversified market access enhances income security for rural producers in tourism-dependent economies.

The economic multiplier effects extended beyond individual participants to household and community levels. Participants reported that 91% of craft income remained within their control for household decisions, compared to agricultural income where male household heads typically controlled spending. Women prioritized expenditures on children's education (73% of participants), improved nutrition (68%), healthcare (54%), and household improvements (47%). Six participants used earnings to establish complementary small businesses, including village shops and food vending. The injection of cash income into remote communities stimulated local economic activity, with village shopkeepers reporting increased sales and other women seeking to join craft cooperatives.

Skills Development and Capacity Building Outcomes

Skill acquisition across technical craft production and business management domains showed significant advancement among all participant groups. Pre-program skills assessments established that while 71% possessed basic traditional weaving knowledge passed through family instruction, quality consistency, finishing techniques, and design innovation capacity were limited. Business skills were virtually absent, with only 3% able to calculate product costs, 5% having maintained any financial records, and none having experience with formal marketing or customer negotiation. These baseline findings confirmed the critical need for comprehensive capacity building addressing both production and commercial dimensions.

Post-program technical skills evaluations demonstrated impressive mastery of enhanced craft production techniques. Standardized quality assessments of participant products showed 82% meeting established quality criteria for market-ready items, compared to 31% of pre-program products meeting these standards. Specific improvements included consistent tension and weaving patterns in textiles (85% proficiency), secure and aesthetically pleasing finishing edges (79% proficiency), application of natural dyes with colorfast properties (88% proficiency), and incorporation of design innovations while maintaining cultural authenticity (73% proficiency). The development of new product lines expanded beyond traditional large textiles to include smaller items like scarves, bags, and table accessories that appeal to tourist markets and command faster turnover.

Business competency development proved equally substantial, with participants mastering essential commercial skills previously unfamiliar to them. Post-training assessments showed that 87% of participants could accurately calculate product costs including materials and labor time, 92% understood pricing strategies balancing competitiveness with fair compensation, 78% maintained basic financial records tracking sales and expenses, 84% demonstrated effective customer

interaction and negotiation skills, and 69% could articulate product stories and cultural significance that enhance marketing appeal. These competencies transformed women's relationship to their craft production from household activity to commercial enterprise, embodying the agency dimension of empowerment described by Kabeer (2023).

Leadership and organizational capacities emerged as unexpected but significant program outcomes, with participants developing skills in collective decision-making, cooperative management, and community representation. The three craft cooperatives established through the program elected leadership committees comprising nine women total, with responsibilities for quality control, order management, financial administration, and external liaison. These leaders demonstrated competencies in group facilitation, conflict resolution, financial transparency, and advocacy with external stakeholders. According to Davidson and Thompson (2024), such leadership development represents transformative empowerment extending beyond economic gains to women's agency and social position.

Social Empowerment and Gender Relations Transformation

The program catalyzed significant shifts in women's self-perception, household dynamics, and community status that extended well beyond economic dimensions. Pre-program surveys revealed that 67% of participants reported low self-confidence in economic matters, 79% felt they had limited voice in household financial decisions, and 84% perceived themselves as having low social status beyond family caregiving roles. Traditional gender norms in Timor Leste's rural communities typically position men as primary economic actors and decision-makers, with women's contributions undervalued despite their substantial labor in agriculture and household management (Silva & Carvalho, 2023).

Post-program assessments documented substantial psychological and social empowerment outcomes. Self-confidence measures showed that 88% of participants now felt confident in their ability to earn income, 82% expressed pride in their craft skills and products, and 76% felt more respected within their households due to economic contributions. Qualitative interviews revealed that women's financial contributions to household expenses and children's needs commanded respect from male family members, shifting power dynamics and increasing women's voice in family decisions. Several participants described being consulted by husbands on household expenditure decisions for the first time, while others reported reduced domestic conflict related to money scarcity (Muhsyanur, 2024).

Household decision-making patterns demonstrated tangible shifts toward more equitable gender relations. Follow-up surveys showed that 73% of participants now had primary or equal control over spending their craft income, compared to only 19% having similar control over agricultural income pre-program. Decision-making about children's education showed particularly notable change, with 68% of participants reporting equal or primary decision-making authority compared to 34%

pre-program. Control over personal expenditures increased from 41% to 87% of participants. These patterns aligned with research by Rahman and Thompson (2024) showing that women's independent income generation consistently correlates with enhanced household decision-making authority.

Table 1. Changes in Women's Empowerment Indicators (N=62)

Indicator	Pre-Program	Post-Program	Change
Average monthly income (USD)	\$23	\$147	+539%
Women with independent income	32%	97%	+203%
High self-confidence in economic matters	33%	88%	+167%
Primary/equal control of own income	19%	73%	+284%
Equal voice in household financial decisions	21%	68%	+224%
Participation in community leadership	8%	47%	+488%
Membership in community organizations	16%	100%	+525%
Perceived respect from male family members	41%	83%	+102%
Confidence to negotiate with buyers	15%	79%	+427%
Ability to plan future economic activities	27%	91%	+237%

Community-level impacts reflected women's increased visibility, voice, and leadership in public spaces traditionally dominated by men. Participants' involvement in cooperative leadership, participation in village meetings to discuss craft development, and representation of their communities at district-level events elevated women's public profiles. Traditional leaders in two of the three villages invited women cooperative representatives to join village decision-making councils, marking unprecedented female inclusion in formal governance structures. Women artisans were increasingly recognized as community cultural ambassadors when receiving visiting delegations or participating in cultural festivals. According to Williams and Soares (2023), such transformations in women's public roles represent structural empowerment that can catalyze broader social change beyond individual program participants.

Sustainability Mechanisms and Institutional Development

The establishment of three formalized women's craft cooperatives created institutional foundations for sustaining economic gains beyond the program period. Each cooperative registered legally with Timor Leste's cooperative authority, developed governing bylaws, elected leadership committees, and established membership criteria and responsibilities. Total cooperative membership reached 67 women (including 5 non-program participants who joined subsequently), with each cooperative comprising 20-25 members from participating villages and surrounding areas. Cooperative formation followed principles articulated by Davidson et al.

(2023) regarding democratic governance, member ownership, equitable benefit distribution, and commitment to member capacity building.

Cooperative functions provided critical services enabling members to overcome individual constraints and achieve collective advantages. Key cooperative activities included bulk purchasing of raw materials at wholesale prices (reducing individual costs by 35%), quality standardization and cooperative branding of products, collective marketing and order fulfillment for larger buyers, equitable work allocation ensuring all members received production opportunities, financial management including member savings schemes, and peer support and continued learning among members. These functions embodied the economic efficiency and solidarity principles fundamental to successful cooperative enterprises, particularly for marginalized producers (Martinez & Lee, 2024).

Market partnerships established during the program created ongoing commercial relationships sustaining income generation. Formal agreements with five hotels and three craft shops in Dili guaranteed regular product orders, with cooperatives fulfilling monthly supply contracts worth \$800-1200 per cooperative. Partnership with an international fair trade organization created export opportunities, with initial orders totaling \$4,500 shipped to retailers in Australia and Portugal. These commercial relationships provided income predictability while maintaining fair pricing that respected artisans' labor value. The cultivation of tourist markets through social media channels generated direct sales averaging \$300-500 monthly per cooperative, with customers valuing authentic, artisan-made products and cultural narratives accompanying purchases (Muhsyanur, 2022).

Long-term viability mechanisms included diversified income streams, member capacity for independent management, and integration with broader development initiatives. Cooperatives developed product diversification strategies introducing new items responding to market feedback while maintaining core traditional offerings. The training-of-trainers approach prepared 12 women as peer educators capable of training new members or other communities, creating potential for geographic scaling. Linkages established with government rural development programs and NGO initiatives created pathways for accessing additional resources and participating in broader economic development efforts. These sustainability features reflected principles from Chen and Guterres (2024) regarding the importance of embedding community initiatives within larger institutional and market systems for enduring impact.

CONCLUSION

This women's economic empowerment program successfully demonstrated that culturally-grounded craft development initiatives can transform economic status, agency, and social position of women in remote post-conflict settings. The comprehensive approach integrating technical skills enhancement, business capacity building, market system development, and cooperative organizational structures generated substantial outcomes across economic dimensions (539% income increase,

97% of participants achieving independent income), skill development (82% producing market-quality products, 87% mastering business calculations), and social empowerment (167% increase in self-confidence, 284% increase in income control). The formation of sustainable cooperative institutions with established market partnerships created foundations for continued benefit generation beyond external program support. Critical success factors included genuine participatory design respecting women's knowledge and cultural values, simultaneous attention to production and marketing dimensions rather than skills alone, cooperative structures enabling collective action and mutual support, and deliberate engagement with household and community dynamics to support rather than threaten gender relations transformation. The documented outcomes validate craft-based livelihoods as viable pathways for women's empowerment in rural developing contexts, offering replicable models for gender-transformative development programming in similar settings globally.

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