

Driving Sustainable Rural Tourism and MSME Globalization Through International Community-Based Collaboration: Evidence from Indonesia

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ABSTRACT

This study examines an international community-based program aimed at strengthening sustainable rural tourism and promoting MSME globalization in Sukaraja Village, Indonesia. The study addresses a critical gap in the literature by integrating Community-Based Tourism (CBT), digital transformation, and international academic collaboration into a unified framework. A participatory–collaborative approach was employed, involving training, mentoring, and interactive engagement with 45 participants, including local government officials, MSME actors, tourism groups, and students. Data were collected using pre-test and post-test instruments, supported by qualitative methods such as interviews and observations. The results reveal a significant increase in participants’ knowledge, with an average improvement of 47%, particularly in digital marketing, international collaboration, and MSME internationalization strategies. The program also generated institutional outcomes, including the establishment of a Village Tourism Management Committee, reflecting strengthened local governance and community ownership. Furthermore, the integration of digital capabilities and global networking enhanced the competitiveness of local tourism products and MSMEs. This study contributes to the literature by proposing an integrated model of sustainable community-based ecotourism that bridges local empowerment with global market access through digital innovation and cross-border collaboration. The findings offer practical implications for policymakers and practitioners in developing countries seeking to enhance rural tourism competitiveness while ensuring sustainability.

Keywords: *Community-based tourism, international collaboration, sustainable tourism, MSME globalization*

1. INTRODUCTION

Sustainable tourism development has become a central priority in the global development agenda, aligned with the Sustainable Development Goals (SDGs), particularly Goal 8 (Decent Work and Economic Growth) and Goal 11 (Sustainable Cities and Communities), as promoted by the United Nations World Tourism Organization (UNWTO, 2018). The concept of sustainable tourism emphasizes the need to balance economic, social, and environmental dimensions while ensuring active community participation at every stage of tourism destination development. In this context, Community-Based Tourism (CBT) has emerged as a strategic approach that positions local communities as the primary actors in tourism planning, management, and benefit distribution (Giampiccoli & Mtapuri, 2017).

From a theoretical perspective, CBT is rooted in participatory development principles, emphasizing community empowerment, local resource control, and institutional strengthening (Scheyvens, 1999). Unlike conventional tourism models that prioritize external investors, CBT promotes equitable economic distribution, cultural preservation, and long-term sustainability (Okazaki, 2008). It also plays a critical role in strengthening local MSMEs as part of the tourism value chain, including handicrafts, traditional cuisine, and community-based services (Goodwin & Santilli, 2009). Empirical evidence from various developing countries demonstrates that the success of CBT depends not only on natural resource potential but also on strong institutional capacity and active community participation (Rahmawati & Pertiwi, 2021).

Despite its potential, the implementation of CBT faces several structural challenges. Previous studies highlight limitations such as low managerial capacity, weak institutional governance, limited digital literacy, and restricted access to broader tourism markets (Giampiccoli & Mtapuri, 2020; Manyara & Jones, 2007). These challenges are particularly evident in Indonesia, where many tourism villages remain locally oriented and lack integration with global tourism networks.

At the same time, the rapid advancement of digital technologies has transformed tourism development. Digital marketing, social media engagement, and destination storytelling have become critical determinants of tourist decision-making, particularly among international and younger travelers (Mariani et al., 2016). However, the adoption of digital strategies in rural tourism remains limited due to insufficient digital capabilities and infrastructure (Rahmawati & Pertiwi, 2021). This gap suggests that digital transformation is not merely a supporting factor but a key enabler of tourism competitiveness.

In addition, international collaboration has increasingly been recognized as a driver of capacity building and knowledge exchange. Cross-national partnerships between academic institutions and local communities facilitate the transfer of best practices, enhance institutional capacity, and expand global promotion networks (Kontogeorgopoulos et al., 2014). Such collaborations also position universities as agents of change in supporting community empowerment and sustainable development. However, empirical studies integrating CBT, digital transformation, and international academic collaboration into a unified framework remain limited, particularly in the Indonesian context.

These limitations reveal several important research gaps. First, existing studies tend to examine tourism village development from a single perspective, such as community participation, digital marketing, or economic empowerment, without integrating these elements into a comprehensive model. Second, most community-based tourism initiatives lack global orientation, particularly in terms of MSME internationalization and cross-border collaboration. Third, institutional sustainability remains weak due to the absence of structured governance mechanisms and long-term development strategies.

To address these gaps, this study examines an international community-based program implemented in Sukaraja Village, Rajabasa District, South Lampung Regency, Indonesia. The village has significant ecotourism potential, including coastal areas, waterfalls, and the Mount Rajabasa conservation zone, as well as local MSME products such as Trigona honey, handicrafts, and agro-based products. However, its development remains constrained by limited human resource capacity, weak digital promotion, and insufficient institutional coordination.

The program was implemented through a cross-country collaboration involving Universiti Teknologi MARA (UiTM) Sabah, the Faculty of Economics and Business at Universitas Lampung, and Universitas Muhammadiyah Kalianda. This initiative focuses on strengthening community capacity across four strategic dimensions: (1) sustainable ecotourism development, (2) digital transformation and destination branding, (3) MSME empowerment and global market access, and (4) community-based institutional governance.

The novelty of this study lies in the development and empirical application of an integrated sustainable tourism model that combines CBT, digital transformation, and international academic collaboration into a unified framework. Unlike previous studies that treat these elements separately, this research offers a holistic approach that connects local community empowerment with global competitiveness. This integrated model demonstrates how rural tourism development can simultaneously achieve economic growth, social inclusion, and environmental sustainability, while positioning local communities within global tourism networks.

2. RESEARCH METHOD

This international community service program was conducted in Sukaraja Village, Rajabasa District, South Lampung Regency, Lampung Province, Indonesia. The village was selected as the research site due to its significant potential for community-based ecotourism development, supported by diverse natural resources such as coastal areas, waterfalls, and the Mount Rajabasa conservation zone. Despite these advantages, tourism development in the area remains suboptimal due to limited human resource capacity, inadequate digital promotion, and weak coordination among stakeholders. To address these challenges, the program was implemented through an international collaboration involving Universiti Teknologi MARA (UiTM) Sabah, the Faculty of Economics and Business at Universitas Lampung, and Universitas Muhammadiyah Kalianda. This collaboration aimed to enhance local capacity, expand global networks, and promote sustainable tourism governance.

The study adopted a participatory–collaborative approach, emphasizing active community involvement throughout all stages of the program, including planning, implementation, and evaluation. This approach is grounded in the Participatory Rural Appraisal (PRA) framework developed by Chambers (1994), which positions community members

as both subjects and co-creators in the learning process. The program was structured into four main stages: (1) institutional preparation and stakeholder coordination; (2) field implementation of training and mentoring activities; (3) evaluation of program outcomes; and (4) sustainability planning and follow-up actions.

Two primary methods were employed to assess program effectiveness. First, pre-test and post-test instruments were used to quantitatively measure changes in participants' knowledge. The pre-test was administered prior to the training sessions to assess baseline understanding, while the post-test was conducted after the completion of activities to evaluate learning outcomes. Second, thematic training and participatory facilitation sessions were conducted, covering key topics such as sustainable ecotourism management, MSME branding strategies, homestay management, and digital marketing.

In addition, interactive discussions and question-and-answer sessions were incorporated to encourage active engagement. Participants were invited to identify real challenges faced in developing tourism in the village, including issues related to product branding, service quality, and digital promotion. These discussions generated several strategic recommendations, including the establishment of a Village Tourism Management Committee and the development of a multilingual tourism promotion website.

To ensure comprehensive evaluation, the study also applied participatory evaluation techniques, including semi-structured interviews, reflective group discussions, and feedback questionnaires. These instruments were used to assess participants' perceptions regarding the relevance, clarity, and applicability of the training materials. This mixed-method approach enabled the integration of both quantitative and qualitative insights.

The program involved a total of 45 participants, consisting of village officials, members of the Tourism Awareness Group (Pokdarwis), local MSME actors, youth representatives, and university students from the three collaborating institutions. This composition reflects a multi-stakeholder engagement model, ensuring that all relevant actors contribute to capacity building and the sustainability of the program.

Data analysis was conducted using a combination of descriptive quantitative and qualitative approaches. Quantitative data from pre-test and post-test results were analyzed to measure knowledge improvement, while qualitative data from observations, interviews, and documentation were analyzed thematically to capture participant experiences and program impact. The success of the program was evaluated based on several indicators, including (1) the increase in participants' knowledge scores, (2) the level of active participation during activities, and (3) the commitment of the village government to establish a formal tourism management institution as a follow-up to the program.

Overall, the methodological framework integrates educational, participatory, and collaborative approaches to enhance community capacity in developing sustainable tourism villages. This approach is consistent with the findings of Tolkach and King (2015), who emphasize that the success of Community-Based Tourism is highly dependent on active community participation and sustained institutional support.

3. RESULTS AND DISCUSSION

3.1. RESULTS

3.1.1. Quantitative Improvement in Knowledge and Competency

The evaluation results demonstrate a statistically meaningful improvement in participants' knowledge following the intervention. The average score increased from 39% (pre-test) to 86% (post-test), representing a 47 percentage point increase, or a relative improvement of approximately 120.5% compared to baseline.

This magnitude of improvement indicates a strong learning effect, suggesting that the intervention successfully addressed initial knowledge gaps. More importantly, the distribution of improvement across competency areas reveals differentiated learning outcomes, as summarized in Table 1.

Table 1. Pre-test and Post-test Results by Competency Area

Competency Area	Pre-test (%)	Post-test (%)	Absolute Increase	Relative Increase (%)
Sustainable Ecotourism Concepts	42	85	43	102.40%
Digital Marketing & Branding	40	87	47	117.50%
MSME Globalization Strategies	38	85	47	123.70%
International Collaboration & Networking	35	87	52	148.60%
Average	39	86	47	120.50%

The highest improvement occurred in international collaboration (148.6% relative increase), indicating that this dimension was previously the least understood yet most responsive to intervention. This suggests that exposure to cross-border knowledge and global perspectives represents a high-impact learning domain in rural tourism development.

Similarly, the strong improvement in digital marketing and MSME globalization (above 117%) highlights the participants' rapid adaptation to market-oriented and technology-driven concepts. This indicates that digital transformation is not constrained by structural limitations alone but can be accelerated through targeted capacity-building programs.

3.1.2. Institutional Strengthening and Governance Outcomes

In addition to individual-level improvements, the program generated significant institutional outcomes, particularly through the initiation of the Village Tourism Management Committee (VTMC). This development reflects a transition from fragmented and informal tourism activities toward a more structured and coordinated governance model. Prior to the intervention, tourism-related activities in Sukaraja Village were largely managed in an ad hoc manner, with limited coordination among stakeholders. Following the program, there is clear evidence of movement toward formalized institutional arrangements, characterized by collective decision-making and defined roles in tourism management.

This institutional strengthening is particularly important because it provides a mechanism for sustaining the knowledge gains achieved during the program. The establishment of the VTMC indicates that participants are not only absorbing knowledge but also translating it into organizational structures that support long-term implementation. From a development perspective, this shift from individual capability enhancement to institutional capacity building represents a critical step in ensuring the sustainability of community-based tourism initiatives.

3.1.3. Multi-Stakeholder Engagement and Participation Intensity

The program also demonstrated a high level of stakeholder engagement, involving 45 participants from diverse groups, including village officials, members of the Tourism Awareness Group (Pokdarwis), MSME actors, youth organizations, and academic representatives. The intensity of participation was reflected in active discussions, collaborative problem-solving, and the generation of context-specific solutions to local tourism challenges. Participants were able to identify key issues such as product branding, service quality, and digital promotion, and propose practical strategies to address these challenges.

A notable finding is the differentiated role of stakeholder groups within the program. Youth participants, for example, showed a stronger inclination toward digital activities, including social media promotion and content creation, while MSME actors focused more on product development and market positioning. This functional differentiation suggests that community-based tourism development benefits from the complementary roles of different stakeholders. The interaction between these groups enhances knowledge transfer and strengthens the overall effectiveness of the intervention.

3.1.4. Socio-Economic Behavioral Changes

The results further indicate observable changes in participants' socio-economic behavior, particularly among MSME actors. These changes are reflected in a shift toward greater market orientation, where participants increasingly recognize tourism and MSMEs as strategic economic sectors rather than supplementary income sources. This shift is accompanied by an improved understanding of value creation, including the importance of branding, packaging, and product differentiation in enhancing competitiveness.

In addition, participants demonstrated increased readiness to adopt digital tools for marketing and promotion, indicating a growing alignment with contemporary tourism market demands. The strengthening of social networks among community members, local government, and academic institutions also represents an important outcome of the program. These networks facilitate collaboration, information exchange, and collective action, which are essential components of sustainable development. Although these behavioral changes are primarily qualitative, they serve as leading indicators of potential long-term economic impact and resilience within the local community.

3.2. DISCUSSION

From a socio-economic perspective, the program has generated meaningful impacts on community awareness and economic behavior. MSME actors demonstrated increased motivation to develop local products, particularly in terms

of branding, packaging, and digital marketing. This reflects a growing understanding of the importance of value creation and market positioning in enhancing competitiveness.

In addition, the program strengthened social networks among community members, local government, and academic institutions. This enhanced collaboration serves as a critical foundation for sustaining future initiatives and fostering collective action. These findings are consistent with Scheyvens (1999), who emphasizes that successful CBT development depends on improvements in both economic welfare and social empowerment. The observed shift in community perception, from viewing tourism as a supplementary activity to recognizing it as a strategic economic sector, represents a significant transformation.

Overall, the results indicate that the integration of participatory approaches and international collaboration not only enhances individual capacity but also contributes to broader social capital formation and local economic resilience. The findings provide strong empirical support for the effectiveness of the integrated model combining CBT, digital transformation, and international collaboration, as illustrated in Figure 1.

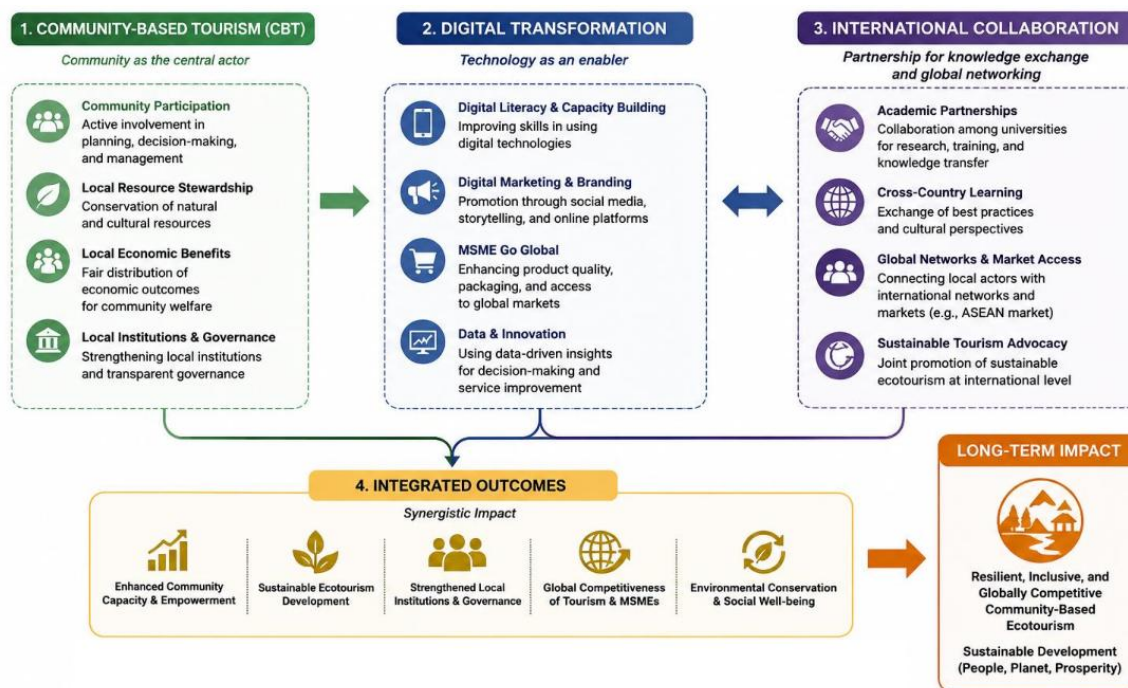


Figure 1. Integrated Model: CBT + Digital Transformation + International Collaboration

Figure 1 illustrates the integrated model proposed in this study, which combines Community-Based Tourism (CBT), digital transformation, and international collaboration into a unified framework for sustainable tourism development. The model positions CBT as the foundational pillar, emphasizing community participation, local resource management, and inclusive governance. Digital transformation acts as an enabling mechanism that enhances capacity through digital literacy, marketing, and innovation, while international collaboration expands knowledge exchange, global networking, and market access. The interaction among these three components generates synergistic outcomes, including strengthened community capacity, improved institutional governance, and enhanced global competitiveness of tourism and MSMEs. This integrative approach represents the key novelty of the study by demonstrating how local empowerment can be effectively connected to global opportunities through technology and cross-border collaboration.

4. CONCLUSION

This study demonstrates that an international community-based approach is effective in enhancing community capacity, strengthening institutional governance, and promoting sustainable rural tourism development. The findings show a significant improvement in participants' knowledge, particularly in digital marketing, MSME internationalization, and community-based tourism management, indicating that the integration of participatory learning with digital and global perspectives produces strong capacity-building outcomes.

The results further highlight the critical role of academic–community partnerships in bridging local potential with global opportunities. The collaboration between universities and local stakeholders not only facilitates knowledge transfer but also accelerates the adoption of innovative practices, strengthens institutional structures, and enhances the

global orientation of rural communities. The establishment of the Village Tourism Management Committee (VTMC) reflects a shift toward structured governance and community ownership, which are essential for ensuring the sustainability of tourism development initiatives.

Building on these findings, the study emphasizes that long-term sustainability requires a multi-dimensional strategy that integrates institutional strengthening, technological advancement, and strategic partnerships. The development of a Sukaraja Ecotourism Community Hub can serve as a central platform for continuous training, coordination, and promotion, enabling sustained knowledge exchange among stakeholders. At the same time, strengthening the VTMC through transparent, accountable, and participatory governance mechanisms is essential to ensure that tourism development aligns with sustainability principles.

Digital transformation also plays a pivotal role in sustaining the program's impact. The development of a multilingual digital platform and MSME marketplace would expand market access, enhance global visibility, and enable the integration of tourism promotion with product commercialization. In parallel, maintaining long-term partnerships with international universities through collaborative research, training, and student exchange programs will ensure continuous knowledge transfer and innovation. Furthermore, the implementation of a reinvestment mechanism, where tourism revenues are allocated to environmental conservation and community development, is crucial for maintaining the balance between economic growth and ecological sustainability.

Overall, the study confirms that the integration of Community-Based Tourism, digital transformation, and international collaboration creates a synergistic framework that enhances both local empowerment and global competitiveness. Sukaraja Village, therefore, has strong potential to evolve into a globally competitive sustainable ecotourism model. More broadly, this research offers a replicable and scalable framework for rural tourism development in emerging economies seeking to balance economic growth, social inclusion, and environmental sustainability.

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