Pertanika J. Soc. Sci. & Hum. 34 (4): 2031 - 2049 (2026)

PERTANIKA JOURNALS

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

Integrating Capacity-Building and Community Service for Sustainable Tourism: Empowering Berastagi's Tourism Workforce Through International Collaboration

Norizan Baba Rahim[1]* and Setyo Kuncoro[2]

[1]School of Distance Education, Universiti Sains Malaysia (USM), 11800 Minden, Penang, Malaysia
[2]Fakultas Hukum, Ilmu Sosial, dan Ilmu Politik, Universitas Terbuka (UT), 15437 South Tangerang, Banten, Indonesia

ABSTRACT

The programme "Capacity Building and Community Empowerment for Sustainable Tourism" is designed to build relationships, capacity, and skills among local stakeholders around sustainable tourism and community development. The programme was a collaboration between Universitas Terbuka (UT), Universiti Sains Malaysia (USM) and Universitas Sumatera Utara (USU) and involved working with local tourism employees (including fruit and flower vendors, farmers' groups, and horse cart operators) at the Berastagi Fruit Market in Karo Regency. A total of 50 participants, including local tourism stakeholders and 48 students and facilitators from three participating universities, were involved in this qualitative study. Data were collected from direct observation, participant feedback, and facilitator reflection sessions. The first step of this process was conducting a needs assessment to identify the educational and developmental priorities of participants so that the programme could be tailored to fit the needs of this community and to provide participatory interventions. The project provided training in sustainable tourism management and digital marketing and built a destination through practical community service projects to improve the area's infrastructure and facilities. Thematic analysis detailed some advantages, including stakeholder engagement and a more profound understanding of sustainable tourism practices; practical options for skill development directly following cross-cultural learning are the yield of community participation. This special programme includes capacity-building training, community service activities, and international cooperation between UT-USM and USU for sustainable tourism development in line with SDG 8 (Decent Work & Economic Growth) and SDG 11 (Sustainable Cities & Communities).

Keywords: Capacity-building, community service, cross-cultural collaboration, experiential learning, sustainable tourism

ARTICLE INFO

Article history:
Received: 02 March 2026
Accepted: 16 July 2026
Published: 18 August 2026

DOI: https://doi.org/10.47836/pjssh.34.4.17

E-mail addresses:
norizanbaba@usm.my (Norizan Baba Rahim)
kuncoro@ecampus.ut.ac.id (Setyo Kuncoro)
* Corresponding author

e-ISSN: 2231-8534

© Universiti Putra Malaysia Press

INTRODUCTION

Community service and empowerment are becoming increasingly important for promoting sustainability in development, social unity, and building local capacity (Long & Westaway, 2025; Stewart & Alrutz, 2022). Involving communities in participatory development allows for the development of solutions to local problems while developing the skills, knowledge, and awareness of both community members as well as other parties outside of the community. Tourism-based communities often have additional pressure regarding the quality of services, their ability to compete economically, and environmentally sustainable practices (Elshaer et al., 2021; Scheyvens & Watt, 2021). Through the combination of practical interventions with the capacity-building programme, community service projects can help bridge the gap between academic, technical and community needs, and develop inclusive and sustainable development.

Human resource capacity-building training within tourism destinations has emerged as a primary approach to improving service quality and sustainable development within these types of locations (Li, 2025; John & Supramaniam, 2024). Through effective training, the stakeholders become better able to operate tourism service businesses, deliver quality services, utilise sustainable practices, and utilise digital tools for the service and management of tourism service (Haldorai et al., 2022). When community service is involved in capacity building, these initiatives also help to build active participation and social responsibility and local ownership within tourism development.

The Berastagi Fruit Market, situated in Karo Regency, Indonesia is an important location where these strategies are needed. While it is known for being an important cultural and economic centre, tourism stakeholders such as fruit and flower vendors, farmers' collectives, and horse carriage operators experience limitations due to their limited skills, lack of knowledge on sustainable practices, and low capacity for digital marketing. These limitations have a negative effect on the quality of service provided, reduce competitiveness, and threaten the long-term sustainability of the destination. Most current interventions focus on short-term economic gain rather than using integrated, community-centred approaches that develop capacity-building training through actual community service projects.

"HANDS-ON Community Empowerment: Transforming the Tourism Workforce of Berastagi through International Collaboration" is an international community service programme that has been jointly developed by Universitas Terbuka (UT), Universiti Sains Malaysia (USM) and Universitas Sumatera Utara (USU). The programme integrated a structured training programme to develop skills in sustainable tourism management, digital marketing and destination branding as well as providing a participatory approach to community service interventions, such as upgrading infrastructure and enhancing

the community's physical features through improvements to public space. This dual approach has improved the technical and managerial capacity of local stakeholders, strengthened civic engagement and empowered local communities, and increased awareness of sustainable tourism practices. Simultaneously, students have developed skills via experiential, cross-cultural immersion opportunities that will further reinforce the value of international academic collaboration for providing sustainable, community-based tourism development.

This research paper is intended to analyse an international community service project that is combining capacity building and participatory community service to develop secure human resources. Through this process, they will assist in developing a sustainable destination to support tourism within the Berastagi Fruit Market.

Problem Statement

The Berastagi Fruit Market in Karo Regency, Indonesia, serves as a major tourist attraction, but local businesses, vendors and farmers' collectives and horse carriage operators face problems that hinder their ability to deliver services and achieve sustainable growth. The stakeholders need better digital marketing and customer service and sustainable tourism management skills to fulfil visitor needs and maximise economic benefits from tourism (Haldorai et al., 2022; Li, 2025).

Current development programmes focus on achieving immediate economic benefits, which they fail to meet because they do not develop human resource capabilities nor implement community service methods that create local ownership and civic participation and environmentally friendly procedures (Elshaer et al., 2021; Scheyvens & Watt, 2021). The existing gap requires organisations to implement comprehensive programmes which will teach practical skills while enabling people to work together in service projects and develop an understanding of different cultures. The absence of special capacity-building programmes will result in stakeholders experiencing service delivery problems because they will remain unaware of sustainable tourism practices and lack essential digital tools, which will damage Berastagi's ability to compete with other tourism destinations and maintain its appeal to visitors (John & Supramaniam, 2024; Yousaf et al., 2021).

The research aims to solve the main challenge of developing Berastagi's tourism workforce through organised training programmes which include community service projects to achieve sustainable development and better service delivery and increased involvement from stakeholders.

LITERATURE REVIEW

Community Service and Sustainable Tourism Development

Community service and participatory development initiatives are more frequently seen as means to develop local capacity and build social capital, which lead to sustainable development outcomes in local communities

(Long & Westaway, 2025; Stewart & Alrutz, 2022). In tourism contexts, community centred approaches provide an opportunity for stakeholders to come together to co-create solutions to local problems, improve service quality, and ensure environmental and cultural sustainability (Elshaer et al., 2021; Scheyvens & Watt, 2021). Evidence from the literature shows a lack of connection between academic intervention programmes and the specific needs of local communities. This has occurred as a result of many standardised programmes that do not address the socio-cultural, economic, and infrastructure conditions of a tourism-dependent local community and therefore cannot provide an effective long-term solution (Agarwal et al., 2024; John & Supramaniam, 2024).

International attention to this solution is rising, but ongoing discussions question whether externally driven interventions benefit or harm sustainability and local ownership in the long term. While several studies indicated improvements in local participation and capacity, the supporting evidence for sustainability, stakeholder commitment, or contextual relevance is significantly more mixed.

Capacity Building for Tourism Human Resources

Human resource development functions as an essential factor which businesses need to develop for maintaining their competitive edge while sustaining their operations in the tourism industry. The effective capacity-building programmes which organisations establish, provide their stakeholders with sustainable management skills and digital promotion expertise and service delivery capabilities together with environmental and cultural tourism practices they need to understand (Yousaf et al., 2021). The current programmes which people implement for their skill development, only teach technical abilities, which results in knowledge being transmitted to actual service quality improvements and community development programmes but fails to deliver practical advantages to the community (Scheyvens & Watt, 202; Zhao & Jin, 2025).

Tourism workforce training has been recognised as both a critical and practical strategy to enhance sites' competitive position, but there is little agreement that focusing solely on technical skill development can facilitate broader community empowerment and, ultimately, sustainable tourism. That means more cohesive strategies integrating skills development with community participation.

Integrating Capacity Building with Community Service

Building community service projects and linking them with skills-based programmes is one way to provide learners with experiential learning opportunities that are set in the context of real-world experiences, improve citizenship through community service experiences, and develop social capital (Long & Westaway, 2025; Stewart & Alrutz, 2022). However, the current literature shows that community service is frequently undertaken on a short-term,

unplanned, or poorly planned basis, resulting in many programmes providing fragmented skill development and not contributing to sustainable development (Scheyvens & Watt, 202; Zhao & Jin, 2025). A limited amount of research has been conducted that examines how service initiatives can be strategically integrated with workforce development systems or processes, particularly with respect to tourism destinations that have a high reliance on informal labour or small-scale enterprises, in order to create sustainable, locally relevant programmes.

While earlier studies have stressed the importance of synergies when capacity building is combined with community service, little empirical evidence exists on how such integration can deliver lasting impact on both destination sustainability and workforce development, especially in tourism destinations dominated by small-scale informal economic activities.

Cross-Cultural and International Collaboration in Tourism Development

The process of international collaboration creates chances to establish new teaching methods through the application of worldwide best teaching practices and the use of practical educational experiences which benefit both students and local communities (Healey, 2023; Kolb, 2015). The existing partnerships between organisations create a power imbalance which results in external experts obtaining control over knowledge while local experts suffer from decreased recognition, which causes their research efforts to lose efficiency and permanent impact (Scheyvens & Watt, 2021). The community needs to establish active control through their participation in participatory co-creation procedures, which will help them develop solutions while using educational results in their daily operations.

Gaps in Literature

The reviewed literature shows two main weaknesses which affect the development of tourism workforce training and the implementation of community service programmes. The first problem with capacity-building programmes comes from their use of standardised methods which fail to consider the unique needs of different local communities according to their cultural and economic, and infrastructure requirements (John & Supramaniam, 2024; Scheyvens & Watt, 2021). This is also due to prior literature indicating that standardised capacity-building programmes may not lead to quality in tourism services, sustainable operations, or digital marketing for local stakeholders. Hence, there remains a gap in the resourcing of context-situated training methods tailored to tourism destinations and their challenges.

The research findings show that community service programmes lead to increased civic engagement and social responsibility, but organisations fail to connect these programmes with human resource development, which causes workers to develop incomplete skills and organisations to achieve few results (Long &

Westaway, 2025; Zhao & Jin, 2025). Despite the proven advantages of community service programming, few studies have assessed how authentic pragmatic community service can be integrated with structured capacity-building programmes that enhance human and social capital, allowing participants to apply newly acquired skills in a field-based context while positively contributing to destination development.

International partnerships often lack effective use because they treat local stakeholders as passive learners who do not engage in the development process (Kolb, 2015; Scheyvens & Watt, 2021). Furthermore, there is a lack of academic knowledge supported by limited research on mutual learning and ownership in collaborations among universities, students, and local people for sustainable tourism development. This gap is most apparent in studies investigating international joint ventures as a part of community-based tourism initiatives.

The gaps in the literature highlight a need for research that assesses integrated interventions across capacity-building training, community service and internationalisation efforts aimed at enhancing local tourism stakeholders, particularly those focused on improving quality of service delivery and sustainable development of tourism.

METHODOLOGY

Study Context and Participants

The programme was implemented at the Berastagi Fruit Market and the Taman Mejuah-Juah in Karo Regency, Indonesia, in collaboration with the local government and the Dinas Kebudayaan, Pemuda, dan Olahraga serta Pariwisata. The partnership with the local government allowed for the project to align with local government development goals and provided the resources, expertise, and community networks required.

To achieve these objectives, the initiative includes two main components, namely capacity building for tourism human resource development and infrastructure and destination development. Capacity-building activities were directed at fruit and flower vendors, farmers' collectives and horse carriage operators, providing a structured training programme in sustainable tourism management, digital marketing, destination branding, and customer service skills. While these capacity-building activities were taking place, the initiative's community service activities were renovating public facilities at the Berastagi Fruit Market and Taman Mejuah-Juah, including providing prayer and sanitation equipment and improving community usage of the facilities. Therefore, by integrating the government, workforce training, and practical community interventions, the initiative addressed both human resource development and destination sustainability in support of local economic development and tourism development goals, while also ensuring community involvement and ownership.

Participants and Selection Criteria

This project involved local Beratagi tourism stakeholders, including vendors, farmers' collectives, and horse carriage operators. A needs assessment carried out by local authorities and the Dinas Kebudayaan, Pemuda dan Olahraga, and Pariwisata identified stakeholder groups.

The programme recruited individuals directly involved in tourism-related economic activities and community services through purposive sampling. Selection criteria included greater participation in local tourism-related businesses, willingness to engage in capacity-building activities, and contributions to other community-based local development initiatives.

During the programme students and facilitators from Universitas Terbuka (UT), Universiti Sains Malaysia (USM), and Universitas Sumatera Utara (USU) participated in implementing an intervention focused on knowledge exchange, cross-cultural collaboration, and community practices.

The programme involved 50 local tourism stakeholders, including fruit and flower vendors, farmers' cooperatives, and horse carriage operators. Also involved in the intervention implementation and community engagement activities were 48 students/facilitators from Universitas Terbuka (UT), Universiti Sains Malaysia (USM) and Universitas Sumatera Utara (USU).

Programme Design and Evaluation Approach

This initiative complies with an approach for community engagement based on practice and is qualitative in nature. The tourism sector in Berastagi faces three main problems, which local stakeholders must deal with according to their service quality, sustainable operations and digital marketing efforts. The programme developed customised educational materials which taught sustainable tourism management, digital marketing and destination branding to meet the specific needs of the local context, which had been identified as a research gap in earlier studies.

The Berastagi programme used practical community service work, which included infrastructure development and facility enhancement, to combine with organised capacity development training. The twofold system also allowed participants to gain hands-on experience in real-world community settings while promoting efforts toward local tourism development.

The Berastagi initiative brought together students from three universities, UT, USM, and USU, to work on a cross-cultural project, which enabled students to learn through active participation as they worked with community members to develop solutions and design programme operations. The approach developed technical skills and knowledge while enabling shared learning between local ownership and sustainable tourism development.

The way in which programme outcomes were evaluated involved:

(a) direct observation of participant involvement/engagement during training; (b) frequent and informal feedback from participants and local stakeholders; and (c) facilitator reflection sessions among student participants and, in turn, the facilitator's reflection sessions. There were many indicators that demonstrated effective outcomes of the initiative such as: (a) participant attendance/ participation; (b) qualitative indicators of learning engagement and understanding demonstrated within facilitated group discussions; (c) immediate implementation of skills learned within a community service/training context; and (d) observed increased awareness of sustainable tourism and/or quality of service (customer service) practices within the community.

Thematic analysis was employed to analyse qualitative data obtained from direct observations, participant feedback, and facilitator reflection sessions. The analysis followed Braun and Clarke's (2006) six-phase thematic analysis framework, comprising (1) familiarisation with the data, (2) generation of initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. This systematic and iterative approach enabled the identification of recurring patterns related to participants' engagement, learning outcomes, stakeholder participation, and awareness of sustainable tourism practices. The identified themes were subsequently examined to assess their relevance to the community development objectives. The application of Braun and Clarke's framework enhances the transparency, trustworthiness, and methodological rigor of the qualitative analysis (Braun & Clarke, 2006).

This intervention was based on community service-learning principles, and thus the evaluation method was developed utilising qualitative and reflective methods to obtain an understanding of contextualised learning outcomes, stakeholder engagement, and applied skill development as opposed to experimental generalisability. Learning interventions, based on Kolb's Experiential Learning Theory (Kolb, 2015), ensured that the methods focused on action learning, with consideration of actual experiences, reflective observations of those actions, and information gathered through active experimentation. Integrating training elements with practical experience, such as community service, enabled participants to contextualise their new knowledge in real community settings. This evaluation method allows for the application of the programme to be viewed as an applied, community-intervention programme, for the purposes of placing emphasis on the contextual relevance of the programme, emphasising participation by stakeholders and producing practice-informed results.

Needs Assessment Phase

To assess the needs of stakeholders involved in local tourism for the planned community service and capacity-building interventions, a needs assessment was held from April 21 to 23, 2025, in Berastagi, Karo Regency.

This first step identified the education, development, and capacity-building needs of the major local tourism stakeholders such as fruit and flower vendors, farmers' collectives, and horse carriage operators in a systematic manner. In addition, the results of the needs assessment identified possible intervention strategies through collaboration between UT, USM, and USU.

The needs assessment was primarily based on the Sustainable Development Goals (SDGs), specifically SDG 8: Decent Work and Economic Growth and SDG 11: Sustainable Cities and Communities. The SDGs provided a guide to the conduct of the needs assessment so that the results would be consistent with the larger objectives of local economic empowerment, sustainable tourism development, and community well-being.

During this phase, the implementation team held a consultation meeting with the representative of Dinas Kebudayaan, Pemuda, dan Olahraga, Dinas Karo, to explore current tourism-related problems, their respective infrastructure deficiencies, and possible collaborative initiatives (Figure 1). Key issues looked at during these consultations were a shortage of tourism supportive facilities, a need for enhancement to public facilities, and deficiencies in the capacity of stakeholders to provide sustainable tourism service levels.

In addition to conducting consultations with institutions, the team observed local musholla facilities in Taman Mejuah-Juah (Figure 2). These facilities were found to require renovation efforts to operate better for the tourism and local community. These findings further demonstrate the value of integrating infrastructure improvements and human capacity building as part of an overall community strengthening strategy.

Figure 1. Consultation meeting with representatives from the Dinas Kebudayaan, Pemuda, dan Olahraga Karo Regency to discuss tourism development priorities and collaborative interventions, Berastagi, April 2025

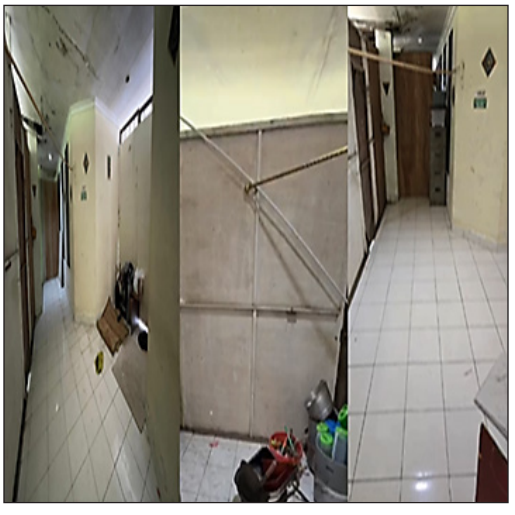

Figure 2. Musholla before renovation: Condition of the local musholla at Taman Mejuah-Juah prior to the community service intervention

Overall, the needs assessment produced vital insights which established all essential elements needed to create capacity-building training modules and community service activities. The programme used research-based evidence together with community involvement and local context understanding to address the specific requirements of Berastagi's tourism community while working towards sustainable development goals.

RESULTS

Community Service Intervention (Pre-Training Phase)

The implementation team started to renovate and establish supporting facilities at Taman Mejuah-Juah in May 2025 after conducting a needs assessment. The community development and tourism readiness progress with these enhancements, which include local musholla renovations and installation of prayer equipment and cleaning tools and improvements to toilet facilities.

The upgraded musholla demonstrates improved functionality and enhanced cleanliness and greater visitor comfort, which results from the community service intervention (Figure 3). The programme achieved economic empowerment and civic engagement and sustainable destination development through its physical upgrades and capacity-building activities, which demonstrated how SDG 8 (Decent Work and Economic Growth) and SDG 11 (Sustainable Cities and Communities) get applied in a local context.

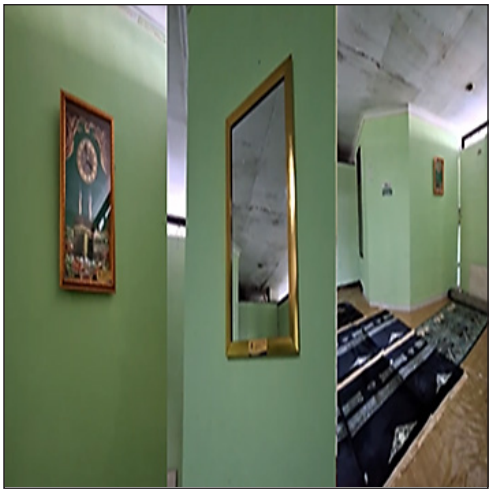

Figure 3. Upgraded musholla at Taman Mejuah-Juah following the community service intervention, demonstrating improved facilities and enhanced visitor comfort

Community Service Activities and Symbolic Handover

The delivery of goods and facilities to Taman Mejuah-Juah occurred before the capacity-building training sessions which started on 12 August 2025. The project included an improved musholla Islamic prayer space which offered prayer equipment that consisted of prayer carpets and prayer tools and mirrors and wall clocks. The three institutions UT USU and USM delivered these items to the Karo Regency Dinas Kebudayaan Pemuda Olahraga and Pariwisata to establish institutional cooperation which supported sustainable tourism development (Figure 4). The programme proceeded to establish its first community engagement project building after completing its first community engagement project which delivered infrastructure support to the community.

The programme established a structured capacity-building training programme at Gedung Kesenian, Taman Mejuah-Juah to enhance the skills and knowledge and awareness of local tourism human resources.

Figure 4. Symbolic handover of equipment: Provision of religious, sanitation, and public-use equipment at Berastagi Fruit Market and Taman Mejuah-Juah to enhance hygiene standards and tourism readiness

Capacity Building Training for Human Resources in the Development

The programme started its first capacity-building training session after the community partnership work was finished and the community development work was complete at Gedung Kesenian, Taman Mejuah-Juah from 12 August 2025. The training was delivered through participatory methods which emphasised practice-based learning when interdisciplinary teams from UT and USM and USU worked with fruit and flower vendors and farmers' collectives and horse carriage drivers.

The training modules specifically targeted essential skills that tourism professionals need to develop their careers. Digital tourism management and QRIS implementation started the sessions which used technology for service efficiency improvements (Figure 5). The participants attended sessions that demonstrated sustainable waste management through organic maggot-based systems which showcased eco-friendly methods and efficient resource usage (Figure 6). The customer service training programme enabled local MSMEs to develop skills which helped them deliver better services that would boost tourist contentment (Figure 7). The entrepreneurship empowerment sessions helped local businesses develop stronger capabilities which would lead to better economic stability (Figure 8).

The entrepreneurship sessions showed participants who worked together while they pursued their goals. Local business owners and vendors shared their thoughts and experiences while they worked together to solve problems which would help their businesses grow. Participants showed interest in two activities because they wanted to find practical business solutions and learn new concepts which they could use in their work (Figure 9). The interactive method helped participants learn entrepreneurship concepts while they developed business relationships through peer learning and community network expansion which strengthened sustainable business practices that operate in their local areas.

The community service programme and capacity-building training created a unified educational environment which combined skill development activities with sustainability education and community development programmes. The programme results show that it improved local infrastructure and facilities while developing human resource capabilities and enabling economic development and increasing stakeholder involvement, which created a sustainable model for community-based tourism development (Figure 10).

Figure 5. Empowerment training session: FEB UT facilitators conducting a session on Tourism Awareness and QRIS to enhance digital tourism management skills

Figure 6. Empowerment training session: FST UT, FKIP UT, and USU facilitators conducting a session on Organic Waste Management using maggots to promote sustainable farming practices

Figure 7. Empowerment training session: FHISIP UT facilitators conducting a session on customer service to improve the service quality of local MSMEs

Figure 8. Empowerment training session: USM facilitators conducting a session to empower local entrepreneurs and strengthen their business capacity

Figure 9. Participants in action: USM facilitator conducting group exercises during the entrepreneurship empowerment training session

Figure 10. Group photo: Participants and facilitators of the community empowerment programme posing together to mark the completion of the activities

Findings from Thematic Analysis

Theme 1: Enhanced Stakeholder Engagement

Facilitator reflections and behaviour observations suggested that there was considerable stakeholder engagement throughout the programme. They participated in active panels on local tourism themes, and their willingness to implement the practices shared through training is clear. This reinforces the argument here that a participatory approach is needed for this research to fulfil its stakeholder engagement and community ownership objectives, both of which are cornerstones in determining the sustainability or longevity of any tourism development project.

Theme 2: Increased Awareness of Sustainable Tourism Practices

Feedback from participants and facilitators showed increased awareness, especially regarding waste management, service quality and cleanliness at destinations, in relation to sustainable tourism concepts. Many participants would like to apply the practices learned throughout this programme in their day-to-day and local work. The results here demonstrate that the programme somewhat raises awareness of sustainable tourism measures: local stakeholders were inspired to adopt environmentally sound behaviours.

Theme 3: Development of Practical Skills and Cross-Cultural Learning

The thematic analysis also revealed that participants valued the practical and collaborative nature of their engagement with this programme. Local stakeholders engaged with students from UT, USM and USU to create an engaging learning environment through exposure, knowledge exchange and peer learning, offering

different lenses to form a fresh perspective. These activities lead to the acquisition of general skills/problem-solving strategies, as well as a deeper understanding of the dynamics behind community-based tourism development. The findings highlight the importance of knowledge transfer, practice-oriented experiential learning, and capacity development for community-based tourism participants through cross-cultural collaboration and direct interaction.

The thematic analysis suggests that improving stakeholder engagement, awareness, and relevant practical skills in sustainability and sustainable tourism practices was central to this programme. Therefore, it is significant to include activities such as community services, capacity-building initiatives, and cross-cultural collaboration in a sustainable tourism development strategy to benefit local communities.

DISCUSSION

The study results show that capacity-building training combined with community service training creates an effective method for developing tourism human resources and achieving sustainable development in Berastagi Fruit Market. The local tourism stakeholders which include fruit and flower vendors and farmers' groups and horse carriage operators showed improved understanding and practical abilities and sustainable tourism knowledge after they completed the programme. The results confirm previous research findings which show that community-based participatory methods lead to successful tourism development projects (Elshaer et al., 2021; Purnomo & Purwandari, 2025).

The training programme demonstrated its success through the enhanced participant performance which included better engagement and understanding and improved ability to use skills in real situations. The Berastagi initiative developed its training content according to local requirements which included digital tourism management and customer service quality and sustainable waste management and small-scale entrepreneurship development. The active participation of students together with their immediate skill application shows that students who learn through practical experience in their local environment will better transfer knowledge and develop practical skills.

The community service activities combined with training programmes to improve learning results. The infrastructure upgrades which included musholla renovation and sanitation facilities and public-use restrooms created better tourism conditions which also helped participants develop ownership and responsibility for their destination. The finding supports service-learning and community engagement theories which state that real-world action learning leads to deeper understanding of civic duties and sustainable results according to Long and Westaway (2025), and Stewart and Alrutz (2022).

The third section demonstrated that participatory and collaborative learning environments functioned as essential

components for developing tourism workforce skills. The entrepreneurship training programme created active learning opportunities through group discussions and problem-solving activities and peer learning experiences. According to Kolb's experiential learning framework students acquire knowledge through direct experiences and reflective observation and practical experiments (Kolb, 2015). The interactive design of the sessions facilitated mutual learning between participants while building social capital in the community which resulted in extended empowerment that surpassed individual skill development.

The international collaboration between UT, USM, and USU brought multiple benefits because it brought together different cultural viewpoints and professional expertise and different teaching methods. The Berastagi programme used co-created methods because local community members worked together with the programme team to create solutions and identify problem areas. The reciprocal model between students and facilitators produced two outcomes because it developed students' ability to learn from different cultures and it established local authority while maintaining local cultural ties. Sustainable tourism development at community-based destinations needs complete solutions that work on all aspects of human resource development and physical infrastructure and community participation and institutional collaboration. Capacity building programmes achieve their highest impact when they integrate into community service initiatives that enable local communities to take charge of activities while acquiring practical skills and developing sustainable practices.

IMPLICATION OF THE STUDY

Theoretical Implications

The current research establishes a link between two different fields of study by showing how capacity-building training and community service work together to achieve sustainable tourism development and active community participation. The research demonstrates that an integrated approach which combines human resource development with community service activities proves to be more effective than previous research methods which studied each aspect separately (Purnomo & Purwandari, 2025; John & Supramaniam, 2024). The study demonstrates that service-learning and experiential learning theories receive new insight through its findings which show that community-based real-world problem-solving activities lead to better learning results for participants. The process of acquiring knowledge through Kolb's experiential learning framework begins with direct experiences which are followed by reflective practices and ends with the application of acquired knowledge in real-world situations. The research presents new empirical data from a community-based tourism study conducted in an emerging market which fills a research gap that exists in current academic literature.

Practical Implications

The PKM Internasional 2025 programme at Berastagi Fruit Market offers practical support to policymakers and tourism professionals and educational institutions through its implementation of the DIKTI SAINTEK BERDAMPAK flagship programme. The local government together with policymakers should implement community-based tourism systems which require human resource development and infrastructure development and stakeholder participation to prepare for tourism and assist local vendors and farmers and service providers.

USM and UT and USU together with other higher education institutions can use their service-learning programmes and international community service programmes to create experiential learning opportunities which allow students to experience different cultures while helping their local communities. Organisations should involve stakeholders in their project development process because they need to achieve academic goals while creating actual benefits for Berastagi. The programme uses international partnerships that connect different sectors to show how its programmes produce sustainable results which build local resources and community engagement while making Karo Regency known as a top tourist destination. The programme design needs to maintain its focus on relevant content which enables users to develop actual experience while they work together to find solutions to different problems. The programme establishes sustainable community development by helping people develop practical skills and sustainable thinking while they create new touristic experiences which use the area's natural sites and cultural heritage and social resources.

LIMITATION AND SUGGESTION FOR FUTURE RESEARCH

The research presents multiple study limitations which emerge despite its valuable findings. First, the programme evaluation relied primarily on qualitative, practice-based assessment methods, which used direct observation and informal feedback together with facilitator reflections. The approach used in this study restricts researchers from measuring educational outcomes and behavioural transformations through quantitative methods. Future studies could incorporate mixed-method or quantitative instruments, such as pre- and post-training surveys or structured assessments, to provide more robust evidence.

The study was conducted in Berastagi Fruit Market and its adjacent public areas as its only research site. The socio-cultural, economic, and institutional characteristics of this setting may influence the transferability of findings. The generalisability of integrated capacity-building and community service models needs assessment through comparative studies which should be conducted across multiple locations.

The evaluation mainly assessed immediate results which included evaluating how participants engaged with

content and how they acquired knowledge and demonstrated their learned skills. The study did not investigate whether the outcomes would continue to exist because it included three specific results which needed to prove they maintained service quality improvements and digital technology usage and community development. The researchers proposed using longitudinal studies to assess how programme results maintain their effectiveness during extended periods.

The study examined international collaboration as a main focus, yet it lacked a systematic assessment of how different institutional partners contributed to research and how cross-cultural partnerships functioned between different cultures. Future research could investigate how different models of international partnership influence community engagement effectiveness, learning outcomes, and sustainability in tourism development initiatives.

The researchers plan to address these study limitations through their future research work which will establish stronger proof for community-based programmes that integrate multiple systems and develop capacity. The study will improve understanding of how service-learning and international collaboration can support sustainable tourism development.

CONCLUSION

The international community service programme studied in this research study uses capacity-building training together with participatory community service to develop human resources for tourism at the Berastagi Fruit Market located in Karo Regency. The programme successfully enhanced participants' sustainable tourism comprehension together with their practical abilities through infrastructure development that prepared sites for tourism activities.

The project developed an applied learning space which helped local communities and participating students through its combination of organised training and practical service and intercultural teamwork activities. The research results show that skills training needs to occur inside actual work situations while integrated community-based programmes create pathways for sustainable tourism growth.

The Berastagi programme shows its potential through its method of closing existing gaps by using integrated interventions which combine capacity-building training with community service and international collaboration to empower local tourism stakeholders while enhancing service quality and preserving sustainable tourism development at their destinations.

The research presents a model for upcoming projects although it has limitations because it only uses qualitative data from one research location. The study demonstrates how international partnerships together with service-learning programmes can help tourism communities and support sustainable development for their tourist destinations.

ACKNOWLEDGEMENT

The authors are grateful to the anonymous reviewers for their valuable comments and constructive suggestions, which have significantly improved the quality of this manuscript. The authors also extend their sincere appreciation to the Government of Karo Regency, Universitas Terbuka (UT), Universitas Sumatera Utara (USU), and Universiti Sains Malaysia (USM) for their support and collaboration in the implementation of this international community service programme. Special thanks are also due to the institutional representatives, facilitators, local stakeholders, and community participants whose dedication, cooperation, and active involvement were instrumental to the successful completion of this initiative.

REFERENCES

Agarwal, R., Mehrotra, A., Mishra, A., Rana, N. P., Nunkoo, R., & Cho, M. (2024). Four decades of sustainable tourism research: Trends and future research directions. *International Journal of Tourism Research, 26*(2), Article e2643. https://doi.org/10.1002/jtr.2643

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa

Elshaer, I., Moustafa, M., Sobaih, A. E., Aliedan, M., & Azazz, A. M. (2021). The impact of women's empowerment on sustainable tourism development: Mediating role of tourism involvement. *Tourism Management Perspectives, 38*, Article 100815. https://doi.org/10.1016/j.tmp.2021.100815

Haldorai, K., Kim, W. G., & Garcia, R. F. (2022). Top management green commitment and green intellectual capital as enablers of hotel environmental performance: The mediating role of green human resource management. *Tourism Management, 88*, Article 104431. https://doi.org/10.1016/j.tourman.2021.104431

Healey, N. M. (2023). Reinventing international higher education for a socially just, sustainable world. *Perspectives: Policy and Practice in Higher Education, 27*(4), 169-178. https://doi.org/10.1080/13603108.2023.2217780

John, S. P., & Supramaniam, S. (2024). Value co-creation research in tourism and hospitality management: A systematic literature review. *Journal of Hospitality and Tourism Management, 58*, 96-114. https://doi.org/10.1016/j.jhtm.2023.11.008

Kolb, D. A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.

Li, J. (2025). Sustainable tourism development using multi-criteria decision making in China tourism destination. *Sustainable Development*. https://doi.org/10.1002/sd.70517

Long, K., & Westaway, A. (2025). Learning to provide a service: A South African case study of service-learning for pre-service teachers. *International Journal of Research on Service-Learning and Community Engagement, 13*(1), Article 147303. https://doi.org/10.37333/001c.147303

Purnomo, S., & Purwandari, S. (2025). A comprehensive micro, small, and medium enterprise empowerment model for developing sustainable tourism villages in rural communities: A perspective. *Sustainability, 17*(4), Article 1368. https://doi.org/10.3390/su17041368

Scheyvens, R., & van der Watt, H. (2021). Tourism, empowerment and sustainable development: A new framework for analysis. *Sustainability, 13*(22), Article 12606. https://doi.org/10.3390/su132212606

Stewart, T., & Alrutz, M. (2022). Meaningful relationships: Cruxes of university-community partnerships for sustainable and happy engagement. *Journal of Community Engagement and Scholarship, 5*(1). https://doi.org/10.54656/NYHZ8317

Yousaf, Z., Radulescu, M., Sinisi, C. I., Serbanescu, L., & Paunescu, L. M. (2021). Harmonisation of green motives and green business strategies towards sustainable development of the hospitality and tourism industry: Green environmental policies. *Sustainability, 13*(12), Article 6592. https://doi.org/10.3390/su13126592

Zhao, M., & Jin, Y. (2025). Service-learning with intergenerational and cross-cultural social interactions: A study of university students in Hong Kong. *Journal of Experiential Education, 48*(3), 551-573. https://doi.org/10.1177/10538259241304392